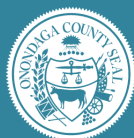
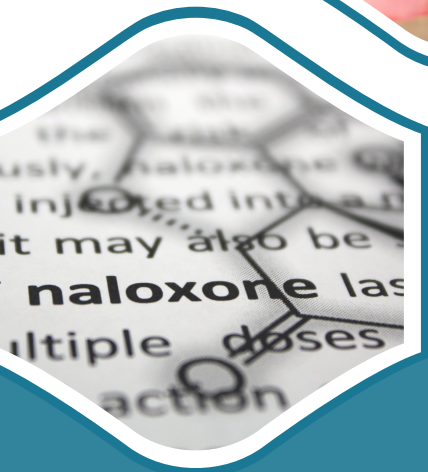


# ONONDAGA COUNTY **COMMUNITY** HEALTH ASSESSMENT AND IMPROVEMENT PLAN **2022-2024**



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## Acknowledgements

The Steering Committee wishes to thank all agencies and individuals who supported the development of the 2022-2024 Onondaga County Community Health Assessment and Improvement Plan.

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## Message from the Commissioner of Health

To our community members and partners,

On behalf of all who contributed, we present the 2022-2024 Onondaga County Community Health Assessment and Improvement Plan. This document is intended to provide our community with a foundation for understanding Onondaga County's current health needs and serves as a guide for multisectoral collaboration to improve our community's health.

We know that our health is shaped by a multitude of social, economic, behavioral, and environmental factors present in the places we live, learn, work, and play. We also recognize that the COVID-19 pandemic has significantly impacted our health systems as well as the mental health, physical health, and overall well-being of our residents. The effects of the pandemic are still being felt today and it is important that we reflect on how the pandemic has impacted our community. As we transition into a new era of public health practice, it is essential that we work together as partners in public health to develop shared goals focused on social determinants of health and health equity.

The Community Health Assessment (CHA) explores several factors which influence health risk and outcomes among our County's residents. Substance use, mental health, and neighborhood violence were identified as dominant factors impacting the health and well-being of our community. Fortunately, Onondaga County has numerous assets and resources, including many community-based organizations and strong health systems dedicated to addressing the health needs of residents. In alignment with the 2019-2024 New York State Prevention Agenda, the Community Health Improvement Plan (CHIP) identifies priority areas for our community and outlines several initiatives and activities that will be carried out by the Health Department in collaboration with local hospitals and other partners to improve the health of County residents.

The Community Health Assessment and Improvement Plan was developed by the Onondaga County Health Department in partnership with Crouse Health, St. Joseph's Health, and Upstate University Hospital. Also central to the development of the document was feedback from the Central New York Healthcare Equity Task Force and more than 3,600 County residents, whose voices provided the foundation for these documents. Thank you to all who were involved in this important collaborative effort.

Sincerely,



Kathryn Anderson, MD PhD MSPH  
Commissioner  
Onondaga County Health Department



# Executive Summary

## Overview

Onondaga County's **2022-2024 Community Health Assessment and Improvement Plan (CHA/CHIP)** was undertaken as a comprehensive public health planning effort by the Onondaga County Health Department (OCHD) in collaboration with the CHA/CHIP Steering Committee. The Steering Committee was made up of representation from OCHD, Crouse Health, St. Joseph's Health, and State University of New York Upstate University Hospital. Additional support was also provided by the Central New York Healthcare Equity Task Force to ensure that equity was at the forefront of planning efforts.

The CHA/CHIP planning process was undertaken in alignment with the 2019-2024 New York State Prevention Agenda, which identifies five priorities for health improvement:<sup>i</sup>

- Prevent Chronic Diseases
- Promote Well-Being and Prevent Mental and Substance Use Disorders
- Promote a Healthy and Safe Environment
- Promote Healthy Women, Infants, and Children
- Prevent Communicable Diseases

The CHA/CHIP serves as a guiding document for local public health initiatives and provides a framework for understanding the health needs in our community. Included in the Community Health Assessment (CHA) is a comprehensive overview of the current health status of residents of Onondaga County. Whenever possible, the CHA takes into account the impact of the COVID-19 pandemic on resident's health and well-being, however the full impact of the COVID-19 pandemic may not be fully understood for several years. Using the comprehensive CHA planning process as a framework, the Steering Committee thoughtfully developed the Community Health Improvement Plan (CHIP) to address local public health challenges within two identified priority areas.

## Community Health Assessment (CHA)

The CHA is undertaken to better understand the current health needs of Onondaga County residents. As part of the CHA process, the OCHD reviewed local, state, and national data sources to assess resident's health status. Sources reviewed for the CHA included the following:

- [CDC PLACES data](#)
- [County Health Rankings](#)
- Data collected and maintained by the OCHD (including lead testing data)
- [New York State Community Health Indicator Reports \(CHIRS\)](#)
- [New York State County Health Indicators by Race/Ethnicity \(CHIRE\)](#)
- [New York State Expanded Behavioral Risk Factor Surveillance System](#)
- [New York State Maternal and Child Health Dashboard](#)
- [New York State Opioid Dashboard](#)
- [New York State Prevention Agenda Dashboard](#)
- [U.S. Census Bureau](#)

Whenever available, the CHA provides comparisons by demographic characteristics including age and race and ethnicity. Comparisons to Central New York and statewide data are also included as appropriate. In addition, the Steering Committee conducted an extensive community engagement process in 2022 to gather feedback directly from county residents. Engagement strategies included a county-wide survey and key-informant interviews with partners representing populations at risk for poor health outcomes. This process engaged more than 3,600 county residents.

## Health Status of Onondaga County Residents: Key Findings

The section below provides key findings from the Community Health Assessment. Topics covered include:

- Determinants of health
- Impact of the COVID-19 Pandemic
- Overall health status and health disparities
- Chronic diseases
- Well-being, mental health, and substance use disorders
- Healthy and safe environments
- Healthy women infants and children
- Communicable diseases
- Community feedback

### Determinants of Health

The World Health Organization defines **health** as a “state of complete physical, mental, and social well-being and does not merely indicate the absence of disease.”<sup>ii</sup> Health is shaped by several factors ranging from the biological traits we were born with to the complex social and economic environments in which we live, learn, work, and play. The term **determinants of health** is often used to describe factors which affect our ability to

achieve health. More specifically, **social determinants of health** refer to several factors in the environments in which we live, learn, work, and play that influence health outcomes. There are five main categories of social determinants of health. These are outlined below along with notable findings from the CHA.

Social Determinant of Health Category	Notable Findings
Education Access and Quality	<ul style="list-style-type: none"> <li>91.2% of Onondaga County adults (age 25 years and older) have a high school degree or higher compared to 83.5% in the City of Syracuse.<sup>iii</sup></li> <li>Hispanic and non-Hispanic American Indian and Alaska Native residents have the lowest four year high school graduation rates in Onondaga County.<sup>iv</sup></li> </ul>
Economic Stability	<ul style="list-style-type: none"> <li>The median household income in Onondaga County is \$62,668 compared to \$38,893 in Syracuse.<sup>v</sup></li> <li>30.3% of Syracuse residents live below the federal poverty level, compared to 13.9% of County residents as a whole.<sup>vi</sup></li> </ul>
Social and Community Context	<ul style="list-style-type: none"> <li>The average family size in Onondaga County (2.99 people per family) and Syracuse (3.08 per family) are similar.<sup>vii</sup></li> <li>38.1% of Onondaga County adults report experiencing two or more adverse childhood experiences.<sup>viii</sup></li> </ul>
Neighborhood and Built Environment	<ul style="list-style-type: none"> <li>77.8% of workers (age 16 years and older) commute alone by car each day.<sup>ix</sup></li> <li>In Syracuse, 89.4% of homes were built in 1979 or earlier.<sup>x</sup></li> </ul>
Health Care Access and Quality	<ul style="list-style-type: none"> <li>84.7% of adults in Onondaga County report having a regular healthcare provider.<sup>xi</sup></li> <li>98.1% of children in Onondaga County have health insurance.<sup>xii</sup></li> </ul>

In addition to social determinants of health, commercial determinants of health are increasingly being recognized for the impact they have on health and equity within communities. Research into this topic is ongoing and will inform future public health actions.

### Impact of the COVID-19 Pandemic

The COVID-19 pandemic has affected all aspects of health including mental health, physical health, and overall well-being. There were various changes to everyday life and some groups have felt the impact more than others including older adults, low-income families, and those with pre-existing health conditions. Due to the pandemic, many people delayed seeking medical care including emergency care, routine services, and preventive services. Access to other necessary services, basic needs, and childcare were additional challenges for a large number of families especially for those experiencing financial instability.

Important mitigation tools for reducing and slowing the transmission of COVID-19 included policies such as mask mandates, social distancing, mandatory testing, quarantining, and isolation. Once vaccines were developed, vaccination became a critical tool to reduce the risk of severe infection, hospitalization, and death. Preventive measures were in place to not only protect the individual but those around them. Protective practices have shown to be important and effective tools to help flatten the curve or slow the rate of COVID-19 infection which was necessary in order to have a sufficient amount of hospital beds, supplies, and healthcare workers available for those in need. The pandemic has had a large and lasting impact on our way of life and the effects are still being felt today.

## Overall Health and Health Disparities

Poor self-reported mental health continues to be a challenge in Onondaga County. High rates of premature mortality also continue to impact county residents. Additionally, health disparities continue for several indicators on the basis of age, living with a disability, race and ethnicity, and income. Notable findings for this topic area include:

- 22.5% of County residents die before reaching the age of 65 years.<sup>xiii</sup> However, premature deaths rates among non-Hispanic Black residents (47.5%) and Hispanic residents (41.1%) are considerably higher.
- Onondaga County's rate of potentially preventable hospitalizations (144.2 per 10,000) is higher than the rate in NYS excluding NYC (120.4 per 10,000).<sup>xiv</sup>

## Chronic Diseases

Obesity continues to be a challenge in Onondaga County. Overall, 34.4% of public school students in the county are overweight or obese.<sup>xv</sup> Among adults, 59.5% are either overweight or obese, putting them at increased risk for various chronic health conditions. Several chronic diseases continue to impact County residents including diabetes, cancer, stroke and heart disease. Notable findings for chronic diseases include:

- 12.6% of adults are current smokers; however smoking rates among adults with low incomes (31.2%) and adults with a disability (29.2%) are much higher.<sup>xi</sup>
- The prevalence of physician diagnosed diabetes in Onondaga County is 8.4% compared to 12.5% in Syracuse.<sup>xvi</sup>

## Well-Being, Mental Health, and Substance Use Disorders

Onondaga County continues to face challenges related to mental health and substance use, including high rates of emergency department visits, hospitalizations, and mortality due to opioid overdoses. Suicide and self-inflicted injury also continue to be challenges in our community. Notable findings for this topic area include:

- The rate of emergency department visits for opioid overdoses in Onondaga County is 59.4 per 100,000 compared to 55.3 per 100,000 in NYS excluding NYC.<sup>xvii</sup>
- Onondaga County's suicide mortality rate (10.7 per 100,000) exceeds that of NYS (8.2 per 100,000).<sup>xv</sup>

## Healthy and Safe Environments

Onondaga County continues to face challenges related to asthma and childhood lead exposure, however, trend data indicate declines over time in elevated blood lead levels in both Onondaga County and Syracuse. While air quality measures have improved, food and water safety remain challenges with the increased presence of harmful algal blooms and outbreaks of foodborne illness in recent years. Notable findings for healthy and safe environments include:

- The prevalence of asthma in Onondaga County (12.6%) is higher than in NYS (10.1%).<sup>xv</sup>
- 5.0% of children tested for lead in Onondaga County had a blood lead level of  $\geq 5$  mcg/dL. In Syracuse, this increased to 10.5%.<sup>xviii</sup>
- Onondaga County's work-related hospitalizations (185.5 per 100,000) exceed the rate for NYS (145.9 per 100,000).<sup>xv</sup>

## Healthy Women, Infants, and Children

Onondaga County continues to be challenged with racial and ethnic disparities in maternal and infant health outcomes including unintended pregnancy, preterm birth, low birth weight, infant mortality, and breastfeeding. Rising trends in substance use in pregnancy continue to be a concern, along with disparities by race in infant mortality rates. Notable findings for women, infants, and children include:

- The preterm birth rate among non-Hispanic White mothers is 7.7% compared to 11.0% among non-Hispanic Black mothers and 11.8% among Hispanic mothers.<sup>xv</sup>
- 12.6% of mothers in Onondaga County and 21.2% of mothers in Syracuse report using illegal drugs during pregnancy.<sup>xix</sup>

## Communicable Diseases

Onondaga County has faced significant challenges over the last several years due to the COVID-19 pandemic. Since the spring of 2020, there have been over 150,000 cases of COVID-19 reported among Onondaga County residents.<sup>xx</sup> Various phases of the pandemic have highlighted the importance of vaccinations and other mitigation efforts in minimizing the number and severity of COVID-19 infections. However, as COVID-19 mitigation measures have eased, other respiratory diseases such as influenza and respiratory syncytial virus (RSV) have surged. Fortunately, Onondaga County fares better than NYS for vaccination rates for several preventable illnesses including Human Papilloma Virus (HPV) and pneumococcal disease. Regarding sexually transmitted infections (STIs), Onondaga County continues to see an increase in chlamydia, gonorrhea, and syphilis. Notable findings for communicable diseases include:

- In Onondaga County, 76.9% of adults age 65 years and older have received a pneumococcal immunization compared to 64.0% in NYS.<sup>xv</sup>
- The newly diagnosed HIV case rate is much higher among non-Hispanic Black residents (16.4 per 100,000) and Hispanic residents (11.5 per 100,000) compared to non-Hispanic White residents (2.0 per 100,000).<sup>xxi</sup>

## Community Feedback

Community members who completed the 2022 Onondaga County Community Health Assessment Survey were asked to identify community health concerns across a variety of topic areas. The most pressing concerns identified through the survey process included: **substance use disorders, mental health conditions, trauma and violence**, and **access to health care**. Key informant interviews also identified challenges relating to poverty, safe and affordable housing, access to health care, and access to affordable childcare.

## Public Health Priorities

Following a comprehensive review of health indicator data and feedback from both community members and partners, the Steering Committee selected the following priorities for the 2022-2024 CHA/CHIP cycle:

- Promote Healthy Women Infants and Children
- Promote Well-Being and Prevent Mental and Substance Use Disorders

The Steering Committee has outlined a collaborative work plan in the 2022-2024 CHIP identifying interventions and activities that will be undertaken in partnership with local agencies to improve health outcomes within these priority areas.

## Community Health Improvement Plan (CHIP)

Outlined in the CHIP are several interventions selected by the Steering Committee to address health issues within the priority areas of **Promote Healthy Women Infants and Children** and **Promote Well-Being and Prevent Mental and Substance Use Disorders**. Development of the CHIP was informed by the 2019-2024 New York State Prevention Agenda Action Plan.<sup>1</sup> Interventions selected for inclusion in the CHIP focused on equity and addressing disparities in health access and outcomes. Additionally, interventions were chosen based on potential for broad impact and considerations for strengths, capacity, and resources of the Steering Committee and partners. Steering Committee members are each responsible for components of the CHIP, whether as a lead agency or supporting partner. Many community agencies are also actively involved in CHIP activities, including but not limited to the Central New York Healthcare Equity Task Force, Contact Community Services, early childcare centers, Help Me Grow, the New York State Department of Health, and Sankofa.

Within the priority area of **Promote Healthy Women Infants and Children**, activities include:

- Improving access to blood lead testing among census tracts with low testing rates
- Piloting a program to prevent developmental delays in children with elevated blood lead levels
- Supporting the adoption of healthy nutrition policies and standards at early childcare centers
- Supporting breastfeeding policies at local worksites, community sites, and provider offices
- Enhancing equity of healthcare service delivery, with a particular focus on improving maternal health outcomes

Within the priority area of **Promote Well-Being and Prevent Mental and Substance Use Disorders**, activities include:

- Implementing clinical screenings and interventions to support patients with alcohol use disorders
- Linking substance use disorder patients to care
- Increasing the availability of medication assisted treatment and harm reduction strategies
- Identifying community level protective factors to inform suicide prevention efforts

Progress towards CHIP activities will be documented on a bi-annual basis and shared with the Steering Committee. The Steering Committee will re-convene regularly to review progress and make modifications to the CHIP as appropriate based upon changing community needs and resources available. Process measures used to evaluate performance are incorporated directly in the CHIP to ensure an outcome focused approach.

Throughout the CHA/CHIP planning process, it was evident that there is a strong, diverse network of committed community partners in Onondaga County. While the health issues identified in this document are substantial, the collaboration and engagement present during the development of the CHA/CHIP reinforced the collective will to work together as partners for the physical, social, and emotional well-being of all residents.

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<sup>i</sup> Prevention Agenda 2019-2024: New York State's Health Improvement Plan. Retrieved 10/11/2022, from [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/).

<sup>ii</sup> World Health Organization's definition of health, adopted by the International Health Conference, New York. Signed July 22, 1946 and adopted April 7, 1948.

<sup>iii</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table S1501.

<sup>iv</sup> New York State (NYS) Department of Education. Retrieved 11/8/2022, from <https://data.nysed.gov/gradrate.php?year=2021&county=42> and <https://data.nysed.gov/gradrate.php?year=2021&state=yes>. Note: Graduation rate data are reported for a 9th grade cohort, as of the 4th year of high school – August.

<sup>v</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table S1903.

<sup>vi</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table S1701.

<sup>vii</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table S1101.

<sup>viii</sup> NYS Expanded Behavioral Risk Factor Surveillance System (BRFSS). Retrieved 11/16/2022, from [NYS Prevention Agenda Dashboard](#).

<sup>ix</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table B08301.

<sup>x</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table DP04.

<sup>xi</sup> NYS Expanded BRFSS, 2018. Retrieved 10/13/2022, from <https://www.health.ny.gov/statistics/brfss/expanded>.

<sup>xii</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5 Year Estimates, Table S2701.

<sup>xiii</sup> NYS Department of Health (NYSDOH), Vital Records, 2019, Retrieved 9/19/2022, from [NYS Prevention Agenda Dashboard](#).

<sup>xiv</sup> SPARCS, 2019. Retrieved 10/10/2022, from [NYS Prevention Agenda Dashboard](#).

<sup>xv</sup> NYS Community Health Indicator Reports (CHIRS). Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>xvi</sup> CDC PLACES: Local Data for Better Health. Retrieved 9/23/2022, from <https://www.cdc.gov/places/index.html>.

<sup>xvii</sup> NYSDOH – County Opioid Quarterly Report, Published October 2022, [https://www.health.ny.gov/statistics/opioid/data/pdf/nys\\_oct22.pdf](https://www.health.ny.gov/statistics/opioid/data/pdf/nys_oct22.pdf).

<sup>xviii</sup> OCHD Division of Community Health, Lead Poisoning Prevention Program, Retrieved 12/22/2022, from <http://www.ongov.net/health/lead/data.html>. Note: data are preliminary.

<sup>xix</sup> Statewide Perinatal Data System, 2021, accessed by OCHD Division of Community Health. Note: date are provisional.

<sup>xx</sup> OCHD, 2022. Retrieved 12/19/2022, from <https://covid19.ongov.net/data/>.

<sup>xxi</sup> NYS HIV Surveillance System:

[https://www.health.ny.gov/diseases/aids/general/statistics/annual/2018/2018\\_annual\\_surveillance\\_report.pdf](https://www.health.ny.gov/diseases/aids/general/statistics/annual/2018/2018_annual_surveillance_report.pdf).



# Onondaga County Community Health Assessment and Improvement Plan

## INTRODUCTION

Onondaga County's **2022-2024 Community Health Assessment and Improvement Plan (CHA/CHIP)** was developed by the Onondaga County Health Department (OCHD) in collaboration with the CHA/CHIP Steering Committee. The Steering Committee was made up of representation from OCHD, Crouse Health, St. Joseph's Health, and State University of New York Upstate University Hospital. Additional support was also provided by the Central New York Healthcare Equity Task Force to ensure that equity was at the forefront of planning efforts. A description of the collaborative planning process can be found in Appendix 1.

The CHA/CHIP serves as a guiding document for local public health initiatives and provides a framework for understanding the health needs in our community. Development of the CHA/CHIP was undertaken in alignment with the 2019-2024 New York State (NYS) Prevention Agenda, which identifies five priorities for health improvement:<sup>1</sup>

- Prevent Chronic Diseases
- Promote Well-Being and Prevent Mental and Substance Use Disorders
- Promote a Healthy and Safe Environment
- Promote Healthy Women, Infants, and Children
- Prevent Communicable Diseases

The **Community Health Assessment (CHA)** provides a comprehensive overview of data from local, state, and national sources demonstrating the current health status of Onondaga County residents. Whenever possible, the CHA takes into account the impact of the COVID-19 pandemic on resident's health and well-being, however the full effect

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<sup>1</sup> Prevention Agenda 2019-2024: New York State's Health Improvement Plan. Retrieved 10/11/2022, from [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/).

of the COVID-19 pandemic may not be fully understood for several years. The CHA also provides comparisons by demographic characteristics including sex, age, and race and ethnicity. Comparisons to Central New York (CNY) and statewide data are also included as appropriate. A full description of the data review methodology is available in Appendix 1.

In addition, the Steering Committee conducted an extensive community engagement process in 2022 to gather feedback directly from county residents. Engagement strategies included a county-wide survey and key-informant interviews with partners representing populations at risk for poor health outcomes. This process engaged more than 3,600 county residents. A more detailed description of the engagement process can be found in the *Community Engagement* section on page 109.

Following a comprehensive review of health indicator data and feedback from both community members and stakeholders, the Steering Committee selected the following priorities for the 2022-2024 CHA/CHIP cycle:

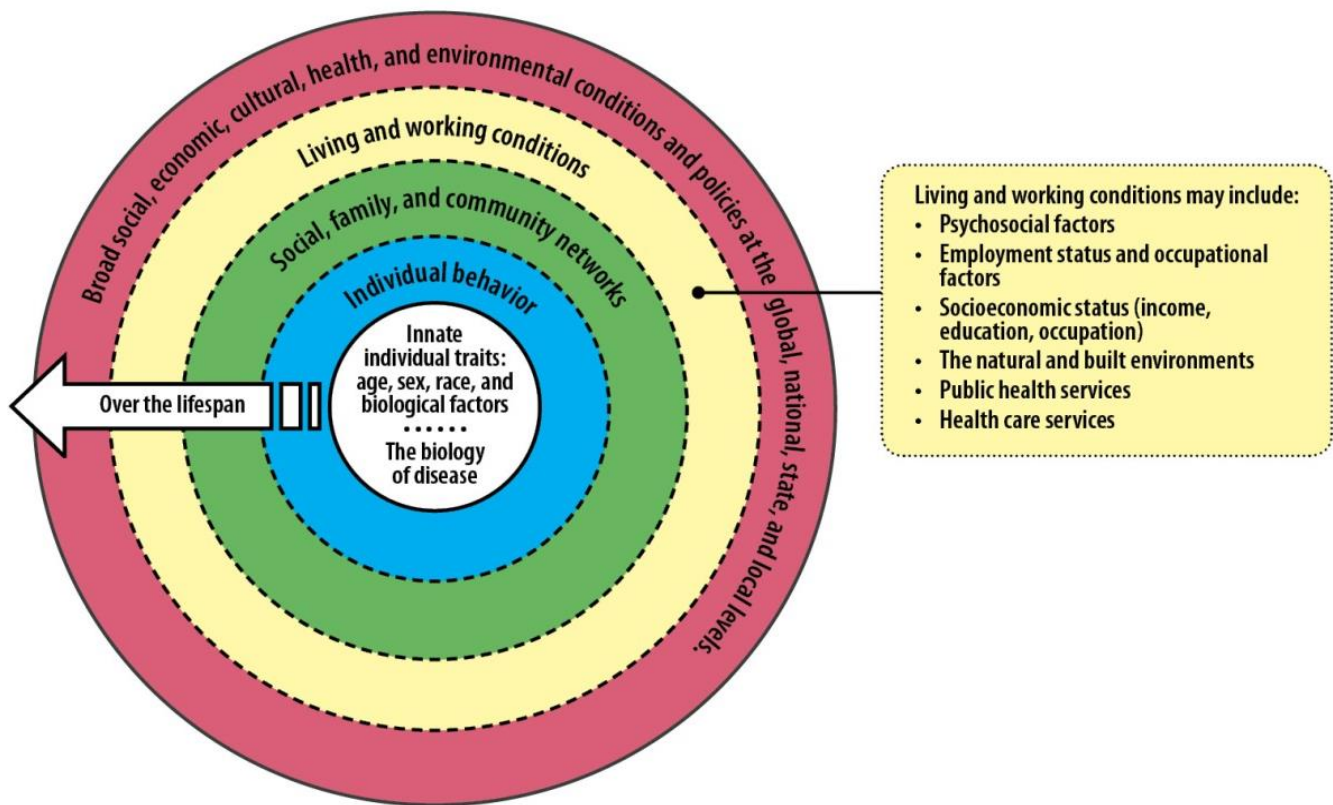
- **Promote Healthy Women Infants and Children**
- **Promote Well-Being and Prevent Mental and Substance Use Disorders**

The Steering Committee has outlined a collaborative work plan in the 2022-2024 **Community Health Improvement Plan (CHIP)** identifying interventions and activities that will be undertaken in partnership with local agencies to improve health outcomes within these priority areas.

# ONONDAGA COUNTY COMMUNITY HEALTH ASSESSMENT

The World Health Organization defines **health** as a “state of complete physical, mental, and social well-being and does not merely indicate the absence of disease.”<sup>2</sup> Health is shaped by several factors ranging from the biological traits we were born with to the complex social and economic environments in which we live, learn, work and play (Figure 1). Throughout our lifespan, each of these factors has the potential to significantly influence our health risks and outcomes. As we strive to ensure the health and well-being of county residents, it is important to understand the multitude of factors that influence health. Each of these factors are explored in depth throughout the CHA.

**Figure 1. Factors influencing health**



Source: Institute of Medicine. 2002. *The Future of the Public’s Health in the 21<sup>st</sup> Century*. Washington, DC: National Academy Press.

<sup>2</sup> World Health Organization’s definition of health, adopted by the International Health Conference, New York, Signed July 22, 1946 and adopted April 7, 1948.

## Key Concepts in Public Health Practice

The scope of public health practice has changed in recent years, and continues to evolve in the aftermath of the COVID-19 pandemic. Approaches focus on building and sustaining collaborative relationships, relying on actionable and timely data, thinking strategically, providing strong and clear communications, and seeking out innovative funding sources. Effective public health practice strategies consider health across the lifespan, promote health equity, recognize the interconnectedness of people, plants, animals, and the environment, and apply policy development as a lever for promoting change. Below is a description of key concepts and frameworks in public health practice.

### Public Health 3.0

Public Health 3.0<sup>3</sup> is a vision for the future that launches public health forward by building on the achievements of over 150 years of practice.

Public Health 3.0 emphasizes focusing on equity and social determinants of health through strong strategic and collaborative partnerships. Engaging partners outside of the traditional health sectors, such as law enforcement, schools, for-profit businesses, and real estate developers provide unique opportunities for addressing health challenges through the Public Health 3.0 framework. The adoption of shared goals, measurement, and action (known as collective impact) is also a key component of Public Health 3.0.

In this framework, the local health department acts as the lead health strategist, as a facilitator and backbone entity for supporting a vision for protecting and improving the health of the community.

#### Core Concepts of Public Health 3.0

1. Strong leadership and workforce
2. Strategic partnerships
3. Flexible and sustainable funding
4. Timely and locally relevant data, metrics, and analytics
5. Foundational infrastructure

### Health Equity

According to the Centers for Disease Control and Prevention (CDC):

*“Health equity is achieved when every person has the opportunity to attain their full health potential and no one is disadvantaged from achieving that potential because of social position or other socially determined circumstances. Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment.”<sup>4</sup>*

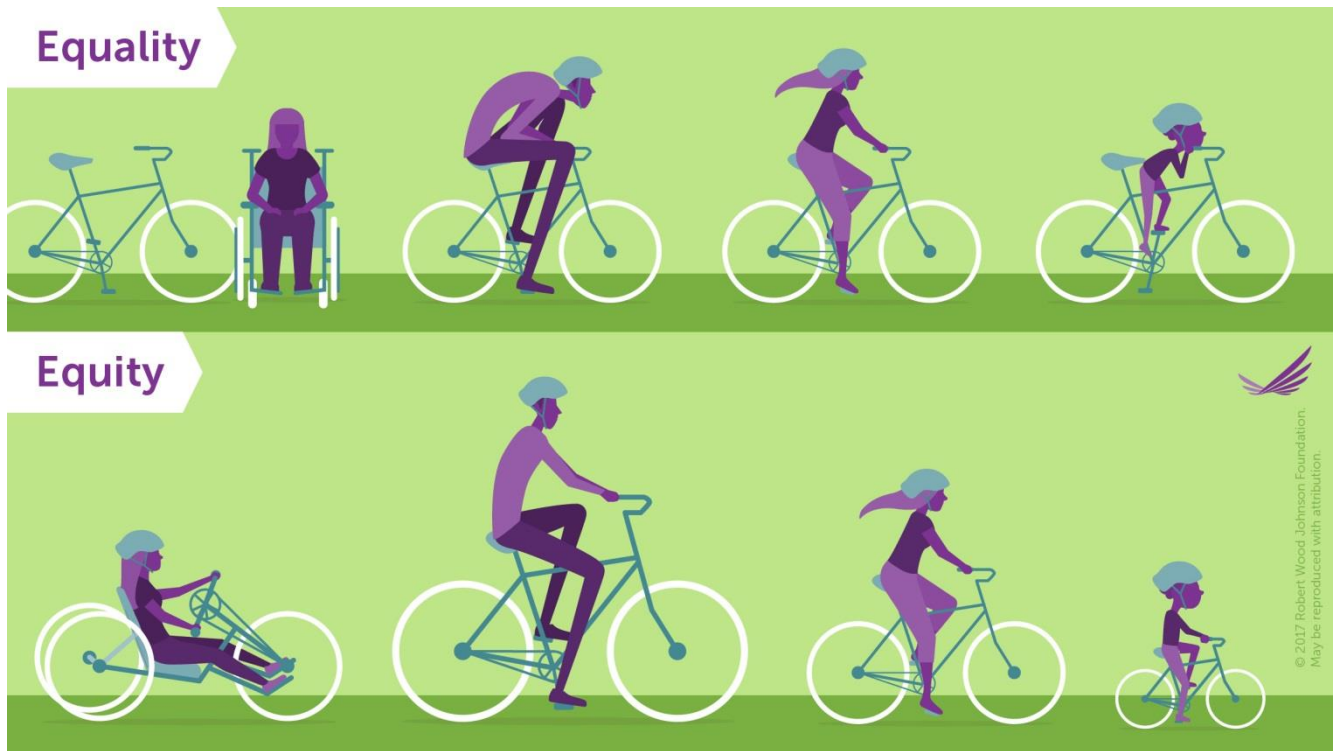
<sup>3</sup> DeSalvo KB, Wang YC, Harris A, Auerbach J, Koo D, O’Carroll P. Public Health 3.0: A Call to Action for Public Health to Meet the Challenges of the 21st Century. *Prev Chronic Dis* 2017;14:170017. DOI: <http://dx.doi.org/10.5888/pcd14.170017>.

<sup>4</sup> Definition from the Centers of Disease Control and Prevention (CDC). Retrieved 11/7/2022, from: <https://www.cdc.gov/chronicdisease/healthequity/index.htm>.

Historic injustices including those perpetuated by federal, state, and local policies and practices are often at the root of current health inequities. Additionally, current experiences of discrimination, bias, or stigma further perpetuate inequities in our community.

When considering solutions based in equity, it is important to note that equity is different from equality. While equality means giving the same resources to everyone, the concept of **equity** ensures that individuals are given the resources they need to achieve the desired outcome. Some individuals may need additional resources beyond those needed by others. This concept is illustrated in the visual below.

**Figure 2. Equality versus equity**



Source: Used with permission from the Robert Wood Johnson Foundation

In Onondaga County, a local CNY Healthcare Equity Task Force meets monthly to assess gaps and identify solutions for health equity challenges in the community. Comprised of stakeholders from agencies across multiple sectors, the group was originally convened to ensure equitable access to COVID-19 vaccines among vulnerable communities. Over time, the Task Force has evolved to address other important health topics, including gun violence, substance use disorders, and access to mental health services. Additionally, the CNY Healthcare Equity Task Force provided input into the development of this document to ensure an ongoing focus on health equity in Onondaga County.

## Health across the Lifespan

An individual's health needs may vary significantly throughout their lifespan. A health across the lifespan approach to public health ensures that the needs of populations from birth to death are considered to ensure that all members of the community have an opportunity for physical, mental, and social well-being. In particular, as Onondaga County's population ages, age-friendly strategies such as the American Association of Retired Persons (AARP)'s 8 Domains of Livability, will be critical tools for ensuring that communities are responsive to the needs of older adults.

### American Association of Retired Persons (AARP) 8 Domains of Livability:<sup>5</sup>

- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1. Outdoor Spaces and Buildings | 5. Respect and Social Inclusion  |
| 2. Transportation               | 6. Work and Civic Engagement     |
| 3. Housing                      | 7. Communication and Information |
| 4. Social Participation         | 8. Community and Health Services |

## Health across All Policies

**Health across All Policies (HAAP)** is a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across all sectors and policy areas.<sup>6</sup> The approach recognizes that many of the social and environmental conditions that impact health are impacted by decisions and policies made outside of the health and public-health sectors. The Health across All Policies approach provides a framework for advocating that whenever policy decisions are made that have the potential to influence health, a full consideration of the health impact is made and incorporated into the policy as appropriate.<sup>7</sup> Multi-sector collaboration is a key component to the success of a health across all policies approach.

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<sup>5</sup> The 8 Domains of Livability: An Introduction. Retrieved 11/7/2022, from <https://www.aarp.org/livable-communities/network-age-friendly-communities/info-2016/8-domains-of-livability-introduction.html>.

<sup>6</sup> *An Introduction to Health in All Policies: A Guide for State and Local Governments*, [http://www.phi.org/uploads/files/Four\\_Pager\\_Health\\_in\\_All\\_Policies-A\\_Guide\\_for\\_State\\_and\\_Local\\_Governments.pdf](http://www.phi.org/uploads/files/Four_Pager_Health_in_All_Policies-A_Guide_for_State_and_Local_Governments.pdf).

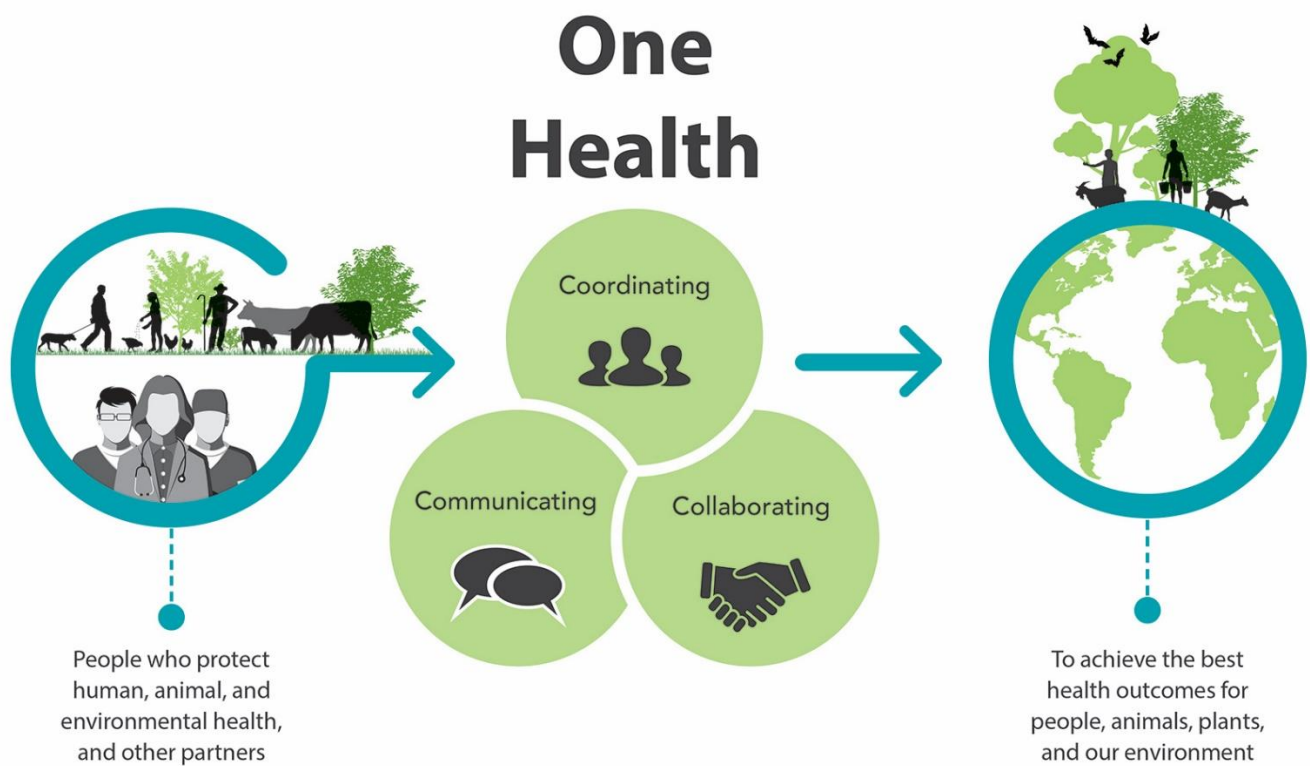
<sup>7</sup> Adapted from: Health in all Policies Strategies to Promote Innovative Leadership, Association of State and Territorial Health Officials, <http://www.astho.org/Programs/Prevention/Implementing-the-National-Prevention-Strategy/HiAP-Toolkit/>.



## One Health Framework

The environment is changing, as is the way humans interact with their ecosystems. The **One Health** approach seeks to sustainably balance and optimize the health of people, animals, plants, and the environments in which they coexist.<sup>8</sup> Recent infectious disease outbreaks, such as those caused by SARS CoV-2, mpox, and Ebola virus, underscore the importance of understanding the changing interactions between humans and animals. Current One Health issues include zoonotic diseases, vector borne diseases, antibiotic resistance, and food safety, among others. As with other public health approaches, applying a One Health framework is most successful when multiple sectors develop strong collaborations to address common health issues.

Figure 3. One health framework



CS302365-A



Centers for Disease Control and Prevention  
National Center for Emerging and Zoonotic Infectious Diseases

Source: Centers for Disease Control and Prevention, One Health Graphics. Retrieved 11/7/2022, from <https://www.cdc.gov/onehealth/resource-library/one-health-graphics.html#social>

<sup>8</sup> Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infections Disease. Retrieved 11/7/2022, from <https://www.cdc.gov/onehealth/index.html>.

## Geographic Profile

A county's geography and location can significantly impact the lives of its residents and affect many factors including climate and access to resources such as jobs and transportation. This section explores Onondaga County's location within NYS, population density, and land composition. Unless otherwise noted, data in this section are from the U.S. Census Bureau, American Community Survey, 5- year estimates, 2016-2020.

Onondaga County is centrally located within NYS and covers a geographic area of nearly 780 square miles.<sup>9</sup> It is the most populous county in the CNY region and has a total of 461,591 residents. The county is comprised primarily of woodlands and agricultural lands, and has a population density of approximately 592 persons per square mile.

The City of Syracuse is the county's hub and where about one-third of County residents reside. With a population of 142,553 residents, Syracuse is the largest city in the CNY region. In addition to Syracuse, 19 towns, and 15 villages fall within Onondaga County including the heavily populated towns of Clay, Salina, and Cicero in the northeast, Dewitt and Manlius in the east, and Camillus in the west. The Onondaga Nation, located south of Syracuse, also falls geographically within Onondaga County.

Onondaga County contains several bodies of water including Onondaga Lake, located northwest of Syracuse, as well as Otisco Lake and a portion of Skaneateles Lake to the southwest. The County is also rich in green spaces with more than 70 State, County, and City parks.

Interstate highways 90 and 81 are major thoroughfares that intersect just north of Syracuse and travel east-west and north-south, respectively (Figure 4).

**Figure 4. Map of Onondaga County**



Source: OCHD Division of Community Health

<sup>9</sup> U.S. Census Bureau, Quick Facts. Onondaga County, NY. 2020. Retrieved 11/10/2022, from <https://www.census.gov/quickfacts/fact/table/onondagacountynewyork/PST045221>.



## Community Demographics

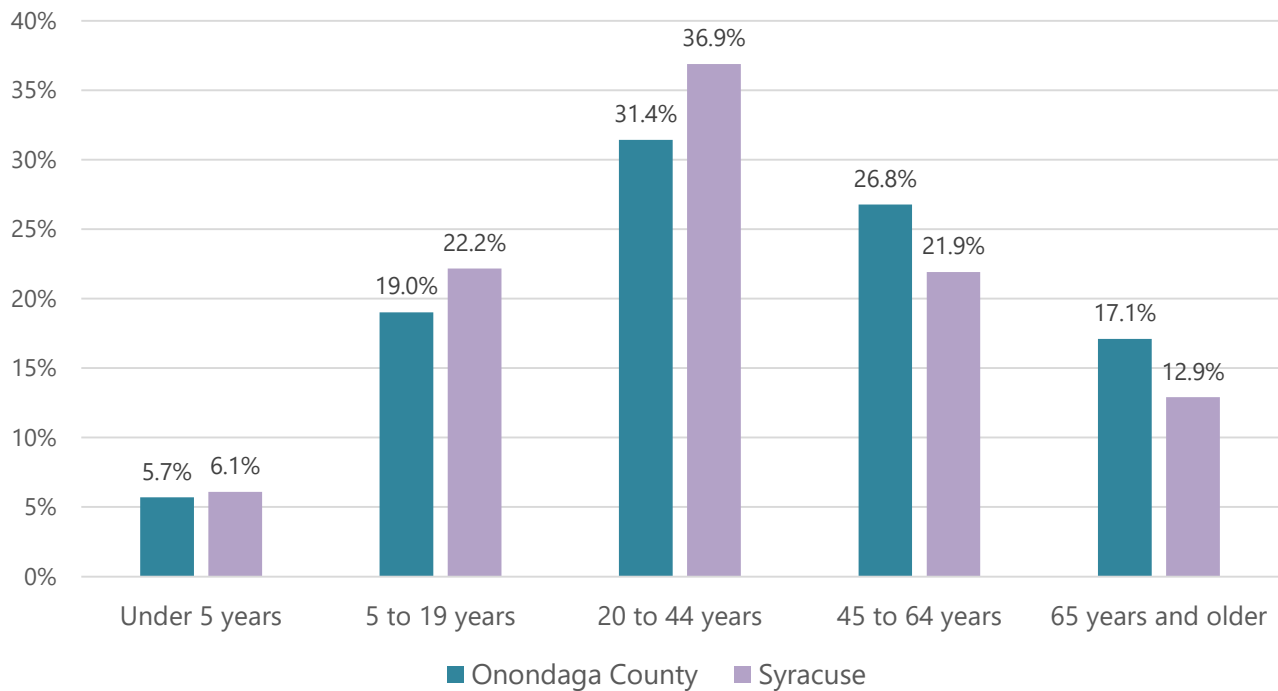
A comprehensive understanding of the demographics of a community is essential for ensuring that programs and services meet the needs of all community members. Additionally, health status, access to healthcare, and utilization of healthcare services may be greatly impacted by demographic factors. Differences in access and health status in turn influence health outcomes on a population level.

Demographic characteristics of Onondaga County residents covered in this section include: age, sex, gender, sexual orientation, race and ethnicity, country of origin, language, and disability. Data in this section are from the U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2016-2020, unless noted otherwise.

### Age

A community's age distribution can significantly impact the health requirements of its residents. To ensure all individuals have the opportunity to be healthy throughout their lifetime, it is important to understand the community's age-specific health needs. A critical component of this is understanding the community's age distribution. Figure 5 displays the current distribution of residents by age for both Onondaga County and Syracuse.

**Figure 5. Population distribution by age group, Onondaga County and Syracuse, 2016-2020**

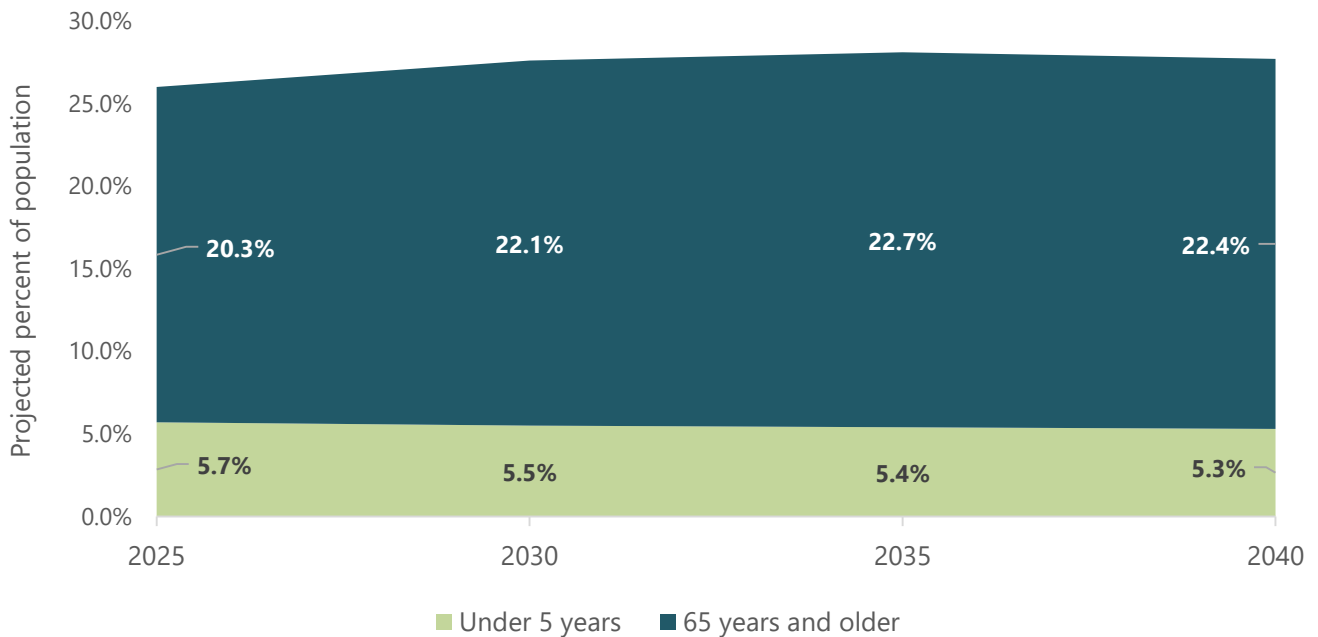


Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S0101. Onondaga County is inclusive of Syracuse.

Syracuse has a lower median age (31.7 years) than Onondaga County (39.2 years). Additionally, Syracuse has a higher proportion of residents less than 5 years of age, and a lower proportion of residents over age 65 compared to Onondaga County. Of note, Syracuse also has a substantially higher percentage of residents between the ages of 20 to 24 years, which may be due to the four major universities and colleges (Syracuse University, SUNY Environmental Science and Forestry, SUNY Upstate Medical University, and Le Moyne College) located within the city.

In order to plan for future health needs, it is important to understand how the County’s age distribution may change over time. Based on projections from the Cornell Program on Applied Demographics, it is anticipated that the percentage of Onondaga County’s population that is under 5 years of age will decrease slightly over the next 15 years (Figure 6). The figure also shows that by 2040, nearly a quarter of Onondaga County’s population will be 65 years of age or older. This age group makes up 17.1% of the current population, so this would represent a significant change. Older adults may face unique health challenges that our community must be prepared to address over the next several years.

**Figure 6. Projected population, under 5 years and 65 years or older, Onondaga County, 2025 – 2040**

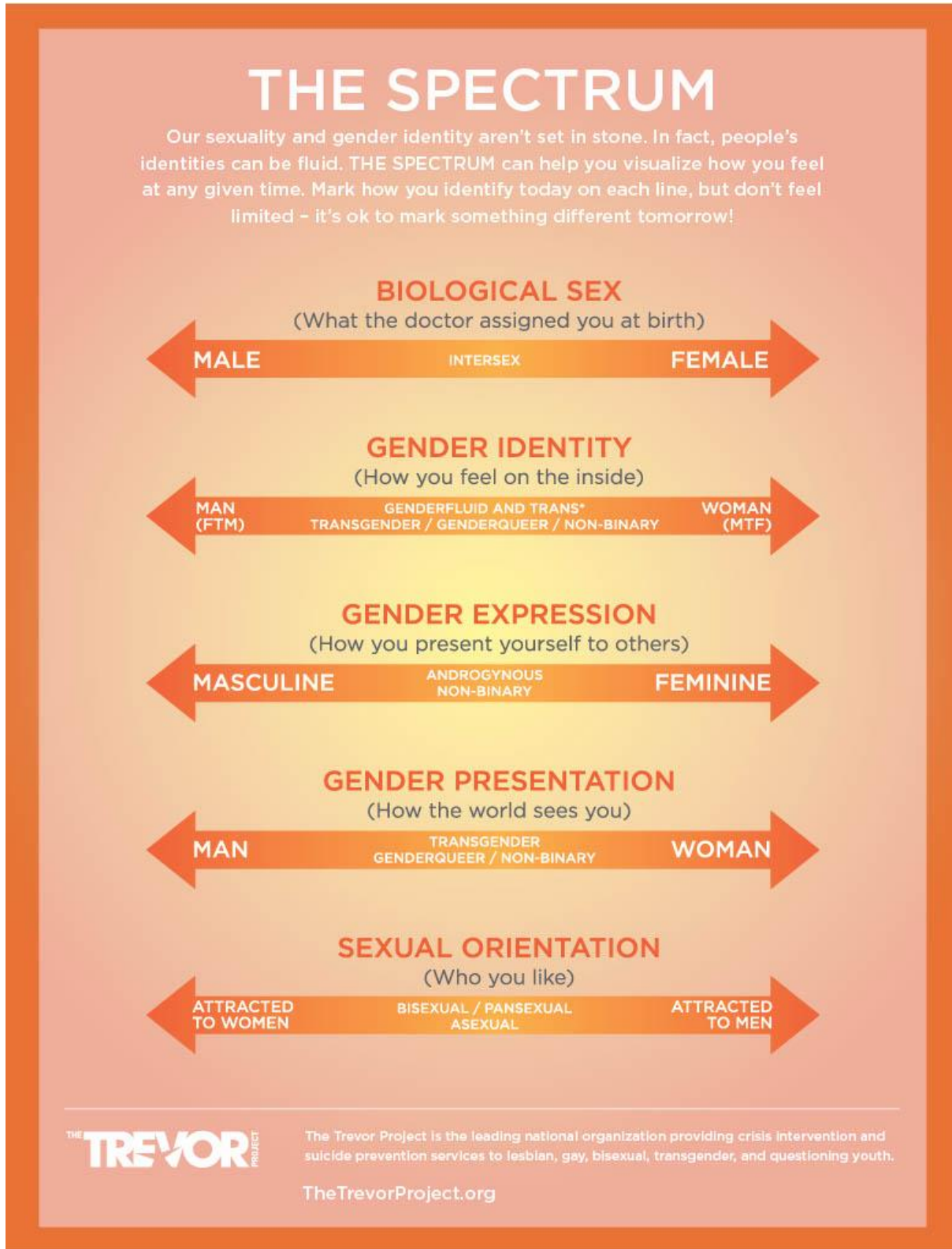


Source: Cornell Program on Applied Demographics, <https://pad.human.cornell.edu/counties/projections.cfm>

### Sex, Gender, and Sexual Orientation

An individual’s health risks, access to care, and social supports may be impacted by their biological sex, gender identity, gender expression, gender presentation, and sexual orientation. Figure 7 below provides current definitions relating to the spectrum of sexuality and gender identity. Please note, these definitions are subject to change as the dialogue continues to evolve.

Figure 7. Spectrum of sexuality and gender identity



Source: The Trevor Project. Retrieved 11/8/2022, from <https://www.thetrevorproject.org/wp-content/uploads/2017/09/Spectrum-B.pdf>.

In regards to biological sex, slightly more than half of the population of Onondaga County (51.8%) and Syracuse (52.3%) are female. Females of childbearing age (generally 15-44 years), may have specific health needs, particularly relating to preventing or planning pregnancy. In Onondaga County, there are over 90,000 females of childbearing age, with nearly 40% residing in Syracuse. On a national level, females tend to live longer than males, with a recent CDC report finding, a 5.9 year disparity between the life expectancies at birth.<sup>10</sup> On a local level, the median age for males in Onondaga County, is 37.9 years compared to 40.5 years for females. Additionally, females represent a larger proportion of adults 65 years and older in Onondaga County, compared to males (27.3% compared to 21.4% respectively).

Gender may play a role in whether an individual seeks healthcare. A national survey in 2019 found that men were less inclined to seek healthcare for symptoms or injury than women. In particular, younger men, ages 35-54 were more likely than men 55 and older to wait as long as possible before seeking care.<sup>11</sup>

Data on sexual orientation are limited in local and statewide data sources. However, some information is available from the NYS Department of Health Vital Statistics regarding marriages among same-sex couples. Among marriages that occurred in Onondaga County in 2019, 4.2% were between same-sex couples.<sup>12</sup> This is slightly higher than the proportion of marriages that were between same-sex couples statewide (excluding NYC) for the same timeframe (3.0%). Additionally, the U.S. Census Bureau has data for non-married same-sex couples who are living together. As of the last time data were collected (2018), 4.3% of unmarried-partner households in Onondaga County were couples of the same-sex. In Syracuse the rate is slightly higher (6.0%).<sup>13</sup>

## Race and Ethnicity

Both race and ethnicity are often closely intertwined with disparities in health outcomes, however it can be difficult to fully account for how socioeconomic, structural, and institutional factors influence health outcomes on a population level. Acknowledging the critical role historic and contemporary inequities play in health disparities by race and ethnicity is important as we examine health outcomes within Onondaga County and Syracuse.

Figure 8 provides a current breakdown of the populations of Onondaga County and Syracuse by race and ethnicity. Overall, the population of Syracuse is more diverse than Onondaga County. Within the County, 76.4% of the population identifies as non-Hispanic White, 10.6% as non-Hispanic Black or African American, 5.1% as Hispanic (of any race), 3.8% as non-Hispanic Asian, 3.6% as non-Hispanic of two or more races, 0.4% as non-Hispanic American Indian or Alaska Native, and 0.2% as non-Hispanic of another race. In Syracuse, 49.4% of residents identify as non-Hispanic White, 27.9% as non-Hispanic Black or African American, 9.5% as Hispanic (of any race), 6.9% as non-Hispanic Asian, 5.2% as non-Hispanic of two or more races, 0.8% as non-Hispanic American Indian or Alaska Native, and 0.4% as non-Hispanic of another race.

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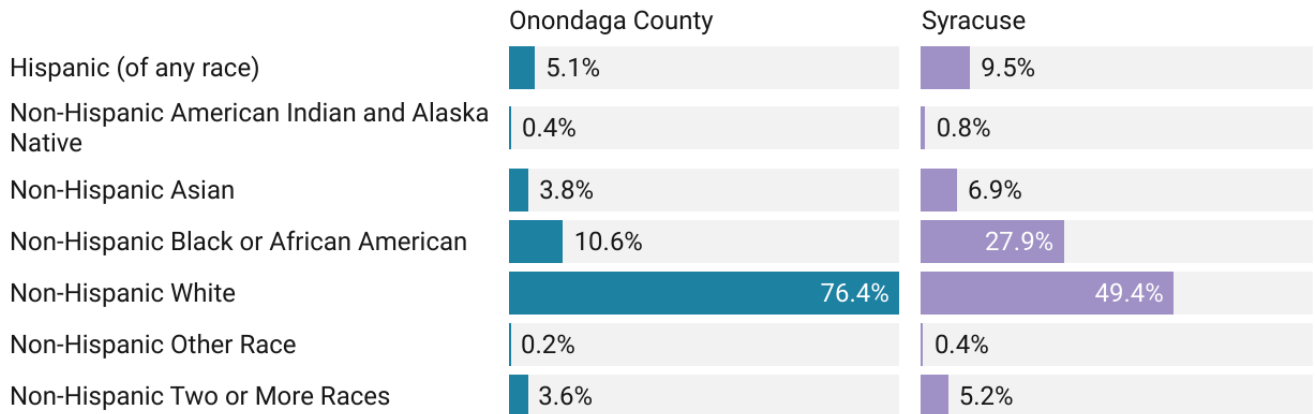
<sup>10</sup> CDC, National Center for Health Statistics: Life Expectancy in the U.S. Dropped for the Second Year in a Row in 2021. Retrieved 11/8/2022.

<sup>11</sup> 2019 Cleveland Clinic MENTion IT Survey Results Overview. Retrieved 11/7/2022.

<sup>12</sup> NYS Department of Health, Vital Statistics, Marriages by County of Occurrence and Gender, 2019. Retrieved 11/7/2022, from: [https://www.health.ny.gov/statistics/vital\\_statistics/2019/table47a.htm](https://www.health.ny.gov/statistics/vital_statistics/2019/table47a.htm). Note: gender is an optional field on the New York State marriage license.

<sup>13</sup> U.S. Census Bureau, 2014-2018 American Community Survey, 5 Year Estimates, Table B11009.

**Figure 8. Population by race and ethnicity, Onondaga County and Syracuse**

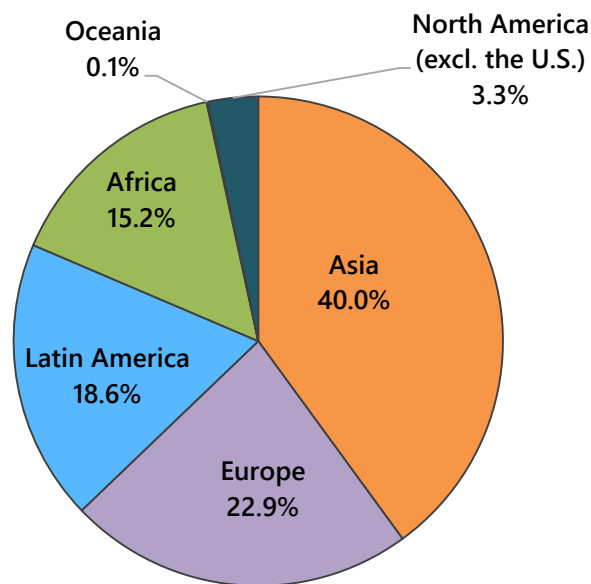


Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table DP05. Onondaga County is inclusive of Syracuse.

### Country of Origin

Onondaga County residents who were born outside of the United States bring tremendous diversity to the community. Overall, 7.8% of Onondaga County’s population and 13.4% of Syracuse’s population was born outside of the United States. Among Onondaga County’s foreign born population, the greatest proportion of residents were born in Asia, followed by Europe and Latin America (Figure 9).

**Figure 9. Region of birth for Onondaga County’s foreign-born populations**



Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table DP02. Note: Latin American includes Central America, South America, and the Caribbean.

## English Proficiency and Language Spoken at Home

English language proficiency may impact educational attainment, employment opportunities, and the ability to effectively communicate with healthcare providers in Onondaga County. The percentage of households with limited English proficiency is lower in Onondaga County than it is in New York State as a whole (Onondaga County: 2.3%, New York State: 7.7%). Syracuse’s rate (4.9%) is higher than the County rate but still remains lower than the statewide rate. In Onondaga County, 10.9% of households speak a language other than English at home, compared to 18.8% of households in Syracuse. After English, the second most commonly spoken language at home in the County is other Indo-European languages (3.6%). Additionally, Spanish is spoken by 3.2% of County residents at home, and Asian and Pacific Island languages are spoken by 2.4% of County residents at home.

## Disability

In Onondaga County, 25.7% of adults have a disability.<sup>14</sup> Disability includes any impairment to an individual’s body or mental functioning which may limit certain activities. This may include difficulty hearing, moving, or problem solving as well as restrictions participating in daily activities, working, engaging in social or recreational activities, or obtaining health care.<sup>15</sup> Individuals with a disability are at an increased risk for a number of health conditions. Syracuse has higher rates for several disabilities compared to Onondaga County including cognitive disability, self-care difficulty, vision difficulty, and ambulatory difficulty (Figure 10).

**Figure 10. Persons with a disability, Syracuse, Onondaga County, and NYS, 2016-2020**

	City of Syracuse	Onondaga County	New York State
Persons with a cognitive difficulty	8.0%	5.7%	4.5%
Persons with a hearing difficulty	3.4%	3.6%	2.8%
Persons with a self-care difficulty	3.2%	2.6%	2.7%
Persons with a vision difficulty	2.4%	2.1%	2.1%
Persons with an ambulatory difficulty	8.6%	6.8%	6.6%
Persons with an independent living difficulty	7.2%	5.9%	5.7%

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S1810. Onondaga County is inclusive of Syracuse.

## Community Demographics Summary

<sup>14</sup> NYS Expanded BRFSS, 2018. Retrieved 10/18/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>.

<sup>15</sup> Disability Status, New York State Adults, 2020. BRFSS Brief. Number 2022-10. Retrieved 10/18/2022, from [https://www.health.ny.gov/statistics/brfss/reports/docs/2022-10\\_brfss\\_disability\\_status.pdf](https://www.health.ny.gov/statistics/brfss/reports/docs/2022-10_brfss_disability_status.pdf).

A critical step in protecting and improving the health of all of the County's residents, is understanding the specific health needs of our community. Having a comprehensive understanding of the demographic makeup of County residents is key to that process. This section speaks to the diversity of Onondaga County and Syracuse residents and the impact that demographic factors may play in health outcomes. In order to further explore the impact of demographics on health outcomes, subsequent sections will include a breakdown of health indicators by demographic factors whenever data are available.

## Social Determinants of Health

Our health is shaped by several factors in the places in which we live, learn, work, and play. Each of these factors has the potential to significantly influence our health risks and outcomes. These factors are known as the **social determinants of health** and can be grouped into five categories as shown in Figure 11. This section provides an overview of each category and how it can influence the health and well-being of Onondaga County residents.

Figure 11. Social determinants of health



**Social Determinants of Health**  
Copyright-free

 **Healthy People 2030**

Source: Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 9/14/2022, from <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>.



## Education Access and Quality

Educational attainment can influence several factors in an individual's life from economic opportunity to the ability to understand health information. Additionally, individuals with higher levels of education are more likely to be healthy and live longer lives.<sup>16</sup> This section explores the current educational environment in Onondaga County and Syracuse.

### Education Institutions

With a total of eighteen districts, the public school system in Onondaga County enrolls approximately 65,000 students annually from kindergarten through grade 12.<sup>17</sup> The Syracuse City School District (SCSD) enrolls approximately 19,000 students each academic year, accounting for nearly 30% of the County's public school enrollment.<sup>18</sup> Additionally, there are four charter schools and more than thirty private or parochial schools in the County.

A large number and variety of post-secondary education institutions are also located in Onondaga County. Over 36,000 students currently attend colleges within Onondaga County, including Syracuse University, Le Moyne College, SUNY Upstate Medical University, SUNY College of Environmental Science and Forestry, and Onondaga Community College.<sup>19</sup> A number of other professional and licensing programs are also offered.

### High School Graduation Rates

A majority of Onondaga County school districts have a 4-year high school graduation rate of over 90% which is higher than the rate for both the County total and NYS. Additionally, Onondaga County overall has a slightly higher graduation rate than NYS (Onondaga County: 87%; NYS: 86%). Within Onondaga County, Baldwinsville Central School District has the highest graduation rate with 96% of students graduating in 4 years, while the Syracuse City School District has the lowest rate at 77%.

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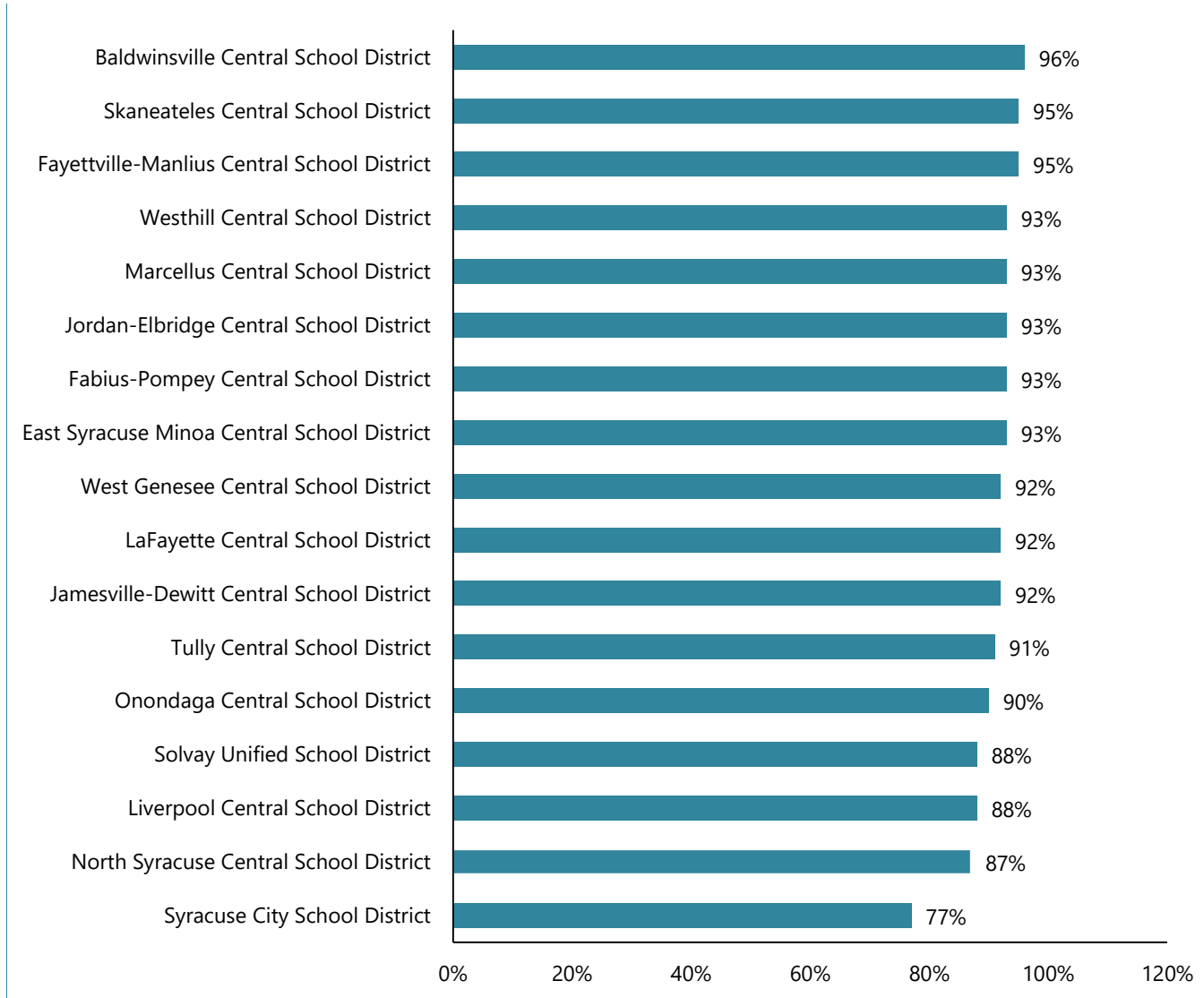
<sup>16</sup> Healthy People 2030, Education Access and Quality. Retrieved 10/28/2022, from <https://health.gov/healthypeople/objectives-and-data/browse-objectives/education-access-and-quality>.

<sup>17</sup> New York State Department of Education, Onondaga County, 2020-2021. Retrieved 11/8/2022, from <https://data.nysed.gov/enrollment.php?year=2021&county=42>.

<sup>18</sup> New York State Department of Education, Syracuse City School District, 2020-2021. Retrieved 11/8/2022, <https://data.nysed.gov/enrollment.php?year=2021&instid=800000040902>.

<sup>19</sup> Syracuse University. Retrieved 10/28/2022, from <https://www.syracuse.edu/about/facts-figures-rankings/>.  
Le Moyne College. Retrieved 10/28/2022, from <https://www.lemoyne.edu/Values/About-Us>.  
SUNY Upstate Medical University. Retrieved 10/28/2022, from <https://www.upstate.edu/about/glance.php>.  
SUNY College of Environmental Science and Forestry. Retrieved 10/28/2022, from <https://www.esf.edu/assessment/documents/ESFCDS-2018-19.pdf>.  
Onondaga Community College. Retrieved 10/28/2022, from <https://www.suny.edu/campuses/onondaga/>.

**Figure 12: Four-year high school graduation rate by school district, Onondaga County, 2021**

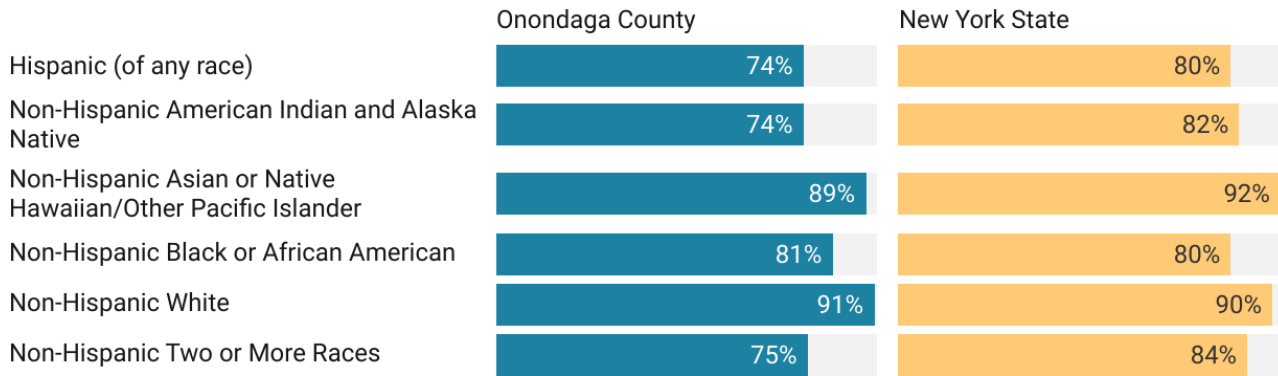


Source: NYS Department of Education. Retrieved 11/8/2022, from <https://data.nysed.gov/gradrate.php?year=2021&county=42>. Graduation data not available for Lyncourt Unified School District. Graduation rate data are reported for a 9th grade cohort, as of the 4th year of high school – August.

Additionally, the graduation rate varies based on demographic and socioeconomic factors such as income, gender, race and ethnicity, language, and disability status. When looking at income, the graduation rate among students who are not economically disadvantaged is 95%, compared to 77% among economically disadvantaged students.<sup>20</sup> English language learners also have a lower graduation rate (69%) compared to students who are not English language learners (88%). Students living with a disability have a 70% graduation rate, which is lower than the rate for the County as a whole (87%). Figure 13 depicts the four-year graduation rate by race and ethnicity for Onondaga County and NYS.

<sup>20</sup> New York State Department of Education, Onondaga County, 2020-2021. Retrieved 11/8/2022, from <https://data.nysed.gov/gradrate.php?year=2021&county=42>.

**Figure 13: Four-year high school graduation rate by race and ethnicity, Onondaga County and NYS, 2021**



Source: NYS Department of Education. Retrieved 11/8/2022, from <https://data.nysed.gov/gradrate.php?year=2021&county=42> and <https://data.nysed.gov/gradrate.php?year=2021&state=yes>. Graduation rate data are reported for a 9th grade cohort, as of the 4th year of high school – August.

### Educational Attainment

Educational outcomes for adults age 25 years and older are illustrated in Figure 14. In Onondaga County, 91.2% of adults 25 years and older have a high school education or higher, and 36.1% have a bachelor’s degree or higher. Educational attainment in Syracuse is overall lower than in Onondaga County, with 83.5% having a high school education or higher, and a 29.0% achieving a Bachelor’s degree or higher.

**Figure 14. Educational attainment among adults aged 25 years and older, Syracuse, Onondaga County, and NYS**

	City of Syracuse	Onondaga County	New York State
High school graduate or higher	83.5%	91.2%	87.2%
Bachelor’s degree or higher	29.0%	36.1%	37.5%

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S1501 Onondaga County is inclusive of Syracuse.

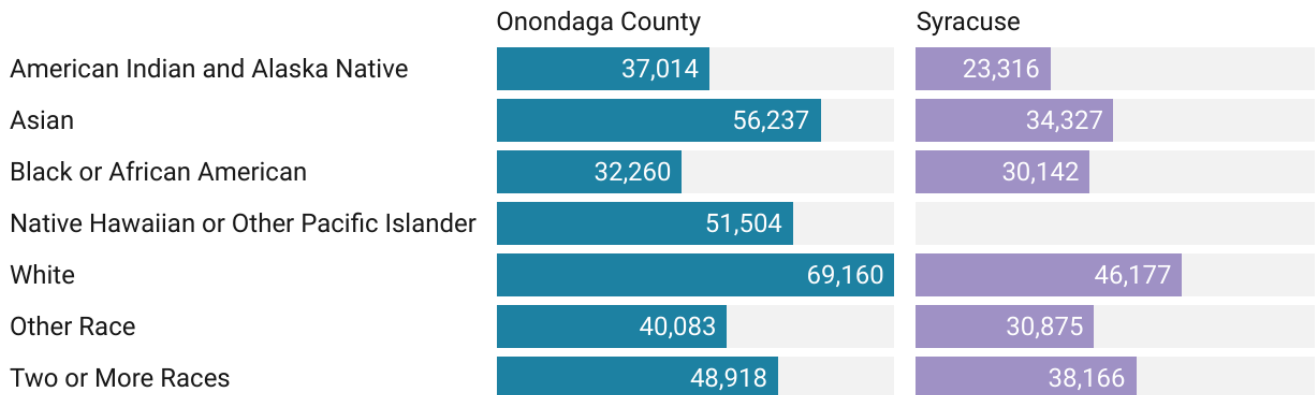
## Economic Stability

Economic factors play a significant role in influencing the health and well-being of a community. A significant number of health determinants, including access to safe and healthy housing, availability of fresh healthy foods, opportunities for physical activity, access to educational and employment opportunities, and exposure to crime or violence are impacted by economic opportunity and poverty. This section explores economic factors for residents of Onondaga County.

### Economic Opportunity and Poverty

Onondaga County has a median household income of \$62,668 annually.<sup>21</sup> This is considerably higher than Syracuse’s median household income of \$38,893. However, both are lower than the statewide median household income of \$71,117. The figure below provides a breakdown of median household income by race for both Onondaga County and Syracuse. As shown, there are significant disparities by race for both geographies.

**Figure 15. Median household income in U.S. dollars by race, Onondaga County and Syracuse**



Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table S1903. Notes: Data were not available for Native Hawaiian and Other Pacific Islander households in Syracuse due to small numbers. Onondaga County is inclusive of Syracuse.

Overall, 13.9% of Onondaga County’s residents live below the federal poverty level compared to 30.3% of Syracuse residents.<sup>22</sup> Poverty indicators for Syracuse, Onondaga County, and New York State are provided below in Figure 16. Across all three geographies, there are substantial differences in poverty rates by race. Additionally, the poverty rate among children in Syracuse is particularly notable, where 48.4% of those under age

<sup>21</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S1903.

<sup>22</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S1701.

18 live in poverty, compared to 21.2% of children countywide. Older adults (65 years and older) are more likely to experience poverty in Syracuse (14.1%) than in Onondaga County (8.2%).

**Figure 16. Poverty indicators, Syracuse, Onondaga County, and NYS**

	City of Syracuse	Onondaga County	New York State
Percent below the federal poverty level	30.3%	13.9%	13.6%
<i>American Indian or Alaska Native</i>	33.3%	26.3%	22.6%
<i>Asian</i>	27.1%	18.0%	14.4%
<i>Black or African American</i>	40.0%	37.6%	20.4%
<i>Native Hawaiian or Other Pacific Islander*</i>	100.0%	16.4%	23.8%
<i>White</i>	23.3%	9.5%	10.1%
<i>Other race</i>	38.2%	27.4%	23.4%
<i>Two or more races</i>	39.0%	25.0%	17.3%
Children (under 18 years of age) living in poverty	48.4%	21.2%	18.7%
Adults age 65+ years living in poverty	14.1%	8.2%	11.5%
Persons with a disability living in poverty	35.7%	21.3%	23.0%

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table S1701 and Table S1811. Notes: \*Due to small numbers (n=24), interpret the data for Native Hawaiian or Other Pacific Islander residents of Syracuse with caution. Onondaga County is inclusive of Syracuse.

In Onondaga County, many residents earn just above the federal poverty line but still less than what it costs for basic necessities to live and continue to struggle to afford the basics. This is referred to as ALICE (Asset Limited, Income Constrained, Employed), and within the county, 27% of households fall into this category.<sup>23</sup>

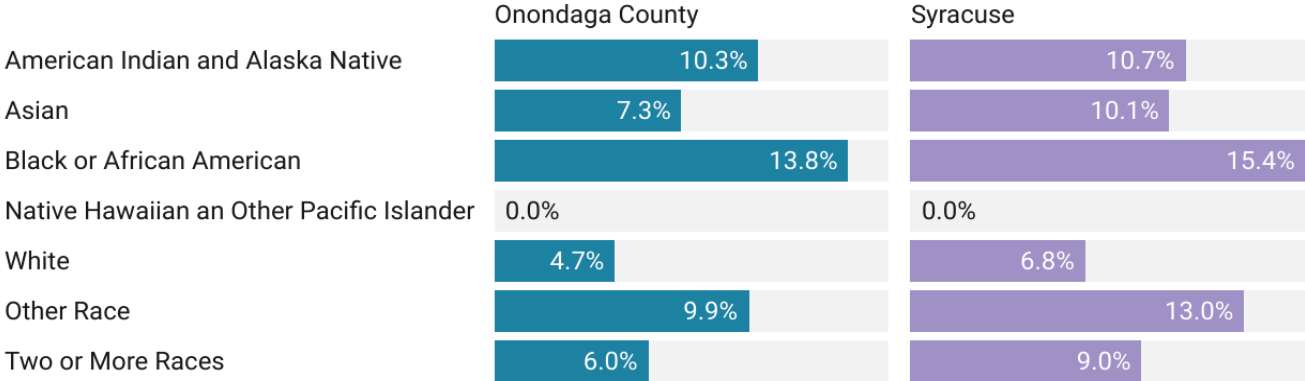
## Employment

Access to employment is an important factor that influences individuals’ economic opportunity and poverty. Unemployment may also lead to a decrease in access to employer-sponsored health insurance programs. The unemployment rate in both Onondaga County and NYS is 5.7%, compared to 9.6% in Syracuse.<sup>24</sup> Figure 17 displays disparities in unemployment rates by race within both Onondaga County and Syracuse. In both geographies, the highest unemployment rate is among Black or African American residents (Onondaga County: 13.8%, Syracuse: 15.4%).

<sup>23</sup> United Way. ALICE: A Study of Financial Hardship in New York, 2018. Retrieved 10/19/2022, from <https://www.unitedforalice.org/county-profiles/new-york>.

<sup>24</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S2301.

Figure 17. Unemployment rate, by race, Onondaga County and Syracuse



Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S2301. Note: Onondaga County is inclusive of Syracuse.

## Social and Community Context

Connections between individuals and within communities can have a significant impact on health and well-being. Positive relationships with others and strong community ties can help protect the mental, emotional, and physical health of individuals who are negatively impacted by life events. From mitigating the impacts of bullying, trauma, or discrimination, to increasing civic engagement, interventions to enhance social and community supports are essential to improving health.

Additionally, in today's world, staying connected often involves the use of technology, including broadband internet. Infrastructure improvements to increase access to broadband, as well as efforts to enhance computer skills and health literacy are critical to driving improvements in health and well-being.

This section explores the social and community context of Onondaga County residents including social support and connectivity, families and marital status, civic participation, the digital divide, discrimination, and trauma.

### Social Support and Connectedness

Relationships play an important role in supporting health and well-being. One benefit of strong community relationships is social capital. Social capital refers to shared community resources, such as learning about a job opportunity through the friend of a friend.<sup>25</sup> Sources of social capital can include faith-based communities, neighborhoods, and families. Another benefit of strong social relationships is social support. Having a family member or friend to rely on can provide numerous benefits including helping individuals cope with stress, serving as positive role models for healthy behaviors, and reducing barriers to accessing health care or economic opportunities (for example, by providing transportation).

Social isolation and loneliness are factors that can negatively influence health outcomes. These challenges can often disproportionately impact older adult populations. In Onondaga County, 32.6% of adults age 65 and older live alone.<sup>26</sup> This increases to 41.7% in Syracuse. During the COVID-19 pandemic, studies found that loneliness increased among the general adult population and that feelings of loneliness had a negative impact on mental health.<sup>27</sup> The impact of pandemic-related social isolation on language, development, and mental health in children is also being studied.

### Families and Marital Status

An individual's social support may be impacted by familial relationships and marital status, which may in turn influence their health and well-being. Onondaga County is comprised of 113,106 families, with 27,836 families in

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<sup>25</sup> Healthy People 2030: Social Cohesion. Retrieved 11/15/2022, [Social Cohesion - Healthy People 2030 | health.gov](#).

<sup>26</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table B09021.

<sup>27</sup> Pai N, Vella SL. COVID-19 and Loneliness: A rapid systematic review. *Aust N Z J Psychiatry*. 2021 Dec;55(12):1144-1156. doi: 10.1177/00048674211031489. Epub 2021 Jul 13. PMID: 34256632.

Syracuse.<sup>28</sup> The average family size in Onondaga County and Syracuse is similar, with an average of 2.99 and 3.08 people per family, respectively. Within the County, 18.5% of families have a male householder with no spouse or partner present compared to 30.1% which have female householders with no spouse or partner present.<sup>29</sup> In Syracuse, 27.2% of residents age 15 years old and older are married and 54.0% of residents have never been married. Conversely, there are more County residents who are married (45.1%) than who have never been married (36.3%). In both geographies, approximately 12% of the population is divorced or separated. In the County, 6.0% of residents have been widowed, compared to 5.3% of Syracuse residents.<sup>30</sup> Unmarried partner households make up 3.5% of households in the County and 4.1% in Syracuse. Among Onondaga County households with children, 28.5% are single-parent households with no spouse or partner present. In the City, 50.9% of households with children are single-parent households.<sup>31</sup>

## Civic Participation

Civic participation represents a wide variety of activities that benefit the community including voting in elections, volunteering, and participation in group activities.<sup>32</sup> In addition to supporting community development, civic participation can have many positive health benefits for those who engage in these activities. These include increased opportunities to meet new people or groups, an increased sense of purpose tied to meaningful civic activities, and opportunities for increased physical activity (such as community gardening). The NYS Prevention Agenda provides a *Community Score* for Onondaga County. Combining data from several sources, the community score index assesses volunteering, voter registration, youth disconnection, violent crime, accessing to primary health care, access to healthy food, and incarceration. In 2019, the *Community Score* for Onondaga County was 54.9; slightly lower than the score for NYS as a whole (58.4). Though the *Community Score* has improved over time, Onondaga still falls short of the Prevention Agenda goal of 61.3.<sup>33</sup>

## Digital Divide

Communities are increasingly relying on electronic methods for staying connected and sharing important information. Despite infrastructure improvements, not all populations have equal access to the required technology, including broadband internet. The map below displays the percent of households with connections to high speed broadband internet (cable, fiber optic, DSL) by census tract in Syracuse. As shown in the map, areas closer to the center of the city have lower percentages of households with broadband access compared to census tracts among the edge of the city.

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<sup>28</sup>U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S1101.

<sup>29</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table DP02.

<sup>30</sup>U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S1201.

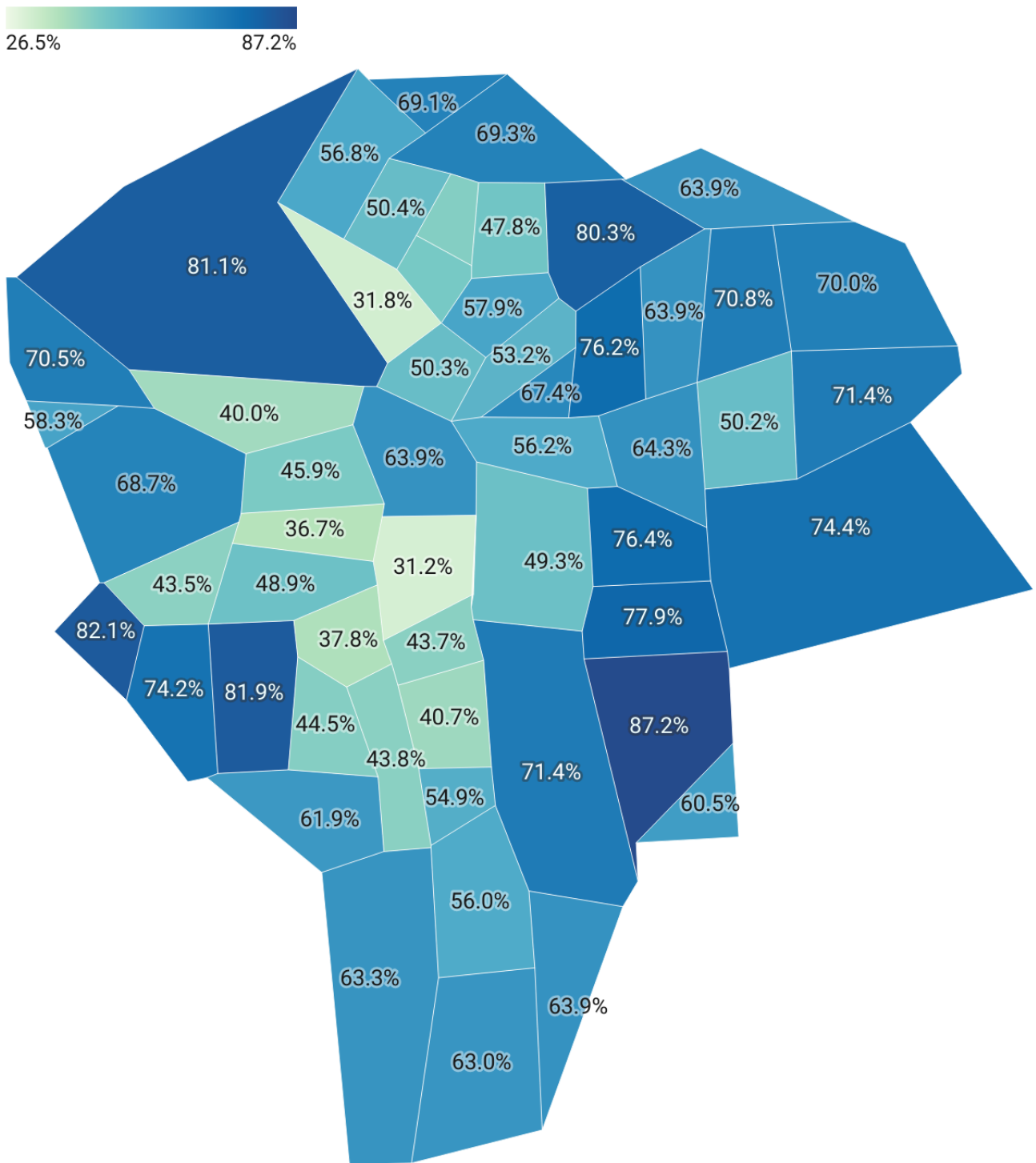
<sup>31</sup>U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table B09005.

<sup>32</sup> Healthy People 2030: Civic Participation. Retrieved 11/15/2022, from: [Civic Participation - Healthy People 2030 | health.gov](#).

<sup>33</sup>Various sources. Retrieved 11/16/2022 from [NYS Prevention Agenda Dashboard](#).



Figure 18. Households with high speed broadband internet connection by census tract, Syracuse, 2020



Source: City Health Dashboard, 2020. Retrieved 12/20/2022, from <https://www.cityhealthdashboard.com/ny/syracuse/metric-detail?metric=1511&dataRange=city&metricYearRange=2020%2C+5+Year+Estimate>. Note: Displays percentage of households with connection to high speed broadband internet (cable, fiber optic, DSL). Census tracts use 2020 boundaries.

During the COVID-19 pandemic, the use of telehealth appointments allowed for the continuation of some healthcare services while maintaining social distancing guidelines. Telehealth visits can also help eliminate barriers to accessing healthcare, such as transportation or childcare. However, differential access to broadband may further perpetuate health inequities for those who are unable to access broadband or do not have adequate technology at home.<sup>34</sup> In addition to improving access to healthcare, broadband internet can help individuals connect with others, learn about events happening in their area, obtain information about topics of interest, and access needed community-based services. Currently, efforts are underway at the state and local levels to decrease the digital divide in Onondaga County, including the Broadband-Digital Divide project, aiming to provide affordable and high quality broadband to all county residents.<sup>35</sup> To maximize impact, these infrastructure enhancements must be accompanied by education and training on computer literacy, to ensure all residents can take advantage of these tools to improve health and well-being.

## Discrimination and Racism

Discrimination is a “socially structured action that is unfair or unjustified and harms individuals and groups.”<sup>36</sup> Discrimination often occurs when powerful or privileged groups act to protect themselves at the detriment of other groups. Discrimination can be experienced as both structural discrimination and individual level discrimination. Structural discrimination, which may also be referred to as systemic or institutionalized discrimination occurs when institutional practices or policies limit “opportunities, resources, and the well-being of less privileged groups.”<sup>36</sup> Discrimination at an individual level includes negative interactions between individuals on the basis of individual characteristics.

Discrimination can impact many different population groups, including but not limited to, “racial and ethnic groups, women, lesbian, gay, bisexual, transgender, and queer (LGBTQ+) individuals, people with disabilities, and older adults.” In the United States, 63% of adults report experiencing discrimination on a daily basis.<sup>36</sup>

Experiencing discrimination can negatively impact an individual’s physical and mental health. Discrimination has been associated with increases in unhealthy behaviors and decreases in health promoting behaviors, including chronic disease management, cancer screening, and condom use. Additionally, discrimination has been directly linked with poor health outcomes including infant mortality, low birth weight and high blood pressure.<sup>36</sup> Individuals experiencing discrimination may develop both acute and chronic stress.<sup>37</sup> Chronic stress occurs not only because of the specific instance of discrimination experienced but also by being on constant alert to guard oneself for possible future encounters with discrimination.<sup>38</sup>

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<sup>34</sup>Saeed SA, Masters RM. Disparities in Health Care and the Digital Divide. *Curr Psychiatry Rep*. 2021 Jul 23;23(9):61. doi: 10.1007/s11920-021-01274-4. PMID: 34297202; PMCID: PMC8300069. Retrieved 11/8/2022.

<sup>35</sup>Onondaga County Recovery Plan, 2021. Retrieved 11/9/2022, from [Recovery Plan Projects](#).

<sup>36</sup> Healthy People 2030: Discrimination. Retrieved 11/15/2022, from [Discrimination - Healthy People 2030 | health.gov](#).

<sup>37</sup> Williams DR. Stress and the Mental Health of Populations of Color: Advancing Our Understanding of Race-related Stressors. *J Health Soc Behav*. 2018 Dec;59(4):466-485. doi: 10.1177/0022146518814251. Retrieved 11/7/2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6532404/>.

<sup>38</sup> Dreyer BP. The Toll of Racism on African American Mothers and Their Infants. *JAMA Netw Open*. 2021;4(12):e2138828. doi:10.1001/jamanetworkopen.2021.38828. Retrieved 11/7/2022, from <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2786943>.

Discrimination can also impact the quality of patient care or a patient's healthcare experience. The 2022 Onondaga County Community Health Survey (described in the Community Engagement section pages 109-110), which reached more than 3,600 Onondaga County residents, found that 10.5% of survey respondents experienced stigma, discrimination, or feeling judged by their medical provider in the last 3 years.<sup>39</sup> When broken down by race and ethnicity of respondents, 19.3% of non-Hispanic Black or African American respondents and 14.4% of Hispanic respondents (of any race) indicated experiencing stigma, discrimination, or feeling judged by their medical provider.

**Racism** (discrimination on the basis of race), **has been recognized as a public health crisis.**<sup>40</sup> Like other types of discrimination, racism encompasses both structural and individual aspects, and occurs when individuals are assigned value and access to opportunity on the basis of the color of their skin. Centuries of racism in the United States have negatively impacted communities of color, affecting all aspects of life including where one lives, learns, works, worships, and plays.<sup>41</sup> Social, economic, and health inequities resulting from racism include, but are not limited to, opportunities for housing, education, wealth, employment, and access to healthcare services. Racism, along with other types of discrimination, ultimately prevents those impacted from achieving their highest level of health and in turn negatively impacts the health of our entire community.<sup>42</sup>

## Trauma

Trauma and adverse childhood experiences (ACEs) can have a significant impact on health and mental health outcomes. ACEs are defined as "potentially traumatic events that occur in childhood [and] can include violence, abuse, and growing up in a family with mental health or substance use problems."<sup>43</sup> The stress resulting from these experiences can change brain development and affect how the body responds to future stress. The health issues in adults that are associated with ACEs include alcohol and substance use disorders, depression, suicide attempts, teen pregnancy, smoking, heart disease, liver disease, and early death.<sup>44</sup> Baseline data from the NYSDOH show that 38.1% of Onondaga County adults report experiencing two or more ACEs, which is higher than the statewide average of 35.6%.<sup>45</sup> According to an article from the CDC, females and people of color are at greater risk for experiencing 4 or more ACEs.<sup>43</sup> The same report found that eliminating ACEs could result in a 44% reduction in depressive disorders, a 33% reduction in current smoking behavior, and a 15% reduction in unemployment.

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<sup>39</sup> Onondaga County Health Department, Onondaga County Community Health Survey, 2022.

<sup>40</sup> County Health Rankings and Roadmaps: Declaring Racism as a Public Health Crisis. Retrieved 12/19/2022, from <https://www.countyhealthrankings.org/online-and-on-air/webinars/declaring-racism-as-a-public-health-crisis>.

<sup>41</sup> CDC, Racism and Health, 2021. Retrieved 11/7/2022, from <https://www.cdc.gov/minorityhealth/racism-disparities/index.html>.

<sup>42</sup> County Health Rankings and Roadmaps: Declaring Racism as a Public Health Crisis, Part 1 of Advancing Racial Equity Webinar Series, 5/18/2021. Retrieved 12/19/2022, from [https://www.countyhealthrankings.org/sites/default/files/media/document/Declaring%20Racism%20as%20a%20Public%20Health%20Crisis\\_Final.pdf](https://www.countyhealthrankings.org/sites/default/files/media/document/Declaring%20Racism%20as%20a%20Public%20Health%20Crisis_Final.pdf).

<sup>43</sup> CDC Vital Signs, November 2019. Retrieved 11/18/2022, from <https://www.cdc.gov/vitalsigns/aces/>.

<sup>44</sup> Compton, M. T., Adverse Childhood Experiences in the Context of the Social Determinants of Health. New York State Office of Mental Health. Presentation, 5/16/2018.

<sup>45</sup> NYS Expanded BRFSS, 2016. Retrieved 11/16/2022, from [NYS Prevention Agenda Dashboard](#).

Evidence has shown that the effects of trauma can be lessened with strong social, economic, and community supports. The CDC lists a number of strategies that can mitigate the impact of ACEs, or prevent ACEs altogether. These include: strengthening economic support to families, supporting parents with positive parenting, providing quality child care and early education, and treating to prevent problem behavior and violence.

## Neighborhood and Built Environment

Our health is impacted by the environments in which we live, learn, work, and play. Access to safe spaces to be active, our ability to get to and from medical appointments, access to food, and housing conditions are all impacted by our surroundings such as the built environment (sidewalks, roads, bike lanes, etc.) and natural environment (parks, green space, water, etc.). Many neighborhood level and built environment factors that impact the health of Onondaga County residents are covered in this section.

### Built Environment

When health is considered in the development and design of community spaces, the built environment has an incredible potential to positively impact the health of residents. A few examples include safe spaces for physical activity and recreation, neighborhoods that are both pedestrian and bicycle friendly, and safe routes for children to get to and from school. Consideration of the needs of diverse and aging populations is also critical for the development of safe and healthy communities.

**Smart growth** is an approach to community planning and design that considers the impact the built environment has on a community's health, well-being, and prosperity.<sup>46</sup> Smart growth principles provide guidelines for the development of safe, accessible, and diverse communities designed to support healthy living.

A list of the 10 smart growth principals is provided to the right. Additional resources related to smart growth can be found at: <http://www.smartgrowthamerica.org>.

### Smart Growth Principles

1. Mix land uses
2. Take advantage of compact design
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

*Source: Smart Growth Online. Retrieved 12/29/2022, from <https://smartgrowth.org/smart-growth-principles/>*

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<sup>46</sup> Smart Growth America: What is Smart Growth. Retrieved 11/18/2022, from <https://smartgrowthamerica.org/what-is-smart-growth/>

## Housing

Access to stable, affordable, and safe housing can play an important role in facilitating good health. Among Onondaga County residents, 14.1% report residing in a different residence one year ago, compared to 10.5% of NYS residents.<sup>47</sup> There are many reasons that individuals may change residences, including relocating for job opportunities, changes in relationships or social networks, or changes in financial circumstance. While not all of these changes reflect housing instability, it is important to recognize that changing residence locations may impact social support and access to services. Additionally, homelessness remains a persistent challenge in our region. In 2021, 469 individuals were documented as experiencing homelessness within the counties of Onondaga, Oswego, and Cayuga.<sup>48</sup>

In 2021, the estimated median home value in Onondaga County was \$169,800.<sup>49</sup> Comparatively, the median value in Syracuse for the same timeframe was \$123,000. Home values in Onondaga County and Syracuse have increased in recent years in alignment with national trends making purchasing a home more difficult or unattainable for many County residents. Although, homes in Onondaga County are relatively affordable compared to other regions in the United States, only 65.1% of county properties are owner-occupied.<sup>50</sup> This rate is much lower in Syracuse where 39.2% are owner-occupied. Additionally, nearly half of county residents who live in rental units spend more than 30% of their income on rent.

**Figure 19. Housing indicators, Syracuse, Onondaga County, and NYS**

	City of Syracuse	Onondaga County	New York State
% of properties that are owner occupied	39.2	65.1	54.1
% of properties that are renter occupied	60.8	34.9	45.9
% of renters spending 30% or more of household income on rent	54.0	48.4	51.5
% of occupied housing units built in 1939 or earlier	43.2	23.2	31.7
% of occupied housing units built in 1979 or earlier	89.4	73.4	76.7

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table DP04. Onondaga County data are inclusive of Syracuse.

Across the county, the age and condition of housing stock varies. In Syracuse, 89.4% of the housing stock was built in 1979 or earlier.<sup>51</sup> Older homes are more likely to contain environmental hazards, such as lead paint. Additionally, in areas of high concentrations of rental properties, older homes may not be maintained to healthy standards. Inadequately maintained homes may be at increased risk for mold, pest infestations, and fire hazards. Although, most of the recent new home construction has occurred in the suburban areas, there has

<sup>47</sup> New York State Department of Health, Community Health Indicator Reports, Onondaga County. Retrieved 12/7/2022.

<sup>48</sup> Housing and Homeless Coalition of Central New York, Point in Time Count Reports, 2021. Retrieved 10/24/2022, from <https://www.hhccny.org/stats-resources/point-in-time-report-pit/>

<sup>49</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table CP04.

<sup>50</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table DP04.

<sup>51</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table DP04.

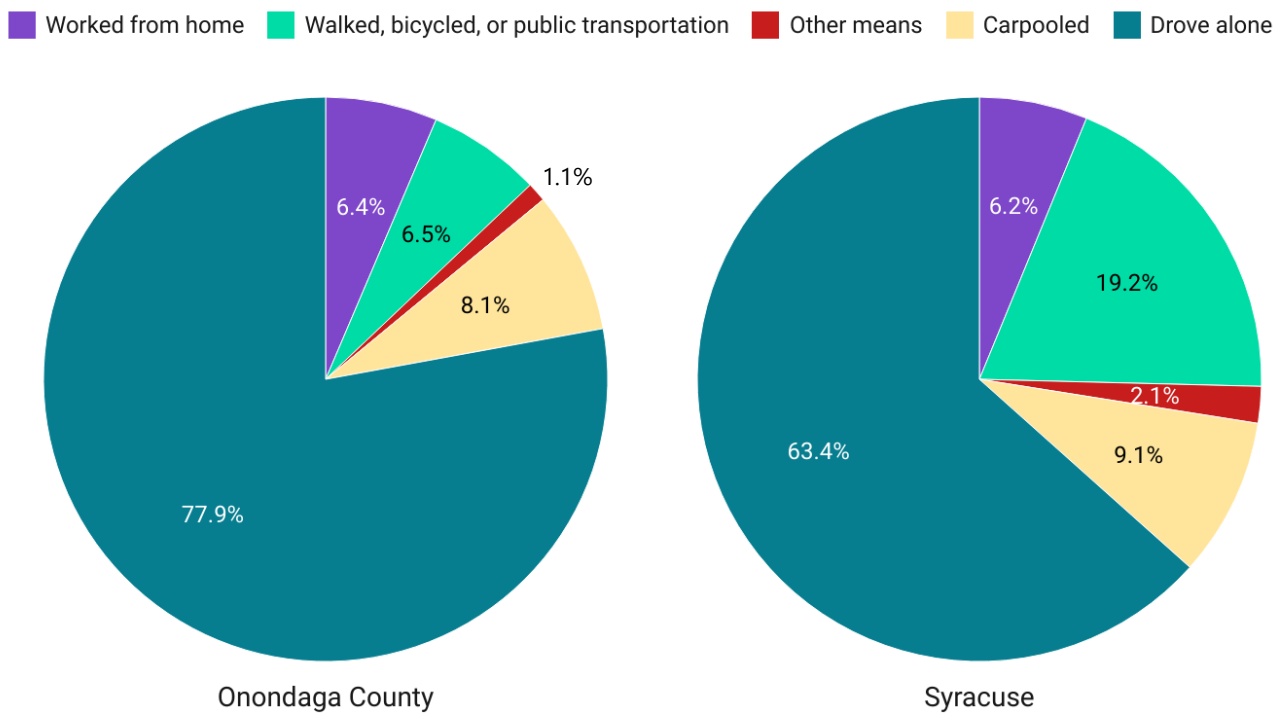
been a recent revitalization effort which has led to an increase in apartments and condominiums in downtown neighborhoods.

### Transportation

There are many ways in which health is impacted by transportation. Inadequate transportation resources may result in poor access to healthcare and basic needs, while also limiting opportunities employment, social connection, and physical activity. While transportation access is beneficial for health and well-being, an overreliance on personal vehicles can have an impact our natural environment through carbon emissions. Active transportation (such as biking and walking) provides opportunities for physical activity however, there must be adequate infrastructure to keep bicyclists and pedestrians safe.

Onondaga County is highly vehicle dependent with 77.9% of workers (age 16 years and older) commuting alone to work each day (Figure 20).<sup>52</sup> Public transportation, walking, and biking are only utilized by 6.5% of county residents for commuting to work. However, this rate is higher (19.2%) among city residents.

**Figure 20. Means of transportation to work, Onondaga County and Syracuse**



Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table B08301. Note, Onondaga County is inclusive of Syracuse.

<sup>52</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table B08301.

While many people rely on cars as their main mode of transportation, not having access to a car in Onondaga County can make transportation challenging. In Syracuse, 27.3% of households do not have a vehicle available at home.<sup>53</sup> Among County residents, this rate is 12.1%. Unfortunately, there are many areas of the city and county that make navigating without a car difficult. However, in recent years, the NYS, the City of Syracuse, and several local municipalities have worked to increase the availability of safe and accessible bike lanes and streets, making active transportation safer.

Interstate 81 is one of Onondaga County's major highways and currently runs through the center of Syracuse dividing the University area from the rest of the city. The highway has been associated with structural separation of highly concentrated poverty in Syracuse, and in particular, predominantly African American neighborhoods.<sup>54</sup> In early 2022, NYS officials announced a \$2.25 billion project to replace the current highway with an integrated community grid to promote equity, connectivity, and transportation opportunities. The project will also reconstruct portions of Interstates 481 and 690 to address traffic going around and through Syracuse.<sup>55</sup>

## Food Access

Access to healthy, fresh, and affordable food is important for maintaining healthy lifestyles. Additionally, food production, processing, distribution, and waste management have significant impacts on a community's environment, economy, and health.<sup>56</sup> Income, transportation, and geographic location are several factors that currently affect food access in Onondaga County.

Overall, 11.1% of Onondaga County residents experience food insecurity compared to 10.7% of NYS residents.<sup>57</sup> The Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides food access to income eligible program participants. Within Onondaga County, 13.7% of households participate in SNAP.<sup>58</sup> In Syracuse, 28.7% of households receive SNAP benefits. The Onondaga County WIC program has an average monthly caseload of approximately 8,300 clients and has continued to enroll and serve participants throughout the COVID-19 pandemic. Additionally, free and reduced price lunches are offered in all of Onondaga County's school districts to eligible students.

## Crime and Violence

The health of a community can be significantly impacted by crime and violence. Not only does violent crime cause injury and death, but exposure to violence can cause toxic stress which has been linked to many adverse

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<sup>53</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S2504.

<sup>54</sup> Semuels, A. "How to Decimate a City". The Atlantic. Nov 2015. Retrieved 10/24/2022, from <https://www.theatlantic.com/business/archive/2015/11/syracuse-slums/416892/>.

<sup>55</sup> New York State, ny.gov, 2022. Retrieved 10/24/2022, from, <https://www.governor.ny.gov/news/governor-hochul-and-senator-schumer-announce-major-milestone-225-billion-i-81-viaduct-project>.

<sup>56</sup> [Community Food Systems Planning](#). Retrieved 12/7/2022.

<sup>57</sup> NYS Community Health Indicator Reports, 2019. Retrieved 10/21/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>58</sup> U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates, Table S2201.

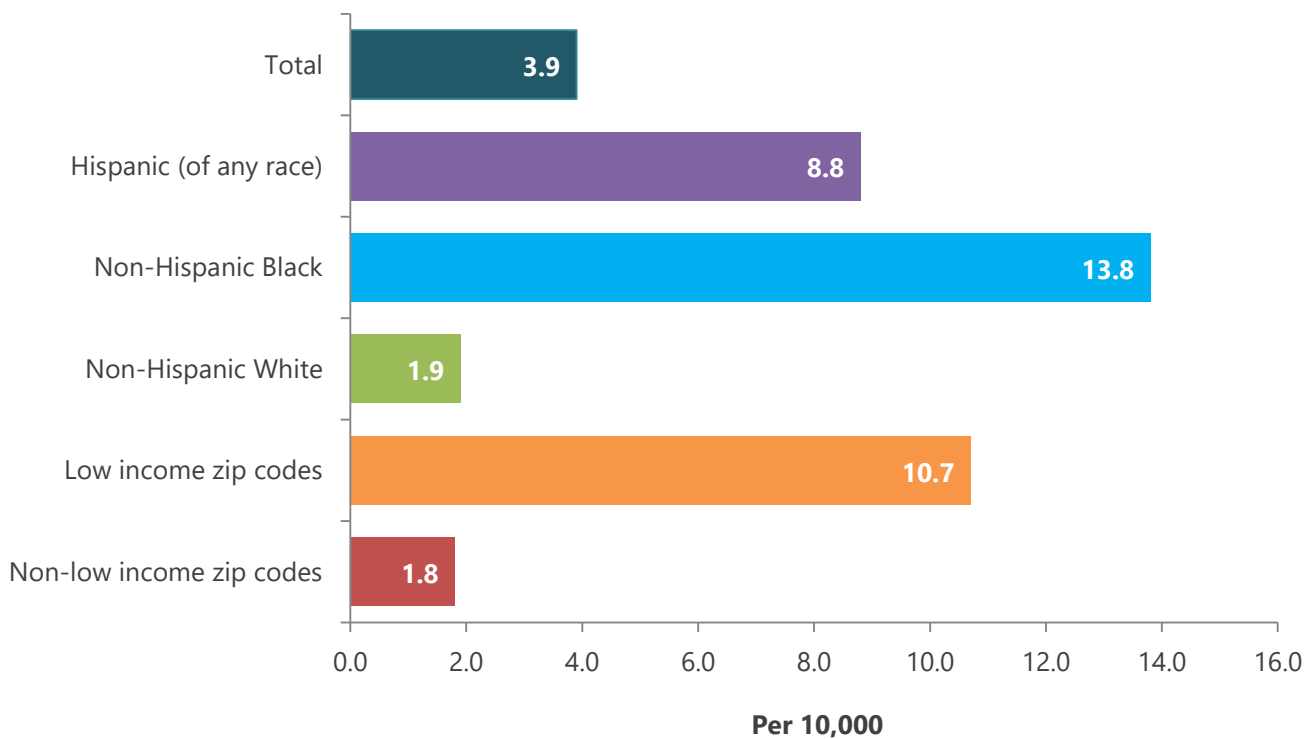


health outcomes.<sup>59</sup> Furthermore, residents may also be less likely to engage in outdoor physical activity in areas with high levels of crime and violence. Crime and violence can also lead to financial divestment from communities, which may contribute to decreased property values and increases in poverty.

Understanding the root causes of violence is important for prevention efforts. The CDC has identified “systemic racism, bias, and discrimination; economic instability; concentrated poverty; and limited housing, education, and healthcare access” as factors that may contribute to the incidence of violence.<sup>60</sup> Some communities are more likely to experience violence; including “communities of color [who] often disproportionately experience these negative conditions, placing residents at greater risk for poor health outcomes.”<sup>59</sup>

Figure 21 displays disparities in the county’s assault-related hospitalization rates by race and ethnicity, as well as income. The overall county rate (3.9 per 10,000) is higher than the rate for NYS excluding NYC (2.2 per 10,000).<sup>61</sup> The rates among Hispanic residents and non-Hispanic Black residents are also considerably higher than the rate for non-Hispanic White residents. Furthermore, residents of low-income zip codes are nearly ten times more likely to experience an assault related hospitalization than residents of non-low-income zip codes.

**Figure 21. Assault-related hospitalization rate, by race and ethnicity and income, Onondaga County, 2019**



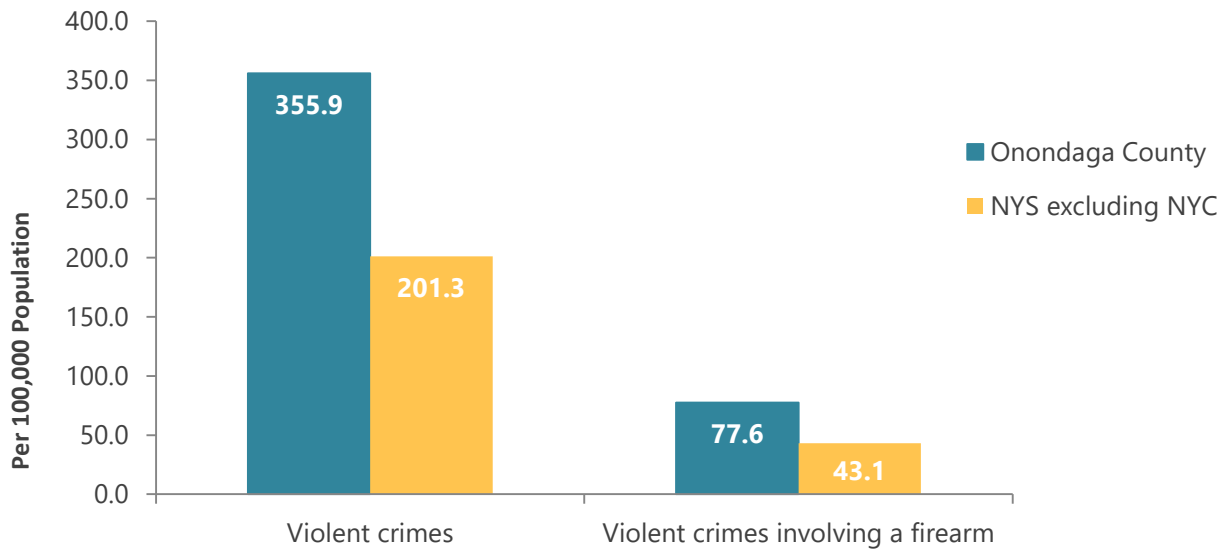
Source: NYS Prevention Agenda Dashboard. Retrieved 12/20/2022.

<sup>59</sup>Felitti, Vincent J et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *Am. Journal of Prev. Med.* 14:4, 245-58.

<sup>60</sup> CDC, Community Violence Prevention. Retrieved 12/7/2022, from <https://www.cdc.gov/violenceprevention/communityviolence/index.html>.

<sup>61</sup> NYS Prevention Agenda Dashboard. Retrieved 10/21/2022.

**Figure 22. Violent crimes and firearm related violent crimes per 100,000 population, Onondaga County and NYS excluding New York City (NYC), 2021**



Source: NYS Division of Criminal Justice Services; Uniform Crime Reporting System, 2021. Retrieved 10/21/2022 from <https://www.criminaljustice.ny.gov/crimnet/ojsa/countycrimestats.htm>

Overall Onondaga County fares worse than NYS excluding NYC for several indicators of violent crimes. Violent crimes include murder, rape, robbery, and aggravated assault.<sup>62</sup> The violent crime rate in Onondaga County (355.9 per 100,000) is substantially higher than the rate for NYS excluding NYC (201.3 per 100,000).<sup>63</sup> In Onondaga County, the rate of violent crimes involving a firearm is also higher than in NYS excluding NYC (Figure 22). Onondaga County ranks fourth for violent crimes and fifth for firearm related violent crimes among New York State counties excluding those in NYC.

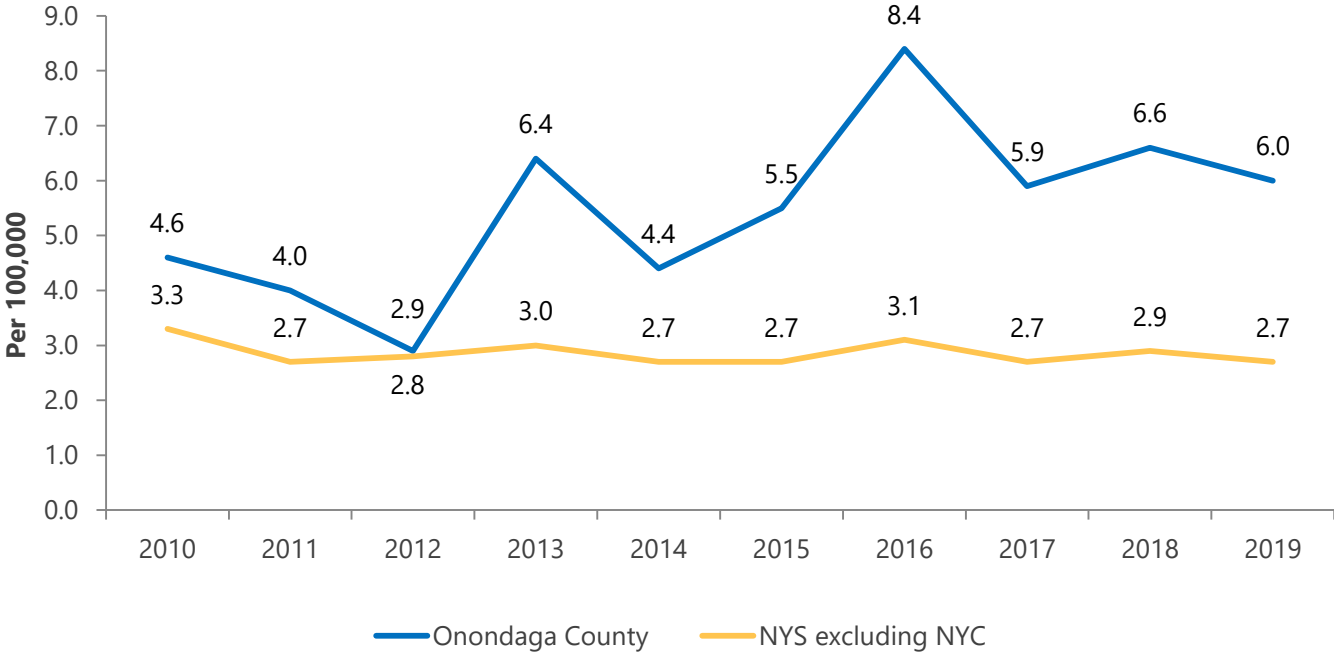
Additionally, homicide rates in Onondaga County have consistently exceeded the rates for NYS excluding NYC. The age-adjusted homicide mortality rates per 100,000 population for Onondaga County and NYS excluding NYC from 2010 to 2019 are displayed in Figure 23. While the rate for NY excluding NYC has remained fairly constant over the last decade, Onondaga County’s rate has increased with certain years (i.e. 2013 and 2016) experiencing particularly high rates. Onondaga County currently has the second highest homicide mortality rate in NYS with Erie County having the highest rate.<sup>64</sup>

<sup>62</sup> NYS Division of Criminal Justice Services; Uniform Crime Reporting System. Retrieved 10/21/2022, from <https://www.criminaljustice.ny.gov/crimnet/ojsa/stats.htm>.

<sup>63</sup> NYS Division of Criminal Justice Services; Uniform Crime Reporting System, 2021. Retrieved 10/21/2022, from <https://www.criminaljustice.ny.gov/crimnet/ojsa/countycrimestats.htm>.

<sup>64</sup> NYS Community Health Indicator Reports, 2019. Retrieved 12/20/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

Figure 23. Age-adjusted homicide mortality rate per 100,000 population, Onondaga County and NYS excluding NYC, 2010-2019



Source: NYS Community Health Indicator Reports, 2019. Retrieved 12/20/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

## Healthcare Access and Quality

Access to healthcare services is essential for promoting and maintaining good health as well as preventing or managing disease. Various factors may impact access to care including **health insurance status, having a primary care provider or medical home, cost of health care services, transportation, and language barriers.** Prior experiences with the healthcare system can also impact whether individuals are likely to seek care.

In Onondaga County, 84.7% of adults report having a regular health care provider; this is higher than the rate for NYS excluding NYC (82.0%). Additionally, within the last year, 82.6% of Onondaga County adults between 18 and 64 years old saw a doctor for a routine checkup, and 76.0% of adults reported having a dentist visit within the past year.<sup>65</sup>

### Health Insurance

Within Onondaga County, 98.1% of children have health insurance coverage. As shown in Figure 24, 95.0% of individuals age 19 to 64 years and 99.8% of individuals age 65 and older have health insurance. In Syracuse, 98.4% of children have health insurance, and 93.3% of adults age 19 to 64 years have insurance. Overall, health insurance coverage rates have improved from the rates reported in the 2013-2017 American Community Survey.

More than 20% of county residents and more than a third of city residents have Medicaid or other means tested public insurance coverage. This may impact access to care as the number of providers who accept Medicaid is limited. As shown in Figure 25, it is evident that racial disparities in insurance coverage persist in Onondaga County and Syracuse.

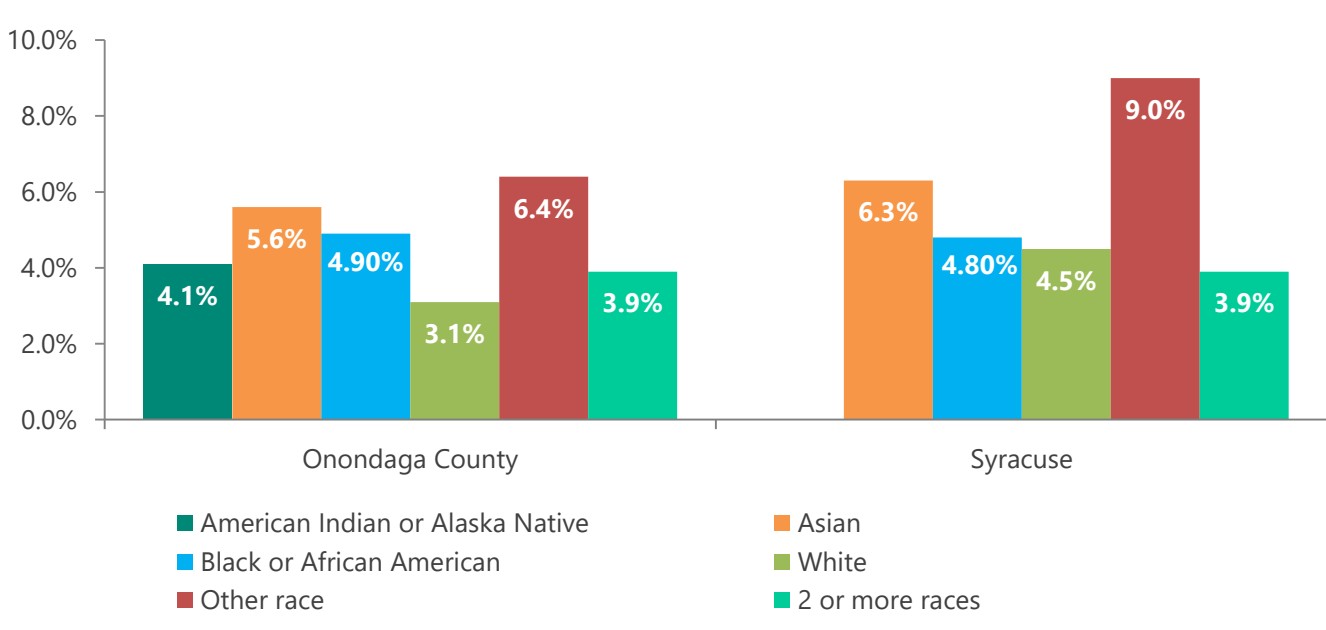
**Figure 24. Health insurance status, Syracuse, Onondaga County, and NYS**

	City of Syracuse	Onondaga County	New York State
% of children with health insurance (under 19 years)	98.4	98.1	97.5
% of adults with health insurance – Aged 19-64 years	93.3	95.0	92.4
% of adults with health insurance – Aged 65+ years	99.2	99.8	99.2
% of population with Medicaid/means tested public insurance coverage	38.0	22.3	25.7

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Tables S2701 and S2704. Note: Onondaga County data are inclusive of Syracuse.

<sup>65</sup> NYS Expanded BRFSS, 2018. Retrieved 10/13/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>

**Figure 25. Percent of population without health insurance, by race, Onondaga County and Syracuse**



Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table S2701. Data for American Indian or Alaska Native are not available for Syracuse due to small numbers. Onondaga County is inclusive of Syracuse.

### Experiences Seeking Medical Care

The Onondaga County Community Health Survey (described in the Community Engagement section (pages 109 and 110) collected feedback from Onondaga County residents about experiences seeking medical care during the last 3 years. The five most commonly cited experiences seeking medical care are provided in Figure 26.

**Figure 26. Five most common experiences seeking medical care, Onondaga County, 2022**

	Onondaga County
Long wait to get an appointment	49.4%
Difficulty getting to a medical appointment due to office hours	30.0%
Wait time in the healthcare provider's office impacted your ability to meet your obligations	26.7%
Feeling like your healthcare provider is not listening	24.2%
Feeling like your healthcare provider is not spending enough time with you	23.4%

Source: Onondaga County Health Department, Onondaga County Community Health Survey, 2022.

## Commercial Determinants of Health

Commercial determinants of health (CDoH) are increasingly recognized for the impact they have on health and equity within communities. These corporate activities, which can involve labor conditions, product design and packaging, targeted marketing, research funding and lobbying, can contribute to poor health outcomes such as obesity, diabetes, cancer, injuries, and poor mental health.<sup>66</sup> Additional study is needed to fully understand how these factors work together to influence health, and how to identify and implement appropriate public health interventions.

The social determinants of health discussed above are shaped by external forces including politics, economics, and social policies. In addition, commercial factors associated with for-profit entities are increasingly recognized for their potential impact on behaviors and health. Commercial determinants of health (CDoH) are “the conditions, actions and omissions by corporate actors that affect health”.<sup>66</sup> CDoH can also be thought of as the “practices or conduct of commercial (...) and allied actors (...) that seek to generate profits and other financial benefits that have relevance to health risks.”<sup>67</sup> While some commercial determinants can benefit health, the greater concern is around commercial determinants that harm health, and disproportionately impact vulnerable populations. CDoH have often been thought of through the “unhealthy commodity industries”<sup>67</sup> of tobacco, alcohol, and highly processed foods and beverages. The way these products are produced, packaged, and marketed to consumers has a well-documented negative impact on health. However, more recent work has broadened the scope to consider the impact of other industries such as motor vehicles, pharmaceuticals, and gambling. Study of this topic has expanded to include the more indirect ways that corporate entities exert influence within communities.

Full understanding of how CDoH impact health outcomes requires a complex systems approach. Creating an accepted framework within which CDoH are identified and measured in public health practice is a necessary step toward mitigating the negative effects on a community’s health. Research into this topic continues to evolve, and will inform future public health actions.

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<sup>66</sup>World Health Organization. Retrieved 11/17/2022, from [Commercial determinants of health \(who.int\)](https://www.who.int).

<sup>67</sup> Lee K, Freudenberg N, Zenone M, Smith J, Mialon M, Marten R, Lima JM, Friel S, Klein DE, Crosbie E, Buse K. [Measuring the Commercial Determinants of Health and Disease: A Proposed Framework](#). *Int J Health Serv*. 2022 Jan;52(1):115-128. doi: 10.1177/00207314211044992. Epub 2021 Nov 1. PMID: 34723675; PMCID: PMC8592108.

## Policy Factors

Policies can have a significant impact on health and well-being by shaping the ways individuals interact with their environment and each other. Additionally, policy development and implementation are important tools for supporting **sustainable change**. As policies are developed, it is important to consider their potential impact on health as well as social justice and equity. A **Health Across All Policies** approach (described on page 7) to policy development ensures that potential health impacts are considered when policies are adopted or modified. This can be achieved by incorporating the public health sector into policy decision making. The sections below illustrate some current challenges and successes related to the local policy environment while also highlighting the need to continue striving to implement policies that support health and promote social justice for all residents.

### Land Use, Zoning, and Transportation

Land use planning and zoning laws directly impact how the environments in which we live, learn, work, and play are developed and modified. Considerations for green space, community centered design, and accessibility directly impact how residents use spaces in their community. Well-designed spaces can be created to promote active living, ensure safety, and cultivate social interaction and diversity.

The City of Syracuse Planning Division, along with input from many local stakeholders, recently completed a comprehensive update to the City's zoning ordinance and map, which will allow for full implementation of the Syracuse Land Use and Development Plan 2040. These efforts, referred to as ReZone Syracuse, seek to improve walkability, promote environmentally sustainable land use patterns, and develop a sense of place in Syracuse's neighborhoods.<sup>68</sup> These proposed changes have the potential to positively impact the community's health.

Interstate 81 currently runs through the center of Syracuse and has often been cited as a contributing factor to highly concentrated poverty, particularly in predominantly African American neighborhoods in the city. A portion of the highway that runs through Syracuse is reaching the end of its usable life and does not meet current highway standards. After years of public discussion and debate, in early 2022 New York State officials announced that the elevated highway will be replaced with a Community Grid Alternative. The grid will reconnect previously divided city neighborhoods, while reducing traffic flow and enhancing opportunities for bike and pedestrian infrastructure. The approved project has a requirement to hire a percentage of the needed workforce directly from the community, which can lead to improved economic security for Syracuse families. The impacted area is adjacent to the Syracuse Housing Authority public housing campus, which is also in the planning and design phase of an ambitious neighborhood transformation plan that includes improvements to housing unit and investments in child care, parks, transportation, and food access. Together, these two large-scale infrastructure projects have the potential to transform a historically underserved area in the City of Syracuse.

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<sup>68</sup> ReZone Syracuse. Retrieved 11/12/2022, from <http://www.syr.gov.net/rezonesyracuse.aspx>.

Complete Streets is a transportation approach that ensures that streets are designed and maintained to enable safe transportation for individuals of all ages and abilities regardless of mode of transportation.<sup>69</sup> This approach incorporates the adoption of sidewalks, bicycle lanes, bus lanes, crosswalks, improved signage, and other design elements that reduce motor vehicle collisions and risks to pedestrians and bicyclists. By enhancing the safety of all individuals using the roadways, this approach supports active transportation and increased physical activity. Many local municipalities across the United States, including several in Onondaga County have adopted complete streets policies to ensure these approaches are incorporated in to transportation planning. This includes the City of Syracuse which has incorporated Complete Streets into the City's Comprehensive Plan.<sup>70</sup> The New York State Department of Transportation also requires that state, county, and local agencies adopt a Complete Streets approach when receiving state and federal funding for transportation projects.<sup>71</sup>

## Food Policy

Access to food is an important determinant of health, and food related policies can have a large impact on the ability of a population to achieve proper nutrition. Established in 2019, the Syracuse-Onondaga Food Systems Alliance (SOFSA) is a food policy council comprised of various agencies and individuals. SOFSA works to connect stakeholders to ensure access to a healthy, just, resilient, and sustainable local food system, with a focus on reducing economic disparities and addressing racial and social inequities. A foundational component in developing SOFSA was FoodPlanCNY, a joint project from Syracuse University and the State University of New York (SUNY) College of Environmental Science and Forestry (ESF) that took the first steps to examine the existing food system and identify opportunities for improvement.

## Tobacco Control Policy

Policies to control tobacco use have proven to be effective in reducing smoking, encouraging some smokers to quit, and discouraging initiation of smoking by children.<sup>72</sup>

A number of recent policy changes have strengthened tobacco control in New York State and Onondaga County, including:

- Tobacco 21- Increased the legal age to purchase tobacco products to 21 years (2019)
- End sales of tobacco and vaping products in pharmacies (2020)
- Ban on sales of flavored vapor products (2020)
- Prohibit smoking in all state-owned parks and beaches (2022)

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<sup>69</sup> U.S. Department of Transportation. Retrieved 11/12/2022, from <https://www.transportation.gov/mission/health/complete-streets>.

<sup>70</sup> City of Syracuse Comprehensive Plan 2040. Retrieved 11/12/2022, from <http://www.syr.gov.net/uploadedFiles/Comp%20Plan%20amended%202013-08-14.pdf>.

<sup>71</sup> NYS Department of Transportation, Complete Streets. Retrieved 11/12/2022, from <https://www.dot.ny.gov/programs/completestreets>.

<sup>72</sup> Warner, KE. Tobacco control policies and their impacts. Past, present, and future. *Ann Am Thorac Soc*. 2014 Feb;11(2):227-30. doi: 10.1513/AnnalsATS.201307-244PS.



To further advance tobacco control policies in Onondaga County and Central New York, the Tobacco-Free CNY program works to engage youth and community members in Cayuga, Onondaga, and Oswego counties. These efforts include developing and supporting policies relating to smoke-free multi-unit housing, tobacco-free workplaces and outdoor spaces, and tobacco imagery in youth-rated movies. The Tobacco-Free CNY program is also working with local school districts and youth to ensure that e-cigarettes are included in policies that prohibit tobacco use on school grounds.

As the policy landscape around tobacco control continues to evolve, especially around the use of e-cigarettes, and menthol flavoring, Onondaga County seeks to continue being an early supporter and adopter of policies that reduce the health impacts of tobacco use for residents, particularly populations at increased risk for smoking initiation and high smoking rates including youth, individuals living in poverty, individuals with a disability, and individuals with poor mental health, and individuals identifying as LGBTQ+.

### **Cannabis Legalization**

In 2021, adult-use cannabis was legalized in New York State. Central to the Cannabis Law is a focus on creating equity in communities that were disproportionately impacted by the policies of cannabis prohibition. The law promises to invest 40% of the tax revenue collected through cannabis sales back into rebuilding communities that were harmed by previous laws. Local governments and community-based organizations will be able to apply for funding to support revitalization efforts, including those that would address social determinants of health. While the commitment to social and economic equity is welcome, state and local health departments will need to closely monitor and identify ways to mitigate, any negative impacts to the public's health associated with the legalization of cannabis.

## Impact of the COVID-19 Pandemic

This section explores the broad impact of the COVID-19 pandemic on several aspects of life for Onondaga County residents. Understanding how the pandemic impacted our community is critical for moving forward to address gaps and support ongoing prevention efforts.

While this section covers general impacts of the pandemic, more information about how COVID-19 directly impacted specific health topics is available within in the *Health Status: Distribution of Disease and Illness* section located on page 44.

The COVID-19 pandemic has affected all aspects of health including mental health, physical health, and overall well-being. Some groups have felt the impact more than others including low-income families, older adults, and those with pre-existing health conditions. Many people experienced grief and loss during the pandemic due to losing a family member or friend as well as experiencing drastic changes in their lifestyles. Isolation or loneliness, depression, and anxiety were often experienced by people and exacerbated symptoms for those with previous mental health challenges.<sup>73</sup> Additionally, increased use of alcohol, illegal drugs, and other substance misuse was reported throughout the pandemic. Long COVID or ongoing health problems have also been experienced by several individuals after their acute phase of COVID-19 infection has ended. Long COVID is still a new condition that is being researched, therefore resources and healthcare services for those impacted by Long COVID are limited.<sup>74</sup>

As of the end of 2022, nearly three years into the COVID-19 pandemic, Onondaga County has seen more than 150,000 COVID-19 cases among residents.<sup>75</sup> This accounts for approximately one third of County residents. While COVID-19 infections have been widespread across the community, some groups have been particularly vulnerable to severe outcomes including hospitalizations and deaths. Although non-Hispanic Black or African American residents account for 10.6% of the county's total population, 13.4% of COVID-19 deaths in Onondaga County have been among non-Hispanic Black or African American residents. Older adults have also been particularly impacted by COVID-19 infections. The age group with the highest rate of COVID-19 hospitalizations and deaths is 70-79 years olds closely followed by both 60-69 years olds and 80-89 year olds.<sup>76</sup> Additionally individuals residing in nursing homes, adult care facilities, and group homes were particularly impacted by the spread of COVID-19, especially during early phases of the pandemic when vaccinations were not yet available.

Due to the pandemic, many people delayed seeking medical care including emergency care, routine services, and preventive services. Delays in medical care were sometimes due to cancelled appointments, transportation

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<sup>73</sup> CDC, Taking Care of Your Mental Health, 2022. Retrieved 12/19/2022, from [Taking Care of Your Mental Health | CDC](#).

<sup>74</sup> CDC, Long COVID or Post-COVID Conditions, 2022. Retrieved 12/19/2022, from [Long COVID or Post-COVID Conditions | CDC](#).

<sup>75</sup> Onondaga County Health Department, 2022. Retrieved 12/19/2022, from <https://covid19.ongov.net/data/>.

<sup>76</sup> Onondaga County Health Department, 2022. Retrieved 12/19/2022, from <https://covid19.ongov.net/data/>. Note: Demographic data are only available for deaths occurring in hospital and community settings, deaths occurring in nursing homes and adult care facilities are not included because these data are not maintained by the Onondaga County Health Department.

barriers, financial barriers, fear of going to the emergency room or doctor's office, and not wanting to be a burden on the healthcare system.<sup>77</sup> Access to other necessary services and basic needs was another challenge for residents. Many residents were food insecure while others faced challenges with access to childcare, employment stability, reliable transportation, and availability of affordable housing.<sup>78</sup>

Policies such as mask mandates, social distancing, mandatory testing, quarantining, and isolation were crucial tools for reducing and slowing the transmission of COVID-19. Preventive measures were in place to not only protect the individual but those around them.<sup>79</sup> School mask policies and mandatory testing have shown to be important and effective tools in aiding school districts to resume in-person learning in a safe environment.<sup>80</sup> Protective practices also helped flatten the curve or slow the rate of COVID-19 infection which was necessary in order to have a sufficient amount of hospital beds, supplies, and healthcare workers available for those in need.<sup>81</sup>

The introduction of vaccines to protect against COVID-19 infection, was a critical turning point in the pandemic and remains the most important public health measure for preventing infection and spread of COVID-19. However, vaccine hesitancy remains a challenge in both Onondaga County and throughout NYS with 74.1% of County residents and 76.2% of NYS residents completing the initial vaccination series. Additionally, only 17.8% of Onondaga County residents and 12.2% of NYS residents are fully up to date on their vaccinations.<sup>82</sup>

Overall, the COVID-19 pandemic has had a substantial impact on our everyday lives and the way we prepare for communicable disease outbreaks. There is much to learn from our experiences during the pandemic including the success and challenges with implementing several public health measures. Additionally, the ongoing contributions and commitment of the public health workforce, healthcare providers, community service providers, and volunteers throughout the pandemic must be recognized.

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<sup>77</sup> CDC, Reduced Access to Care, 2021. Retrieved from 12/19/2022, from [Reduced Access to Care - Research and Development Survey - COVID-19 \(cdc.gov\)](#).

<sup>78</sup> Sharma SV, et al. Social Determinants of Health-Related Needs During COVID-19 Among Low-Income Households With Children. *Prev Chronic Dis* 2020;17:200322. DOI: <http://dx.doi.org/10.5888/pcd17.200322>external icon.

<sup>79</sup> CDC, 2021. Retrieved 12/19/2022, from [Science Brief: Community Use of Masks to Control the Spread of SARS-CoV-2 | CDC](#).

<sup>80</sup> CDC, 2021. Retrieved 12/19/2022, from <https://www.cdc.gov/media/releases/2021/p0924-school-masking.html>.

<sup>81</sup> John Hopkins, Coronavirus, Social and Physical Distancing and Self-Quarantine, 2020. Retrieved 12/19/2022, <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-social-distancing-and-self-quarantine>

<sup>82</sup> NYS COVID-19 Vaccine Tracker: Vaccination Status to Date. Retrieved 12/19/2022, from <https://coronavirus.health.ny.gov/vaccination-progress-date>.

## Health Status: Distribution of Disease and Illness

A comprehensive overview of the current health status of Onondaga County residents is provided in the following section. This section is broken down into the following topic areas, using the NYS Prevention Agenda as a framework:

- Overall Health and Health Disparities
- Chronic Diseases
- Well-Being, Mental Health, and Substance Use Disorders
- Healthy and Safe Environments
- Healthy Women, Infants, and Children
- Communicable Diseases

In order to examine the health status of Onondaga County's diverse population, where feasible, data are presented by geography, race and ethnicity, income, and for individuals with disabilities. Where applicable, county level data are compared with statewide data.

Please note, due to delays in data collection and analysis at the state and local level, many indicators presented below utilize data collected before the COVID-19 pandemic. These reflect the most recently available indicators at the time of publication. However, due to limited access to real-time data, the full impact of the COVID-19 pandemic on health outcomes in Onondaga County may not be realized for several years.

### Overall Health and Health Disparities

This topic area explores the overall health status of county residents while also emphasizing disparities in mortality and morbidity. The Centers for Disease Control and Prevention (CDC) defines health disparities as, "**preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.**"<sup>83</sup> These disparities can be the outcome of numerous factors, including socioeconomic status, access to health care, environmental conditions, or educational access. Measures of overall health and health disparities are covered below including, self-reported health, preventable hospitalizations, and premature mortality.

#### Self- Reported Health

An individual's health influences both their quality of life and their ability to carry out daily activities and contribute to our community. Within Onondaga County, 8.9% of adults report fourteen or more days of poor physical health in the last month.<sup>84</sup> This has improved from 11.0% in 2016.<sup>85</sup> Mental health is equally as

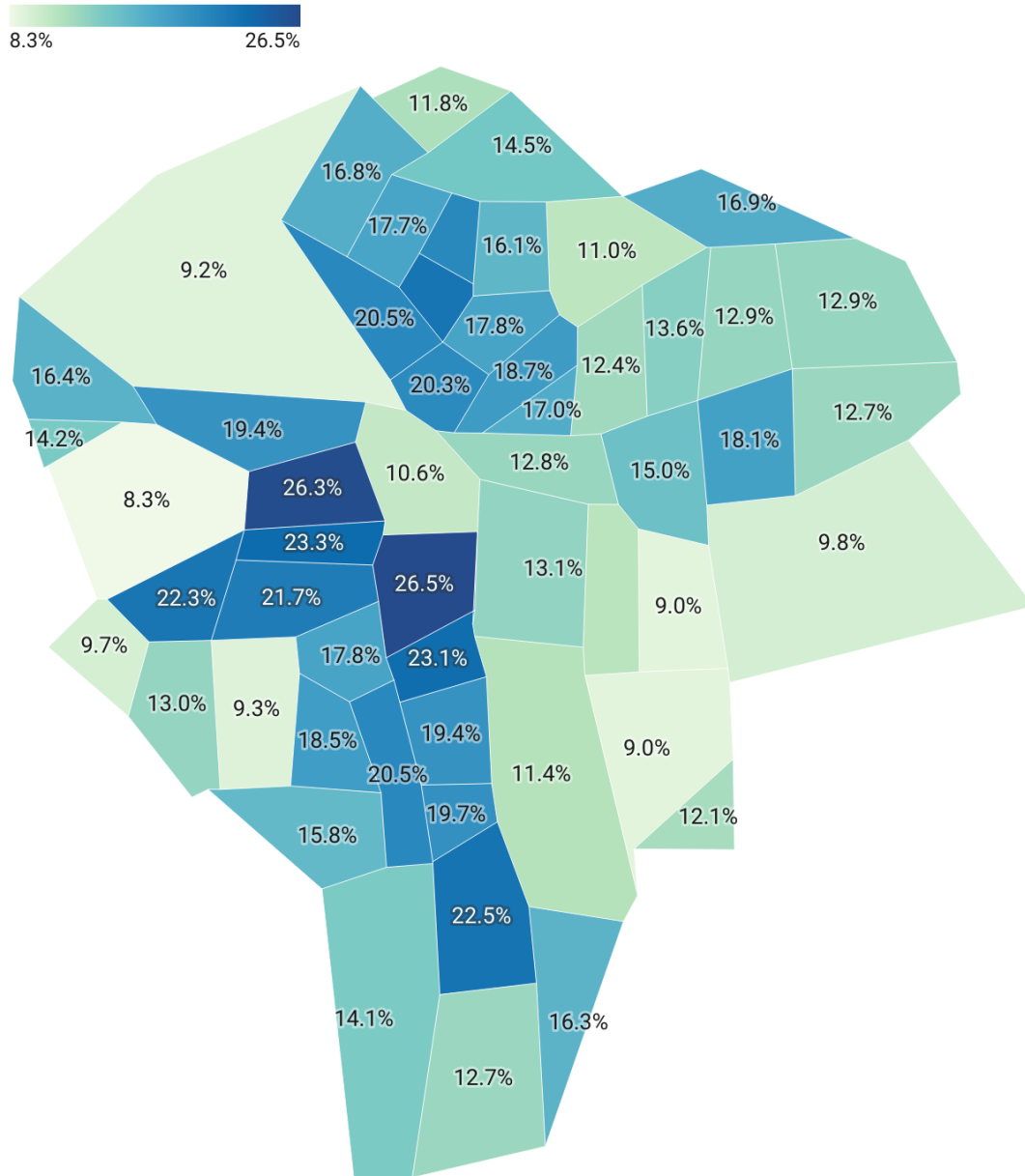
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<sup>83</sup> CDC, Health Disparities. Retrieved 9/15/2022, from <https://www.cdc.gov/healthyouth/disparities/index.htm>.

<sup>84</sup> NYS Expanded BRFSS, 2018. Retrieved 3/1/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>. Note: Rates reflect age-adjusted values.

important as physical health. Within Onondaga County, 13.6% of adults report fourteen or more days of poor mental health in the last month, compared to 13.8% in CNY and 11.8% in NYS excluding NYC. Variations in poor physical and mental health for Syracuse census tracts are shown in the maps below.

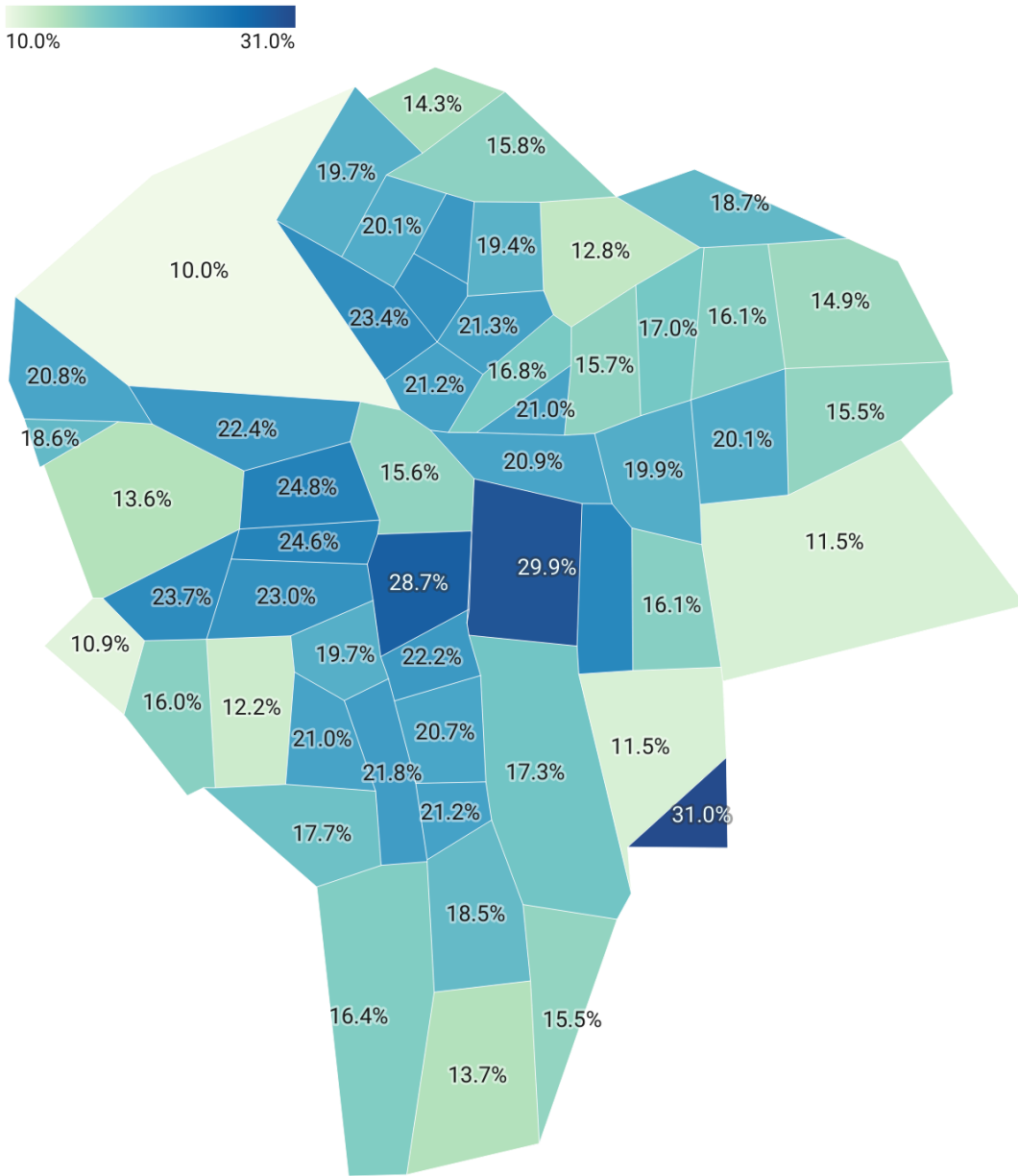
**Figure 27. Percentage of adults reporting poor physical health ≥ 14 days in the last month, by census tract, Syracuse, 2019**



Source: CDC PLACES: Local Data for Better Health, 2019. Retrieved 3/1/2022, from: <https://www.cdc.gov/places>.

<sup>85</sup> NYS Expanded BRFSS, 2016. Retrieved 3/1/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>. Note: Rates reflect age-adjusted values.

**Figure 28. Percentage of adults reporting poor mental health  $\geq 14$  days in the last month, by census tract, Syracuse, 2019**



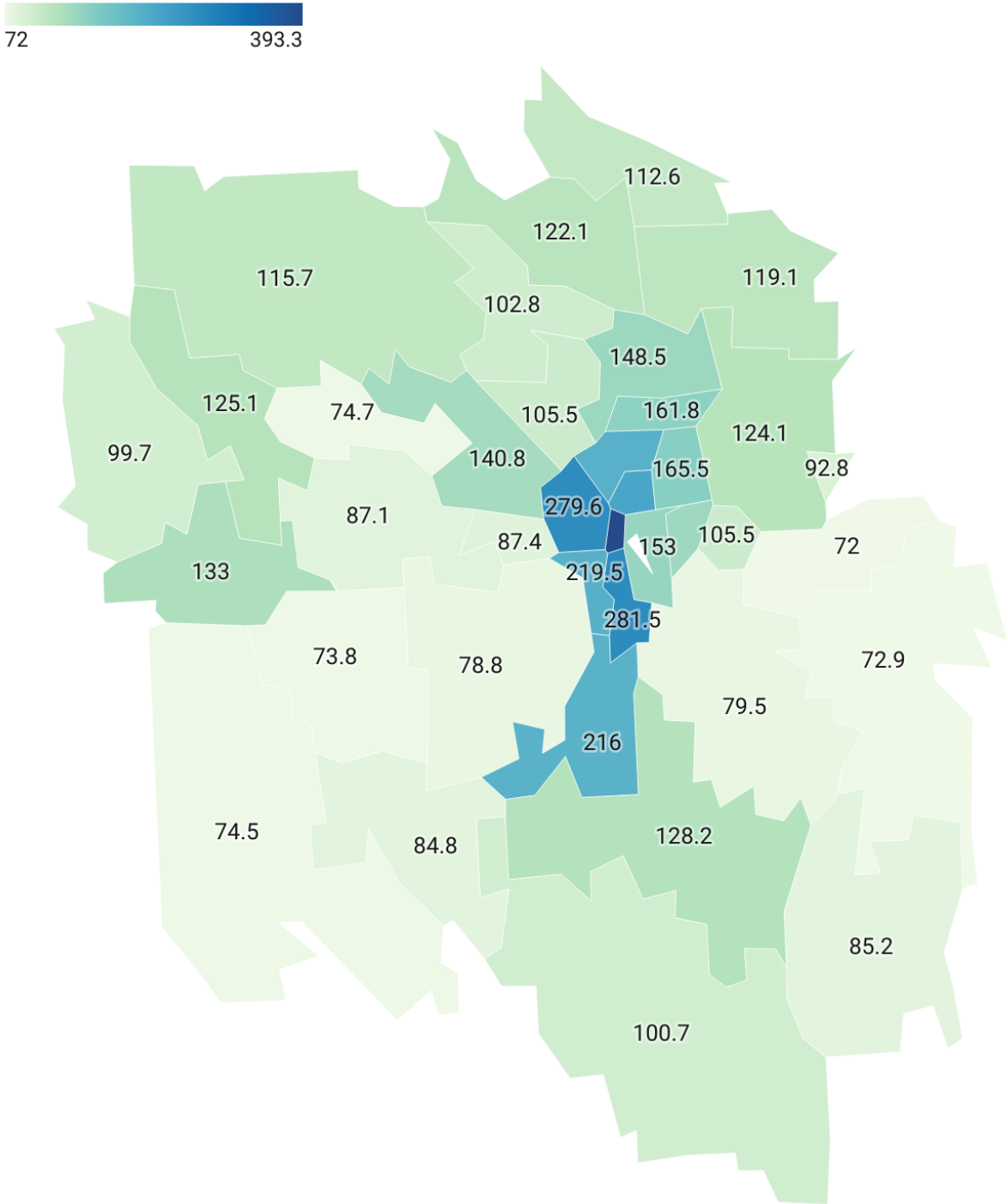
Source: CDC PLACES: Local Data for Better Health, 2019. Retrieved 3/1/2022, from: <https://www.cdc.gov/places>.

### Preventable Hospitalizations

The age-adjusted potentially preventable hospitalization rate in Onondaga County (144.2 per 10,000) is higher than the rate in NYS excluding NYC (120.4 per 10,000).<sup>86</sup> As shown in Figures 29 and 30, there are significant variations in the preventable hospitalization rate based upon both zip code of residence and race and ethnicity, with urban zip codes and non-Hispanic Black residents experiencing the highest rates.

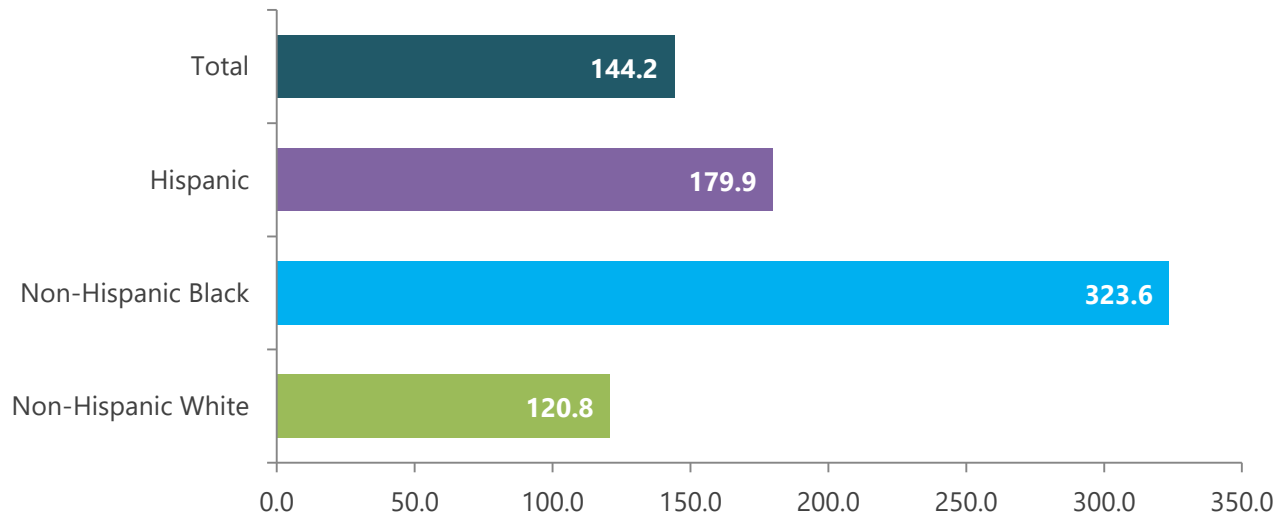
<sup>86</sup> SPARCS, 2019. Retrieved 10/10/2022, from [NYS Prevention Agenda Dashboard](#).

Figure 29. Age-adjusted potentially preventable hospitalization rate per 10,000 adults, Onondaga County, 2016-2019



Source: SPARCS, 2016-2019. Retrieved 10/10/2022, from NYS Prevention Agenda Dashboard.

**Figure 30. Age-adjusted potentially preventable hospitalization rate per 10,000 adults, by race and ethnicity, Onondaga County, 2019**



Source: SPARCS, 2016-2019. Retrieved 10/10/2022, from [NYS Prevention Agenda Dashboard](#).

### Premature Mortality

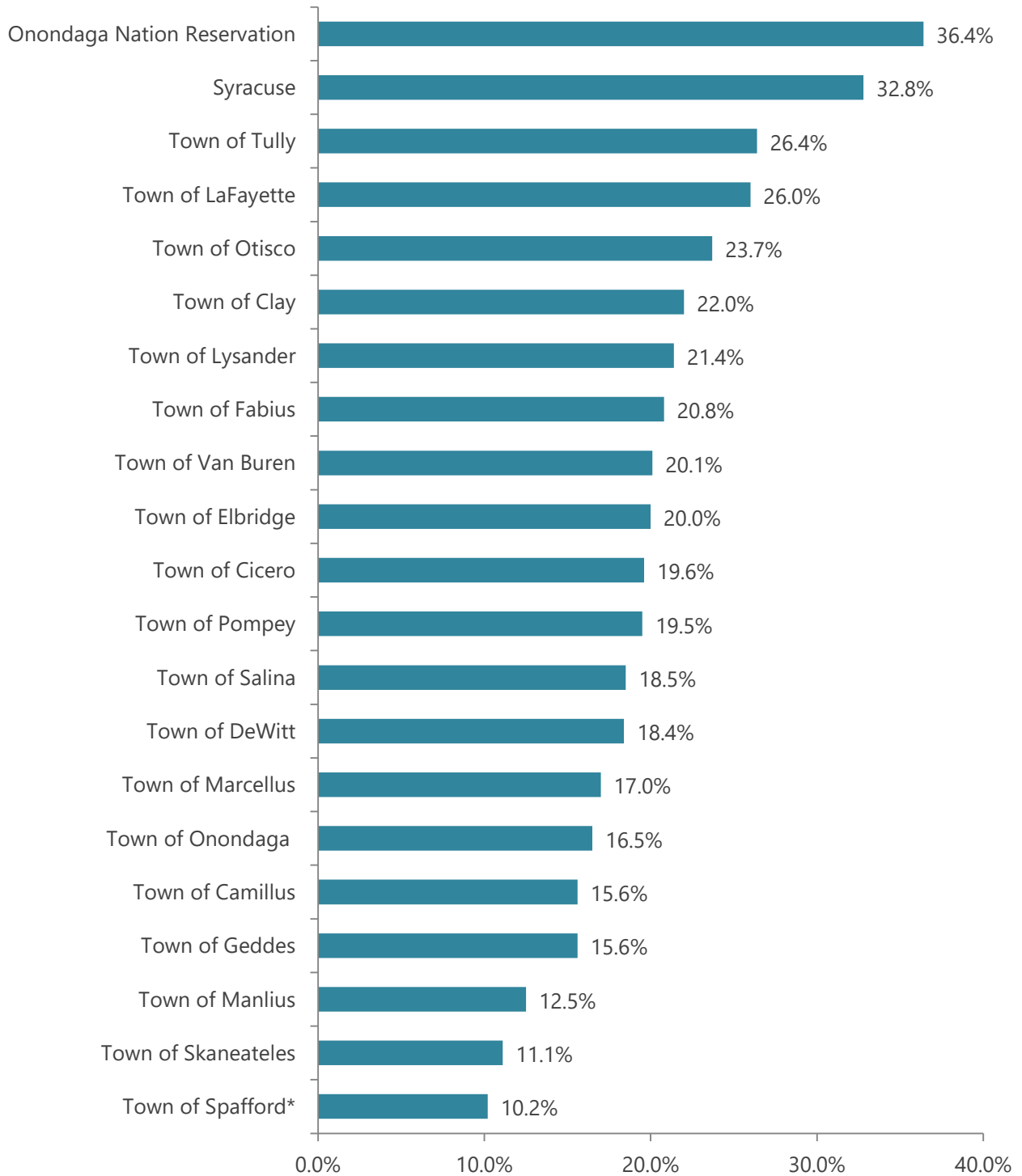
Premature death includes any death that occurs prior to the individual reaching the age of 65 years. Premature death reflects lost time with family and friends, and as a contributing member of Onondaga County’s community. Furthermore, premature death may be indicative of factors that contribute to early decline in health status in our community including social, environmental, or behavioral factors. In Onondaga County, 22.5% of deaths occur before age 65 years which is comparable to the rate for Central NY (22.6%). The rate in NYS excluding NYC (21.0%) is slightly lower.<sup>87</sup>

Within Onondaga County, premature mortality rates vary significantly by municipality (Figure 31). The Onondaga Nation Reservation and Syracuse have the highest rates while Skaneateles and Spafford have the lowest. In addition, there are considerable disparities in premature death rates by race and ethnicity. The premature death rate among non-Hispanic Black residents (47.5%) is more than double the rate for non-Hispanic White residents (19.3%). The premature death rate among Hispanic residents is 41.1%. Figure 32 shows a comparison of premature death rates by race and ethnicity for Onondaga County, Central NY, and for NYS excluding NYC. Across all geographies shown, non-Hispanic White residents have the lowest rate of premature death.

<sup>87</sup> NYSDOH Vital Records, 2019. Retrieved 9/19/2022, from [NYS Prevention Agenda Dashboard](#).



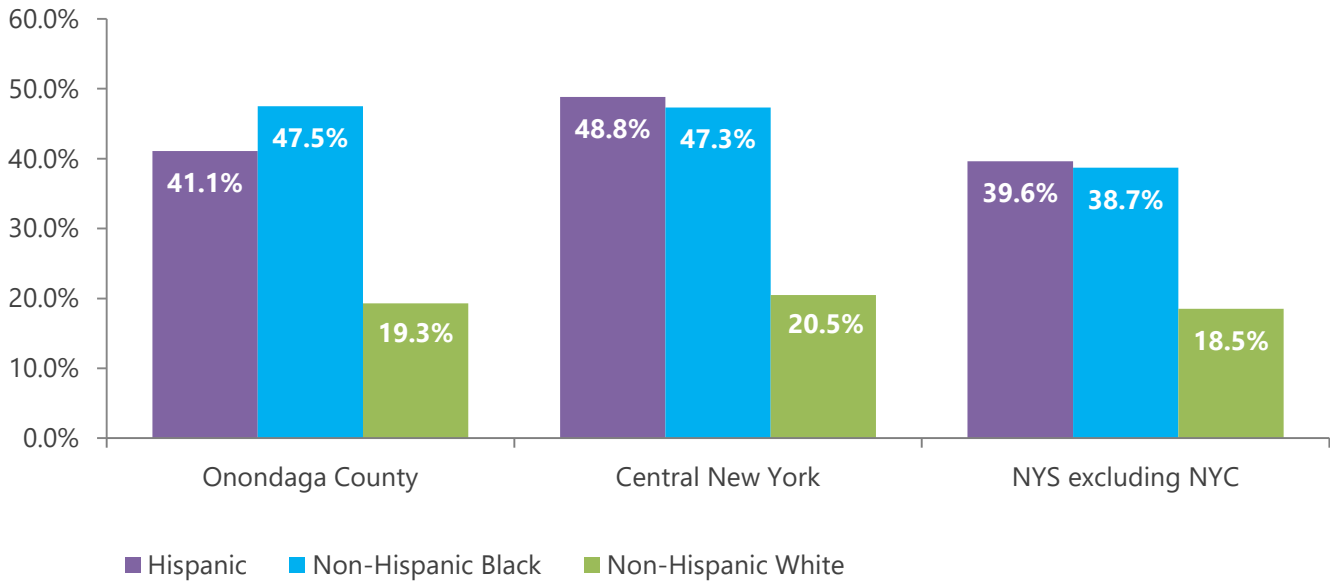
Figure 31. Percentage of premature death (before 65 years), by municipality, Onondaga County, 2016-2019



Source: NYSDOH Vital Records, 2016-2019. Retrieved 9/19/2022, from [NYS Prevention Agenda Dashboard](#).

\*Fewer than 10 events in numerator therefore rate is unstable.

**Figure 32. Percentage of premature death (before 65 years), by race and ethnicity, Onondaga County, Central New York (CNY), and NYS excluding NYC, 2019**



Source: NYSDOH Vital Records, 2019. Retrieved 9/22/2022, from [NYS Prevention Agenda Dashboard](#).

### Overall Health and Health Disparities Summary

Onondaga County fares worse than NYS excluding NYC in several indicators of overall health including poor mental health, preventable hospitalizations, and premature deaths. Within Onondaga County, there are notable disparities by race and ethnicity for both preventable hospitalization and premature death. Additionally, the city of Syracuse, as well as other urban areas in the county, tend to fare worse than rural areas of the county for preventable hospitalizations.

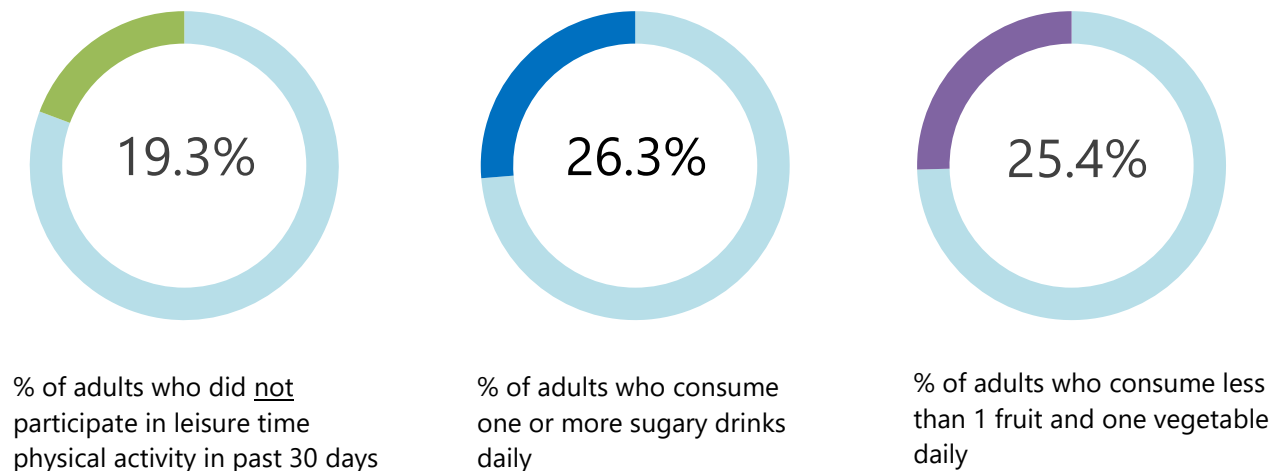
## Chronic Diseases

The quality and length of an individual’s life can be considerably impacted by the occurrence of chronic diseases. Several factors can influence the development of chronic conditions and **many of them occur outside of the doctor’s office**. These include the physical and social environments in which we live, learn, work and play as well as how we experience stress, our biological and inherited traits, and lifestyle factors. This section covers several chronic conditions including obesity, stroke, diabetes, and cancer as well as lifestyle factors that can directly impact chronic disease outcomes such as physical activity, smoking, and healthy eating.

### Physical Activity and Healthy Eating

An individual’s risk for developing a chronic condition can be influenced by physical activity and diet. Additionally, managing an existing chronic disease can be successful if both physical activity and healthy eating are incorporated into an individual’s lifestyle. In Onondaga County, nearly one-fifth of adults report that they did not participate in leisure time physical activity within the last 30 days.<sup>88</sup> In Syracuse this increases to 36.8% of adults.<sup>89</sup> Furthermore, 26.3% of adults report consuming one or more sugary drinks daily while 25.4% report consuming less than one fruit and one vegetable each day.<sup>90</sup>

**Figure 33. Physical activity and healthy eating indicators, Onondaga County, 2018**



Source: NYS Expanded BRFSS, 2018. Retrieved 3/1/2022, from <https://www.health.ny.gov/statistics/brfss/expanded>. Note: rates reflect age-adjusted values.

<sup>88</sup> NYS Expanded BRFSS, 2018. Retrieved 3/1/2022, from <https://www.health.ny.gov/statistics/brfss/expanded>. Note: rate reflects age-adjusted value.

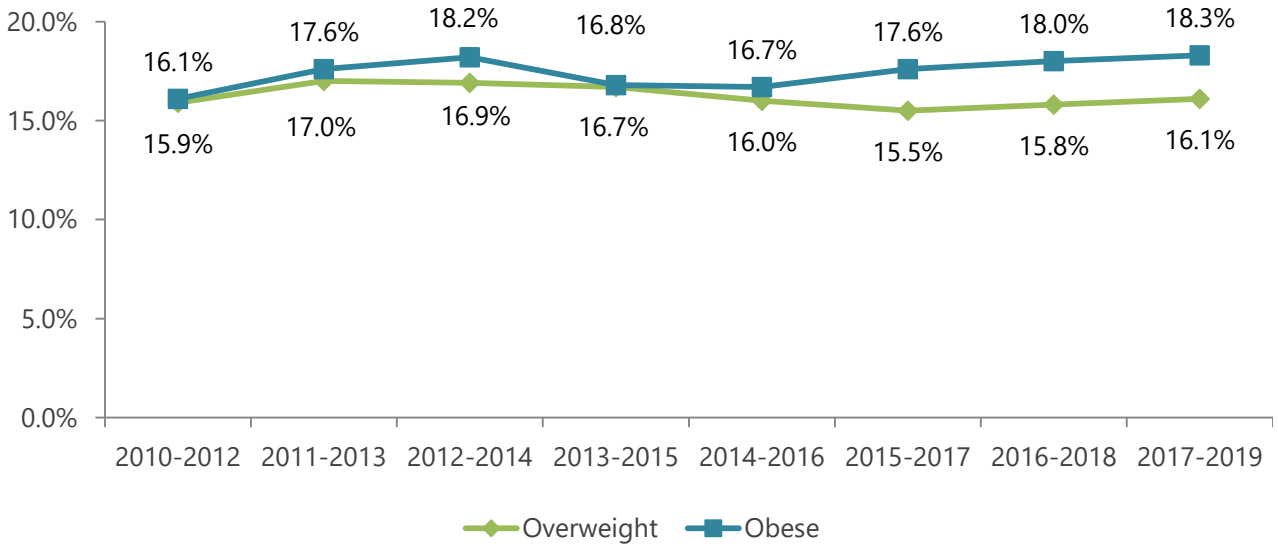
<sup>89</sup> CDC PLACES: Local Data for Better Health, 2019 (released in 2021). Retrieved 3/1/2022, from: <https://www.cdc.gov/places>. Rate reflects age-adjusted value.

<sup>90</sup> NYS Expanded BRFSS, 2018. Retrieved 3/1/2022, from <https://www.health.ny.gov/statistics/brfss/expanded>. Note: rate reflects age-adjusted value.

### Overweight and Obesity

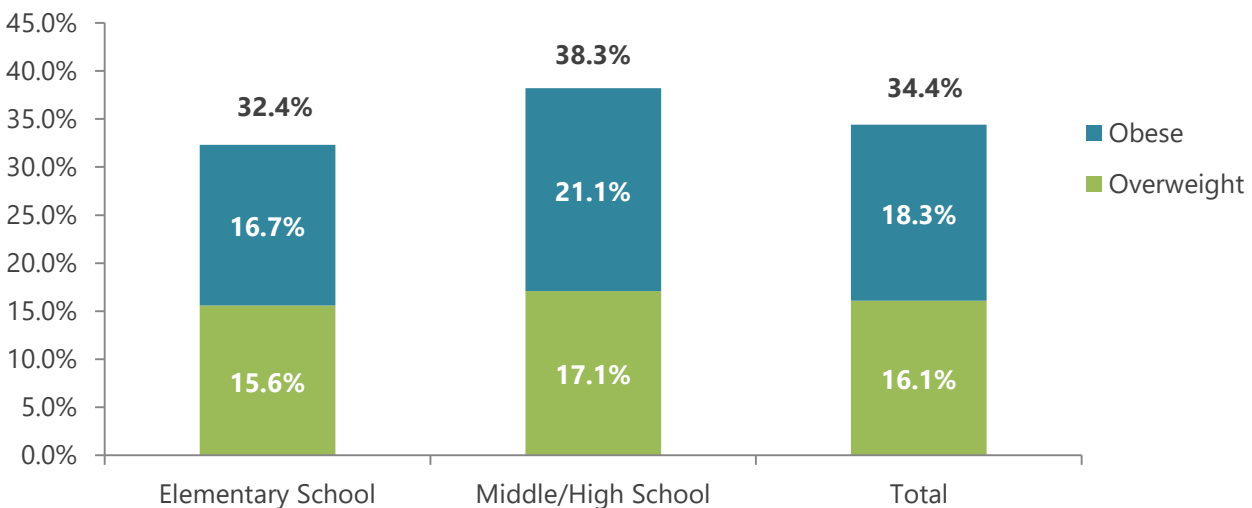
Overweight and obesity rates especially among children remain a concern in Onondaga County. Figure 34 depicts the overweight and obesity rates among students enrolled in public schools in Onondaga County from 2010 to 2019. The figure displays these rates as a three year rolling average to account for year to year variability.

**Figure 34. Overweight and obesity rates among public school students, Onondaga County, 2010-2019, 3- year rolling average**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

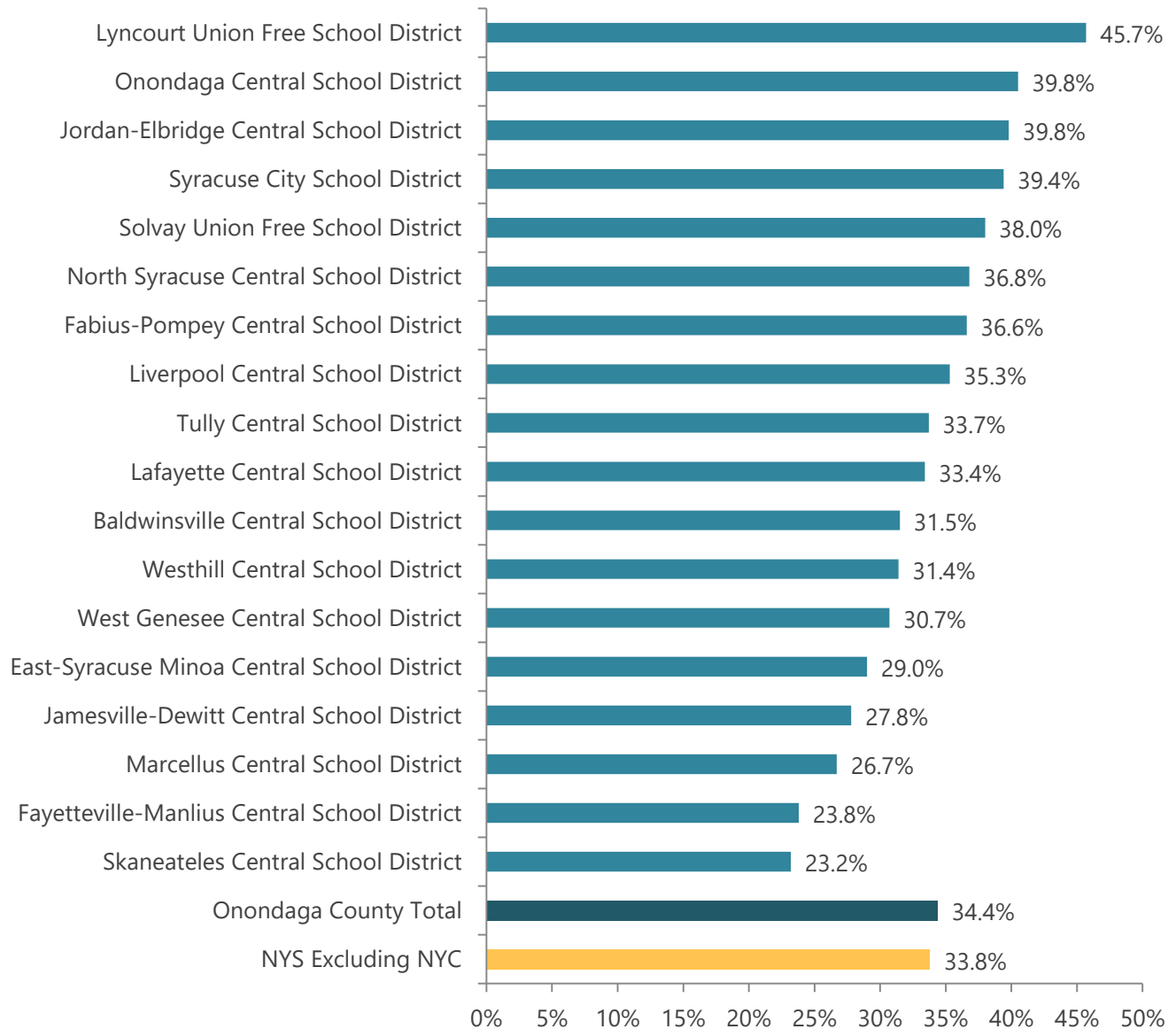
**Figure 35. Overweight and obesity rates among public school students, by grade level, Onondaga County, 2017-2019**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

Figure 35 displays the current obesity rates for all public school students in Onondaga County. In Onondaga County, 34.4% of public school students are overweight or obese. This rate is higher among middle/high school students (38.3%) compared to elementary school students (32.4%).<sup>91</sup> The percentage of students who are overweight or obese varies by school district in Onondaga County (Figure 36). The Lyncourt Union Free School District (45.7%) has the highest rate while Skaneateles Central School District (23.2%) has the lowest rate. Furthermore, eight of the eighteen school districts have a rate higher than the Onondaga County total.

**Figure 36. Percentage of children and adolescents who are overweight or obese, by school district, Onondaga County, and NYS excluding NYC, 2017-2019**

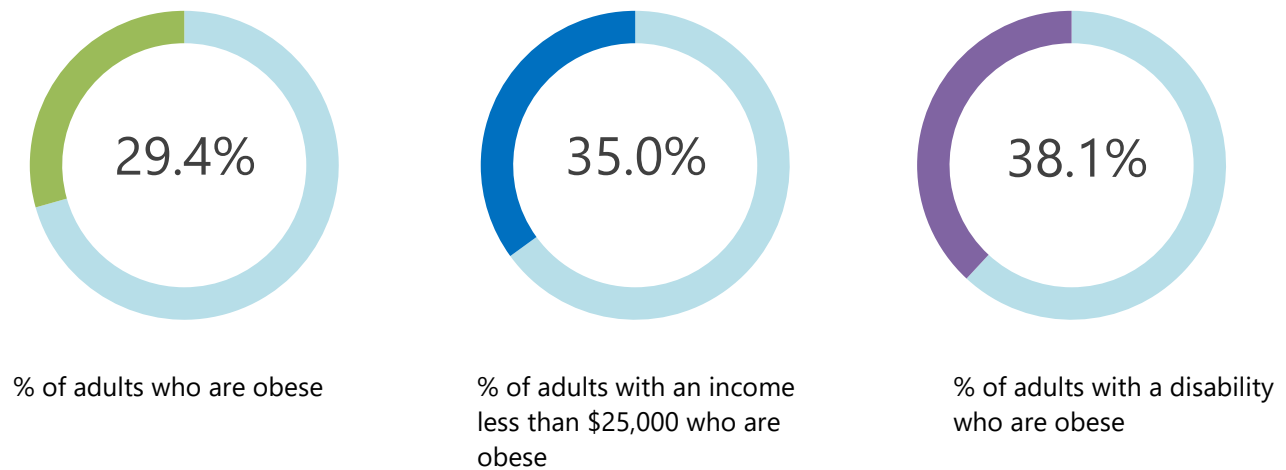


Source: NYS Student Weight Status Category Reporting System (SWSCRS), 2017-2019

<sup>91</sup> NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.  
53

The obesity rate among adults in Onondaga County is 29.4%, which is slightly higher than the rate for NYS (27.9%) but lower than the rate in Central New York (34.7%).<sup>92</sup> In Onondaga County 59.5% of adults are either overweight or obese, putting them at increased risk for various chronic health conditions. Within Onondaga County’s population, obesity rates vary significantly. Compared to the County overall, higher obesity rates are found among individuals who have an annual income less than \$25,000 per year and among individuals with a disability. These differences are shown in Figure 37. Geographically, there are also variations which is evident in the map below depicting obesity prevalence by census tract in Syracuse in Figure 38.

**Figure 37. Disparities in adult obesity, Onondaga County, 2018**

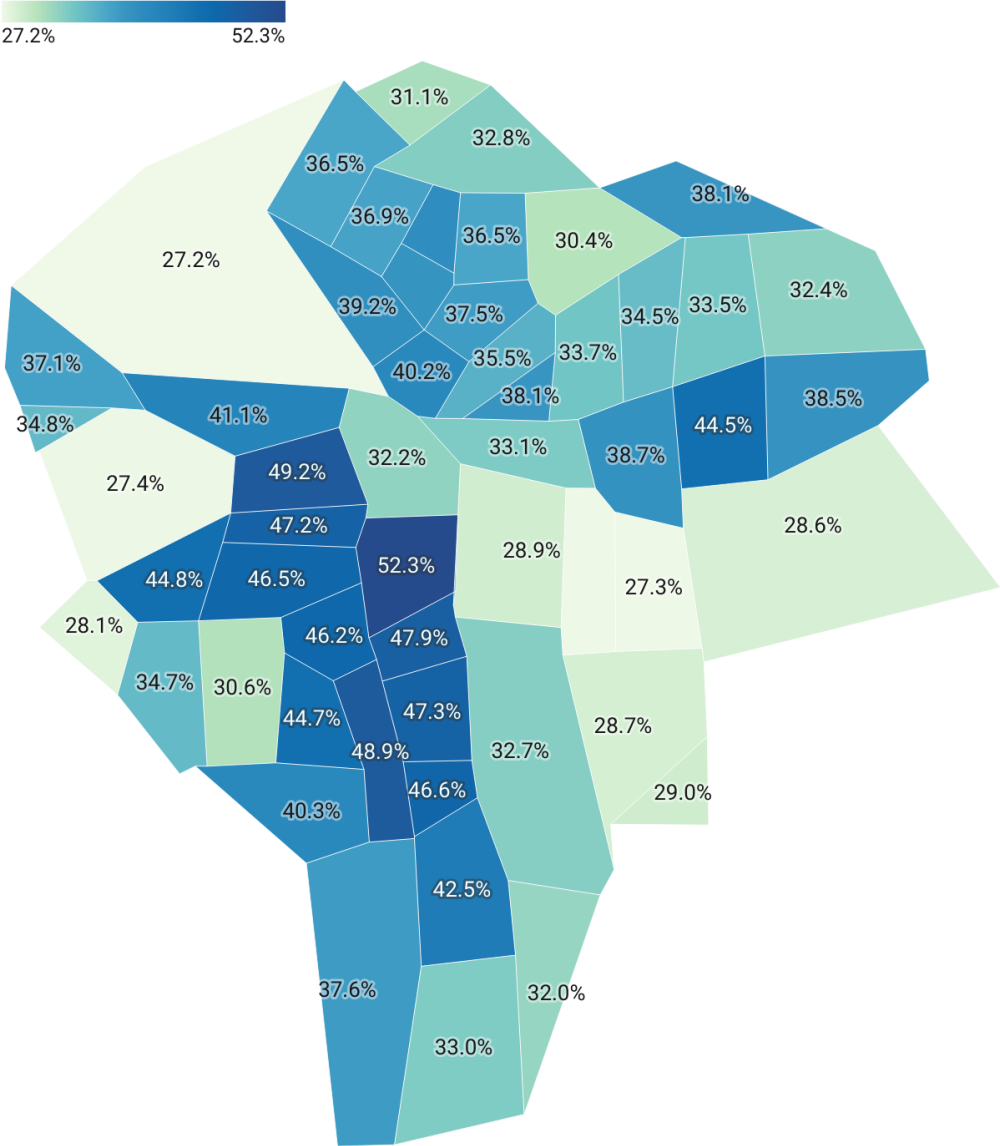


Source: NYS Expanded BRFSS, 2018. Retrieved 3/1/2022, from <https://www.health.ny.gov/statistics/brfss/expanded>.

Note: Percentages are age-adjusted.

<sup>92</sup> NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

Figure 38. Percentage of adults with obesity by census tract, Syracuse, 2019

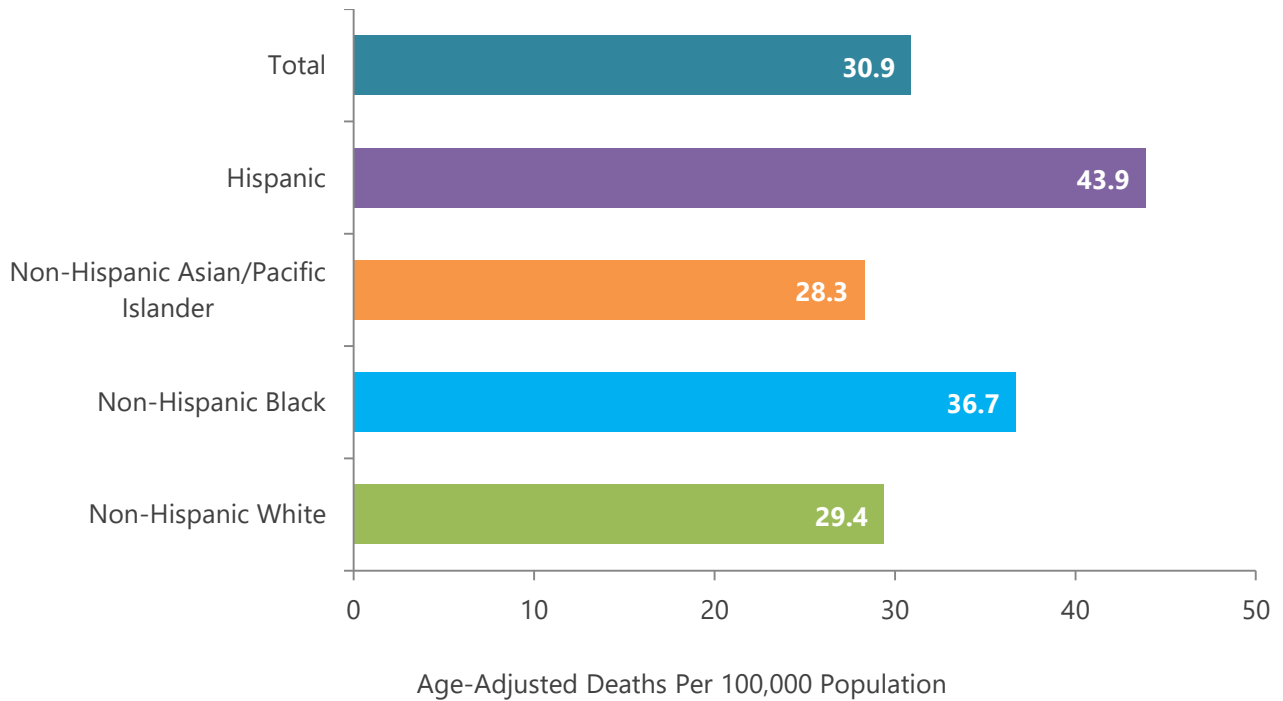


Source: CDC PLACES: Local Data for Better Health, 2019. Retrieved 3/1/2022, from: <https://www.cdc.gov/places>.

### Cerebrovascular Disease (Stroke)

The age-adjusted hospitalization rate for stroke in Onondaga County (22.7 per 10,000) is similar to the statewide rate (21.3 per 10,000); however the county’s mortality rate for stroke (30.9 per 100,000) is higher than the statewide rate (24.1 per 100,000).<sup>93</sup> Figure 39 presents disparities in stroke mortality by race and ethnicity. Hispanic residents have the highest rate in Onondaga County.

**Figure 39. Age-adjusted mortality rate due to stroke, per 100,000 population, by race and ethnicity, Onondaga County, 2017-2019**



Source: NYSDOH County Health Indicators by Race/Ethnicity, 2017-2019. Retrieved 12/30/2022 from, <https://www.health.ny.gov/statistics/community/minority/county/onondaga.htm>.

### Diabetes

In Onondaga County, the prevalence of physician diagnosed diabetes is 8.4% compared to 12.5% in Syracuse and 9.2% in NYS excluding NYC. Within the last three years, nearly 55% of adult county residents have not had a test for diabetes, so the prevalence may be notably higher.<sup>94</sup>

<sup>93</sup> NYS Community Health Indicator Reports. Retrieved 12/22/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

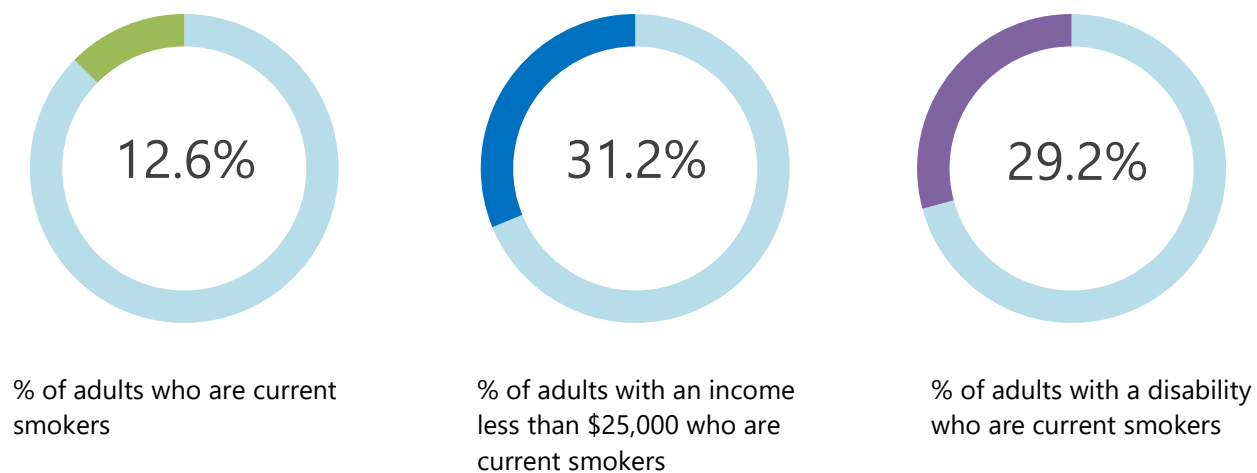
<sup>94</sup> NYS Expanded BRFSS, 2018. Retrieved 9/23/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>; CDC PLACES: Local Data for Better Health. Retrieved 9/23/2022, from <https://www.cdc.gov/places/index.html>.



## Smoking

Nearly a quarter (23.3%) of adults in Syracuse are current smokers compared to 12.6% of adults in Onondaga County.<sup>95</sup> Onondaga County’s smoking prevalence remains lower than NYS excluding NYC (14.7%) and has decreased from 18.0% at last measurement in 2016. Disparities in Onondaga County’s smoking rates on the basis of income and disability is depicted in Figure 40. There are substantially higher smoking rates among adults with an income less than \$25,000 per year and among adults with a disability than the population as a whole. Additionally, adults reporting poor mental health have a higher smoking rate (27.5%).<sup>96</sup>

**Figure 40. Disparities in smoking, Onondaga County, 2018**



Source: Expanded BRFSS at: <https://www.health.ny.gov/statistics/brfss/expanded/>  
 Note: Percentages are age-adjusted

There are significant health risks from electronic cigarettes (e-cigarettes) use including exposure to harmful substances and high levels of nicotine. Furthermore, the aerosol element of e-cigarettes has been found to contain carcinogens (cancer causing chemicals), volatile organic compounds, heavy metals (including nickel, tin, and lead), and chemicals (i.e. diacetyl) linked to lung disease.<sup>97</sup> The ultrafine particles present in e-cigarette aerosol can be inhaled deep into the lungs increasing the risk for e-cigarette or vaping use-associated lung injury (EVALI). As of February 18, 2020, there have been 68 deaths in the United States connected to EVALI. Additionally, there have been 2,734 reported hospitalizations for EVALI in the United States between March 31, 2019 and February 15, 2020.<sup>98</sup> In Onondaga County, 7.8% of adults report e-cigarette use which is similar to the rates for Central New York (7.6%) but higher than the rates for NYS excluding NYC (6.4%).<sup>96</sup> Among youth, e-cigarette use can be particularly concerning as youth who use e-cigarettes may be at an increased risk of smoking cigarettes in the future. Moreover, e-cigarettes have been marketed to attract youth through youth-

<sup>95</sup> NYS Expanded BRFSS, 2018. Retrieved 9/23/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>; CDC PLACES: Local Data for Better Health: <https://www.cdc.gov/places/index.html>.

<sup>96</sup> NYS Expanded BRFSS, 2018. Retrieved 9/23/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>.

<sup>97</sup> CDC, Quick Facts on E-Cigarettes, 2022. Retrieved 9/23/2022, from [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html#e-cigarette-aerosol](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html#e-cigarette-aerosol).

<sup>98</sup> CDC, Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products, 2021. Retrieved 9/23/2022, from [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/severe-lung-disease.html#what-is-new](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html#what-is-new).

friendly flavors (i.e., candy or fruit) and extensive advertising. The lower cost of e-cigarettes compared to cigarettes makes them more readily available to youth. The belief that e-cigarettes are less harmful than traditional cigarettes have been reported as a reason for youth using e-cigarettes.<sup>99</sup>

## Cancer

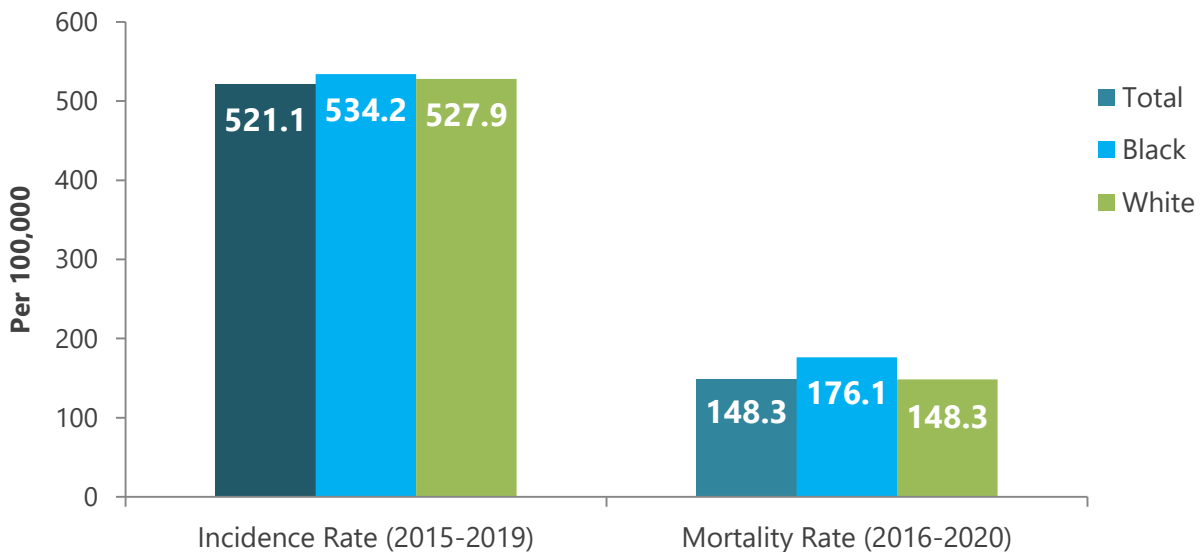
The incidence and mortality rate for cancer is higher in Onondaga County than New York State. The incidence and mortality rates for cancer for Onondaga County and NYS is displayed in Figure 41. Disparities in cancer incidence and mortality rate vary by race within Onondaga County. Figure 42 provides a breakdown by race for cancer overall. Disparities in incidence and mortality rates for breast (female), colon and rectum, lung and bronchus, and prostate cancers is displayed in Figure 43.

**Figure 41. Cancer (all types) incidence and mortality rates, per 100,000, Onondaga County and NYS**

	Onondaga County	New York State
Incidence rate for all cancer types (per 100,000) (2015-2019)	521.1	484.8
Mortality rate for all cancer types (per 100,000) (2016-2020)	148.3	137.1

Source: State Cancer Profiles. Retrieved from <https://statecancerprofiles.cancer.gov/index.html>.

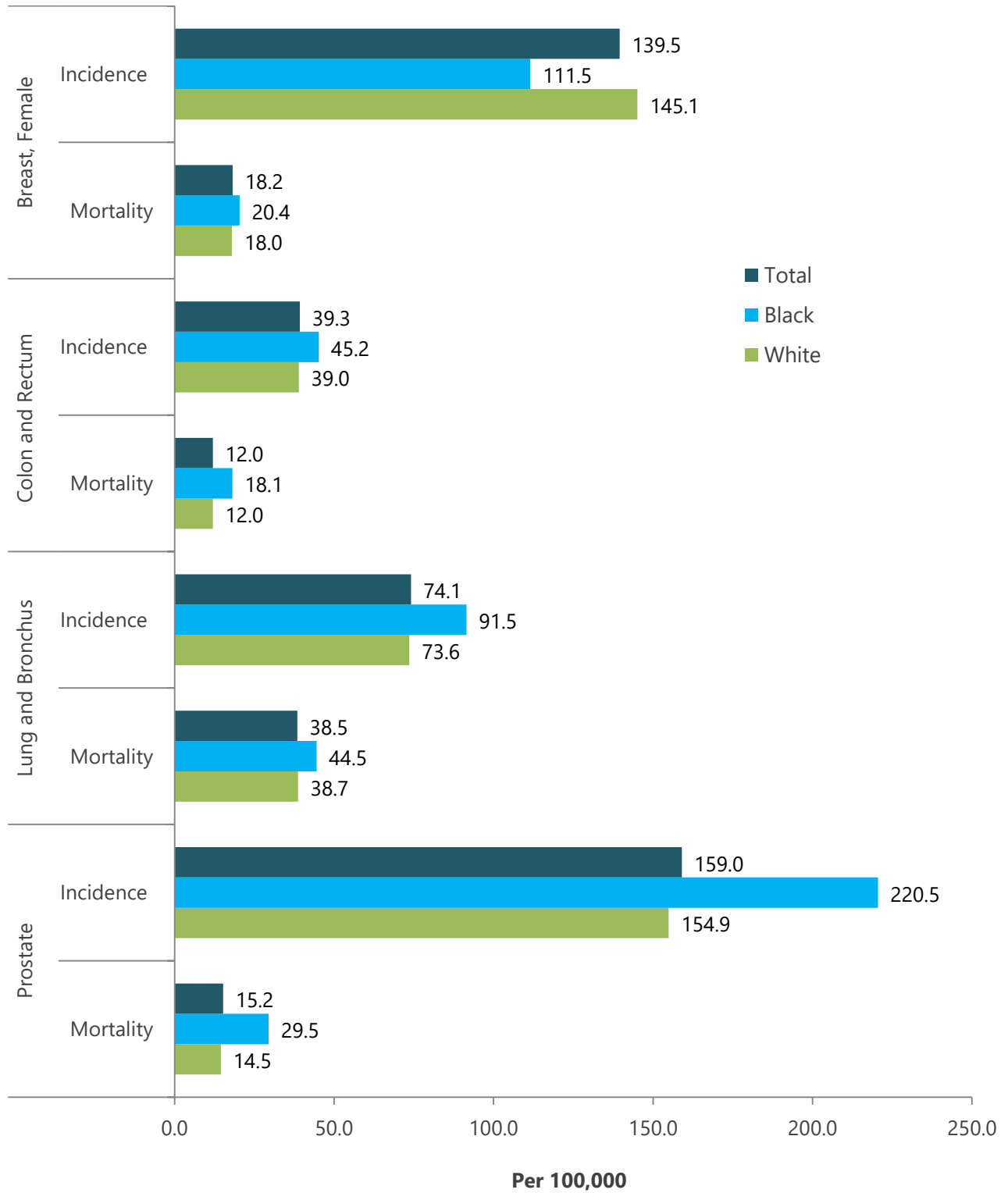
**Figure 42. Cancer (all types) incidence and mortality rates, per 100,000, by race, Onondaga County**



Source: State Cancer Profiles. Retrieved from <https://statecancerprofiles.cancer.gov/index.html>.

<sup>99</sup> CDC, Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products, 2021. Retrieved 9/23/2022, from [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/severe-lung-disease.html#what-is-new](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html#what-is-new).

Figure 43. Incidence and mortality rates for several cancer types, per 100,000, by race, Onondaga County



Source: State Cancer Profiles. Incidence rate from 2015-2019; Mortality rate from 2016-2020. Retrieved from <https://statecancerprofiles.cancer.gov/index.html>.

## Impact of the COVID-19 Pandemic on Chronic Diseases

Recent evidence suggests COVID-19 infection may increase the risk for developing new chronic conditions as well as worsen existing chronic conditions including diabetes, neurological disorders, mental health disorders, and cardiovascular disease. Additionally, some people experience “Long COVID” which occurs when individuals continue to have COVID-related health problems after recovery from their acute infection. Long COVID is a new condition and is not fully understood at this time.<sup>100</sup>

The pandemic has resulted in decreased health care utilization. As of June 2020, 4 in 10 adults in the U.S. reported delaying or avoiding medical care due to the pandemic, and 12% of adults also reported avoiding urgent or emergency care. These findings support recent reports that hospital admissions, overall emergency department (ED) visits, and the number of ED visits for heart attack, stroke, and hyperglycemic crises have declined since the beginning of the pandemic. Early research has shown that states with the largest proportion of deaths related to COVID-19 also experienced large increases in deaths from other underlying causes such as diabetes and cardiovascular disease. In 2020, there was a 43.4% decrease in hospitalization rates for cardiovascular conditions in the U.S., which coincided with a significant increase in out-of-hospital cardiac arrests. Delaying or avoiding routine care, including cancer screenings have led to fewer cancer and pre-cancer diagnoses.<sup>101</sup> In the United States, reductions in screenings were seen for breast (-87%), cervical (-83%), colon (-90%), lung (-39%), and prostate (-60%) cancers, as well as a 90% decrease in the weekly incidence of newly diagnosed cancers and referral cases.<sup>102</sup>

Avoidance of medical care could be due to several reasons including concerns about exposure to the COVID-19 virus, limited options for in-person services, and accessibility of telehealth or in-home care. Delaying needed care may result in negative health outcomes and contribute to missed opportunities for management of chronic conditions and early detection of new conditions.<sup>103</sup> While these data present national trends, it is reasonable to expect a similar behavioral pattern in Onondaga County.

## Chronic Diseases Summary

Unhealthy behaviors related to smoking, nutrition, and physical activity continue to be a challenge in Onondaga County. High obesity rates persist among children and adults, and health disparities in chronic disease outcomes are evident. Long COVID is a new chronic condition that can develop after an acute COVID-19 infection. Further research is needed to determine the long-term health impacts. The pandemic also provided an important insight into the importance of access to preventive care such as screenings, routine doctor visits, and chronic disease management.

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<sup>100</sup>Mennis J, Matthews KA, Huston SL. Geospatial Perspectives on the Intersection of Chronic Disease and COVID-19. *Prev Chronic Dis* 2022;19:220145.

<sup>101</sup> Hacker KA, Briss PA, Richardson L, Wright J, Petersen R. COVID-19 and Chronic Disease: The Impact Now and in the Future. *Prev Chronic Dis* 2021;18:210086.

<sup>102</sup> Mak IL, Wan EYF, Wong TKT, Lee WWJ, Chan EWY, Choi EPH, Chui CSL, Ip MSM, Lau WCS, Lau KK, Lee SF, Wong ICK, Yu EYT and Lam CLK (2022) The Spill-Over Impact of the Novel Coronavirus-19 Pandemic on Medical Care and Disease Outcomes in Non-communicable Diseases: A Narrative Review. *Public Health Rev* 43:1604121.

<sup>103</sup>Czeisler MÉ, Marynak K, Clarke KE, et al. Delay or Avoidance of Medical Care Because of COVID-19–Related Concerns — United States, June 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1250–1257.

## Well-Being, Mental Health, and Substance Use Disorders

Mental health impacts the way we feel, think, and act and includes **emotional, psychological, and social-wellbeing**. Our mental health also impacts the way we handle stress, relate to others, and decisions to make healthy choices.<sup>104</sup> Personal well-being, family, and interpersonal relationships can be negatively affected due to poor mental health as well as the ability to be a productive member to the community or society. Additionally, it is important to understand that poor mental health and mental illness are different from one another; an individual can experience poor mental health and not have a mental illness (and vice versa). In addition to poor mental health, substance use disorders (SUD) has negative impacts on an individual, family, and community level. The effects of SUD significantly contribute to costly social, physical, mental, and public health challenges.

This section includes the topics **self-reported mental health, suicide, self-inflicted injury, alcohol and substance use, and neonatal abstinence syndrome**.

### Poor Mental Health

Within Onondaga County, 13.6% of adults report experiencing poor mental health for fourteen or more days in the last month.<sup>105</sup> This is higher than the rate for NYS excluding NYC (11.8%) but similar to the rate for Central New York (13.8%). Syracuse has higher rates with 18.0% of adults experiencing poor mental health for fourteen or more days in the last month.<sup>106</sup> Page 46 in the *Overall Health and Health Disparities* section includes a map depicting self-reported poor mental health by census tract in Syracuse.

### Self-Inflicted Injury and Suicide

When an individual harms themselves intentionally, this is known as self-inflicted injury. There are various forms of self-inflicted injuries which may include suicide attempts, but not all self-inflicted injuries have suicidal intent.<sup>107</sup> Onondaga County has higher rates of self-inflicted injury hospitalizations (7.5 per 10,000) than NYS (3.8 per 10,000) (Figure 44). The County's suicide rate (10.7 per 100,000) is also higher than the rate for NYS (8.2 per 100,000) (Figure 45).<sup>108</sup> Individuals aged 15-19 years are more likely to experience self-inflicted injury than the overall population in Onondaga County, however, this same age group is less likely to experience suicide mortality than the total population.

<sup>104</sup> CDC, Learn about Mental Health, 2021. Retrieved 10/3/2022, from <https://www.cdc.gov/mentalhealth/learn/index.htm>.

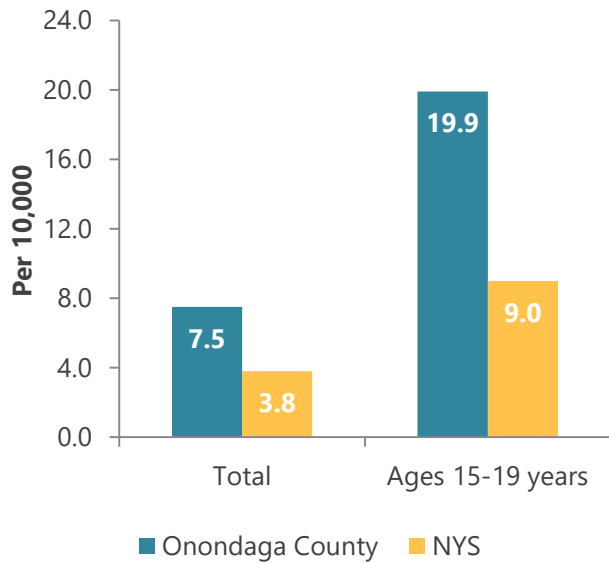
<sup>105</sup> NYS Expanded BRFSS, 2018. Retrieved 10/3/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>.

<sup>106</sup> CDC PLACES: Local Data for Better Health, 2019. Retrieved 10/3/2022 from <https://www.cdc.gov/places/index.html>.

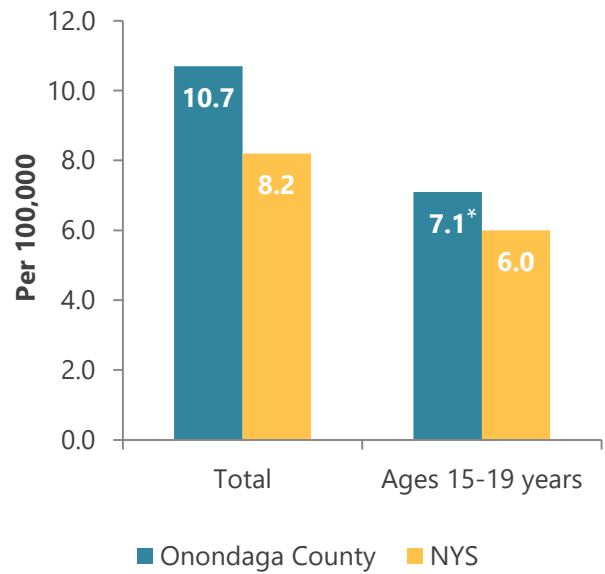
<sup>107</sup> CDC, Self-Directed Violence and Other Forms of Self-Injury, 2019. Retrieved 10/3/2022, from <https://www.cdc.gov/ncbddd/disabilityandsafety/self-injury.html>.

<sup>108</sup> NYS Community Health Indicator Reports. Retrieved 10/3/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

**Figure 44. Self-inflicted injury hospitalization rate per 10,000, by age, Onondaga County and NYS, 2017-2019**



**Figure 45. Suicide mortality rate per 100,000, by age, Onondaga County and NYS, 2017-2019**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>. \*Rate is unstable

### Alcohol Misuse

An individual is at an increased risk for a several poor health outcomes, including injury, violence, liver failure, cancer, and heart disease due to drinking excessive amounts of alcohol. Alcohol consumption that can jeopardize one’s health or relationships can be regarded as alcohol misuse, and alcohol dependence is acknowledged as a chronic disease that can cause withdrawal symptoms and loss of control.<sup>109</sup> In Onondaga County, 23.3% of adults report binge drinking which is higher than the rate for Central New York (20.3%).<sup>110</sup> Additionally, the county rate is higher than at last measurement (19.8% in 2016). Onondaga County has a slightly higher rate of alcohol-related motor vehicle injuries and deaths (29.7%) compared to NYS (28.9%).

**Figure 46. Alcohol misuse indicators, Onondaga County, Central New York, and NYS**

	Onondaga County	Central New York	New York State
% of adults binge drinking in the past month (2018)	23.3	20.3	18.4*
Alcohol related motor vehicle injuries and deaths (per 100,000) (2017-2019)	29.7	33.7	28.9

<sup>109</sup> Alcohol & Substance Misuse, 2018. Retrieved 10/3/2022, from <https://www.cdc.gov/workplacehealthpromotion/health-strategies/substance-misuse/index.html>.

<sup>110</sup> NYS Expanded BRFSS, 2018. Retrieved 10/3/2022, from <https://www.health.ny.gov/statistics/brfss/expanded/>.

% of all motor vehicle deaths involving alcohol (2016-2020)	29	-	20
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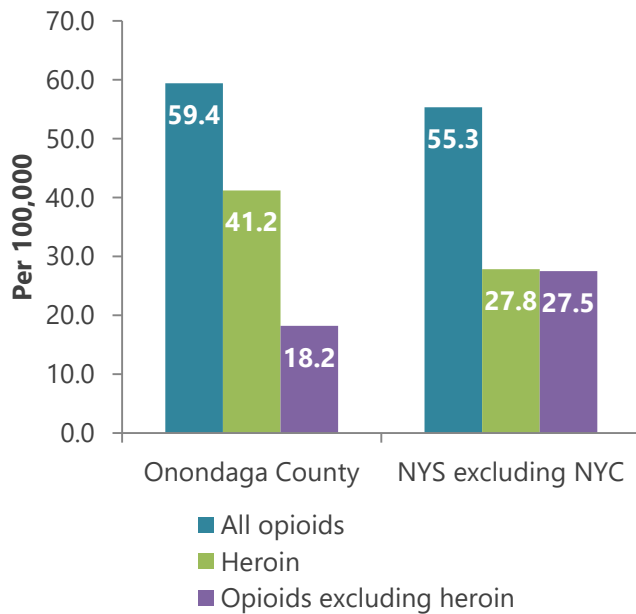
Sources: NYS Expanded BRFSS: <https://www.health.ny.gov/statistics/brfss/expanded/>; NYS Community Health Indicator Reports: <https://www.health.ny.gov/statistics/chac/indicators/>; County Health Rankings: <https://www.countyhealthrankings.org/app/new-york/2022/rankings/onondaga/county/outcomes/overall/snapshot>.

\*Rate is for NYS excluding NYC

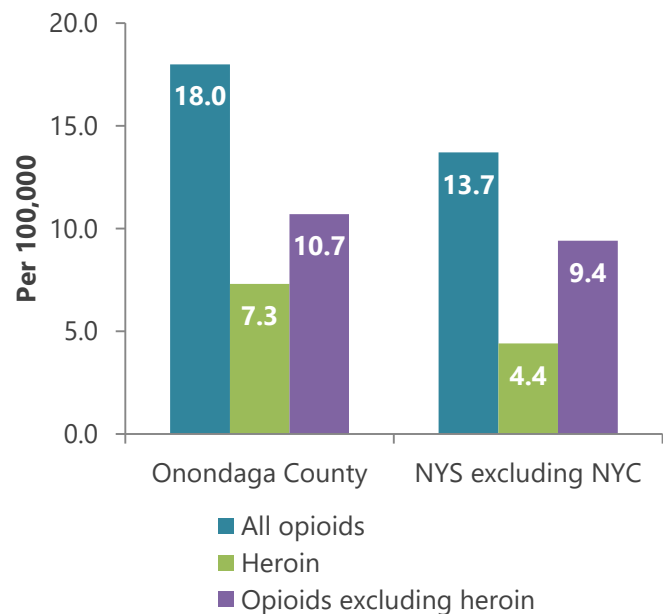
### Substance Use

Substance use disorders remain a challenge in Onondaga County. Opioid use disorders in particular continue to impact Onondaga County residents, as is also seen at the State and national level. Onondaga County fares worse than NYS excluding NYC for many opioid related indicators. Emergency department visit and hospitalization rates for opioid overdoses in Onondaga County and NYS excluding NYC is displayed in figures 47 and 48. The county has higher rates for emergency department visits and hospitalizations for all opioids and heroin overdoses than the rates for NYS excluding NYC. However, for opioids excluding heroin, NYS excluding NYC has a higher emergency department visit rate than Onondaga County, but the county’s hospitalization rate is slightly higher.

**Figure 47. Emergency department visit rate due to opioid overdoses per 100,000 population, Onondaga County and NYS excluding NYC, 2021**



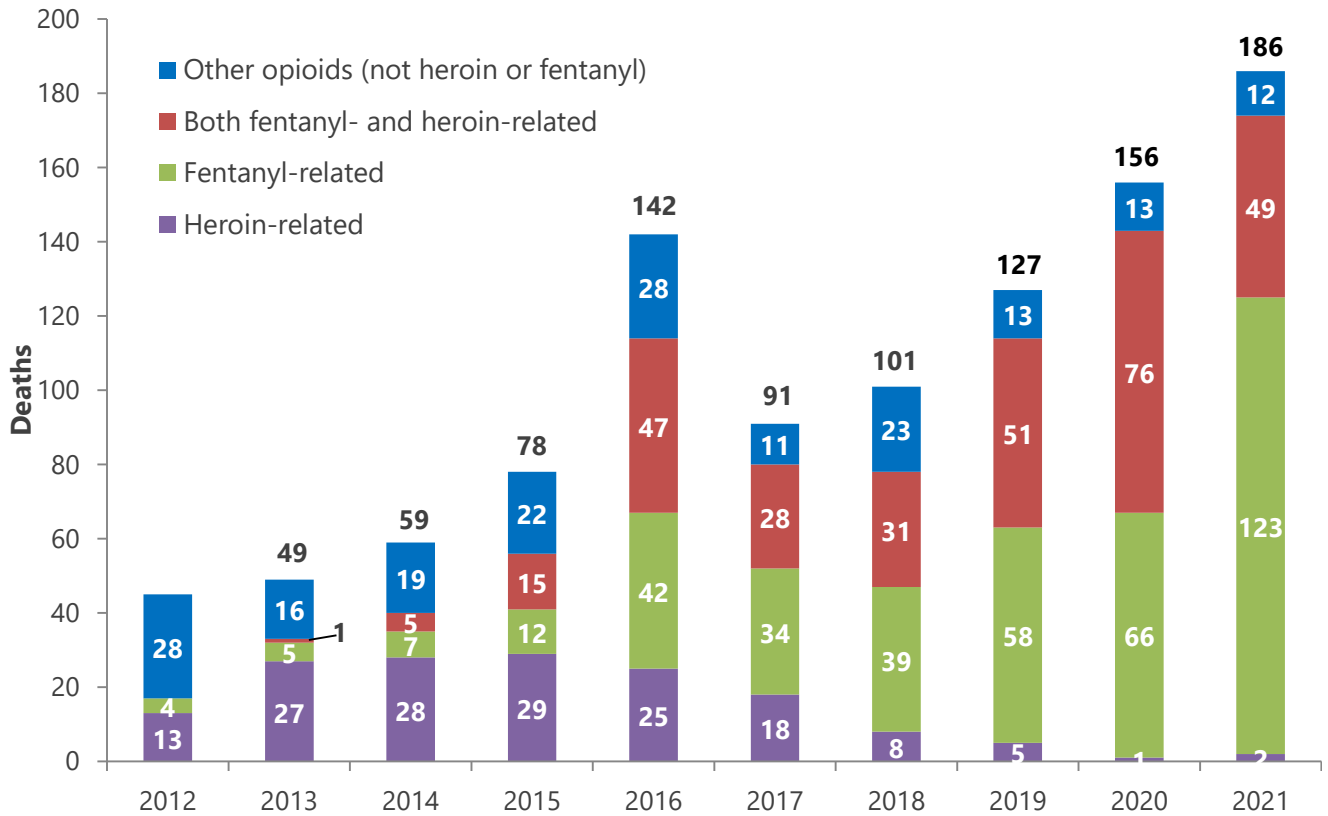
**Figure 48. Hospitalization rate due to opioid overdoses per 100,000 population, Onondaga County and NYS excluding NYC, 2021**



Source: New York State Department of Health - County Opioid Quarterly Report, Published October 2022 [https://www.health.ny.gov/statistics/opioid/data/pdf/nys\\_oct22.pdf](https://www.health.ny.gov/statistics/opioid/data/pdf/nys_oct22.pdf).

There was a decrease in unintended opioid related deaths in Onondaga County after 2016 up until 2019, however, since then, there has been an increase in unintended opioid-related deaths in the following years (2020 and 2021) (Figure 49). The 2020 rate of deaths due to all types of opioid overdoses, heroin overdoses, and overdoses involving pain relievers are all higher in Onondaga County than in NYS excluding NYC (Figure 50).

**Figure 49. Unintended opioid-related deaths, Onondaga County, 2012-2021**

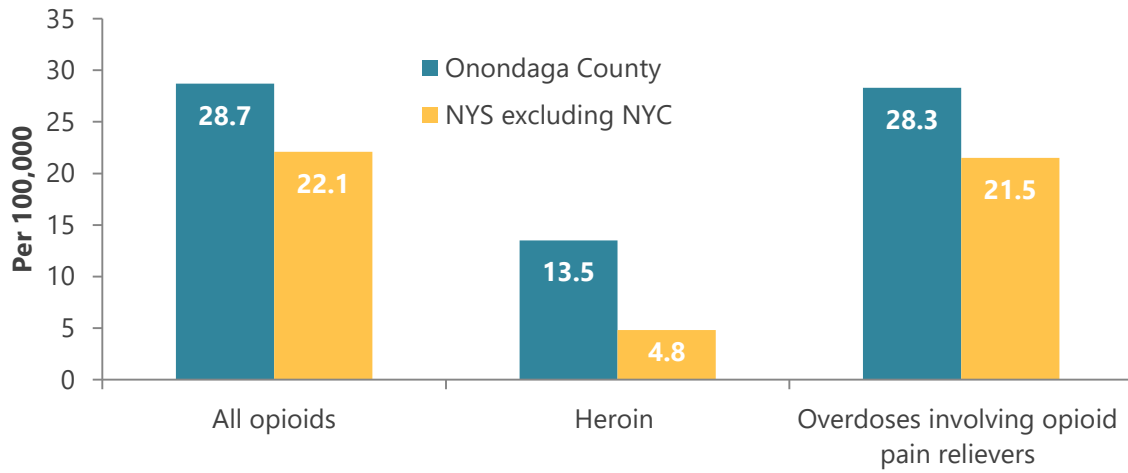


Source: Onondaga County Medical Examiner's Office. Retrieved, 12/30/2022, from <https://healthystories.ongov.net/onondaga-county-opioid-epidemic-data-report/>.

Note: Data are provisional.



**Figure 50. Mortality rate due to opioid overdoses, per 100,000, Onondaga County and NYS excluding NYC, 2020**



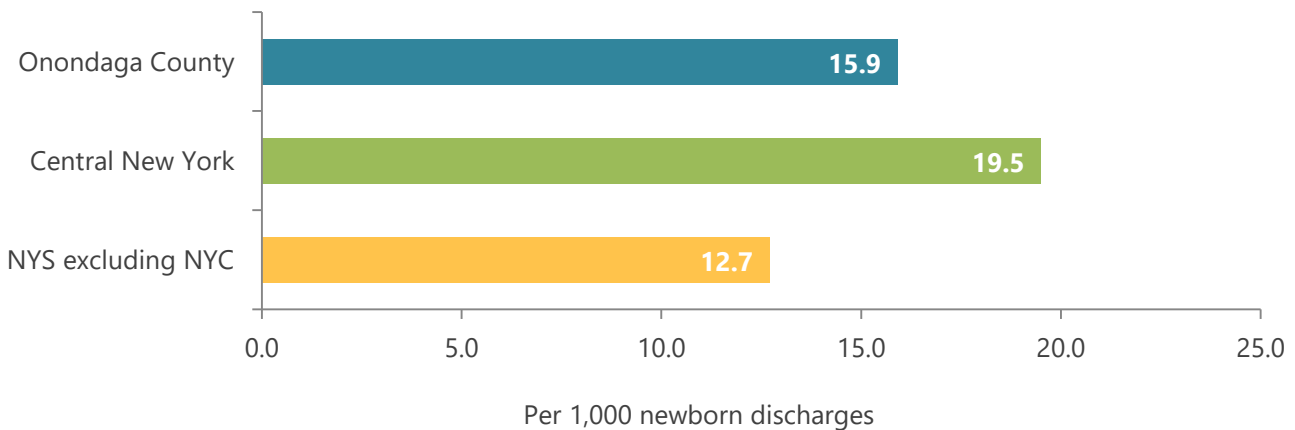
Source: NYSDOH Vital Statistics: [https://www.health.ny.gov/statistics/opioid/data/pdf/nys\\_apr22.pdf](https://www.health.ny.gov/statistics/opioid/data/pdf/nys_apr22.pdf).

Note: Indicators are not mutually exclusive. Decedents and patients may have multiple substances in their system. Thus, overdoses involving heroin and overdoses involving opioid pain relievers will not add up to the overdoses involving all opioids

### Neonatal Abstinence Syndrome

Exposure to opioids and other substances during pregnancy can lead to the development of Neonatal Abstinence Syndrome (NAS).<sup>111</sup> NAS is a “withdrawal syndrome that can occur in newborns exposed to certain substances, including opioids, during pregnancy.” Within Onondaga County, the rate of newborns with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction is 15.9 per 1,000 newborn discharges. This is higher than the rate for NYS excluding NYC but lower than the rate for Central New York.

**Figure 51. Newborns with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction (per 1,000 newborn discharges), Onondaga County, Central New York, and NYS, 2019**



Source: NYS Prevention Agenda Dashboard: [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/)

<sup>111</sup> CDC, Key Findings: Public Health Reporting of NAS Offers Opportunities for Treatment and Prevention, 2021. Retrieved 10/4/2022, from <https://www.cdc.gov/pregnancy/features/public-health-reporting-of-NAS.html>.

## Impact of the COVID-19 Pandemic on Wellbeing, Mental Health, and Substance Use Disorders

The mental wellbeing of U.S. residents was already suffering a prolonged decline even before the first COVID-19 case. The *General Social Survey* provided a report showing respondents who reported being 'very happy' decreased from 30% in 2018 to 19.5% in 2021. Mental Health America found in 2020 that 35% of people had depression and 20% had anxiety. Additionally, those with moderate to severe anxiety increased from 71% in early 2020 to 80% later that same year. Overall, the number of people seeking help with anxiety and depression has soared from 2019 to 2020; a 93% increase since 2019 for people taking an 'anxiety screen,' and a 62% increase for people taking a 'depression screen.'<sup>112</sup>

Vulnerable populations including people with psychiatric disorders and people with substance use disorders have been disproportionately affected by the COVID-19 pandemic, including the associated restrictions and mandates. Lower mental health quality such as elevated anxiety, depression, and posttraumatic stress disorder (PTSD) has been linked to individuals who have recovered from COVID-19 infection. Nearly one in five (18.1%) COVID-19 survivors in the U.S. were diagnosed with a psychiatric diagnosis within 3 months of being diagnosed with COVID-19 and of those, 5.8% were identified as new-onset conditions. For those with existing mental health issues, the significant social disruption has further increased the risk for poor mental health and isolation. Among people with substance use disorders, psychiatric disorders including depression, anxiety, self-harm, and suicidal ideation is especially prevalent and may be exacerbated by loneliness, self-isolation, and financial or economic stress associated with COVID-19. Additionally, risk factors related to the virus and the social disruption may present situations in which someone either experiences a relapse or increases current substance use to self-medicate their psychiatric symptoms.<sup>113</sup> The number of U.S. residents with poor mental health status is concerning, and the pandemic has led to increases in both the volume and severity of poor mental health and substance use outcomes.

### Well-Being, Mental Health, and Substance Use Disorders Summary

In relation to mental health and substance use disorders, both remain persistent challenges in Onondaga County. County residents report higher rates of poor mental health compared to NYS excluding NYC, with rates among Syracuse residents higher than both. Additionally, the number of unintended opioid related deaths has continued to increase in Onondaga County. As evidenced by high rates of emergency department visits and hospitalizations for opioid overdoses, opioid misuse remains a challenge in the county. National data on mental health and substance use show a significant negative impact of the COVID-19 pandemic on the overall wellbeing of residents across the country.

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<sup>112</sup> Blanchflower DG, Bryson A. Covid and mental health in America. PLoS One. 2022 Jul 22;17(7):e0269855. doi: 10.1371/journal.pone.0269855. PMID: 35867704; PMCID: PMC9307159.

<sup>113</sup>National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Care Services; Forum on Mental Health and Substance Use Disorders. Mental Health and Substance Use Disorders in the Era of COVID-19: The Impact of the Pandemic on Communities of Color: Proceedings of a Workshop—in Brief. Graig L, Friedman K, editors. Washington (DC): National Academies Press (US); 2021 Mar 31. PMID: 33793167.

## Healthy and Safe Environments

Having a healthy and safe environment in which to live, work, and play is critical for ensuring lifelong health. Many aspects of the environment can impact health outcomes including exposure to toxins and chemicals, access to safe indoor and outdoor spaces for physical activity, and occupational hazards.

The Social Determinants of Health section (pages 16 to 37) addressed several environmental conditions including crime, housing, food access, and transportation that are impacted by social factors. Environmental topics that were not addressed in earlier sections will be covered in this section. These include **the natural environment, climate change, air pollution, asthma, water quality, food safety, lead exposure, unintentional injury, and occupational health.**

### The Natural Environment

The health and safety of residents is largely influenced by the natural environment. Onondaga County experiences large amounts of snowfall each year. Syracuse has on average, 127 inches of snowfall annually, which generally occurs between October and May.<sup>114</sup> Although, many residents are accustomed to the weather patterns, physical activity and transportation to food sources and medical appointments may be challenging due to significant snowfall. Additionally, some individuals may be at an increased risk for temporarily losing heat and electricity as well as being involved in weather related vehicle collisions due to severe winter weather events. Social isolation due to weather is a concern as well, especially among older adults.

### Climate Change

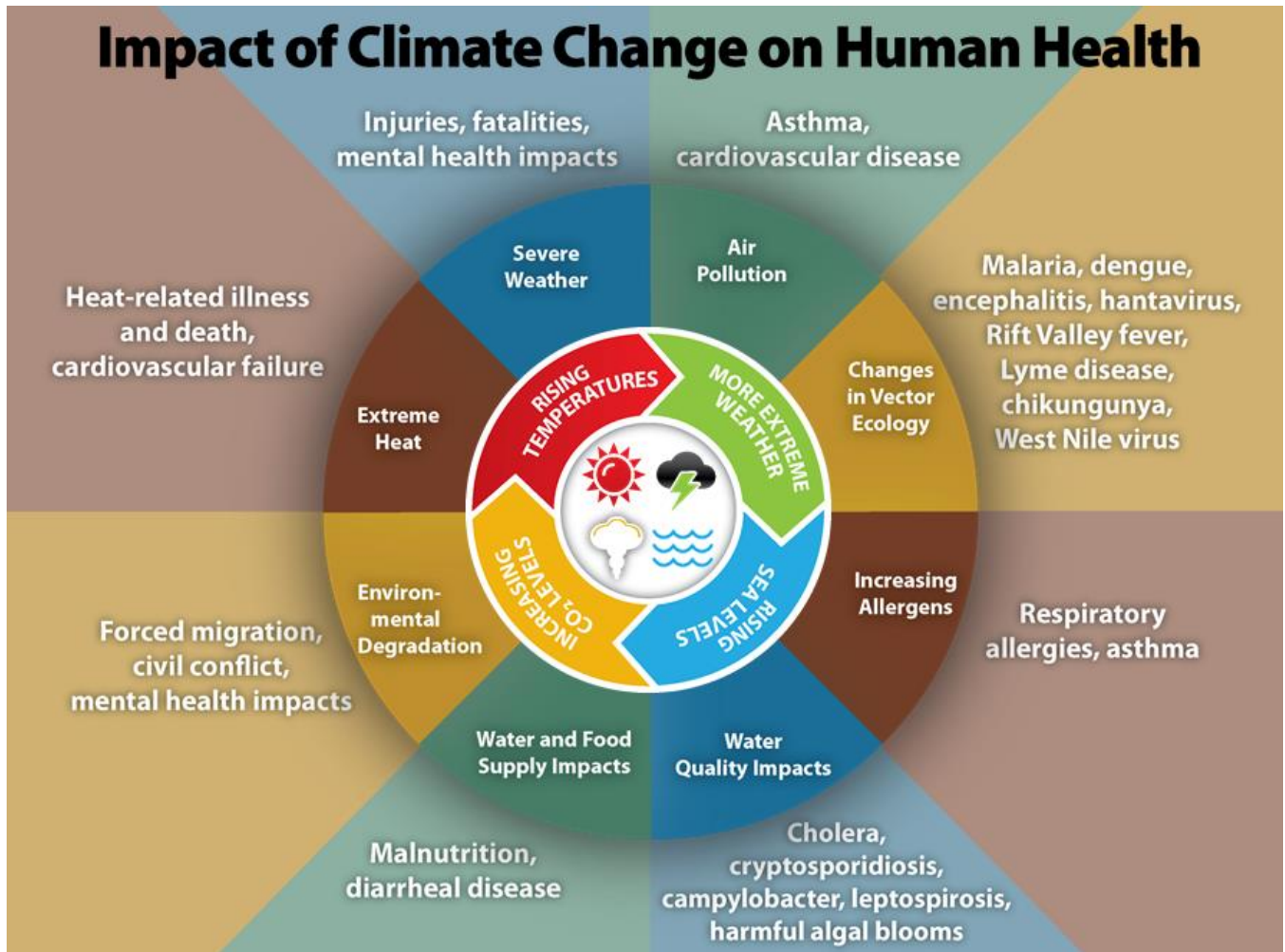
Changes to the climate have the potential to significantly impact health.<sup>115</sup> Figure 52 illustrates several of the impacts of climate change on human health. These include illness resulting from extreme heat; respiratory illness caused by air pollution and increased allergens; changes in ecology impacting the transmission of vector borne diseases (such as Lyme disease, West Nile virus, and Eastern Equine Encephalitis virus); as well as waterborne illness and the presence of harmful algal blooms. Understanding the impact of climate change on health is an important first step in working towards mitigating its impact.

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<sup>114</sup> Syracuse.com, [Golden Snowball: Where does Syracuse stand among the Upstate cities for the most snow?](#) Retrieved 12/20/2022.

<sup>115</sup> CDC, Climate Effects on Health. Retrieved 12/20/2022, from <https://www.cdc.gov/climateandhealth/effects/default.htm>

Figure 52. Impact of climate change on health



Source: CDC, *Climate Effects on Health*. Retrieved 12/20/2022, from <https://www.cdc.gov/climateandhealth/effects/default.htm>.

### Air Quality

Air pollution can have a considerable impact on human health, especially for individuals with chronic respiratory conditions such as asthma. Additionally, heart disease and low birth weight have been linked to air pollution.<sup>116</sup> Often air pollution is the result of human activities including exhaust from operating vehicles and burning of fossil fuels, however, pollutants can also occur in nature such as pollution from wildfires.

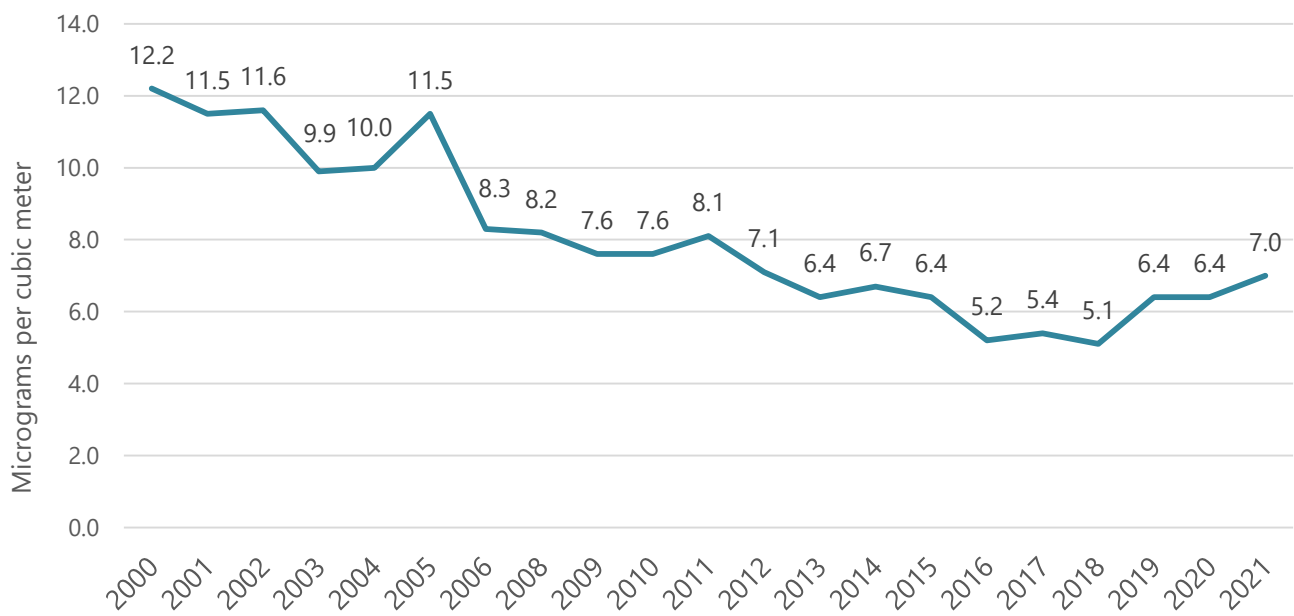
The concentration of particulate matter in the air is one measure for air pollution. Particulate matter (PM) contains a mixture of solid particles and liquid droplets in the air; particles may be large enough to see with the

<sup>116</sup> NYSDOH Environmental Public Health Tracker, 2022. Retrieved 10/6/2022, from [https://apps.health.ny.gov/statistics/environmental/public\\_health\\_tracking/tracker/index.html#/airpollutionCountyTrend](https://apps.health.ny.gov/statistics/environmental/public_health_tracking/tracker/index.html#/airpollutionCountyTrend).

naked eye such as dust, dirt, soot, or smoke, while other particles may only be seen using a microscope.<sup>117</sup> Particulate matter is categorized by its size in micrometers. Particulate matter with a diameter of 10 micrometers and smaller is referred to as PM<sub>10</sub> and can get into the bloodstream by entering deep into the lungs. Particulate matter with a diameter of 2.5 micrometers or smaller is referred to as PM<sub>2.5</sub> or fine particulate matter, and causes the greatest health risk due to its small size.

Exposure to particulate matter can negatively impact health including premature death, especially among individuals with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, irritation of the airways, coughing, or difficulty breathing.<sup>118</sup> Older adults, children, and individuals with heart or lung diseases are at increased risk for experiencing the negative health effects of particulate matter pollution. Furthermore, there are environmental impacts of particulate matter including decreased water quality, depletion of nutrients in soil, damage to forests and farm crops, impacts on ecosystem diversity, and acid rain which in turn have the potential to impact human health and well-being. In Onondaga County, the current annual average concentration of fine particulate matter (PM<sub>2.5</sub>) is 7.0 µg/m<sup>3</sup>, which meets the National Ambient Air Quality Standard of 12µg/m<sup>3</sup>.<sup>119</sup> Additionally, Onondaga County’s average annual density of fine particulate matter has improved over the last two decades, as shown in the figure below.

**Figure 53. Annual average concentration of fine particulate matter (PM<sub>2.5</sub>), Onondaga County, 2000-2021**



<sup>117</sup> U.S. Environmental Protection Agency, Particulate Matter Pollution, Particulate Matter Basics, 2022. Retrieved 10/6/2022, from <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#PM>.

<sup>118</sup> U.S. Environmental Protection Agency, Particulate Matter Pollution, Health and Environmental Effects of Particulate Matter, 2022. Retrieved 10/6/2022, from <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>.

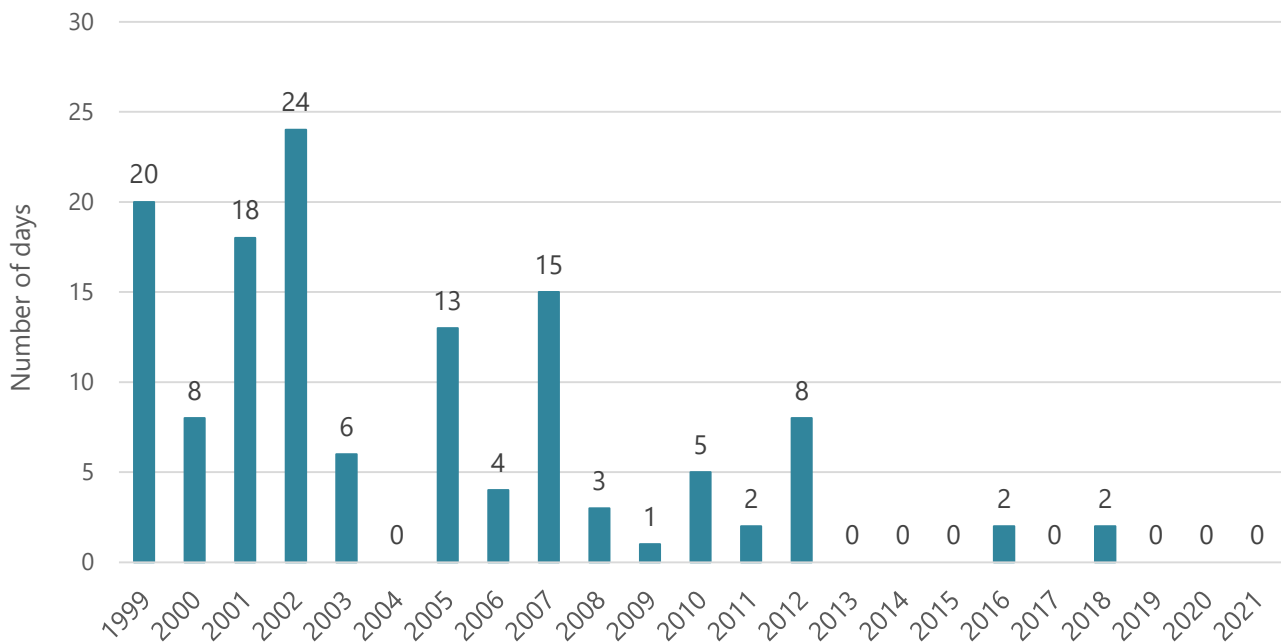
<sup>119</sup> CDC National Environmental Public Health Tracking Network, Retrieved 12/21/2022, from <https://ephtracking.cdc.gov/DataExplorer>.

Source: CDC National Environmental Public Health Tracking Network, Retrieved 12/21/2022 from <https://ephtracking.cdc.gov/DataExplorer>

Ground level ozone is a gas composed of oxygen that is created when two types of air pollutants (volatile organic compounds and nitrogen oxides) are combined.<sup>120</sup> Ozone causes what is frequently referred to as smog and is more likely to form during summer months. Exposure to ozone can result in eye irritation, chest pain, cough, shortness of breath, acute attacks of asthma, increased susceptibility to respiratory infections and inflammation.<sup>121</sup> Individuals with bronchitis, emphysema, and asthma may have their condition exacerbated by ozone. Individuals most at risk for the harmful effects of ozone include individuals with asthma, children, older adults, and individuals who spend a significant amount of time outdoors.

The trend for the number of days in Onondaga County where ozone concentration was above National Ambient Air Quality Standards is depicted in the figure below. Between 2017 and 2021, Onondaga County experienced two days in which the National Ambient Air Quality Standard for ozone was exceeded.<sup>122</sup>

**Figure 54. Number of days with ozone concentration above National Ambient Air Quality Standard, Onondaga County, 1999-2021**



Source: CDC National Environmental Public Health Tracking Network, Retrieved 12/21/2022, from <https://ephtracking.cdc.gov/DataExplorer>.

<sup>120</sup> U.S. Environmental Protection Agency, Ozone Pollution and Your Patient’s Health, 2022. Retrieved 10/6/2022, from <https://www.epa.gov/ozone-pollution-and-your-patients-health/what-ozone>.

<sup>121</sup> U.S. Environmental Protection Agency, Ground Level Ozone Pollution, 2022. Retrieved 10/6/2022, from <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>.

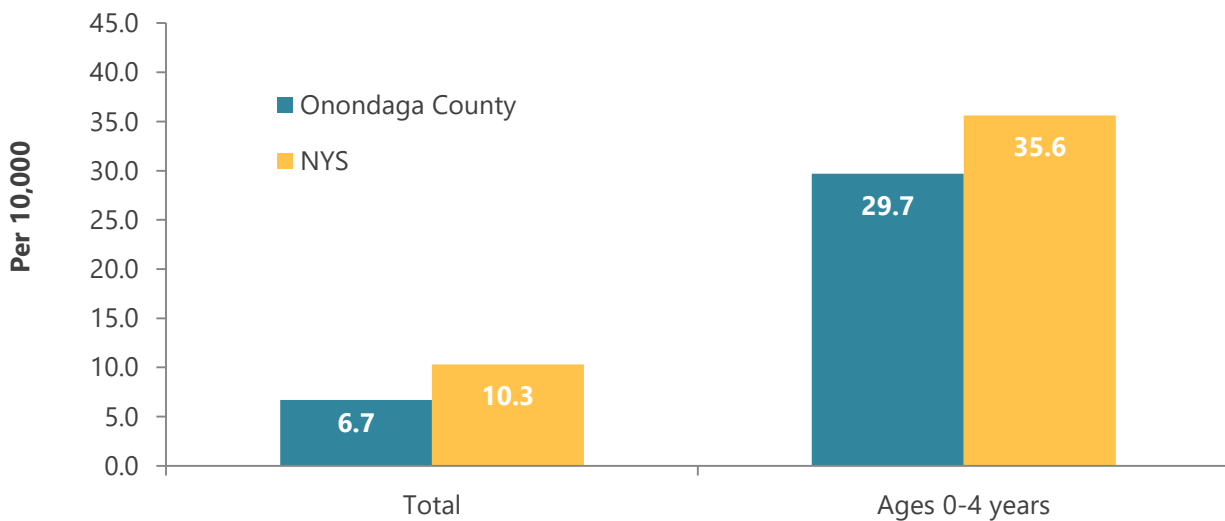
<sup>122</sup> CDC National Environmental Public Health Tracking Network, Retrieved 12/21/2022, from <https://ephtracking.cdc.gov/DataExplorer>.

## Asthma

Adults and children of all ages can be impacted by asthma. In addition to impacting quality of life and putting individuals at risk for asthma related complications, asthma can make pursuing regular physical activity more challenging. Asthma triggers include but are not limited to allergens, pets, tobacco smoke, wood smoke, dust, air pollution, infections, weather, strong emotions, nitrogen dioxide gas, pests (including cockroaches and mice), and mold.<sup>123</sup> The home or workplace are often places for exposure to these triggers. Additionally, there is an increased risk for developing asthma among individuals with toxic stress.

The prevalence of asthma among adults in Onondaga County is 12.6% compared to 12.3% in Central New York, and 10.1% in NYS.<sup>124</sup> In Onondaga County, children ages 0 to 4 years have higher rates of hospitalizations than the overall population (Figure 55).

**Figure 55. Hospitalization rate for asthma, per 10,000, by age, Onondaga County and NYS, 2017-2019**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>123</sup> U.S. Environmental Protection Agency, Asthma, 2022. Retrieved 10/6/2022, from <https://www.epa.gov/asthma/asthma-triggers-gain-control#chemical>; CDC, Common Asthma Triggers, 2020. Retrieved 10/6/2022, from <https://www.cdc.gov/asthma/triggers.html>.

<sup>124</sup> NYS Community Health Indicator Reports. Retrieved 10/7/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.



## Water Quality

Water is an essential community resource for both drinking and recreation. Clean and safe drinking water is necessary to sustain human life. Water is also used for recreational activities, such as swimming, which promotes healthy living. The OCHD is responsible for the regulatory oversight of public water systems in the County. The major public water suppliers include the Onondaga County Water Authority, City of Syracuse Water Department, and several Town and Village systems. Skaneateles Lake, Lake Ontario, and Otisco Lake are the major sources of water for this county. Suppliers are required to regularly sample the water for a variety of contaminants and results are available to the public. A Boil Water Order may be issued if disease-causing pathogens are identified in the water. This notifies the public that they must boil their water prior to consumption until levels have decreased.

Both drinking water and recreational uses of Skaneateles Lake can be affected by harmful algae blooms (HABs). Throughout the summer and fall season, the lake is monitored for HABs and sampling results are posted on the OCHD website. There is a plan in place to alert the public if there is a potential for toxins to reach residential taps even though there have only been low levels of toxins found in untreated water.

There are frequent inspections for safety and water quality issues of public beaches throughout the summer season. Water at public beaches can become contaminated with bacteria such as E-coli, which is identified through regular testing. When bacteria levels are elevated or HAB's are present, beaches will be closed to protect public health and safety.

## Food Safety

A common but preventable public health problem is foodborne illness. As estimated by the CDC, 1 in 6 Americans get sick each year from contaminated food or beverages.<sup>125</sup> Vomiting, diarrhea, and fever are some symptoms of foodborne illness, however, in rare cases, death can occur. Improper handling of food at home or in restaurants can result in contaminated food with bacteria, viruses, or parasites. There are various ways to reduce foodborne outbreaks, both at home and in restaurants including cleaning hands and surfaces, eliminating cross-contamination of foods, cooking to correct temperatures, and chilling perishable foods promptly.

## Lead Exposure

Exposure to lead during childhood can be detrimental to children's physical and cognitive development. Lead exposure is preventable. Children are commonly exposed to lead in their environment such as through chipping or peeling lead-based paint which is common in homes built before 1978 (when lead-based paints were banned in the U.S.). Older homes that are not well maintained are at particular risk for chipping, cracking, or peeling paint. Other sources of lead exposure include water pipes that contain lead, through products (including

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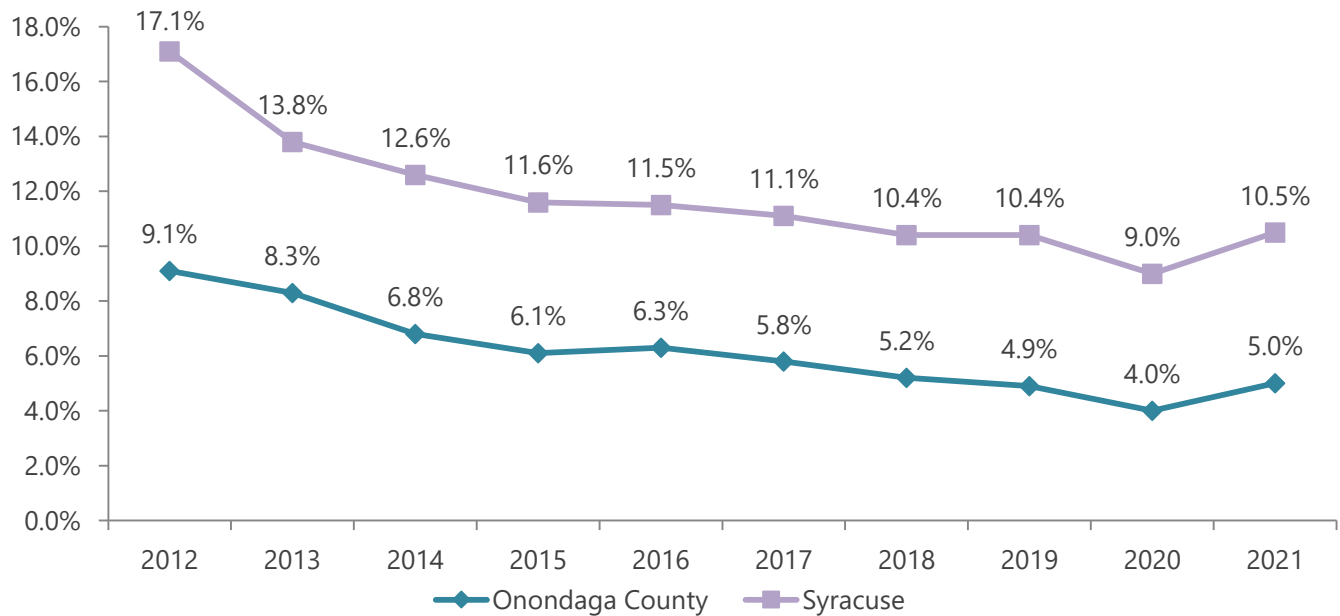
<sup>125</sup> CDC, Food Safety, 2022. Retrieved 10/6/2022, from <https://www.cdc.gov/foodsafety/cdc-and-food-safety.html>.



certain dishware, toys, and jewelry), and through jobs and hobbies involving lead-based products (such as stain glass work).<sup>126</sup>

A good way to measure whether a child has been exposed to lead is to test children’s blood lead levels. New York State mandates that doctors test all children for lead poisoning at ages 1 and 2 years. Further testing and monitoring is required when blood levels are 5 micrograms per deciliter (5µg/dL) or greater. Figure 56 displays the percentage of tested children with blood lead levels of 5µg/dL or greater in Onondaga County and Syracuse from 2012- 2021. The percentage of children with blood lead levels of 5µg/dL or greater has decreased for both Onondaga County and Syracuse over the timeframe, however Syracuse continues to have rates that are approximately double the county rate. Within Syracuse, there are geographic variations by census tract with tracts south of downtown and the north portion of the city having the highest percentages of children with blood lead levels of 5µg/dL or greater.<sup>127</sup>

**Figure 56. Percentage of tested children with elevated blood lead levels, Onondaga County and Syracuse, 2012-2021**



Source: OCHD Division of Community Health, Lead Poisoning Prevention Program: <http://www.ongov.net/health/lead/data.html>. Note: Onondaga County is inclusive of Syracuse. Data are preliminary.

<sup>126</sup> CDC, Sources of Lead, 2022. Retrieved 10/6/2022, from <https://www.cdc.gov/nceh/lead/prevention/sources.htm>.

<sup>127</sup> OCHD Lead Poisoning Prevention Program. Note, data are provisional.

## Injury

Indicators for injuries occurring in Onondaga County, Central New York, and NYS are displayed in Figure 57. Onondaga County fares worse than Central New York and NYS for unintentional injury hospitalizations, unintentional injury mortality, and poisoning hospitalizations. For hospitalizations due to falls (among adults aged 65+ years) Onondaga County fares worse than Central New York, but better than NYS, and for motor vehicle mortality, Onondaga County fares better than Central New York but worse than NYS.

**Figure 57. Injury indicators, Onondaga County, Central New York, and NYS**

	Onondaga County	Central New York	New York State
Hospitalizations due to falls (per 10,000) – Aged 65+ years (2019)	203.5	197.1	210.4*
Unintentional injury hospitalization rate (per 10,000) (2017-2019)	67.6	65.8	61.5
Unintentional injury mortality rate (per 100,000) (2017-2019)	49.4	48.2	34.4
Motor vehicle mortality rate (per 100,000) (2017-2019)	8.1	8.5	5.1
Poisoning hospitalization rate (per 10,000) (2017-2019)	10.8	9.7	7.6

Sources: *NYS Prevention Agenda Dashboard - County Level*; *NYS Community Health Indicator Reports*. Retrieved from <https://www.health.ny.gov/statistics/chac/indicators/>. \*Data are for NYS excluding NYC.

## Occupational Health

Both health and safety can be impacted by the environments in which individuals work. Individuals in certain occupations are at an increased risk for job related injuries or exposure to harmful chemicals, toxins, or fibers. For example, individuals exposed to asbestos in their occupation may develop lung conditions such as Asbestosis and Mesothelioma. Several occupational health related indicators for Onondaga County, Central New York, and NYS are provided the figure below. Onondaga County fares better than Central New York and NYS for the exposure related indicators including elevated blood lead levels, mesothelioma, and asbestosis. However, Onondaga County fares worse than NYS for work-related hospitalizations and fatal work injuries but better than Central New York.

**Figure 58. Occupational health indicators, Onondaga County, Central New York, and NYS**

	Onondaga County	Central New York	New York State
Blood lead levels $\geq 10 \mu\text{g/dL}$ (per 100,000) employed and aged 16 +years (2017-2019)	7.1	13.3	16.8
Incidence of malignant mesothelioma (per 100,000)- aged 15 +years (2016-2018)	0.9*	0.9	1.1
Asbestosis hospitalization rate (per 100,000 )- aged 15 + years (2017-2019)	2.5	3.3	5.7
Work-related hospitalizations (per 100,000)- employed and aged 16+years (2017-2019)	185.5	186.6	145.9
Fatal work-related injuries (per 100,000)- employed and aged 16+years (2017-2019)	3.3	4.0	3.1

Source: NYS Community Health Indicator Reports. Retrieved from <https://www.health.ny.gov/statistics/chac/indicators/>. \*Rate is unstable.

### Impact of the COVID-19 Pandemic on Healthy and Safe Environments

Due to the pandemic, guidance was created for the Occupational Safety and Health Administration’s (OSHA’s) mandatory safety and health standards to help employers identify COVID-19 exposure risks to workers who are not vaccinated, partially vaccinated, or at-risk regardless of vaccination status, including those who are immunocompromised. There is also specific guidance for work environments at a higher risk for exposure to the virus such as workplaces that require workers to be in close contact with one another or the public, or in closed spaces without sufficient ventilation. Additionally, the guidance is updated over time to reflect developments in science to ensure there are best practices and standards being recommended for workers and their work environments.<sup>128</sup>

In March 2020, restrictions were put in place to control the spread of COVID-19 which resulted in major changes to human mobility. The restrictions and guidelines, which included lockdowns, social distancing rules, travel bans, and business operation limitations, was imposed in many states in the U.S., including New York.<sup>129</sup> As a result, air quality in major cities was temporarily improved, although long-term issues related to air pollution have yet to be resolved. In the U.S., both PM2.5 and Nitrogen dioxide (NO2) were significantly reduced. The 2020 findings reported a decrease of 51% of NO2 and 36% of PM2.5 in New York State after the lockdown.<sup>130</sup> Nitrogen dioxide is present in small amounts in the atmosphere but is a harmful air pollutant and populations with respiratory illnesses such as asthma are more likely to be vulnerable to adverse impacts from exposure to NO2. Although air quality generally improved during the pandemic, NO2 levels for communities of color still remained close to pre-pandemic levels compared to communities with a larger proportion of White residents.<sup>131</sup>

<sup>128</sup> <https://www.osha.gov/coronavirus/safework>.

<sup>129</sup> <https://www.mdpi.com/1660-4601/19/6/3168>.

<sup>130</sup> <https://link.springer.com/article/10.1007/s11356-022-19484-5>.

<sup>131</sup> <https://www.nasa.gov/feature/esnt/2021/qa-scientists-analyze-how-the-pandemic-affected-air-quality>.

The pandemic has changed guidelines for occupational safety associated with COVID-19 as well as the air quality across the country and NYS, but with the continuing emergence of new variants, workplace guidelines will have to be modified and new strategies identified to continue keeping the air quality and overall environment healthy.

### **Healthy and Safe Environment Summary**

As indicated by trend data, Onondaga County air quality measures have improved in recent years. However, asthma continues to be a challenge, with the county experiencing higher asthma prevalence than both Central New York and NYS. Although trend data shows declines over time in elevated blood lead levels in both Onondaga County and Syracuse, there has been an increase in elevated blood lead levels in the most recent measure revealing a continuous struggle with lead exposure. Safety continues to be a challenge for Onondaga County due to faring worse than NYS for some injury indicators. Additionally, food and water safety continue to be important to reduce foodborne illnesses and address water quality concerns especially related to harmful algae bloom. The COVID-19 pandemic has created opportunities for improvement on air quality and occupational safety standards. Climate change and factors related to the built environment highlight a need for increased focus on climate resilience and the built environment (such as walkability, food access, and access to safe places to play) which will be critical for the future of public health.

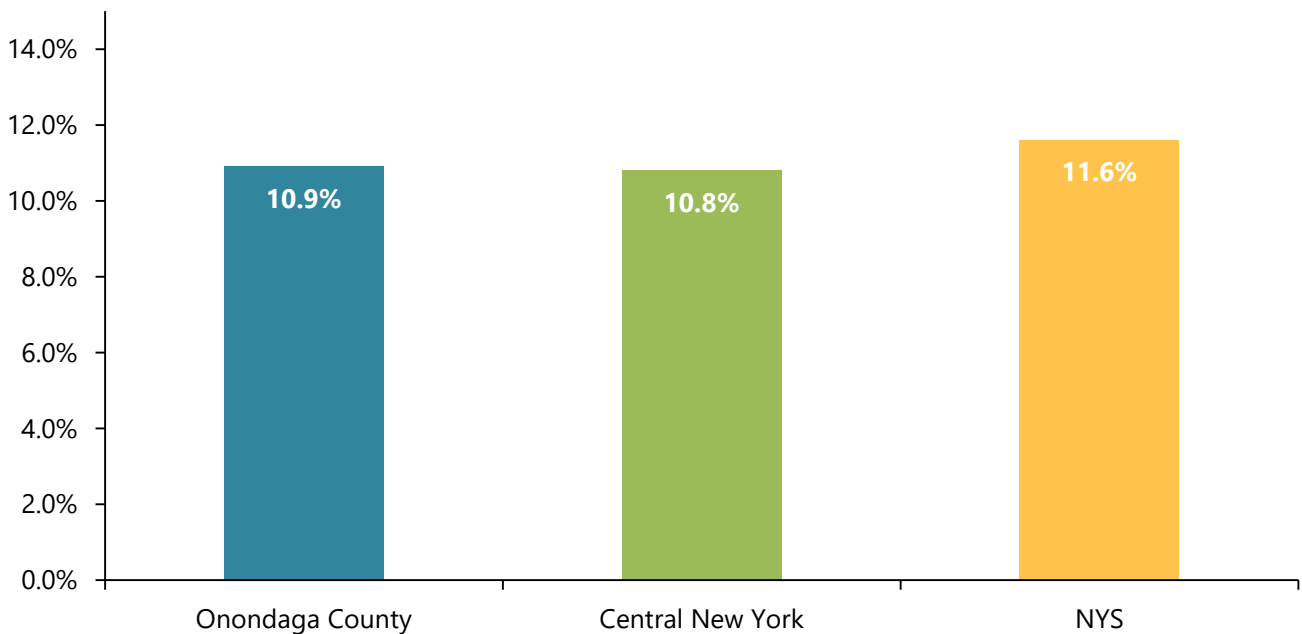
## Healthy Women, Infants, and Children

Protecting the health of women, infants and children is essential in supporting the current and future health of the community. Topics covered in this section include: **family planning and natality, prenatal care, substance use in pregnancy, preterm birth, low birth weight, infant mortality, and breastfeeding.**

### Family Planning and Natality

In Onondaga County in 2021, there were approximately 4,900 live births, with nearly 1,900 of those to Syracuse residents.<sup>132</sup> As seen in Figure 59 below, the percentage of births to women aged 25 and older without a high school education is similar for Onondaga County (10.9%) and Central New York (10.8%). NYS experiences the highest rates with 11.6%.

**Figure 59. Percentage of births to women aged 25 years and older without a high school education, Onondaga County, Central New York, and NYS, 2017-2019**



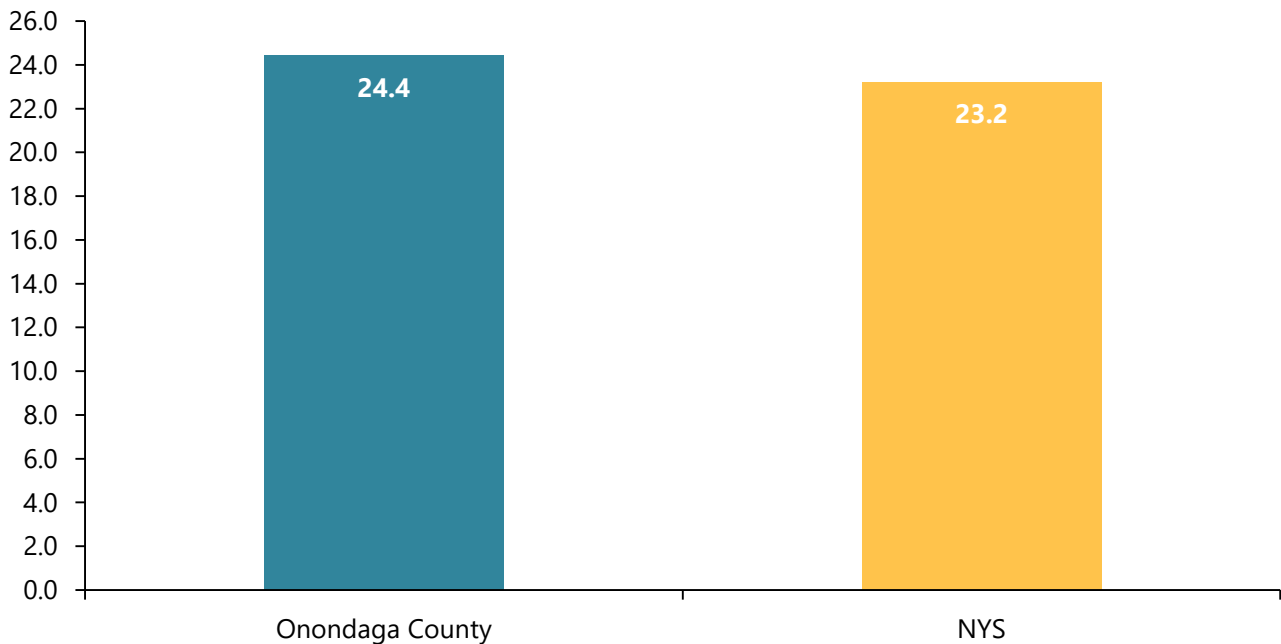
Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>132</sup> OCHD Division of Community Health, birth data accessed through NYS Statewide Perinatal Data System. Note, data are provisional.

Onondaga County's teen pregnancy rate (aged less than 18 years) is 5.7 per 1,000 females which is higher than the rate for NYS excluding NYC (3.7 per 1,000).<sup>133</sup> This measure includes all pregnancy outcomes, including live births, induced terminations, and all fetal deaths. The teen pregnancy rate has shown a steady decrease in recent years, though a racial disparity remains. In Onondaga County, non-Hispanic Black populations experience the highest rate of teen pregnancy (14.1 per 1,000) compared to non-Hispanic White populations (2.3 per 1,000) and Hispanic populations (9.3 per 1,000).<sup>134</sup>

When looking only at teens age 15-19 years, Onondaga County's teen pregnancy rate per 1,000 is slightly higher than the rate for NYS (Onondaga County, 24.4 per 1,000; NYS 23.2 per 1,000).

**Figure 60: Teenage pregnancies (aged 15-19 year) per 1,000 female population, Onondaga County and NYS, 2019**



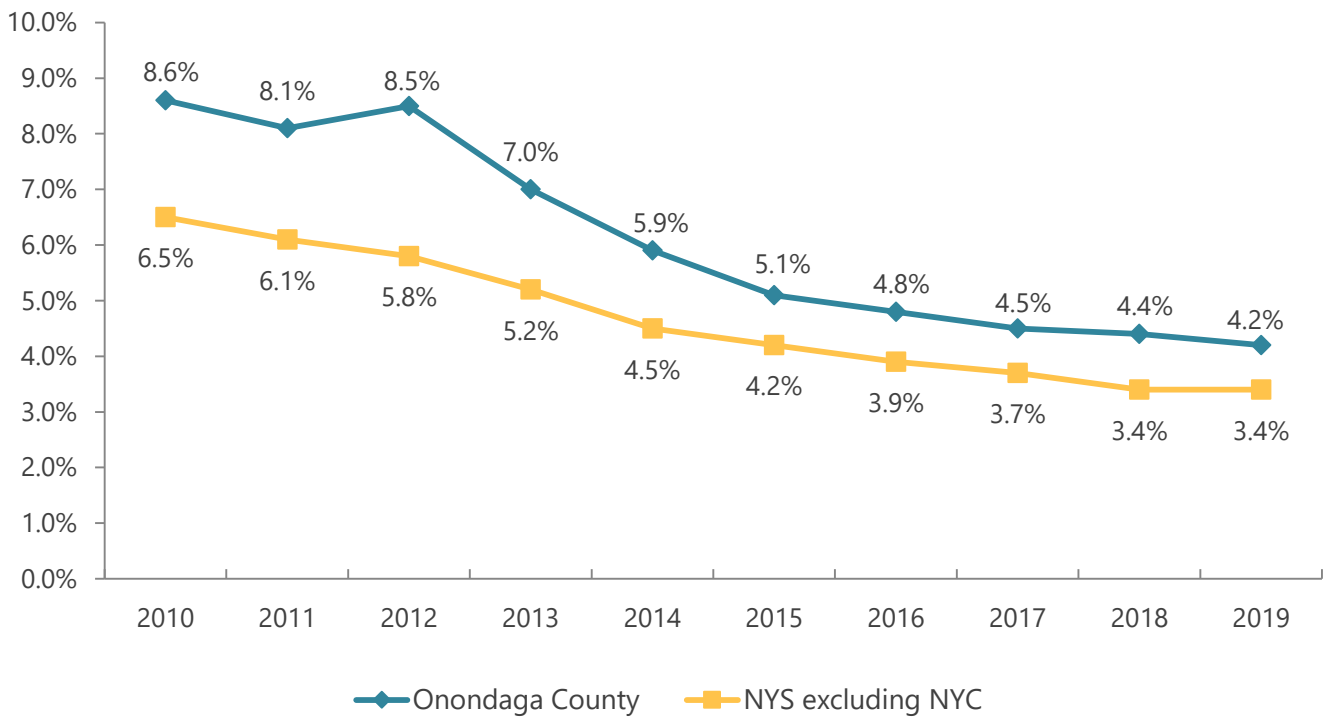
Source: NYSDOH Vital Statistics of New York: [https://www.health.ny.gov/statistics/vital\\_statistics/2019/](https://www.health.ny.gov/statistics/vital_statistics/2019/)

With respect to births, teens aged 15-19 years accounted for 4.2% of all births in the county in 2019. This rate has decreased substantially in the last decade; however Onondaga County's rate continues to exceed that of NYS excluding NYC (Figure 61).

<sup>133</sup> NYS County Health Indicators by Race/Ethnicity, 2017-2019. Retrieved 10/11/2022 from <https://www.health.ny.gov/statistics/community/minority/county/index.htm>

<sup>134</sup> NYS County Health Indicators by Race/Ethnicity, 2017-2019. Retrieved 10/11/2022 from <https://www.health.ny.gov/statistics/community/minority/county/index.htm>

**Figure 61. The percentage of total births that were to females aged 15-19 years, Single-year, Onondaga County and NYS excluding NYC, 2010-2019**



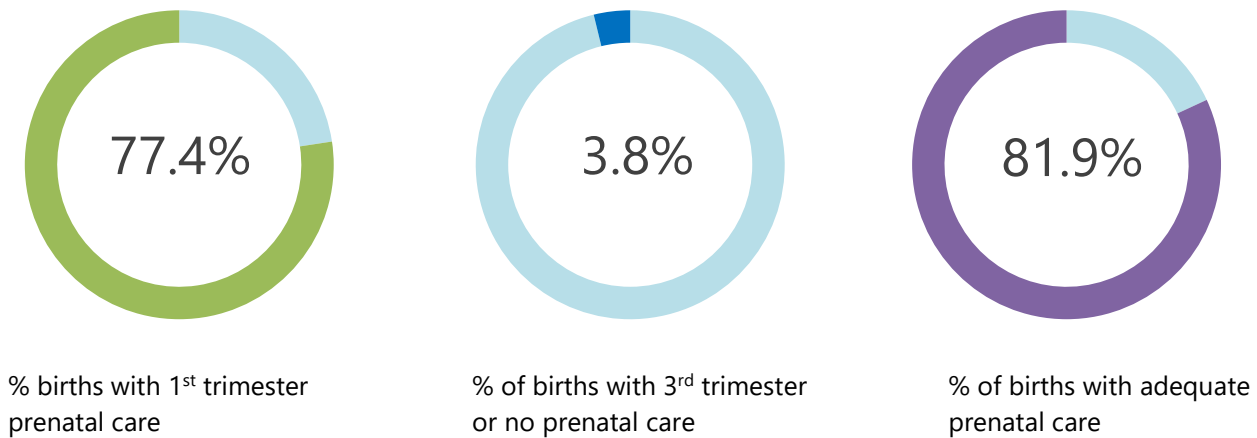
Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

### Prenatal Care

To support a healthy pregnancy, access to early and adequate prenatal care is essential. In Onondaga County, 77.4% of mothers entered prenatal care in their first trimester compared to 76.3% in NYS. The percentage of mothers with late (3rd trimester) or no prenatal care in Onondaga County (3.8%) is also lower than NYS (5.4%). Additionally, mothers in Onondaga County (81.9%) had higher rates of adequate prenatal care compared to NYS (75.5%). Despite having more favorable outcomes compared to NYS, Onondaga County indicators for prenatal care have worsened in recent years.<sup>135</sup>

<sup>135</sup> NYS Prevention Agenda Dashboard- County Level, 2017-2019. Retrieved 10/11/2022.

**Figure 62. Prenatal care indicators, Onondaga County, 2017-2019**

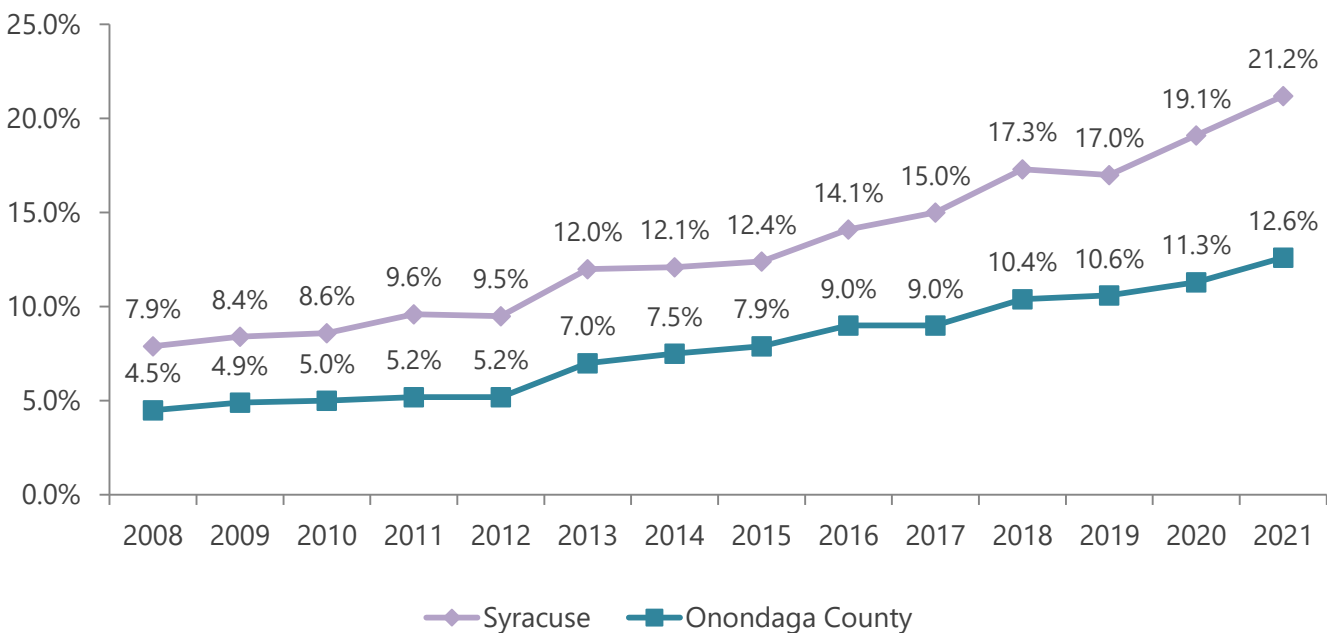


Source: [NYS Prevention Agenda Dashboard- County Level](#), 2017-2019. Retrieved 10/11/2022.

### Substance Use in Pregnancy

Smoking and consuming alcohol or drugs during pregnancy can significantly impact fetal development and health. Within Onondaga County in 2021, 7.1% of individuals reported smoking during their first trimester of pregnancy, compared to 10.5% in Syracuse. Less than one percent of individuals in both Syracuse and Onondaga County report alcohol use during pregnancy.

**Figure 63. Self-reported illegal drug use in pregnancy, Syracuse and Onondaga County, 2008-2021**





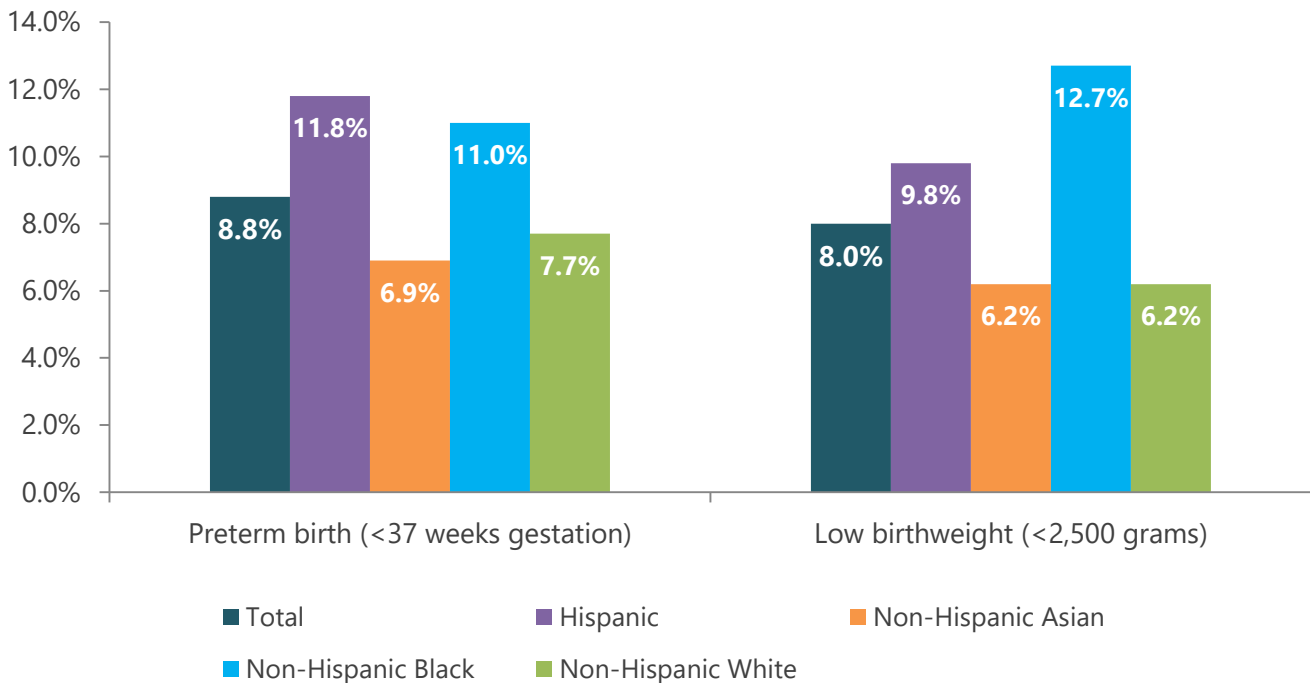
Source: Statewide Perinatal Data System, accessed by OCHD Division of Community Health. Notes: Onondaga County is inclusive of Syracuse. Data are provisional.

Illegal drug use in pregnancy has become more frequent in recent years and may reflect the impact of higher rates of opioid misuse. Figure 63 depicts the percentage of women reporting illegal drug use during pregnancy from 2008 to 2021 in Onondaga County and Syracuse. In 2021, 12.6% of women reported illegal drug use in pregnancy countywide, compared to 21.2% in Syracuse.<sup>136</sup>

### Birth Outcomes

Onondaga County continues to experience racial disparities in birth outcomes, including preterm births and low birth weight. Preterm births and low birth weight births by race and ethnicity in Onondaga County are depicted in Figure 64. Non-Hispanic Black residents have the highest rate of low birth weight, and nearly twice the rate of non-Hispanic White residents. Additionally, Hispanic populations and non-Hispanic Black populations experience higher rates of preterm birth than non-Hispanic White populations. Overall, Onondaga County fares better than NYS excluding NYC for preterm births (Onondaga: 8.8%, NYS excluding NYC: 9.1%) but worse for low birth weight (Onondaga: 8.0%, NYS excluding NYC: 7.7%)<sup>137</sup>

**Figure 64. Preterm births and low birth weight births by race and ethnicity, Onondaga County, 2017-2019**



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE): <https://www.health.ny.gov/statistics/community/minority/county/index.htm>

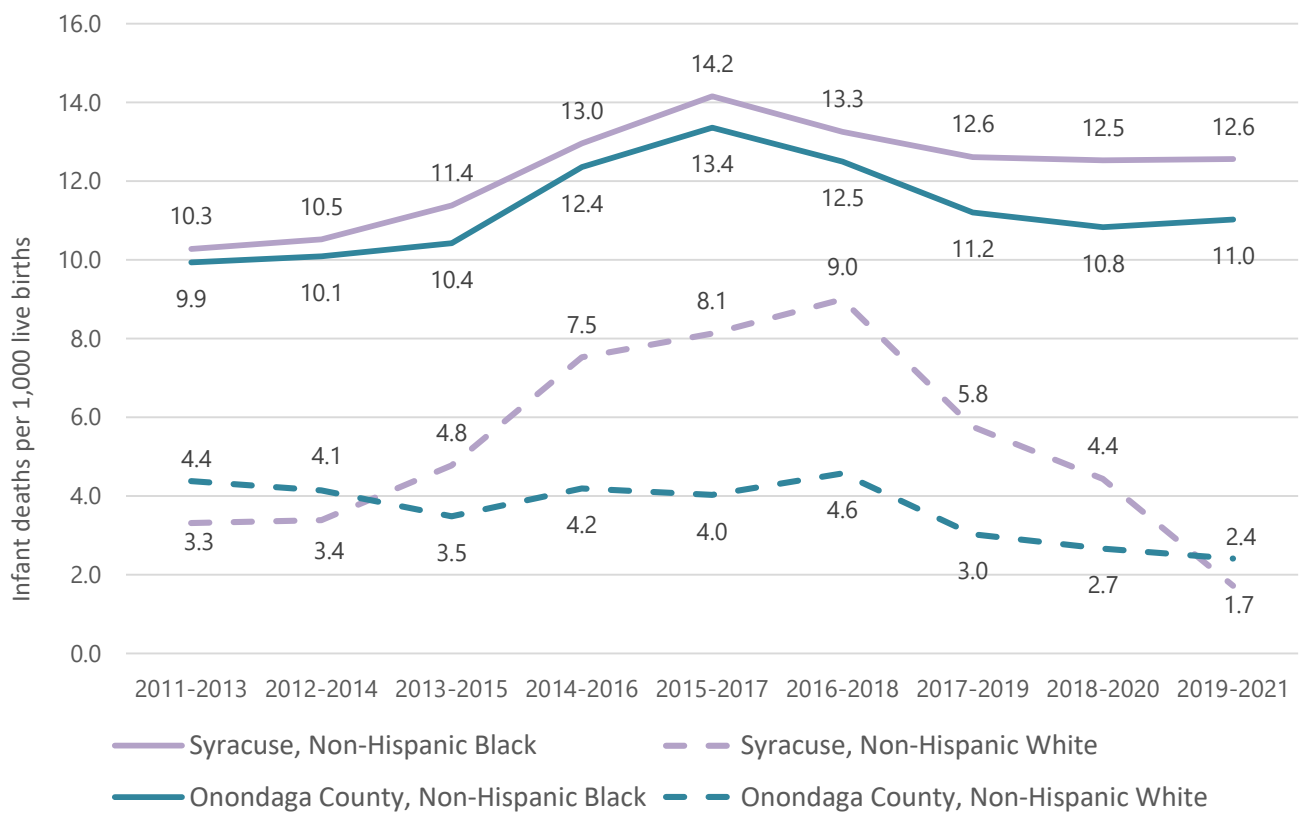
<sup>136</sup> OCHD Division of Community Health, 2021. Data were accessed from the NYS Statewide Perinatal Data System. Note: data are provisional

<sup>137</sup> NYS County Health Indicators by Race/Ethnicity, 2017-2019. Retrieved 10/11/2022, from <https://www.health.ny.gov/statistics/community/minority/county/index.htm>.

### Infant Mortality

Onondaga County continues to struggle with infant mortality. The overall infant mortality rate for Onondaga County was 4.8 per 1,000 live births in 2019-2021.<sup>138</sup> This is better than the national average of 5.4 per 1,000 live births<sup>139</sup> however, significant racial disparities in infant mortality continue to persist. The figure below depicts trends in infant mortality for non-Hispanic Black and Non-Hispanic White infants in Onondaga County and Syracuse. Infant mortality rates for non-Hispanic Black infants continue to exceed rates for non-Hispanic White infants demonstrating a continued need for targeted infant mortality prevention efforts.

**Figure 65. Infant Mortality Rate, 3-Year Rolling Average, By Race and Ethnicity, Onondaga County and Syracuse, 2011-2021**



Sources: NYS Statewide Perinatal Data System (accessed by OCHD) and OCHD, Office of Vital Statistics. Notes: Onondaga County data are inclusive of Syracuse. A 3-year rolling average is used to adjust for fluctuations in individual years. Data are provisional.

<sup>138</sup> NYS Statewide Perinatal Data System (accessed by OCHD) and OCHD, Office of Vital Statistics. Notes: A 3-year average is used to adjust for fluctuations in individual years. Data are provisional.

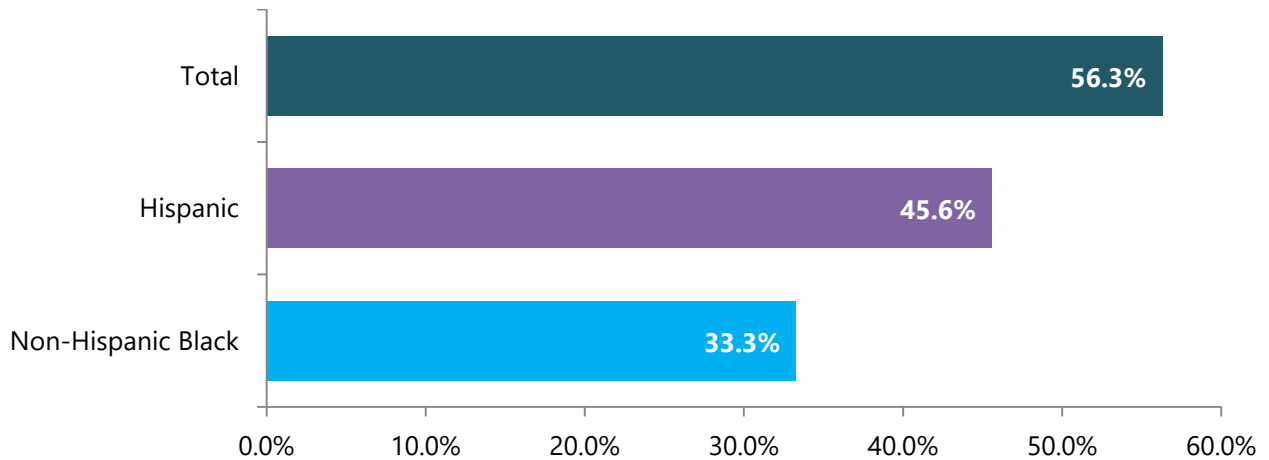
<sup>139</sup> CDC, Infant Mortality, 2020. Retrieved 10/11/2022, from <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>.

## Breastfeeding

Breastfeeding is the best source of nutrition for a majority of infants.<sup>140</sup> Additionally, there have been benefits associated with breastfeeding such as reducing the risk for both short and long-term health conditions for both infants and mothers. In Onondaga County, 77.8% of infants are fed any breast milk while in the delivery hospital.<sup>141</sup> Infants who are breast feeding and using formula as well as those exclusively breastfeeding are included.

The rate for infants exclusively breastfed while in the delivery hospital are similar in Onondaga County (56.3%) and Central New York (56.7%) with NYS faring worse with 47.1%.<sup>142</sup> Within Onondaga County, exclusive breastfeeding in the delivery hospital varies by race and ethnicity (Figure 66). The rate for Non-Hispanic Black infants who are fed exclusively breast milk in the delivery hospital is lower than the rates for both Hispanic infants and the total among all infants.

**Figure 66. Percentage of infants fed exclusively breast milk in delivery hospital by race and ethnicity, Onondaga County, 2019**



Source: [NYS Prevention Agenda Dashboard - County Level](#)

<sup>140</sup> CDC, About Breastfeeding, 2021. Retrieved 10/12/2022, from <https://www.cdc.gov/breastfeeding/about-breastfeeding/index.html>.

<sup>141</sup> NYS Community Health Indicator Reports. Retrieved 10/11/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>142</sup> NYS Prevention Agenda Dashboard, 2019. Retrieved 12/5/2022 from [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/)

## Impact of COVID-19 on Women, Infants, and Children

A recent 2022 study by the United States Government Accountability Office (GAO) analyzed CDC data, including data from the National Vital Statistics System, to identify how the COVID-19 pandemic has worsened and increased racial and ethnic disparities in maternal deaths and other maternal health outcomes in the nation. Main outcomes that were analyzed included preterm births and low birth weights, mental health conditions, infection of COVID-19, and maternal death rate. The analysis found that the pandemic worsened key factors that already contributed to disparities in maternal health outcomes such as access to care, transportation, and other essential resources, the living environment, and employment. Racial and ethnic minorities and other socially disadvantaged groups (those in underserved areas) experienced further disparities in maternal health outcomes during the pandemic due to barriers to accessing maternal health care, decreased ability to social distance or take other preventive measures to reduce transmission, and decreased ability to work from home which increased exposure to the virus. Another key factor that contributed to disparities in maternal health outcomes is racism which includes both structural racism (historical and contemporary social factors that negatively impact disadvantaged people systematically through social and health inequities), and bias or discrimination on the part of providers (assumptions that may be conscious or unconscious resulting in different actions toward people based on their race). In particular, Black women had increased distrust in healthcare during the pandemic due to racial discrimination, mistrust, and frequent changing of guidance and misinformation about COVID-19.

Preterm and low birth weights increased in the first and second year of the pandemic while also disproportionately impacting Black women at higher rates compared with other races and ethnicities. Over 14% of Black women nationally had preterm births during the pandemic compared to the national average of around 10% and rates of less than 10% among both Hispanic and White women. Additionally, pregnant women infected with COVID-19 during pregnancy were at increased risk of having preterm and low birth weights in general; 9% of women with COVID-19 during pregnancy had preterm and low birth weight babies compared to 7.9% of women without the virus. Pregnant women who had the virus at the time of delivery had a higher risk of being admitted to the intensive care unit than those without the virus. Mental health conditions (anxiety, depression and stress) were negatively impacted by the pandemic and worsened among both pregnant postpartum women, especially due to social isolation and fear of becoming infected with the virus. The rate of maternal deaths per 100,000 live births per year increased across all races and ethnicities, however, rates were significantly higher in 2021 for Black or African-American women (68.9 per 100,000) compared to non-Hispanic White women (27.5 per 100,000) and Hispanic or Latina women (27.5 per 100,000). Although the data and main findings are not local, we expect a similar impact to be reflected in our community.<sup>143</sup>

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<sup>143</sup>U.S. Government Accountability Office. Outcomes Worsened and Disparities Persisted During the Pandemic. GAO-23-105971. Oct 19, 2022.

## Healthy Women, Infants, and Children Summary

Racial and ethnic disparities in maternal and infant health remain to be a challenge in Onondaga County especially for preterm birth, low birth weight, breastfeeding, and infant mortality. The rates for Black mothers and infants are far worse for these indicators than among White mothers and infants. Additionally, Hispanic mothers and infants experience worse outcomes for many of the same indicators. For prenatal care indicators including entry to care in the first trimester, adequacy of care, and lower percentage of mothers with late (3rd trimester) or no prenatal care, Onondaga County continues to fare better than NYS. The COVID-19 pandemic has worsened maternal health outcomes in the country as well as increased racial and ethnic maternal health disparities. The virus is still a challenge and many of the issues recognized in the GAO article may be issues our county will also have to tackle. Rising trends in substance use in pregnancy continue to be a concern, along with disheartening rates of infant mortality, particularly among Black infants.

## Communicable Diseases

Communicable diseases can be transmitted in numerous ways, however many public health strategies exist to mitigate their spread and impact. These include vaccination, immunization, masking, disease investigation, partner notification, screening, treatment, and pre-exposure prophylaxis.

An overview of current rates of several communicable diseases covered in this topic area include: **vaccine preventable diseases, HIV, and sexually transmitted infections.**

### Vaccine Preventable Diseases

Onondaga County fares better than or equal to Central New York and NYS for vaccine preventable disease indicators. A list of immunization indicators for Onondaga County, Central New York, and New York State is provided in Figure 67. Onondaga County’s vaccination rates for childhood immunizations, HPV, influenza (among adults aged 18+ years), and influenza and pneumococcal vaccinations among adults aged 65+ years either exceed or are equal to the rates for both Central New York and NYS.

**Figure 67. Immunization indicators, Onondaga County, Central New York, and NYS, 2017-2019**

	Onondaga County	Central New York	New York State
% of children with 4:3:1:3:3:1:4 immunization series– Aged 24-35 months	81.6	76.1	66.3 <sup>†</sup>
% of adolescents with 3-dose HPV immunization – Aged 13 years	39.9	37.1	32.8 <sup>†</sup>
% of adults with an influenza immunization in the past year –Aged 18+years	33.0	27.8	26.9
% of adults with an influenza immunization in the past year –Aged 65+ years	51.5	46.2	44.8
% of adults with pneumococcal immunization– Aged 65+years	76.9	76.9	64.0

Sources: NYSDOH Vital Records at: [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/); NYS Expanded BRFSS at: <https://www.health.ny.gov/statistics/brfss/expanded/>.

<sup>†</sup>Data are for NYS Excluding NYC

Figure 68 presents incidence rates for several vaccine preventable diseases. For pneumonia/influenza hospitalizations among adults age 65+ years, Onondaga County fares worse than Central New York but better than NYS. The rates of meningococcal disease is less than one per 100,000 population for Onondaga County, Central New York and NYS. Onondaga County has a higher incidence of mumps with 11.5 per 100,000 compared to Central New York (5.4 per 100,000) and New York State (1.7 per 100,000). The incidence rate for pertussis in Onondaga County (6.0 per 100,000) exceeds both the rate for Central New York (4.7 per 100,000) and NYS (3.8 per 100,000). Onondaga County has a slightly higher hepatitis A incidence rate (2.2 per 100,000)

than NYS (1.3 per 100,000), and the incidence rate of acute hepatitis B is largely the same for Onondaga County (0.3\* per 100,000) and NYS (0.4 per 100,000).<sup>144</sup>

**Figure 68. Vaccine preventable disease indicators, Onondaga County, Central New York, and NYS, 2017-2019**

	Onondaga County	Central New York	New York State
Pneumonia/influenza hospitalization rate (per 10,000) – Aged 65+years	112.4	116.1	85.5
Hepatitis A incidence (per 100,000)	2.2	3.7	1.3
Acute hepatitis B incidence (per 100,000)	0.3*	0.3*	0.4
Meningococcal incidence rate (per 100,000)	0.1*	0.1*	0.1
Mumps incidence rate (per 100,000)	11.5	5.4	1.7
Pertussis incidence rate (per 100,000)	6.0	4.7	3.8

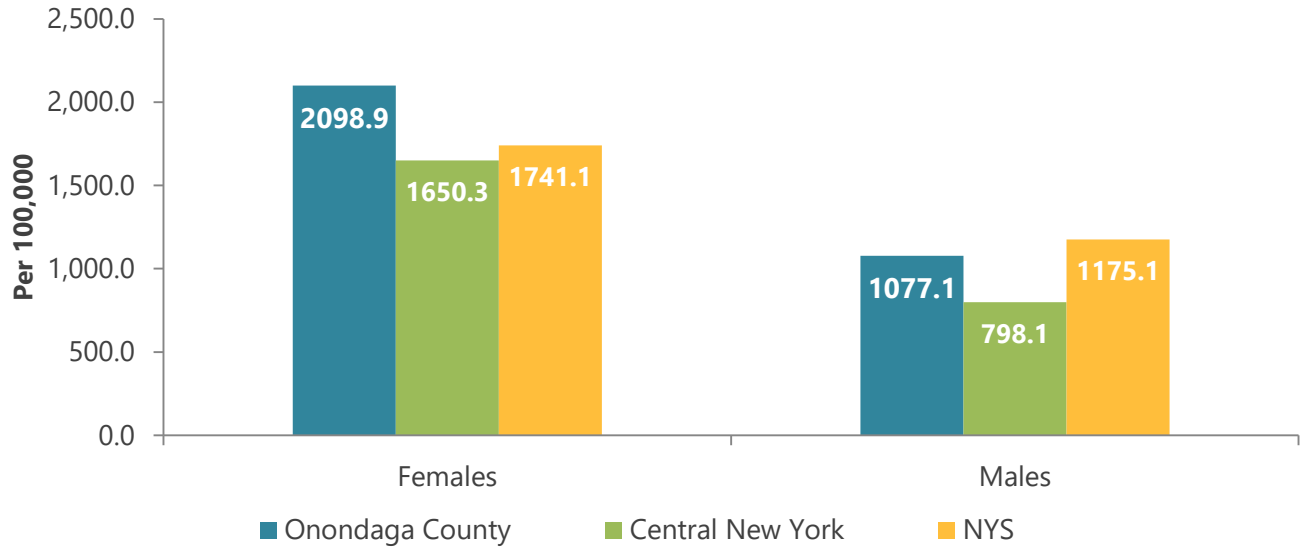
Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>. \*Rate is unstable due to fewer than 10 events in the numerator

### Sexually Transmitted Infections

High rates of sexually transmitted infections (STIs) continue to be a challenge for Onondaga County. There are 2,098.9 cases of chlamydia per 100,000 population of females ages 15-44 years in the county which exceeds the rates for both Central New York and NYS (Figure 69). The Onondaga County rate for males between the ages 15-44 years (1,077.1 per 100,000) exceeds the rate for Central New York but is lower than the rate for NYS. The chlamydia case rates over time for female and male populations ages 15-44 years are depicted in Figure 70. For both females and males, the case rate has increased over the last decade. Additionally, the highest rates of chlamydia are seen in the 20-24 year old age group, with 4,434.6 cases per 100,000 females and 2,165.8 cases per 100,000 males aged 20-24 years.

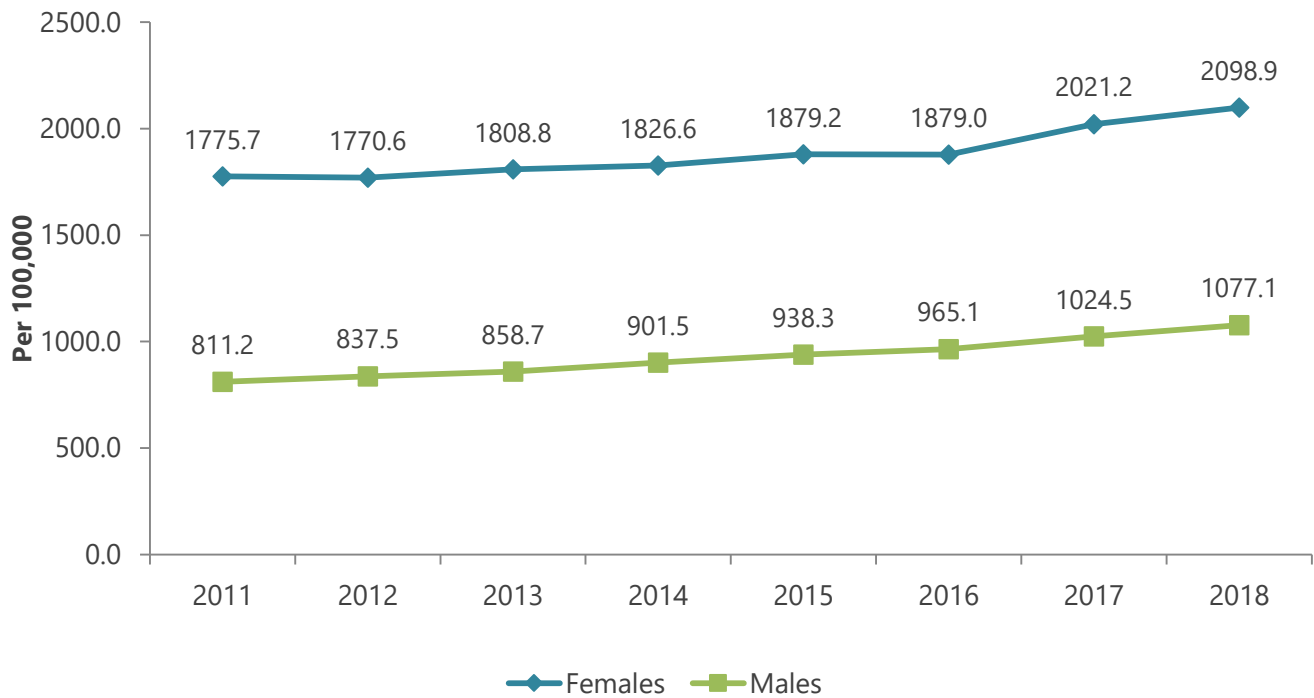
<sup>144</sup> NYS Community Health Indicator Reports. Retrieved 9/23/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

**Figure 69. Chlamydia case rate per 100,000 population, ages 15-44 years, by gender, Onondaga County, Central New York, and NYS, 2017-2019**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>

**Figure 70. Chlamydia case rate per 100,000 population, ages 15-44 years, by gender, 3-year rolling average, Onondaga County, 2011-2018**

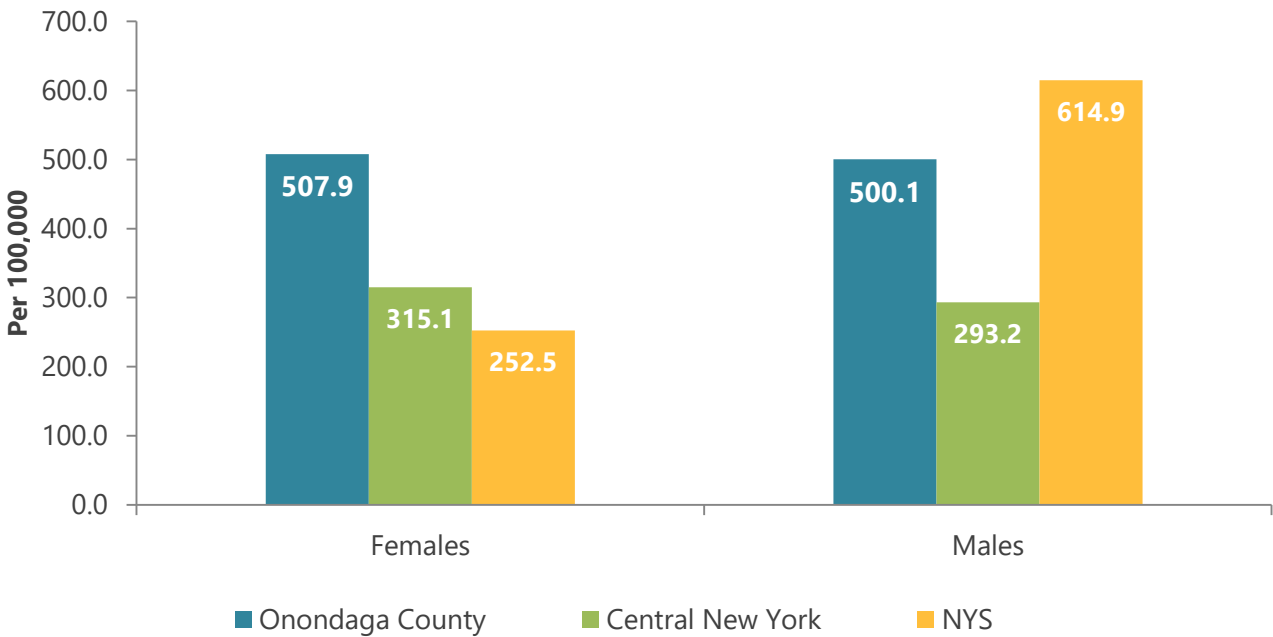


Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>



A comparison of gonorrhea case rates for Onondaga County, Central New York, and NYS for 2017-2019 is provided in Figure 71. Onondaga County’s case rate for gonorrhea among females aged 15-44 years exceeds the rates for Central New York and NYS.<sup>145</sup> Additionally, Onondaga County’s case rate for gonorrhea among males aged 15-44 years exceeds the rates for Central New York, however, NYS rates are higher. Figure 72 displays the gonorrhea case rates from 2011 to 2018 among females and males in Onondaga County and shows an increase over time. It is unclear whether the increase in case rates for gonorrhea is due to higher incidences of gonorrhea or because of higher testing rates among at risk populations.

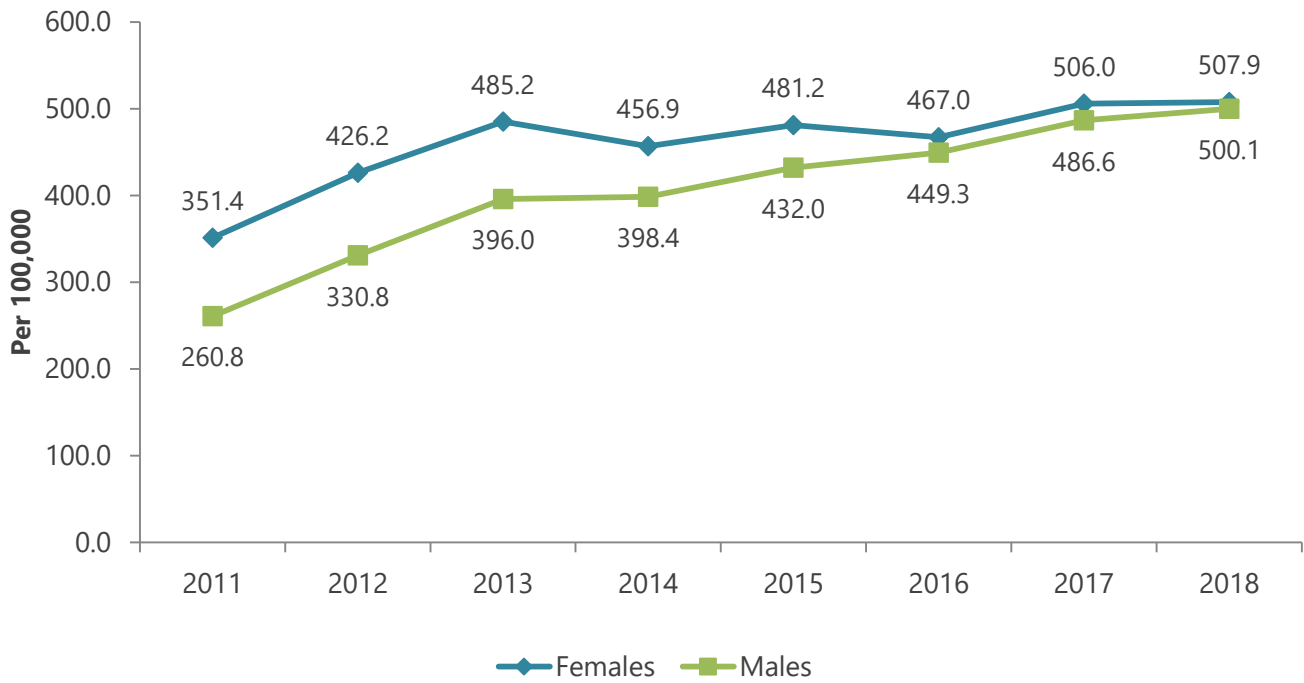
**Figure 71. Gonorrhea case rate per 100,000 population, ages 15-44 years, by gender, Onondaga County, Central New York, and NYS, 2017-2019**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>

<sup>145</sup> NYS Community Health Indicator Reports. Retrieved 9/23/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

**Figure 72. Gonorrhea case rate per 100,000 population, ages 15-44 years, by gender, 3 year rolling average, Onondaga County, 2011-2018**



Source: NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>

Figure 73 displays the syphilis case rates for Onondaga County and NYS excluding NYC. Syphilis case rates for males continue to be a challenge within Onondaga County. The primary and secondary syphilis case rate for males in Onondaga County is 8.6 per 100,000, which is lower than the rate for NYS excluding NYC (14.4 per 100,000).<sup>146</sup> Additionally, Onondaga County has a lower rate of late or late latent syphilis than NYS excluding NYC. Figure 74 shows the syphilis case rate in Onondaga County from 2016 to 2021 which has increased significantly from 2020.

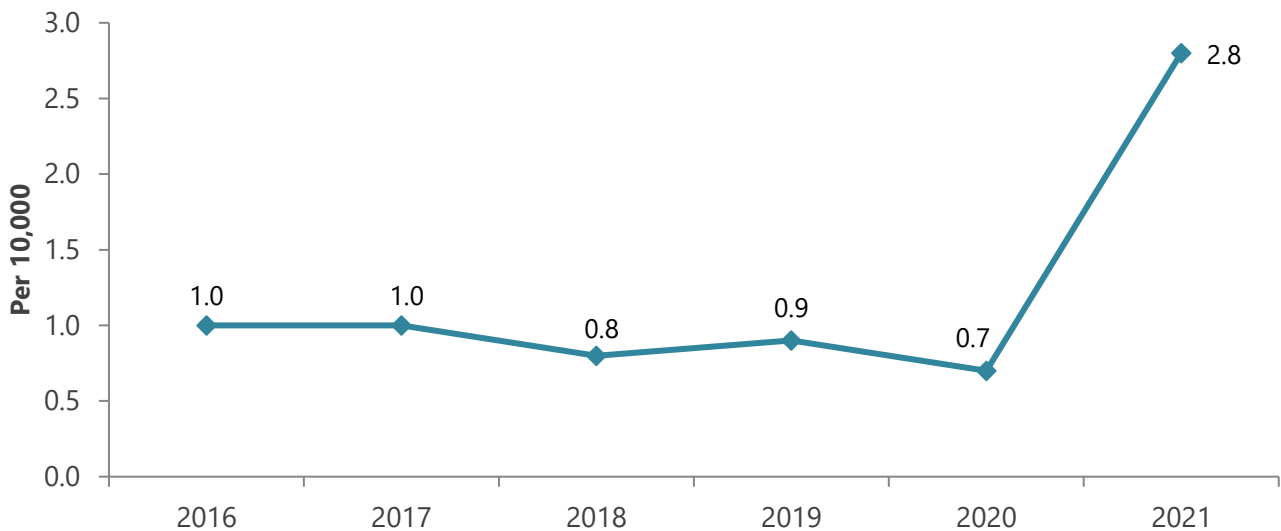
<sup>146</sup> NYSDOH Sexually Transmitted Infections Surveillance Report, 2019. Retrieved 9/23/2022, from [https://www.health.ny.gov/statistics/diseases/communicable/std/docs/sti\\_surveillance\\_report\\_2019.pdf](https://www.health.ny.gov/statistics/diseases/communicable/std/docs/sti_surveillance_report_2019.pdf).

**Figure 73. Syphilis case rate per 100,000 population, Onondaga County and NYS excluding NYC, 2019**

	Onondaga County	NYS excluding NYC
Primary and secondary syphilis case rate (per 100,000)	4.7	8.5
Primary and secondary syphilis case rate (per 100,000) – Females	1.1	2.4
Primary and secondary syphilis case rate (per 100,000) – Males	8.6	14.4
Late and late latent syphilis case rate (per 100,000)	1.3	5.0

Source: NYSDOH Sexually Transmitted Infections Surveillance Report 2019:  
[https://www.health.ny.gov/statistics/diseases/communicable/std/docs/sti\\_surveillance\\_report\\_2019.pdf](https://www.health.ny.gov/statistics/diseases/communicable/std/docs/sti_surveillance_report_2019.pdf)

**Figure 74. Syphilis case rate per 10,000, Onondaga County, 2016-2021**



Source: Onondaga County Health Department, 2016-2021, data are provisional.

Prevention and management of STDs is essential for reducing the burden of disease in our community. In particular, women and infants are especially vulnerable to the consequences of undiagnosed and untreated STDs. Infection with STDs during pregnancy can cause poor health outcomes for both the mother and infant including preterm birth, premature rupture of membranes, low birth weight and still birth. Some STDs, like chlamydia and gonorrhea can be asymptomatic and can result in pelvic inflammatory disease which increases risk for infertility and ectopic pregnancy if left untreated.<sup>147</sup> There is an increased risk for congenital syphilis if the

<sup>147</sup> CDC, STDs During Pregnancy, 2022. Retrieved 9/23/2022, from <https://www.cdc.gov/std/pregnancy/stdfact-pregnancy-detailed.htm>.

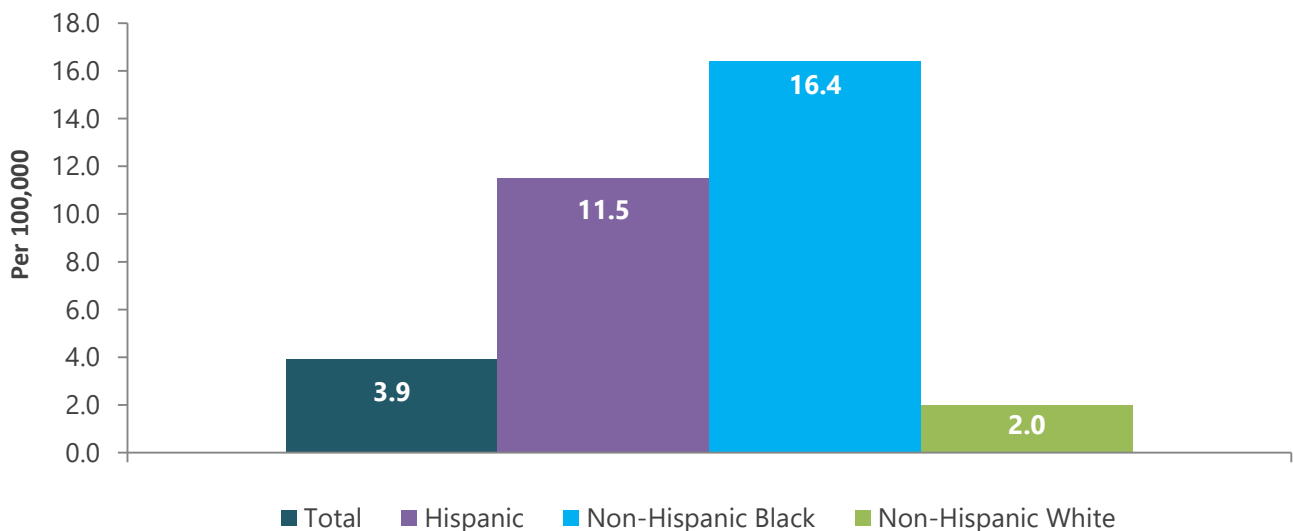
mother is infected with syphilis during pregnancy which can result in fetal death and preterm birth. Screening and early treatment are prevention methods for congenital syphilis. From 2018-2021, there were no reported cases of congenital syphilis in Onondaga County. To-date there have been 4 cases reported in 2022.

Testing for STDs is an important tool for increasing treatment and reducing transmission. In Onondaga County, among sexually active females aged 16- 24 years enrolled in Medicaid Managed Care, 71.2% have had at least one chlamydia test.<sup>148</sup> This rate is higher than Central New York (64.2%) but lower than NYS (75.8%). Several other tools are also currently employed in Onondaga County to reduce STD transmission and increase treatment. These include sexual health education and expedited partner therapy. Expedited partner therapy is the practice of treating the sexual partners of patients with chlamydia or gonorrhea by giving prescriptions, or medication, to the patient to take to their partner without the partner being examined by a healthcare provider.<sup>149</sup>

## HIV and AIDS

The newly diagnosed case rate for HIV in Onondaga County (5.4 per 100,000) exceeds the rate for Central New York (3.7 per 100,000) but is lower than the rate for NYS excluding NYC (5.7 per 100,000).<sup>150</sup> Additionally, new HIV diagnoses vary significantly by race and ethnicity. As displayed in Figure 75, Non-Hispanic Black residents and Hispanic residents have the highest rates in the city of Syracuse.

**Figure 75. Newly diagnosed HIV case rates by race and ethnicity, Syracuse, 2018**



Source: NYS HIV Surveillance System:

[https://www.health.ny.gov/diseases/aids/general/statistics/annual/2018/2018\\_annual\\_surveillance\\_report.pdf](https://www.health.ny.gov/diseases/aids/general/statistics/annual/2018/2018_annual_surveillance_report.pdf)

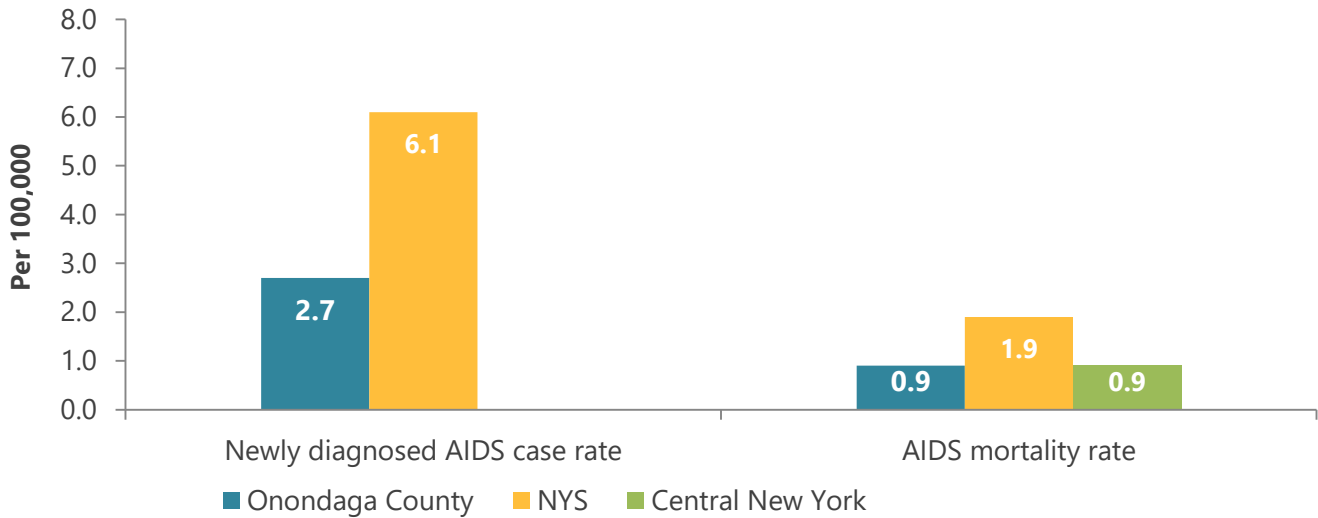
<sup>148</sup> NYS Community Health Indicator Reports. Retrieved 12/12/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>149</sup> CDC, Expedited Partner Therapy, 2021. Retrieved 9/23/2022 from <https://www.cdc.gov/std/ept/default.htm>.

<sup>150</sup> NYS Prevention Agenda Dashboard, 2017-2019. Retrieved 12/7/2022, from [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/).

According to the 2018 NYS HIV/AIDS Annual Surveillance Report, the newly diagnosed AIDS case rate is the lower in Onondaga County (2.7 per 100,000) than for NYS (6.1 per 100,000) as shown in Figure 76. The AIDS mortality rate for Onondaga County and Central New York is the same (0.9 per 100,000) but lower than the rate for NYS (1.9 per 100,000).<sup>151</sup>

**Figure 76. Newly diagnosed AIDS case rate and AIDS mortality rate per 100,000 population, Onondaga County, Central New York, and NYS, 2018**



Sources: New York State Community Health Indicator Reports (CHIRS) at: <https://www.health.ny.gov/statistics/chac/indicators/>; NYS HIV Surveillance System: [https://www.health.ny.gov/diseases/aids/general/statistics/annual/2018/2018\\_annual\\_surveillance\\_report.pdf](https://www.health.ny.gov/diseases/aids/general/statistics/annual/2018/2018_annual_surveillance_report.pdf)

\*Newly diagnosed AIDS case rate data is not available for Central New York

### Infections among Persons who Inject Drugs

There is an increased risk for certain infections including hepatitis A, B, and C, and HIV/AIDS associated with injection drug use. Onondaga County fortunately has a relatively small annual number of hepatitis A, and acute hepatitis B and C infections. In Onondaga County, the incidence rate for acute hepatitis C is 1.3 per 100,000 compared to 2.1 per 100,000 in NYS excluding NYC.<sup>152</sup> Although rates remain low, Onondaga County residents are at an increased risk for exposure to these pathogens due to behaviors associated with injection drug use crisis. Programs that emphasize increased vaccination and education among those who inject drugs are crucial for preventing disease transmission.

<sup>151</sup> New York State Community Health Indicator Reports (CHIRS), 2019. Retrieved 9/23/2022, from <https://www.health.ny.gov/statistics/chac/indicators/>.

<sup>152</sup> NYSDOH 2018 Communicable Disease Annual Reports. Retrieved 11/3/2022, from <https://www.health.ny.gov/statistics/diseases/communicable/2018/docs/rates.pdf>.

## COVID-19 and other infectious diseases

COVID-19 infections continue to impact residents of Onondaga County. To-date, over 150,000 cases have been reported locally. Pages 42 to 43 describe in more detail the impact of the COVID-19 pandemic on our community. Various phases of the pandemic have highlighted the importance of vaccinations and other mitigation efforts in minimizing the number and severity of COVID-19 infections.

As many COVID-19 mitigation measures have eased, other respiratory diseases have surged. In Onondaga County, reports of respiratory syncytial virus (RSV) and influenza have significantly increased over previous years. Combined with ongoing COVID-19 infections, this triple threat has strained hospital capacity and will remain a challenge until new cases wane.

Another recent threat was the emergence of mpox disease outbreaks across the United States. Quick response and readily available vaccine appear to have mitigated this outbreak for the time being. Public health officials have also been working to address an increase in polio virus cases in some communities. All of these examples show that the public health system must remain ready to quickly identify and mitigate new infectious disease threats.

## Impact of the COVID-19 Pandemic on Communicable Diseases

COVID-19 continues to affect STI surveillance activities and trends. Pandemic-related delays in diagnosis and treatment of STIs may result in negative outcomes including pelvic inflammatory disease and infertility.

According to the CDC, at the end of 2020, both rates of gonorrhea (10%) and primary & secondary (P&S) syphilis (7%) increased from 2019. Additionally, congenital syphilis increased close to 15% from 2019.<sup>153</sup> HIV testing across the nation declined in 2020 among all racial and ethnic groups and populations that are most affected by HIV including Black and Hispanic populations, Men Who Have Sex With Men (MSM), and transgender persons.<sup>154</sup>

During the pandemic, routine vaccination for children and adolescents declined considerably in the United States. The lag in vaccinations may pose a serious risk of vaccine-preventable disease outbreaks, especially as schools have fully reopened for in-person learning.<sup>155</sup> In the U.S., there was an overall reduction in measles immunizations with about 80% of fewer doses given to people younger than age 24 years in 2020. Resurgence of vaccine preventable diseases (VPD) is a significant concern, and disruption of routine immunization programs due to the pandemic only increases the risk.

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<sup>153</sup> CDC, New data suggest STDs continued to increase during first year of the COVID-19 pandemic, 2022. Retrieved 11/3/2022, from <https://www.cdc.gov/media/releases/2022/p0412-STD-Increase.html>.

<sup>154</sup> CDC, HIV Testing Before and During the COVID-19 Pandemic — United States, 2019–2020. Retrieved 11/3/2022, from <https://www.cdc.gov/mmwr/volumes/71/wr/mm7125a2.htm>.

<sup>155</sup> CDC, Impact of the COVID-19 Pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March–September 2020. Retrieved 11/3/2022, <https://www.cdc.gov/mmwr/volumes/70/wr/mm7023a2.htm>.

## **Communicable Diseases Summary**

With respect to immunization rates and case rates for vaccine-preventable diseases, Onondaga County generally fares better compared to NYS as a whole. Unfortunately, the rates of sexually transmitted infections including chlamydia and gonorrhea in both females and males in Onondaga County are much higher than NYS and NYS excluding NYC. Additionally, in Syracuse, racial and ethnic disparities in newly diagnosed HIV cases are apparent. The COVID-19 pandemic has brought to light the consequences of delaying immunizations, treatment, and testing for infectious diseases. Lastly, although incidences of hepatitis A, B, and C, and HIV/AIDS continue to remain low in Onondaga County, individuals who inject drugs may be at higher risk for exposure to these infectious diseases.

## Community Assets and Resources

Onondaga County is fortunate to have a variety of assets and resources available to address local public health challenges. This section provides an overview of assets and resources in our community. Topics covered in this section include: [health department](#), [health care services](#), [academic institutions](#), [community based organizations](#), [transportation](#), [libraries](#), and [community arts](#). This section also provides an overview of resources and current barriers specific to each of the NYS Prevention Agenda Priority areas.

### Health Department

Since its creation in 1965, the Onondaga County Health Department (OCHD) has provided a wide range of public health services to Onondaga County. In 2018, the OCHD was awarded accreditation from the national Public Health Accreditation Board and continues to ensure the highest level of public health service to the community. With a mission to *protect and improve the health of all Onondaga County residents*, the OCHD has a proud history of quality improvement and performance management. The 2022 adopted County budget approved 261 employees and a budget of approximately \$86 million for the OCHD, including about \$10.6 million in grant funding. For a description of all the programs and services offered by the OCHD, please see the [OCHD Annual Report](#).

### Health Care Services

There are four health systems located within Onondaga County:

- [Crouse Health](#) has 506 acute-care beds and is recognized for their comprehensive maternity, surgical, cardiac, oncology and stroke care services. Crouse Health delivers nearly 4,000 babies each year and has 57 neonatal intensive care bassinets. Additionally, Crouse Health has one of the longest-running ambulatory surgery programs in the U.S. and offers the region's only pediatric cardiac catheterization program and chemical dependency treatment program.
- [St. Joseph's Health Hospital](#) has 451 beds, including 58 beds for intensive care. St. Joseph's is known for a variety of services and is nationally recognized as a leader in cardiovascular and orthopedic surgical care. Additionally, St. Joseph's is acknowledged for their behavioral health services for adults and children, including the region's only Comprehensive Psychiatric Emergency Program (CPEP) with a licensed Psychiatric Emergency room.
- [Syracuse VA Medical Center](#) has 106 beds for general medical and surgical services with an additional 30 beds in the Regional Spinal Cord Injury and Disorder Center and 48 beds in the Community Care Center. The Community Care Center provides a community day program, a homeless Veterans program, mental health intensive case management, and vocational services.



- Upstate University Hospital Downtown Campus has 420 beds, more than 80 specialty clinics and the region's only Level-I Trauma and Burn Center. In addition to these services, Upstate University Hospital is also home to the Upstate Poison Center, Joslin Diabetes Center, Upstate Cancer Center, Upstate Neurological Institute, Upstate Heart Institute, and Golisano Children's Hospital. Golisano Children's Hospital serves individuals from birth to 19 years of age and operates 44 medical/surgical, 15 intensive care, and 12 hematology or oncology beds. Upstate Community Hospital Campus has 306 beds with 460 physicians. Upstate Community Hospital also houses the Physical Medicine and Rehabilitation Center, Upstate Family Birth Center, Wellspring Breast Center, Sleep Center, Center for Orthopedics, and Emergency Services for seniors, children and adults.

In addition to local hospitals, Onondaga County is home to numerous other health care services:

- Urgent care facilities and primary care practices are located county-wide.
- Affordable health care and family planning services are made available by Planned Parenthood located in Syracuse.
- The OCHD offers testing and treatment for STDs and tuberculosis, and testing for HIV in downtown Syracuse.
- Syracuse Community Health (SCH), a Federally Qualified Health Center (FQHC) provides comprehensive care for children and adults in the greater Syracuse area. SCH operates 11 clinical locations including eight school-based health centers in the Syracuse City School District and three community-based clinics that provide health care services to uninsured or under-insured individuals.
- There are several mental health providers and chemical dependency treatment resources located throughout Onondaga County. A list of these resources is available in the Mental Health Local Resource Directory.
- Amaus Dental Services, located in downtown Syracuse, offers free dental services to Central New York residents who are unemployed, homeless or do not have dental insurance.
- A number of Article 28 and 36 healthcare facilities provide surgical, orthopedic, and dialysis services.

## Academic Institutions

There are a number of academic institutions located in Onondaga County, several of which have health-related programs with students and faculty willing to partake in community health initiatives.

- Upstate Medical University, the region's only academic medical center, enrolled 1,592 total students in 2018. The University offers several health related profession programs within its four colleges, the College of Graduate Studies, College of Health Professions, College of Medicine, and College of Nursing. Public health specific degree programs include a Master of Public Health (MPH), a combined MD/MPH, and a Certificate of Advanced Study in Public Health.
- Pomeroy College of Nursing at Crouse Hospital offers a two-year associate's degree in applied science with a major in nursing and enrolled 245 students in 2020-2021.

- St. Joseph's College of Nursing also offers a two-year associate's degree in applied science with a major in nursing and enrolls approximately 300 students annually.
- Le Moyne College offers undergraduate nursing program options in partnership with St. Joseph's College of Nursing and Pomeroy College of Nursing at Crouse Hospital, graduate nursing program options, a Physician Assistant Studies program, and an Occupational Therapy program.
- Onondaga Community College School of Health offers several health related degree programs and certificates.
- Bryant & Stratton College also offers select associate and bachelor health related degree programs.
- Syracuse University is home to the Lerner Center for Public Health Promotion and Falk College of Sport and Human Dynamics, which offers a Bachelor's degree in public health, a Master of Science in Public Health, and a MPH.

### **Community-based Health and Human Service Agencies**

Onondaga County also has a rich network of community-based health and human service agencies:

- The Human Services Leadership Council is a membership organization of chief executive officers from these agencies. It was established as a collaborative to facilitate information sharing and increase cooperation among the agencies. In Central New York, including Onondaga County, there are nearly seventy participating agency members with three additional strategic partners. Detailed information about the participating community based service agencies is available on their website ([www.hslccny.org](http://www.hslccny.org).)
- 211 CNY is a local three-digit dialing system that links residents to community, social, or government resources like food, shelter, employment or health care. In addition to the dialing system, residents may also complete a guided search for resources at the 211 CNY website ([www.211cny.com](http://www.211cny.com).)

### **Transportation**

- The Central New York Regional Transportation Authority (CENTRO) provides public transportation via bus within and between the counties of Onondaga, Oswego, Cayuga and Oneida. An accessible fleet of buses is available for persons with disabilities.
- The ride-sharing companies Uber and Lyft currently operate in Onondaga County, providing more transportation options for residents.

### **Libraries**

There are a number of libraries within Onondaga County. The Onondaga County Public Library system (OCPL) operates 32 total libraries. The Central Library and ten city branch libraries are located in the City of Syracuse and 21 suburban libraries are located in towns and villages across the County. OCPL offers a wide-variety of printed, digital, and technological resources to the public. Resources related to employment, career, community and social services are available at select branches. Additionally, programming such as book clubs, computer classes, adult literacy classes, English for speakers of other languages (ESOL) classes, and high school equivalency classes

and study groups are offered. The Central Library provides special technologies and an adaptive resources lab designed to be accessible for people with disabilities. For young and school age children, play spaces, engaging activities, summer learning programs, and homework assistance resources are also available. In addition to OCPL, there are several libraries operated by either local academic or healthcare institutions that offer a rich variety of resources to students, staff, patients, families, and the public. For example, the Health Sciences Library at Upstate Medical University, the Family Resource Center at Upstate Golisano Children’s Hospital, the Coulter Library at Onondaga Community College, the Noreen Reale Falcone Library at Lemoyne College, and six major libraries on the Syracuse University and the State University of New York College of Environmental Science and Forestry campuses.

## Arts and Culture

Arts and culture are an important contributor to the well-being of the community. A dynamic network of museums, art galleries, theaters, indoor and outdoor performance venues, event spaces, community centers, and places of worship are present in Onondaga County. There are several arts organizations dedicated to celebrating, supporting, and promoting local artists, the arts, and the creative industry. Area higher education institutions offer visual and performing arts programs committed to developing and enriching the arts on their campuses and broader community. Additionally, the Onondaga County Public Library system offers many resources that promote participation in the arts including guest speaker series, art classes, art exhibits, and audio and video studios. Throughout the year, festivals and other public events are hosted across the County that celebrate the diverse communities with food, music, and cultural experiences. Public art works including murals, sculptures, and memorials can be viewed throughout the County, especially in the City of Syracuse Downtown District. Additionally, using American Rescue Plan Act funds, the City of Syracuse recently funded a community driven city-wide public art mural program, City as Canvas.<sup>156</sup>

## Health Status Related Assets and Resources

Assets and resources specific to the NYS Prevention Agenda Priority Areas are outlined below. Also included are current barriers experienced within each topic area.

### Chronic Diseases

Chronic diseases such as diabetes, cancer, heart disease and stroke are leading causes of morbidity and mortality in Onondaga County. Fortunately, chronic disease risk can be reduced through healthy lifestyle choices including good nutrition, physical activity, and regular preventive healthcare. Onondaga County has numerous assets and resources that help prevent chronic diseases, including:

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<sup>156</sup> Tomorrow’s Neighborhoods Today (TNT), 2022, Retrieved 10/13/2022 from <http://www.tomorrowsneighborhoodstoday.org/about-2>.

- Twelve farmers markets, including a large Central New York Regional Market that is open year-round. This market accepts Electronic Benefits Transfer (EBT), WIC Farmers Market coupons, and cash, and is located on a bus route to promote access and affordability for all residents. A Farm Fresh Mobile Market (FFMM) that serves the City of Syracuse paused during the COVID-19 pandemic, and plans to resume soon. FFMM provides healthy and affordable produce to increase access for vulnerable populations. A Double Up Food Bucks initiative was recently launched in several Syracuse market locations to support the purchase of more local produce by families who receive Supplemental Nutrition assistance (SNAP). Syracuse is also home to numerous community gardens on individual or shared plots that produce fruit, vegetables, and/or other plants. These resources increase the accessibility of healthy, safe, and affordable foods for many County residents.
- Opportunities to address healthy living have brought together a strong network of partners, including the Onondaga County Health Department (OCHD), the New York State Department of Health (NYSDOH), the Syracuse City School District (SCSD), academic institutions, early childhood centers, and community-based organizations to develop sustainable policy, practice, and environmental changes. Projects include partnering with local food pantries to facilitate stocking healthful foods, including fresh produce, and assisting patrons in identifying healthful options. Other efforts include establishment of nutrition standards and policies in childcare centers, worksites, and community based agencies, and facilitating environmental changes to support physical activity.
- The OCHD has partnered with several local school districts, including the SCSD and the Onondaga Nation School to enhance the physical activity and nutrition environment for the districts' students and staff. Initiatives include professional development for staff, creation of building-level wellness committees, environmental changes to support the Food Services department, and a variety of projects designed to increase physical activity in classroom settings.
- The OCHD's Cancer Services Program (CSP) partners with the NYSDOH, local healthcare providers, and numerous community agencies/organizations to offer free screening services for breast, cervical, and colorectal cancer to uninsured and underinsured residents of both the City of Syracuse and Onondaga County.
- Several community clinics are committed to providing free or affordable health care to those who are un- or under-insured, including Syracuse Community Health, Christian Health Service of Syracuse, Rahma Health Clinic, and Poverello Health Center.
- Tobacco-Free Central New York is a program that works in Onondaga, Cayuga, and Oswego counties to reduce tobacco use through policy change and youth empowerment to reduce the power and everyday presence of the tobacco industry, prevent exposure to secondhand smoke, and support CNY residents who want to live healthy, tobacco-free lives. The Tobacco-Free Network of CNY also participates in the Tobacco Action Coalition of Onondaga County (TACO), which includes members from the American Cancer Society Cancer Action Network (ACS CAN), American Heart Association, St. Joseph's Hospital Health Center, Upstate Medical University, NYSDOH, and community advocates. The coalition is working to encourage elected

officials, community organizations, corporate decision makers and community members to decrease the social acceptability and reduce the burden of tobacco use in our community.

- Several recent infrastructure projects have created increased opportunities for physical activity and connectivity. For example, improvements to portions of the Erie Canalway/Empire State Trail, extension of the Onondaga Creekwalk from Armory Square to Kirk Park on the Southside of Syracuse, and completion of a pavilion, overlook, and kayak/canoe access point to the Onondaga Creek at Syracuse's Meachem Field. Additionally, recent progress toward completion of the Onondaga Lake Loop the Lake trail includes a pedestrian bridge that connects the West Shore Trail to Hiawatha Boulevard and an extension through Murphy's Island which connects to the Onondaga Creekwalk.

**Barriers** to preventing chronic diseases continue to persist in parts of Onondaga County. For example:

- Nearly 30% of households in the City of Syracuse do not have a vehicle available, which can limit access to healthcare, healthy food options and opportunities for physical activity.
- Some areas of the County have a high density of unhealthy food options including fast food venues and corner stores.
- Changing social media landscapes impact how some health education messages around chronic diseases are delivered and received.
- Easily accessing the healthcare system remains challenging for some county residents. Noted barriers include long wait times for appointments, the high cost of health care, and inadequate insurance coverage.

## **Wellbeing, Mental Health, and Substance Use Disorders**

Mental and emotional well-being is a key aspect of overall health. It is important to identify and treat mental, emotional and behavioral (MEB) disorders to minimize the impact on individuals, families and communities. Onondaga County is a relatively rich service hub, providing mental and behavioral healthcare to the Central New York region. Assets and resources include:

- An active and engaged Drug Task Force (DTF). Initially formed to address synthetic cannabinoids and high rates of newborn drug-related discharges, membership and initiatives have expanded in response to the ongoing opioid epidemic. Over 45 agencies are represented on the DTF, from sectors including local and state government, public safety, academics, clinical care, business, and community-based organizations. Initiatives of the DTF include the development of a community-wide overdose response initiative, agency collaboration around resource sharing, ongoing planning and evaluation for coordinated local efforts around the opioid epidemic, and providing community education around emergent topics related to local drug trends.
- Several active naloxone training and distribution programs (Opioid Overdose Prevention Programs) that provide trainings and promote the use of naloxone throughout the community.

- Two active Syringe Services Programs offer both primary and secondary syringe services.
- Enhanced local and regional capacity to treat addiction through several opioid treatment programs including a Regional Crisis Center for Addiction. This has resulted in reduced reliance on inpatient services for substance use conditions.
- Medical practitioners able to prescribe buprenorphine. Over the past 5 years over 100 medical practitioners have received the training to become waived to prescribe buprenorphine. These practitioners come from a variety of medical backgrounds and work in many diverse settings.
- Initiatives serving persons who are incarcerated with substance use disorders in the county jail while incarcerated and upon release. A Medication Assisted Treatment program allows persons who are incarcerated to begin treatment prior to release and a forensic substance use transition service works with persons who are incarcerated to identify and connect with needed community services to support the transition back to the community.
- The Upstate Emergency Opioid Bridge Clinic, an innovative Emergency Medicine approach to aiding the fight against opioid use disorder. Patients arriving to the Emergency Department are evaluated, treated for withdrawal and referred, within three to five days, to the Bridge Clinic for further treatment. Community referrals are accepted as well.
- Peer services available within the community to assist and support people with substance use disorders in navigating the service system. This includes a County-led Peer Program that can link people to the Bridge Clinic.
- Upstate University Hospital's Inclusive Health Services offers outpatient medical care, primary care, and onsite behavioral health services including individual therapy, medication management, mental health case management, substance use assessment, education, and referrals to the LGBTQ+ community.
- A Suicide Prevention Coalition with representation from a variety of local agencies. The goal of the coalition is to educate and link the community around suicide prevention to reduce stigma, promote help-seeking, and save lives. Four active subcommittees work in the areas of education, data, communication, and outreach.
- Several initiatives to address suicide in Onondaga County over the past several years:
  - Zero Suicide, a model that integrates questions about suicide for patients at all health care visits. This was piloted in behavioral health settings, but will become standard operating procedure across all specialties and within primary care settings.
  - Suicide Fatality Review, which uses a formal in-depth suicide review process to ensure accurate and complete data collection by medical examiner office investigations of suicide deaths; and to conduct in-depth community reviews of suicide deaths to identify systemic patterns. This allows interventions to be put in place where they will be most effective. One cycle of this process was

completed and the process has been adapted to review each case for common risk factors and use those to make recommendations to the Suicide Prevention Coalition.

- Contact Community Services Crisis Center Follow-up Expansion, in partnership with Liberty Resources, Inc. and St Joseph's Hospital Health Center Comprehensive Psychiatric Emergency Program. This program has implemented the Air Traffic Control Model (ATCM) to promote continuity of care and safeguard the well-being of individuals at risk of suicide in the Syracuse metropolitan area.
- An increased interest in and commitment to addressing the impacts of trauma within our community, including educating on the impacts trauma at both the community and individual levels, and implementing strategies throughout provider communities and service systems to build resilience in clients, students, and practitioners. This effort is ongoing and includes the expansion of an evidence based program within schools called, "PAX Good Behavior Game," that teaches self-regulation and builds resiliency within children.

**Barriers** to promoting mental health and preventing substance abuse include:

- A demand for detox and other substance use services that exceeds current capacity.
- Increased demand for mental health services that exceeds current capacity. This is seen across all levels of service provision, with particular access challenges around psychiatry services.
- Limited children's inpatient mental health services.
- Limited access to services due to lack of transportation, in both urban and rural settings.
- A lack of awareness of available community resources.

## Healthy and Safe Environments

The environment in which individuals live, work, and play has a significant impact on health. Ensuring safety and promoting a healthy lifestyle are essential to the development of a healthy community. Onondaga County has many resources in the environment that promote safe and healthy living, including:

- Onondaga County is home to 3 state parks, 13 county parks, and over 100 city, town, and village parks, offering indoor and outdoor spaces for residents to be physically active and to relax with family and friends. The Onondaga County Parks system in particular offers an extensive network of nearly 6,500 acres utilized by nearly 3 million people each year. Included in the park system are nature centers, beaches, forested areas, recreational facilities, and athletic fields, many of which can be used year-round. The Syracuse Department of Parks, Recreation & Youth Programs maintains an additional 1,000 acres of parks, playgrounds, and open spaces for recreational activities. Many towns in the county have Parks and Recreation Programs which provide diverse activities for residents of all ages. All Onondaga County parks have committed to a tobacco-free environment. The County also offers numerous hiking, walking, and biking trails including the Erie Canalway/Empire State Trail, the Onondaga Creekwalk, Onondaga Lake Park, and Lakeview Park. Additionally, there are a number of fitness facilities, athletic clubs, and recreational sporting groups in the County.

- Over ten lakes and reservoirs are located within or partially within Onondaga County, which provide a variety of opportunities for recreation and physical activity. Otisco Lake and Skaneateles Lake are also important sources of drinking water for many Onondaga County residents.
- The majority of residents in Onondaga County are served by Public Water Systems which provide safe drinking water. The Onondaga County Water Authority and the City of Syracuse Water Department add fluoride to their systems which helps prevent tooth decay for both children and adults.
- The Save the Rain Program is an award-winning initiative to improve the water quality of Onondaga Lake and its tributaries through implementation of comprehensive storm water management projects including tree planting, distribution of rain barrels to residents, and improvements to the sewer systems.
- Numerous collaborations between governmental, healthcare, academic, and community-based organizations to promote sustainable environmental and policy changes that will positively impact the health of County residents. One such effort is work to encourage local municipalities to adopt Complete Streets policies which will improve access to safe routes for bicyclists and pedestrians. Another effort is a multi-agency collaboration around the Green & Healthy Homes Initiative to reduce the burden of housing related illness and injury through identification and remediation of hazards present in the home.
- A bike share program in the City of Syracuse provides alternate modes of transportation for City residents and visitors. Pedal bikes, electric bikes, and electric scooters are offered for temporary use by adults 18+. Discounted fare is available for those that qualify for certain local, state, or federal assistance programs.
- ReZone Syracuse, a citywide project to comprehensively revise and update the City's Zoning Ordinance. These updates will promote high-quality and attractive design, sustainable land use and transportation options, and protect and enhance the character of Syracuse's neighborhoods.
- Updates to the Onondaga County Sanitary Code in 2021 were accepted by the Health Advisory Board and the Onondaga County Legislature. The Sanitary Code provides essential guidance and enforcement powers for many programs carried out by the OCHD Division of Environmental Health.

**Barriers** to promoting a healthy and safe environment continue to persist in parts of Onondaga County. For example:

- Lack of transportation can limit easy access to environmental resources, in both urban and rural settings.
- Some areas of the County have a high density of establishments that offer unhealthy food options and tobacco products.
- The abundance of older housing stock contributes to exposure to environmental hazards that can lead to lead poisoning, asthma, and a higher risk of fire in the home.
- Some neighborhoods experience higher levels of violence, which limits safe outdoor physical activity.



## Healthy Women, Infants and Children

The health and well-being of women, infants and children is fundamental to the overall health of a community. Onondaga County is rich in support services for women, infants and children, including:

- Several clinics that offer prenatal, post-partum and pediatric and well woman care to uninsured and Medicaid-eligible families, including Syracuse Community Health, Upstate Health Care Center's Women's Health Services and the Regional Perinatal Center; the Upstate Midwifery Program at Community Campus; St. Joseph's Primary Care Center – Main, St. Joseph's Primary Care Center – West, and St. Joseph's Primary Care Family Medicine Center.
- Three delivery hospitals (Crouse Health, St. Joseph's Hospital Health Center, and Upstate University Hospital Community Campus), including a level three (St. Joseph's Hospital Health Center) and a level four (Crouse Health) neonatal intensive care unit. St. Joseph's Hospital Health Center and Upstate University Hospital Community Campus are designated Baby-Friendly by Baby Friendly, USA. The Upstate University Hospital Breastfeeding Medicine Clinic offers evaluation and support for families experiencing breastfeeding, chestfeeding, and lactation difficulties.
- A home visiting system supported by multiple programs and agencies, including the OCHD, REACH CNY, Syracuse Community Connections and Catholic Charities of Onondaga County. Home visitors provide education, outreach and referrals on topics such as smoking cessation, healthy home environments, reproductive health care, family planning, human milk feeding support, child development and parenting.
- A Supplemental Nutrition Program for Women, Infants and Children (WIC) that enrolled over 8,700 participants in 2021 and offered nutritious foods, nutrition education, referrals, and human milk feeding support through Peer Counselors.
- The Early Childhood Alliance (ECA), which consists of an interconnected system of medical, public health, and human service providers dedicated to ensuring all children begin kindergarten prepared to succeed. The ECA leads several evidence-based initiatives grounded in community voice.
- Strong collaborations between community-based organizations, such as the Healthy Families Advisory Board, that come together to share resources and information to reduce barriers to community members in accessing services.
- The Community Action Network (CAN), an integral part to the Syracuse Healthy Start program. The CAN is a group comprised of residents, community-based organizations, healthcare and government workers and others. The mission of the CAN is to eliminate health inequities and empower the community through outreach, education, and advocacy.
- The Perinatal and Infant Community Health Collaborative (PICHC) of Onondaga County, a New York State initiative to improve maternal and infant health outcomes, particularly for families with lower incomes.

- LeadSafeCNY, an initiative of the Central New York Community Foundation, to collectively prevent childhood lead poisoning. A recently formed LeadSafeCNY Coalition consists of government and community partners as well as community members.
- Central New York Breastfeeding Connection is a regional multidisciplinary community coalition dedicated to promoting and supporting breastfeeding, chestfeeding, and lactation. The coalition consists of Lactation Consultants, Lactation Counselors, Physicians, Nurses, Dietitians, La Leche League members, Doulas, Educators, and other healthcare and public health workers.
- Onondaga County operates a Child Fatality Review Team to investigate unexpected deaths of children and adolescents. The team is a multisectoral coalition with representation from several county entities, law enforcement, emergency medical services, and child advocates.

**Barriers** to promoting healthy women, infants and children continue to persist in parts of Onondaga County. For example:

- High levels of poverty affect children and female headed households, especially in the City of Syracuse. There is a shortage of safe, healthy, and affordable housing for low income families in Onondaga County.
- It can be difficult for families with young children to navigate the public transportation system. Lack of transportation can lead to missed medical appointments and WIC clinic visits.
- Some residents have limited access to high quality, affordable childcare that is exacerbated by staff shortages in the childcare industry.
- A lack of awareness about available resources in the community, combined with the difficulty in navigating the complex system of services can impede access to programs that address social determinants of health.
- Program participants have expressed the need for respectful, individualized, patient-centered, accessible, quality health care.
- A growing number of women are struggling with substance use both during their pregnancy and as parents.
- Despite strong partnerships built for referrals, much of the population experiences barriers to accessing home visiting services.

## **Communicable Diseases**

Decreasing the transmission of preventable communicable diseases is a core function of public health. Onondaga County has many resources in place to help ensure protection of residents from Sexually Transmitted Infections (STIs), HIV, Tuberculosis (TB) and vaccine-preventable diseases, including:

- Testing and treatment for HIV is provided through a number of agencies in Onondaga County, including the OCHD STD Center (in collaboration with the NYSDOH Regional Office), Upstate Medical University's Inclusive Health Services, and ACR Health. Testing and referral for treatment is offered by Planned Parenthood, Syracuse Community Health, and many primary care providers.

- Several area clinics, including the OCHD STD Center, ACR Health, Planned Parenthood, Upstate Medical University's Inclusive Health Services, and offer pre-exposure prophylaxis (PrEP) to individuals who are at high risk of contracting HIV. A strong network of government, hospital and non-profit agencies partner to promote awareness of PrEP in the community, including assisting patients in locating PrEP prescriptions and clinical care. Additional activities to promote community awareness include organization of community events and implementation of mixed media campaigns.
- Upstate University Hospital's Inclusive Health Services offers comprehensive health services to the LGBTQ+ community, including transgender care, regardless of HIV status. Services offered include PrEP, post exposure prophylaxis (PEP, nPEP), hepatitis C treatment, and linkage, retention, and treatment adherence services.
- The OCHD STD Center operates a walk-in STD clinic that offers STD testing, treatment, counseling and education, and certain immunizations to patients.
- A partnership exists between the OCHD, the NYSDOH, local laboratories, medical providers and hospitals to identify and fully investigate any cases of reportable communicable disease, including healthcare-associated infections.
- A centrally-located OCHD Immunization Clinic operates each Wednesday for children between the ages of 2 months and 18 years, who do not have private health insurance. In addition to the vaccinations required for school entry/attendance, the immunization clinic offers HPV vaccine. Vaccinations are available for adults 18 years and older without public or private health insurance and MMR vaccination is offered for adults (when required for school or college) regardless of insurance status. Flu vaccine is offered during flu season for those who are uninsured or underinsured. COVID-19 vaccine and boosters are also offered routinely to the community.
- Established infection control programs exist at all area hospitals, which partner with the OCHD to receive regular updates on current infectious disease issues.
- The OCHD Tuberculosis (TB) Control Program provides testing, diagnosis and treatment of latent and active tuberculosis cases in Onondaga County.
- New partnerships formed between OCHD and businesses that primarily serve men who have sex with men, to provide education and vaccine for communicable diseases such as mpox.

**Barriers** to preventing HIV, STIs, TB, vaccine-preventable diseases and healthcare-associated infections continue to persist in Onondaga County. For example:

- Lack of easy access to healthcare and other social and economic supports is a barrier to the treatment and/or prevention of STIs and HIV.

- Use of certain social media apps has facilitated a rise in anonymous sexual activity, which has made partner notification more challenging.
- The stigma associated with HIV and STIs remains a barrier to prevention initiatives.
- Numerous studies have documented an association between substance abuse and HIV/ STIs. An increase in illicit drug use in the community can lead individuals to engage in risk behaviors that may result in increased transmission of STIs, HIV, hepatitis C virus, and hepatitis A virus.

## Community Engagement

In 2022, the Steering Committee conducted a comprehensive community engagement effort to gather community member feedback about health risks and needs within Onondaga County. Engagement efforts were undertaken to inform the CHA as well as to inform the selection of priority areas for the CHIP. This section provides a summary of the engagement process and key findings from these efforts.

### Community Health Survey

In order to reach a large number of county residents, OCHD developed a Community Health Survey to be distributed widely across the community. The Steering Committee and the CNY Healthcare Equity Task Force provided feedback on survey questions to ensure meaningful collection of data. The survey consisted of several sections: **Healthy Community, Health Problems, Health Behaviors and Social Factors, Healthcare System, Access to Care, Impact of COVID-19, and Demographics**. Each of these sections was designed to collect important information on a variety of health topics potentially impacting county residents.

The survey was distributed online and on paper in both English and Spanish. Although the survey was anonymous, participants had the option to include their name and contact information for a chance to win one of five gift cards to Target. All identifying information was removed prior to analysis. The survey was distributed through a variety of outlets, including agency websites and social media pages. Steering Committee members, CNY Healthcare Equity Task Force members, and other partners assisted by distributing the survey to community members through a variety of digital and in person approaches. More than **3,600** survey responses were received from Onondaga County residents.

### Key Informant Interviews

In addition to the community-wide survey, OCHD conducted key informant interviews with local agency staff to gather supplemental information about community health needs. Sessions were held with Refugee and Immigrant Self – Empowerment (RISE), a local agency working with new Americans, and the OCHD’s Healthy Families Advisory Board which is made up of multiple partner agencies focused on improving maternal-child health outcomes.

### Community Feedback

The most pressing concerns identified through the community health survey process included: **substance use disorders, mental health conditions, trauma and violence, and access to health care**. Other topics including a **clean environment** (i.e. no pollution or trash in public spaces including parks, playgrounds, and lakes), **good and safe schools**, and **ongoing stress** were also frequent concerns. Nearly half of respondents identified

experiencing a **long wait to get medical appointments**, and nearly one third identified **difficulty receiving care because of office hours**. When asked about the impact of the COVID-19 pandemic, **the negative impact on education** and **mental health** were the most frequent concerns. As we move forward, residents were most concerned about the potential for **learning gaps among school-age children** due to the COVID-19 pandemic. Key informant interviews identified challenges relating to **poverty, safe and affordable housing, access to health care**, and **access to affordable childcare** as notable concerns.

# ONONDAGA COUNTY COMMUNITY HEALTH IMPROVEMENT PLAN 2022-2024

## Overview

Community input and data collected through the Community Health Assessment (CHA) process informed the development of the 2022 – 2024 Community Health Improvement Plan (CHIP). Key priorities to be addressed in Onondaga County for 2022 - 2024 are **Promote Healthy Women Infants and Children** and **Promote Well-Being and Prevent Mental and Substance Use Disorders**. These priorities were affirmed by the community, as well as by health and public health professionals following a thorough data review and community engagement process over the course of 2022. While these topics were selected as priorities for the CHIP, they do not reflect the full scope of work of the Onondaga County Health Department (OCHD), St. Joseph’s Hospital Health Center, Crouse Health, and other partners; the CHIP is meant to reflect the new or enhanced activities that each agency has committed to for the duration of the CHIP cycle.

The interventions and activities included in the Onondaga County CHIP reflect evidence based initiatives and best practices selected to have significant impact on improving the health and wellbeing of County residents within the selected priority areas. Interventions were identified by the Steering Committee on the basis of potential for broad impact and considerations for strengths, capacity, and resources of the OCHD and participating hospitals. The selection of interventions and activities were informed by the NYSDOH’s 2019-2024 Prevention Agenda Action Plan.<sup>157</sup> Many of the included interventions aim to address health disparities. Disparities addressed by CHIP activities include, but are not limited to, disparities on the basis of race and ethnicity, income, a focus on older adults, individuals with disabilities, and individuals with substance use disorders and/or mental health disorders.

The OCHD and participating hospitals are each responsible for components of the CHIP, whether as a lead agency or supporting partner. The OCHD and participating hospitals have committed significant resources to support the implementation of interventions included in the CHIP. These resources include, but are not limited to, staff time and financial resources to acquire needed equipment. Several of the initiatives outlined in the CHIP are funded through federal, state, and local grants which have been awarded to support improved community health. In addition to the activities undertaken by the OCHD and participating hospitals, many activities included in the CHIP would not be possible without the support of local and statewide agencies. Some of the many agencies that are actively involved in CHIP activities include the Central New York Healthcare Equity Taskforce,

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<sup>157</sup> Prevention Agenda 2019-2024: New York State’s Health Improvement Plan. Retrieved 10/11/2022, from [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/).

Contact Community Services, early childcare centers, Help Me Grow, the New York State Department of Health, and Sankofa.

The Onondaga County CHIP is presented in the following work plan. The work plan outlines interventions, activities, responsible agencies and staff, performance measures, and timelines for each goal being addressed in the Onondaga County CHIP. For each of the activities that directly address a disparity, details on the population(s) impacted are included in the work plan. Progress towards work plan objectives will be reported using the process outlined in Appendix 2.



## PRIORITY AREA 1. PROMOTE HEALTHY WOMEN, INFANTS, AND CHILDREN

### Focus Area 1: Cross Cutting Healthy Women, Infants, and Children

Objectives: By December 31, 2024:

- Increase the number of children in the City of Syracuse with a blood lead test by 10.0% to 4,153 children tested during the calendar year.<sup>1</sup>
- Connect at least 200 families of children with documented elevated blood lead levels to a pilot program that provides services designed to prevent developmental delays.
- Decrease the percentage of children with obesity (among children ages 2-4 participating in the Special Supplemental Nutrition Program for Women, Infants, and Children [WIC]) from 14.5% to 14.0%.<sup>2</sup>
- Increase the percentage of infants enrolled in WIC who are breastfed at 6 months from 24.0% to 26.0%.<sup>2</sup>
- Decrease the racial disparity in maternal mortality rates (ratio of Non-Hispanic Black maternal mortality rate to Non-Hispanic White maternal mortality rate) from 4.2 to 3.1.<sup>3</sup>
- Increase the percentage of women who report that a health care provider asked them about depression symptoms at a postpartum visit from 82.4% to 85.0%.<sup>4</sup>
- Increase the percentage of children ages 9-35 months who received a developmental screening using a parent-completed screening tool in the past year from 24.4% to 26.0%.<sup>5</sup>

Goal 1: Reduce racial, ethnic, economic, and geographic disparities in maternal and child health outcomes, and promote health equity for maternal and child health populations					
Intervention 1.1: Enhance collaboration with other programs, providers, agencies, and community members to address key social determinants of health that impact the health of women, infants, children, and families across the life course					
Activity	Lead Agency & Partners	Responsible staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Implement mobile blood lead testing program targeting census tracts with low testing rates	<b>OCHD</b> Partner agencies will be engaged as referral sources	<u>OCHD</u> : Lead Poisoning Prevention Program	# children tested by mobile unit	December 2023	Access to care, Economic, Health equity, Racial and ethnic

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<p>2. Develop pilot program to prevent developmental delays in children with elevated blood lead levels (EBL). Activities include:</p> <ul style="list-style-type: none"> <li>• Subcontracting with appropriate service providers;</li> <li>• Identifying and referring children with EBL who do not qualify for Early Intervention</li> <li>• Evaluating program impact</li> </ul>	<p><b>OCHD</b> Help Me Grow Contracted service providers</p>	<p><u>OCHD</u>: Lead Poisoning Prevention Program</p>	<p># children served through new program</p>	<p>December 2023</p>	<p>Access to care, Health equity, Racial and ethnic</p>
<p>3. Support the adoption of healthy nutrition policies and standards at early childcare centers</p>	<p><b>OCHD</b> Early childcare centers</p>	<p><u>OCHD</u>: Healthy Communities Initiatives Team</p>	<p># early childcare centers engaged # policies/standards adopted</p>	<p>December 2024</p>	<p>Healthy food access</p>
<p>4. Support the adoption of breastfeeding friendly policies at local worksites, community sites, and provider offices (funding contingent)</p>	<p><b>OCHD</b> Upstate University Hospital</p>	<p><u>OCHD</u>: Healthy Communities Initiatives Team  <u>Upstate</u>: Family Birth Center</p>	<p># sites engaged # policies/standards adopted</p>	<p>December 2024</p>	
<p>5. Continue to work with the New York State Birth Equity Improvement Collaborative (NYS BEIC) and the Healthcare Association of New York State (HANYS) Health Equity Task Force</p>	<p><b>Crouse Health</b> <b>St. Joseph's Health</b> <b>Upstate University Hospital</b> NYS BEIC HANYS</p>	<p><u>Crouse</u>: Multidisciplinary hospital and community leadership  <u>St. Joseph's</u>: Women and Children's Services Service Line Leadership  <u>Upstate</u>: Family Birth Center</p>	<p>Increase % of records that include complete demographic data (including self-identified race and ethnicity)</p>	<p>December 2023</p>	<p>Health equity, Racial and ethnic</p>
<p>6. Incorporate culturally appropriate care givers into Crouse care team</p>	<p><b>Crouse Health</b> Sankofa</p>	<p><u>Crouse</u>: Women's Health and Diversity</p>	<p>Doulas added to Grand Rounds</p>	<p>December 2023</p>	<p>Health equity, Racial and ethnic</p>

		Staff	Doulas included in unit based council meetings		
7. Provide education on Perinatal Mood and Anxiety Disorder to public health workers	<b>Crouse Health</b>	<u>Crouse</u> : Crouse Health Education Project	# public health workers trained	December 2024	Access to care
8. Implement HealthySteps program at St. Joseph's Primary Care Center-Main to help children achieve developmental milestones and foster a healthy living environment	<b>St. Joseph's Health</b> NYS Office of Mental Health Zero to Three/HealthySteps Reach Out and Read	<u>St. Joseph's</u> : Primary Care Center Main	# children enrolled  Utilization of well-child visits  Scheduled immunizations  Detection and screening of developmental delays	December 2024	Economic, Racial and ethnic
9. Offer childbirth education class scholarships	<b>Crouse Health</b> <b>St. Joseph's Health</b>	<u>Crouse</u> : Community Engagement staff  <u>St. Joseph's</u> : Women and Children's Services Service Line Leadership	# scholarships awarded	December 2024	Economic
10. Actively engage with the Central New York Healthcare Equity Task Force to address the social determinants of health that impact maternal and child health outcomes	<b>Crouse Health</b> <b>St. Joseph's Health</b> <b>Upstate University Hospital</b> CNY Healthcare Equity Task Force	<u>Crouse</u> : Community Engagement staff  <u>St. Joseph's</u> : Community Health and Well-being  <u>Upstate</u> : Hospital Administration	Continued participation in Healthcare Equity Task Force Meetings  Additional performance measures may be identified in alignment with Task Force interventions	December 2024	Health equity

## Priority Area 2. Promote Well-Being and Prevent Mental and Substance Use Disorders

### Focus Area 1: Mental and Substance Use Disorders Prevention

Objectives: By December 31, 2024:

- Reduce the age-adjusted percentage of adult (age 18 and older) binge drinking (5 drinks or more for men during one occasion, and 4 or more drinks for women during one occasion) during the past month from 23.3% to 20.0%.<sup>6</sup>
- Reduce the overdose deaths involving any opioid from 23.6 per 100,000 population to 20.0 per 100,000 population.<sup>7</sup>
- Increase the age-adjusted rate of patients who received at least one Buprenorphine prescription for opioid use disorder by 20.0% to 415.6 per 100,000 population.<sup>8</sup>
- Reduce all emergency department visits (including outpatients and admitted patients) involving any opioid overdose, age-adjusted rate from 93.3 per 100,000 population to 85.0 per 100,000 population.<sup>9</sup>
- Reduce the rate of new HIV diagnoses from 5.4 per 100,000 population to 5.2 per 100,000 population.<sup>10</sup>
- Increase communities reached by opportunities to build resilience by at least 10 percent.
- Reduce the age-adjusted suicide mortality rate from 10.7 per 100,000 population to 7.0 per 100,000 population.<sup>11</sup>

Goal 1: Prevent underage drinking and excessive alcohol consumption by adults					
<b>Intervention 1.1:</b> Implement environmental approaches, including reducing alcohol access, implementing responsible beverage services, reducing risk of drinking and driving, and underage alcohol access					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Provide intervention in hospital for any patient with suspected addiction to alcohol	<b>Crouse Health</b>	<u>Crouse</u> : Addiction Consult Service	Meet with 75% of individuals referred for consult	December 2024	Access to care
<b>Intervention 1.2:</b> Implement Screening, Brief Intervention, and Referral to Treatment (SBIRT) Electronic screening and brief interventions (e-SBI) using electronic devices (e.g., computers, telephones, or mobile devices) to facilitate delivery of key elements of traditional SBI					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Upstate will deploy and consistently utilize the SBIRT screening for ED and for inpatient admissions for appropriate patients	<b>Upstate University Hospital</b>	<u>Upstate</u> : Social Work	# SBIRT screenings completed in Upstate EDs and in inpatient setting	December 2024	Access to care

			# resulting referrals		
<b>Goal 2: Prevent opioid and other substance misuse and deaths</b>					
<b>Intervention 2.1: Increase availability of/access and linkages to medication assisted treatment (MAT) including Buprenorphine</b>					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Offer MAT program within Crouse Emergency Department providing available first dose of Buprenorphine and referral to treatment	<b>Crouse Health</b>	<u>Crouse</u> : Emergency Department	Increase # of patients given Buprenorphine by 5%	December 2024	Access to care
2. Support trainings for providers so that they have a waiver to prescribe Buprenorphine	<b>St. Joseph's Health</b>	<u>St. Joseph's</u> : Medical Education and Family Practice Residency Clinic	# providers trained to receive waivers to prescribe Buprenorphine	December 2024	Access to care
<b>Intervention 2.2: Increase availability of/access to harm reduction strategies including fentanyl testing strips and overdose reversal (Naloxone) trainings</b>					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Purchase and install naloxone distribution boxes at select community sites	<b>OCHD</b> Community sites	<u>OCHD</u> : Mental Health and Substance Use Initiatives Team	# naloxboxes installed  # agency staff trained to administer naloxone	December 2022	Access to care, Stigma
2. Engage the faith-based community to promote education and training on naloxone administration	<b>OCHD</b> Faith-based community leaders	<u>OCHD</u> : Mental Health and Substance Use Initiatives Team	# of faith-based events attended  # individuals trained as a result of this outreach	December 2023	Access to care, Racial and ethnic
3. Distribute fentanyl testing strips to at risk individuals	<b>OCHD</b>	<u>OCHD</u> : Mental Health and Substance Use Initiatives Team	# fentanyl testing strips distributed	December 2024	Access to care, Stigma
4. Remain in the NYS Opioid Overdose Prevention Program – provide Narcan kits and training on usage	<b>Crouse Health</b> <b>Upstate University Hospital</b> NYS Department of Health Participating providers	<u>Crouse</u> : Addiction Treatment Services staff  <u>Upstate</u> : Outpatient	Increase # of kits provided	Crouse: December 2023  Upstate:	

		Pharmacy		December 2024	
5. Provide training and education to prescribers and consumers around overdose reversal interventions (funding contingent)	<b>Upstate University Hospital</b> Cornell Cooperative Extension	<u>Upstate:</u> Outpatient Pharmacy	Upstate will provide training/education to 50 prescribers and 50 consumers per year	December 2024	
<b>Intervention 2.3: Build support systems to care for opioid users or at risk of an overdose.</b>					
<b>Activity</b>	<b>Lead Agency &amp; Partners</b>	<b>Responsible Staff</b>	<b>Performance Measure(s)</b>	<b>Timeline</b>	<b>Disparities Addressed</b>
1. Provide case management for individuals in recovery	<b>OCHD</b> Upstate University Hospital	<u>OCHD:</u> Mental Health and Substance Use Initiatives Team  <u>Upstate:</u> Bridge Clinic	# individuals served	June 2023	Access to care
2. Implement Second Tier Syringe Exchange program (SEP)	<b>OCHD</b>	<u>OCHD:</u> Mental Health and Substance Use Initiatives Team	# individuals served by OCHD SEP	June 2023	Access to care
3. Provide certified recovery peer advocate support to patients with opioid use disorders	<b>Crouse Health</b> Participating providers	<u>Crouse:</u> Addiction Treatment Services leadership and staff	Increase # of peer hours	December 2023	Access to care
4. Implement standard protocols to care for patients experiencing opiate withdrawal, including administration of the Clinical Opiate Withdrawal Scale (COWS) tool to monitor and respond to symptoms	<b>St. Joseph's Health</b>	<u>St. Joseph's:</u> Emergency Department and Comprehensive Psychiatric Emergency Program (CPEP)	# COWS assessments conducted	December 2024	Access to care
5. Improve collaboration and coordination between primary care and behavioral health. Behavioral health will be embedded within 3 St. Joseph's Health Primary Care location sites.	<b>St. Joseph's Health</b>	<u>St. Joseph's:</u> Leadership Of Primary Care, Primary Care Safety Net Clinics and Behavioral Health	# patients seen	December 2024	Access to care

Intervention 2.4: Establish additional permanent safe disposal sites for prescription drugs and organized take-back days					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Promote ongoing use of drug take back station located in St. Joseph's main lobby and integrate a drug take-back program within the hospital	<b>St. Joseph's Health</b>	<u>St. Joseph's</u> : Emergency Department and Comprehensive Psychiatric Emergency Program (CPEP).	Use of take back station as evidenced by number of times it is required to be emptied.	December 2024	
Goal 3: Prevent and address adverse childhood experiences (ACEs)					
Intervention 3.1: Integrate principles of trauma-informed approaches in governance and leadership, policy, physical environment, engagement and involvement, cross sector collaboration, screening, assessment and treatment services, training and workforce development, progress monitoring and quality assurance, financing and evaluation					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Provide group therapy, screening and assessment for women at risk of Perinatal Mood and Anxiety Disorder	<b>Crouse Health</b>	<u>Crouse</u> : Family Support Program staff	Number of women in group therapy, number of screenings, assessments	December 2023	Access to care
Intervention 3.2: Address Adverse Childhood Experiences and other types of trauma in the primary care setting					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Provide trauma-informed training to staff in outpatient behavioral health services	<b>St. Joseph's Health</b>	<u>St. Joseph's</u> : Outpatient Behavioral Health Leadership	Staff trained in trauma-informed care	December 2024	
Intervention 3.3: Grow resilient communities through education, engagement, activation/mobilization and celebration					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Increase the number of schools in Syracuse that operate the PAX Good Behavior Game	<b>OCHD</b> Contact Community Services	<u>OCHD</u> : Mental Health and Substance Use Initiatives Team	# new students engaged in PAX Good Behavior Game curriculum	June 2023	Economic

Goal 4: Prevent suicides					
Intervention 4.1: Strengthen economic supports: strengthen household financial security; policies that stabilize housing					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Upstate’s outpatient pharmacy will be a dispensary location for Medications for Hope and provide access to mental health medication to those at or below 300% of the Federal Poverty guidelines who do not have prescription insurance	<b>Upstate University Hospital</b> Dispensary of Hope	<u>Upstate</u> : Outpatient Pharmacy	# local nonprofit organizations partnering with Upstate	December 2024	Economic
Intervention 4.2: Strengthen access and delivery of suicide care - Zero Suicide: Zero Suicide is a commitment to comprehensive suicide safer care in health & behavioral health care systems.					
Activity	Lead Agency & Partners	Responsible Staff	Performance Measure(s)	Timeline	Disparities Addressed
1. Screen for Suicide throughout Crouse Health	<b>Crouse Health</b> Participating providers	<u>Crouse</u> : Addiction Treatment Services, Crouse providers	Increase # of screenings	December 2024	Access to care
2. Provide Stanley Brown Safety Plan to individuals with moderate to high risk after Addiction Treatment Services or Psychology consultation	<b>Crouse Health</b> Participating providers	<u>Crouse</u> : Addiction Treatment staff, Crouse providers	Increase # of people who scored moderate or high risk who have a Stanley Brown Safety Plan	December 2024	Access to care
3. Continue to implement Zero Suicide program	<b>St. Joseph’s Health</b>	<u>St. Joseph’s</u> : Leadership of Comprehensive Psychiatric Emergency Program (CPEP)	# standardized screenings conducted and safety plans created.	December 2024	Access to care



## Data Sources and Notes

1. Lead poisoning prevention data, Onondaga County Health Department. Retrieved 9/29/2022, from <http://www.ongov.net/health/lead/data.html>.
2. The Pediatric Nutrition Surveillance System (PedNSS), 2017. Retrieved 10/28/2022 from the [2017 New York State Pediatric Nutrition Surveillance System Report](#).
3. National Vital Statistics System, Maternal mortality rate per 100,000 live births, 2015-2019 by race and ethnicity. Retrieved 9/30/2022, from [NYS Maternal and Child Health Dashboard – State Level](#). Note: data reflect statewide rate, county level data not available by race and ethnicity.
4. Pregnancy Risk Assessment Monitoring System, 2020. Retrieved 9/30/2022, from [https://apps.health.ny.gov/public/tabvis/PHIG\\_Public/prams/reports/#annual](https://apps.health.ny.gov/public/tabvis/PHIG_Public/prams/reports/#annual). Note: data reflect statewide rate, county level data not available.
5. National Survey of Children's Health, 2018-2019. Retrieved 9/30/2022, from [NYS Maternal and Child Health Dashboard – State Level](#). Note: data reflect statewide rate, county level data not available.
6. NYS Expanded Behavioral Risk Factor Surveillance System (BRFSS), 2018. Retrieved 3/1/2022 from <https://www.health.ny.gov/statistics/brfss/expanded/>.
7. NYS Vital Statistics, 2019. Retrieved 9/30/2022, from [NYS Opioid Data Dashboard – County Level](#). Notes: data reflect the crude rate.
8. Prescription Monitoring Program (PMP) Registry, 2017. Retrieved 9/30/2022 from [NYS Prevention Agenda 2019-2024: Promote Well-Being and Prevent Mental and Substance Use Disorders Action Plan](#). Note: data reflect statewide rate, county level data not available.
9. Statewide Planning and Research Cooperative System (SPARCS), 2019. Retrieved 9/30/2022, from [NYS Opioid Data Dashboard – County Level](#).
10. HIV Surveillance, 2017-2019. Retrieved 10/28/22 from [NYS Prevention Agenda Dashboard - County Level](#).
11. NYS Vital Records, 2017-2019. Retrieved 9/30/2022, from [NYS Prevention Agenda Dashboard - County Level](#).

# Appendices

## Appendix 1: Community Health Assessment and Improvement Plan Methodology

### Overview

In 2021, the New York State Department of Health (NYSDOH) provided guidance to Local Health Departments (LHDs) and hospitals on the development of a Community Health Assessment and Community Health Improvement Plan (CHA/CHIP) for 2022-2024. Similar to the prior cycle, LHDs and hospitals were encouraged to work together to develop and submit a single document per county. In addition, LHDs and hospitals needed to identify a shared priority and focus work to address that priority.

### Collaborative Process

In March 2022, the Onondaga County Health Department (OCHD) convened the CHA/CHIP Steering Committee with designees from each hospital (Crouse Health, St. Joseph's Health, and Upstate University Hospital) to guide CHA/CHIP development. The Steering Committee convened four times throughout 2022, and remained in close contact via email.

The Steering Committee members for the development of the 2022-2024 Onondaga County Community Health Assessment and Improvement Plan are:

#### Onondaga County Health Department

Bridget K. Volz, MPH, CAS-HSMP, CPH  
Rebecca Shultz, MPH  
Cali Armstrong, MPH  
Brittany Welch, MPH, CHES  
Madeline Mackowski, MSPH (formerly of OCHD)

#### Crouse Health

Bob Allen  
Kathleen Miller Murphy  
Kris Waelder

#### St. Joseph's Health

Kristen B. Richardson, RN, BA

#### Upstate University Hospital

Cynthia A. Jaconski, MPH, CPH, MCHES  
Stacey Keefe, MPA, CAS-HSMP, PMP  
Diane S. Nanno, MSN, CNS, NE-BC, CCCTM

To further shape the CHA/CHIP development process, the OCHD sought advisory support from the CNY Regional Healthcare Equity Task Force. The Task Force has over 150 members representing health care, local

government, housing, transportation, community based organizations, churches, and community development sectors, among others.

## Methodology

The most obvious difference from the previous cycle was the emergence of the COVID-19 pandemic. The Steering Committee agreed to modify the document to incorporate how the pandemic impacted each of the priority areas, as well as the community as a whole.

The Steering Committee agreed that conducting a Community Survey would continue to be an appropriate method to gain community feedback, especially given the potential for changing perceptions related to the pandemic. The survey was developed by OCHD, with input from the Steering Committee and the CNY Regional Healthcare Equity Task Force, and implemented from April to May 2022. Over 3,600 respondents provided feedback on: **Healthy Community, Health Problems, Health Behaviors, Health Systems, and Access to Care**. The survey also included a new section devoted to assessing the impact of COVID-19 on the community. To further enhance community feedback, key stakeholder interviews were conducted with community groups serving populations that may have been under-represented in survey respondents, including refugees, housing authority residents, clients of maternal and child health services. The full report of community engagement findings is available at [www.ongov.net/health](http://www.ongov.net/health).

The OCHD also undertook a comprehensive update of the health indicator data for the five Prevention Agenda priority areas. Data from primary and secondary sources were incorporated in the CHA to provide a full description of the current health status of County residents. Sources of quantitative primary data included the Onondaga County Medical Examiner’s Office, the OCHD Division of Community Health, and the Division of Healthy Families. Secondary data sources include but are not limited to:

- [CDC PLACES data](#)
- [County Health Rankings](#)
- [New York State Community Health Indicator Reports \(CHIRS\)](#)
- [New York State County Health Indicators by Race/Ethnicity \(CHIRE\)](#)
- [New York State Expanded Behavioral Risk Factor Surveillance System](#)
- [New York State Maternal and Child Health Dashboard](#)
- [New York State Opioid Dashboard](#)
- [New York State Prevention Agenda Dashboard](#)
- [U.S. Census Bureau](#)

Where possible, disparities data, and comparisons to Central New York, New York State, and New York State excluding New York City were included in the CHA. Prevention Agenda objectives were incorporated into the data tables as benchmarks, when available. Once updated, data were shared with the Steering Committee and the CNY Regional Healthcare Equity Task Force.

Throughout the year, the Steering Committee reviewed results from the quantitative data analysis and community engagement initiatives that comprised the Community Health Assessment. In August 2022, the Steering Committee met to identify the priorities for intervention. Members of the CNY Regional Healthcare Equity Task Force were also surveyed to identify priority areas, and this feedback was incorporated into the

decision making process. After a thoughtful discussion, the group voted to confirm **Promote Healthy Women, Infants and Children**, and **Promote Well-Being and Prevent Mental and Substance Use Disorders** as the two priority areas to address during the 2022-2024 cycle in Onondaga County. This decision was based on the following factors:

- The severity of the issue as demonstrated through quantitative data collection
- Feedback from the community as assessed through quantitative and qualitative methods
- The ability to implement interventions with current resources
- The ability to identify shared projects within the priority areas
- Whether or not interventions could address health disparities

Once the priorities were confirmed, the Steering Committee began developing interventions using the NYSDOH's Prevention Agenda 2019-2024 Action Plan as a framework. Interventions were selected to be attainable within the specified timeframe, measureable, and impactful. Each agency represented on the Steering Committee has a role in the implementation of interventions, whether as the lead on an activity or as a supporting partner. Many activities included in the CHIP would not be possible without the support of other local agencies. Some of the many community agencies that are involved in CHIP activities include the Onondaga County Drug Task Force, NYS Office of Mental Health, Contact Community Services, 211, Cornell Cooperative Extension, faith-based organizations, and early childcare centers.

Upon finalizing the interventions, the Steering Committee members agreed that progress would be measured regularly (as outlined in Appendix 2) with the opportunity to revisit and assess the interventions for potential modifications as needed.

### **Dissemination to the Public**

The 2022-2024 Onondaga County CHA/CHIP will be made publicly available through a number of venues. This will include publication on the Onondaga County Health Department website ([www.ongov.net/health](http://www.ongov.net/health)) and websites of each of the partner hospitals. The document will also be disseminated to key stakeholder groups including the CNY Regional Healthcare Equity Task Force among others. Local media outlets will also be notified of the publication of the document through a press release. In addition, to solicit feedback on the final document from members of the public and stakeholders, a survey will be made available on the OCHD website ([www.ongov.net/health](http://www.ongov.net/health)) and will run for the month of February 2023.

## Appendix 2: Onondaga County Community Health Improvement Plan (CHIP) 2022-2024 Progress Reporting and Revision Plan

In order to continually evaluate the relevance and effectiveness of the CHIP throughout the cycle, the following progress reporting and revision plan will be followed by the Onondaga County Health Department (OCHD) and the CHA/CHIP Steering Committee. Doing so will ensure that interventions outlined in the CHIP will continue to meet the evolving needs of the Onondaga County community.

Timeframe	Activities	Responsible Agencies
July 2023	Complete the <b>6 Month Progress Update</b> chart reflecting activities from 1/1/2023 to 6/30/2023	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital
December 2023	Update <b>New York State Department of Health (NYSDOH) CHIP Workplan</b> using template provided. Update will reflect activities undertaken in 2023.	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital
January 2024	Complete <b>Annual Review</b> form reflecting on 2023 activities.	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital
Quarter 1 2024	Attend <b>Steering Committee Meeting</b> and discuss the following: <ul style="list-style-type: none"> <li>• Progress towards interventions</li> <li>• Successes and barriers in 2023</li> <li>• Review of recently available data</li> <li>• Changes in resources</li> <li>• Identify any necessary revisions to CHA/CHIP</li> </ul>	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital
July 2024	Complete the <b>6 Month Progress Update</b> chart reflecting activities from 1/1/2024 to 6/30/2024	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital
December 2024	Update <b>NYSDOH CHIP Workplan</b> using template provided. Update will reflect activities undertaken in 2024.	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital
January 2025	Complete <b>Annual Review</b> form reflecting on 2024 activities.	OCHD Crouse Health St. Joseph’s Hospital Upstate University Hospital

Ongoing	Comply with all CHA/CHIP reporting requirements as outlined by the NYSDOH	OCHD Crouse Health St. Joseph's Hospital Upstate University Hospital
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In addition to the timelines laid out above, the Steering Committee will schedule ad hoc meetings as appropriate whenever there is a need to discuss challenges, successes, and/or possible revisions to the CHIP.

The following factors will be considered in regards to CHIP revisions:

Revisions to the CHIP will be made if one or more of the following conditions are met:

- Significant barriers to feasibility of proposed activities
- Changes in agency resources (i.e. funding, staffing)
- Changes in legislation (i.e. making a new policy obsolete)
- Capitalizing on an emerging opportunity
- Response to emerging health issues

Proposed revisions to the CHIP will consider the following:

- Newly available data sources
- Availability of data for performance measures
- Existence of evidence based or promising practices to support desired outcomes
- Agency readiness to pursue proposed projects
- Current assets and resources in the community

## Onondaga County Community Health Improvement Plan 2022-2024 6 Month Progress Update

**Priority Area:** \_\_\_\_\_

Agency name: \_\_\_\_\_

Reporting period: \_\_\_\_\_

Completion date: \_\_\_\_\_

Completed by: \_\_\_\_\_

Goal:						
Intervention:						
Activity	Performance Measures	Partner Agencies	Timeline	Current Status ( <i>Not started, In progress, Completed</i> )	Performance Measure Data	Updates, Changes, Comments



## Onondaga County 2022-2024 Community Health Improvement Plan Annual Review Form

Please complete the following questions in regards to activities completed by your agency in the last 12 months as part of the Onondaga County Community Health Improvement Plan.

Completion date: \_\_\_\_\_

Completed by: \_\_\_\_\_

Reporting agency: \_\_\_\_\_

1. Please provide any relevant updates related to activities and strategies included in your agency's CHIP that were not already reported in the *NYSDOH CHIP Workplan*.
2. Have there been any changes in your agency's resources that will affect the completion of activities outlined in your agency's CHIP? If yes, please explain.
3. Please identify any new community partnership opportunities relevant to the priority areas of *Promote Healthy Women, Infants and Children* and *Promote Well-Being and Prevent Mental and Substance Use Disorders*.
4. Are you aware of any newly available data sources or updated indicators within the priority areas of *Promote Healthy Women, Infants and Children* and *Promote Well-Being and Prevent Mental and Substance Use Disorders*? If yes, please explain.
5. Please describe the emerging health issues that your agency believes should be given priority in the current or future CHIP cycle(s).
6. Please use the space below to provide any recommendations for changes to the work outlined in your agency's CHIP. Recommendations may include changes to planned activities, actions, target dates, responsible parties, or process measures.
7. Please provide any additional feedback below.

*Thank you!*



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