

COMMUNITY HEALTH ASSESSMENT
COMMUNITY HEALTH IMPROVEMENT PLAN
COMMUNITY SERVICE PLAN
2022 - 2024

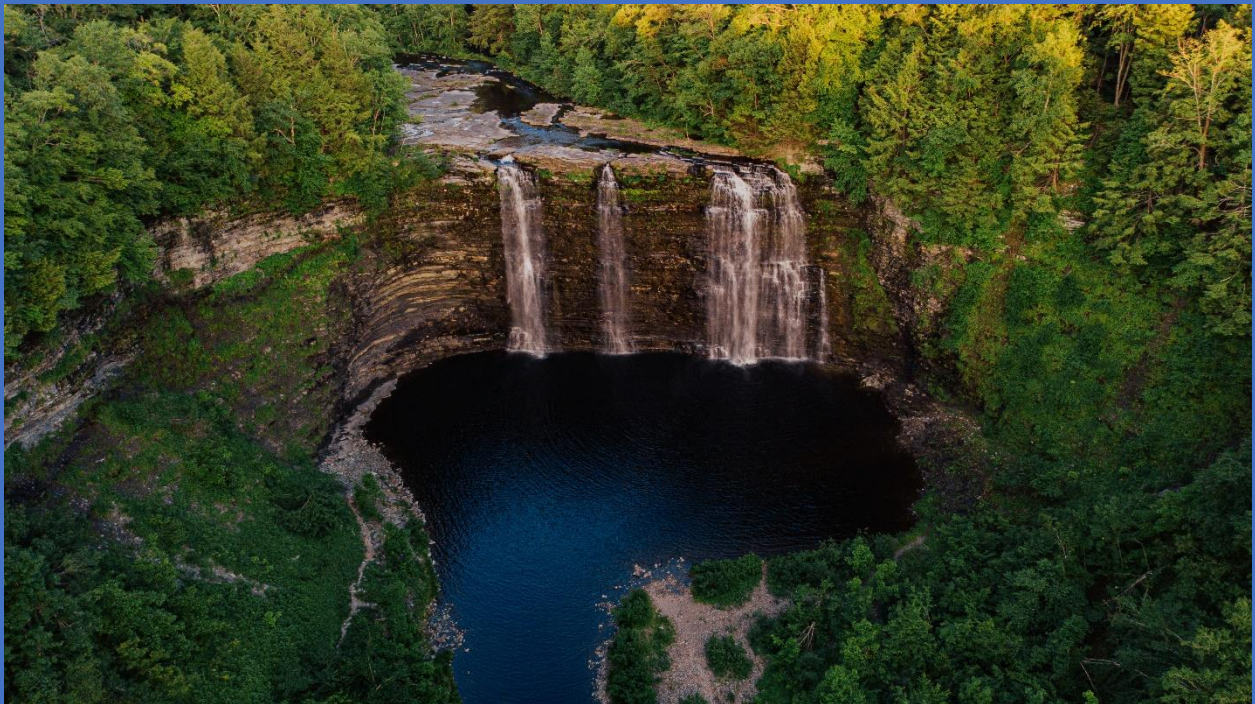


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A): EXECUTIVE SUMMARY

Prevention Agenda Priorities Identified and Disparity:

1. Prevent Chronic Diseases
2. Promote healthy women, infants, and children
3. Promote well-being and prevent mental and substance use disorders
4. Prevent communicable diseases

Disparities Being Addressed:

1. Low access to opportunities for physical activity among those with disabilities
2. Tobacco use among low socioeconomic population

Partners:

CHIP/CHA Planning Workgroup: Oswego Health, Oswego County Health Department, Rural Health Network, Farnham Family Services, Oswego County OBGYN, Oswego County Prevention Coalition

Prevent Chronic Disease Subgroup: Oswego Health, Oswego County Health Department, Rural Health Network

Healthy Women and Children Subgroup: Reach CNY, Rural Health Network, Oswego County OBGYN, Oswego County Health Department, Oswego County Opportunities

Well-Being and Prevent Mental and Substance Use Disorders Subgroup: Oswego County Prevention Coalition, Farnham Family Services, Oswego County Health Department, Rural Health Network

Prevent Communicable Disease Subgroup: Oswego County Health Department, SUNY Oswego

Evidence-Based Interventions/Strategies/Activities:

- Expand joint use agreements with local school districts
- Develop new fully accessible walking, wheeling, and biking trails
- Smoke Free for Baby and Me
- Promotion and marketing of smoking cessation benefits available through Medicaid
- Chronic Disease Self-Management classes (CDSMP, DSMP, Prevent T2)
- Expand access to naloxone
- Increase in access to medication assisted treatment for substance use
- Expand Life Skills Training community education program to additional school districts
- Increase the number of certified lactation consultants in the community to promote breastfeeding
- Increase the number of SBIRT providers in Oswego County
- Promote the development of Plans of Safe Care (POSC) to providers and community agencies that work with pregnant women with substance use disorder
- Expand the use of expedited partner therapy (EPT) by providing this service at the Oswego County Health Department

Progress and Improvement Tracking/Process Measures:

Meetings will be held at least quarterly to review progress made on the Community Health Improvement Plan/Community Services Plan. This team will convene virtually and be comprised of members from Oswego Health, Oswego County Health Department, and relevant community stakeholders. Process measures used will be those outlined in the Community Health Improvement Plan/Community Services Plan work plan.

Summary: This report details the health status of Oswego County residents based on the most recent data available. The key findings from the New York State Prevention Agenda Dashboard for areas of improvement are:

- The percentage of adults with an annual income less than \$25,000 and obesity is 50.5% and has significantly worsened over time. There is a need for low-cost exercise and nutrition opportunities in the county.
- The percentage of infants enrolled in WIC who are breastfed at 6 months is only 19% compared to the Prevention Agenda goal of 45.4% and has worsened over time. There is a need to increase breast feeding support in the county.
- The suicide mortality rate among youth per 100,000 (ages 15 to 19) is 7.7. Increased evidenced based interventions for this group are needed to lower this indicator to the Prevention Agenda goal of 4.7.
- Opioid overdose deaths involving any opioid have worsened over time and are at 29.6 per 100,000. Interventions such as increased access to Narcan, could reduce this number to the Prevention Agenda goal of 14.3 per 100,000.

- Oswego County is at higher risk for the prevalence of cigarette smoking among adults, which was 22.2 in 2018. Smoking cessation interventions should be implemented in the community, especially to special populations such as pregnant women.
- Newborns with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction is 46.3 per 1,000 newborn discharges. This is extremely higher than the Prevention Agenda goal of 9.1 per 1,000. Interventions in this area are desperately needed.
- Rates of gonorrhea and chlamydia in Oswego County remain elevated over time. Expedited Partner Therapy can be used to decrease these rates and reduce the spread of STI's in the county.
- Only 34.6% of women in Oswego County report ever talking to a healthcare provider about ways to prepare for a healthy pregnancy. These types of conversations are especially important among people who use substances and these conversations can be facilitated by the creation of Plans of Safe Care.

The key findings from the New York State Prevention Agenda Dashboard for areas where Oswego County is thriving are:

- Almost all families participating in the Early Intervention Program meet the states standard for the NY Impact on Family Scale (97.9%).
- 78.2% of the residents in the county have community water systems that have been optimally fluoridated.
- The Economy Score for Oswego County has steadily increased since 2016.
- The rate of newly diagnosed HIV cases per 100,000 people is 1.4, which is lower than the Prevention Agenda Goal of 5.2 per 100,000.
- Data shows an improvement in childhood obesity rates among students across Oswego County.

B): COMMUNITY HEALTH ASSESSMENT (CHA)

(Section 1): Description of Community

Established in 1816 through an act of the New York State Legislature, Oswego County occupies 951 square miles of land on the southeastern shore of Lake Ontario. While rich in natural beauty, the proximity to Lake Ontario and the Tug Hill Plateau located in the eastern portion of the county subjects the area to heavy lake-effect snowfall which can reach over 180 inches a season, particularly in the northern half of the county. The county is also home to Toad Harbor/Big Bay Swamp, which lies along the northern shore of Oneida Lake. These hardwood swamps create a hospitable environment for species of mosquitoes known to transmit Eastern Equine Encephalitis (EEE).

Oswego County is comprised of the cities of Oswego and Fulton, 10 villages, and 22 towns. The County Legislature includes 25 districts; each legislator represents approximately 5,000 citizens. The county is in the 22nd and 24th Congressional District; the 48th District of the New York State Senate; and in the 120th, and 130th Districts of the New York State Assembly.

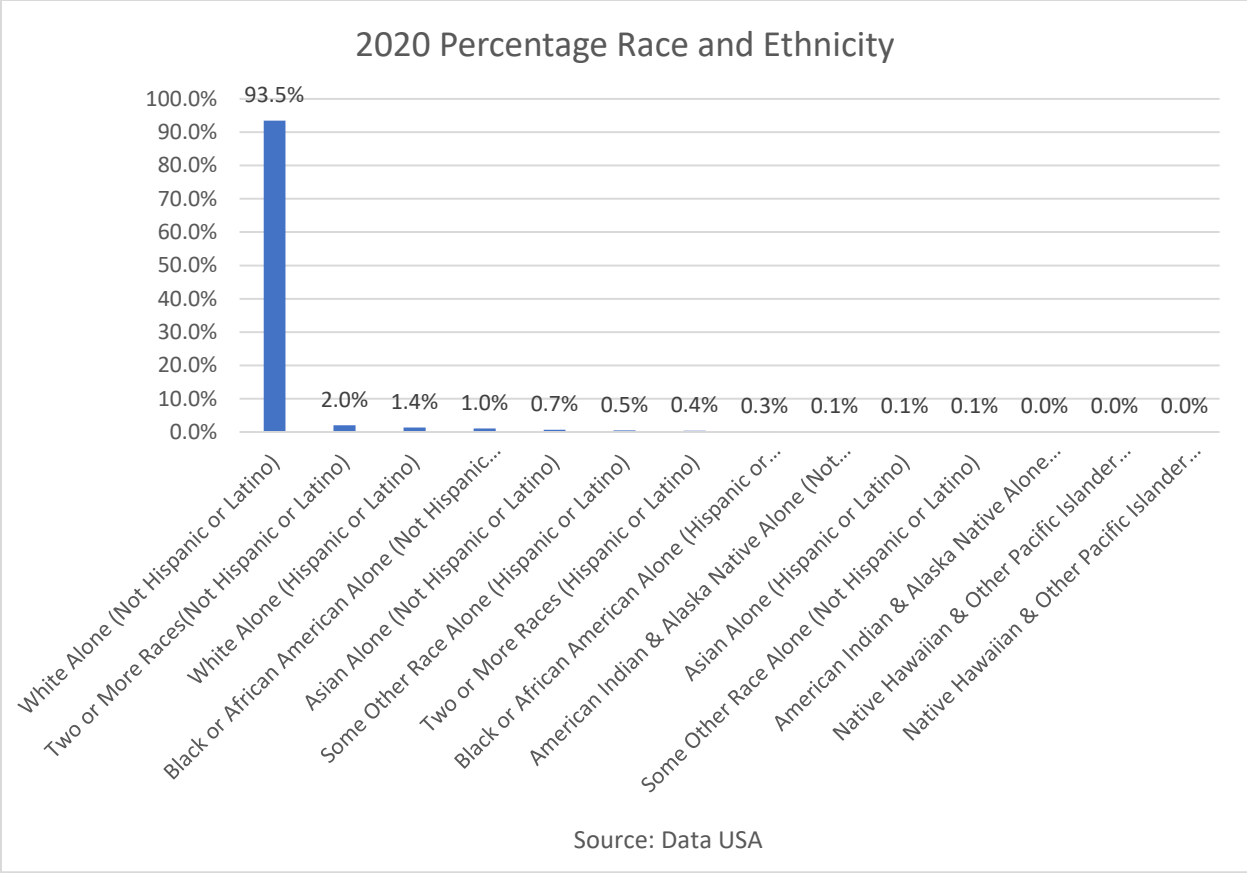
Oswego County is accessible by land, air, and water. Interstate 81 and I-481 travel through the county, and the NYS Thruway (I-90) is just to the south. The Oswego County airport sees more than 20,500 take-offs and landings a year. The 23-mile Oswego River Canal is part of the NYS Canal System and the historic Erie Canal National Heritage Corridor.

The northern and eastern portions of the county are sparsely populated and rural in nature and characterized by a high level of poverty and geographic isolation. Public transportation is limited throughout Oswego County, but particularly in this area.

(A) DEMOGRAPHICS

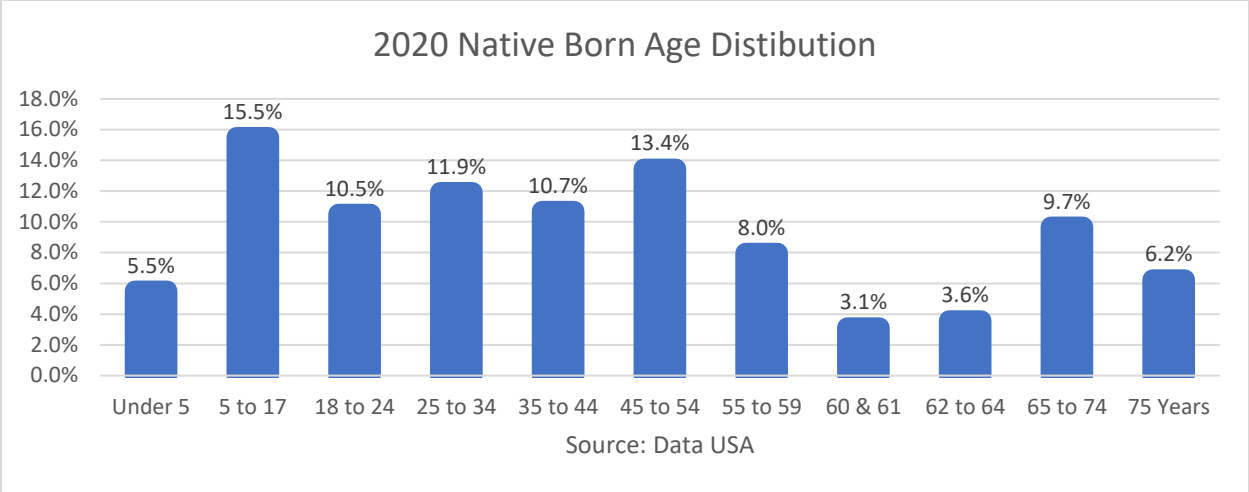
Population

The current population in Oswego County is about 117,630. The population in Oswego County has remained relatively stable over the last decade. Oswego County is not very racially or ethnically diverse. Approximately 94% of Oswego County residents identify themselves as White (Non-Hispanic), 2% as Multiracial (Non-Hispanic), 1.4% as White (Hispanic) (1). The average household size between 2016 and 2020 was 2.42 persons as reported by the US Census Bureau (2).



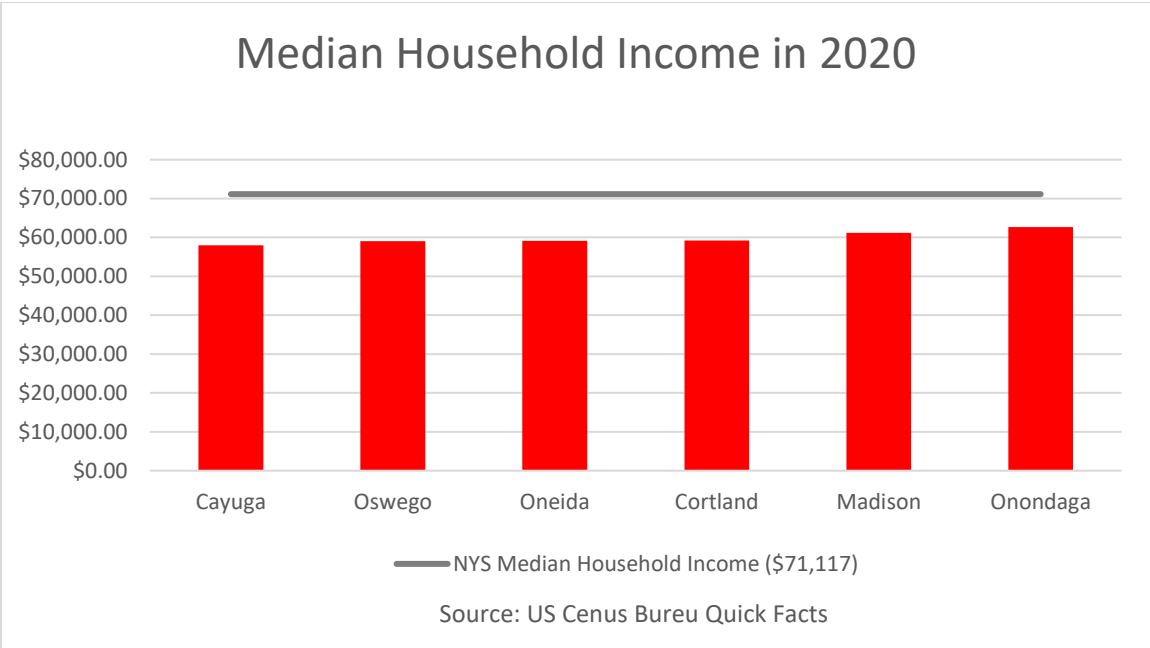
The number of migrant workers in Oswego County is estimated to be around 300 in total for 2022, according to Oswego County Opportunities (OCO). Most are H2A workers on temporary work visas, and mainly come from Puerto Rico, Mexico, and Jamaica. In contrast with previous years OCO has not encountered any workers from Guatemala and has seen an increase in Mexican nationals and a decrease in Puerto Ricans. Additional trends OCO has observed include an uptick in young workers between the ages of 18-20 and a higher share of single males, as well as immigrants or former migrants working in non-agricultural jobs (3).

Oswego County does have a growing population of Amish families, settling primarily in the northeastern portion of the county.



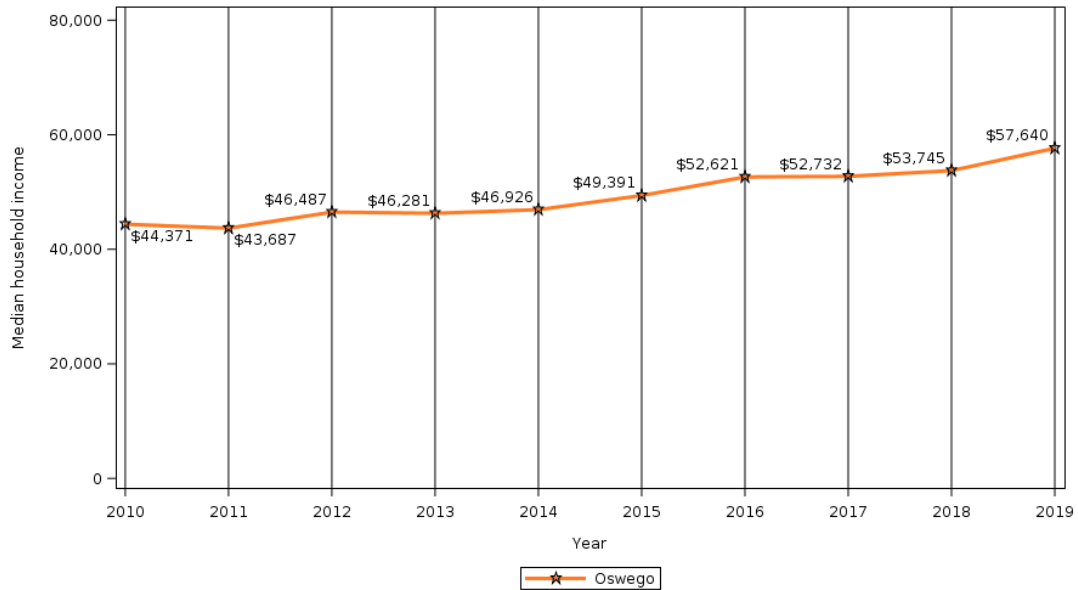
Income, Poverty & Unemployment

Poor economic indicators are frequently associated with poor health outcomes. Poverty often creates barriers to accessing health care, healthy food, and other necessities to promote a healthy lifestyle. Families in crisis may not be in the position to make lifestyle changes to promote good health. Poverty issues continue to be a concern in Oswego County. Based on data from the U.S. Census Bureau, the median household income for Oswego County between 2016 and 2020 is \$59,070. This is much lower than the NY State median income from the same years which is \$71,117, but comparable to other Central NY counties (2).



However, there has been a steady increase in the annual median household income in Oswego County over the past 10 years. The percent of Oswego County residents living in poverty is 15.6%. This percentage is higher than the NY State average of 13.1%, updated in 2019 (4).

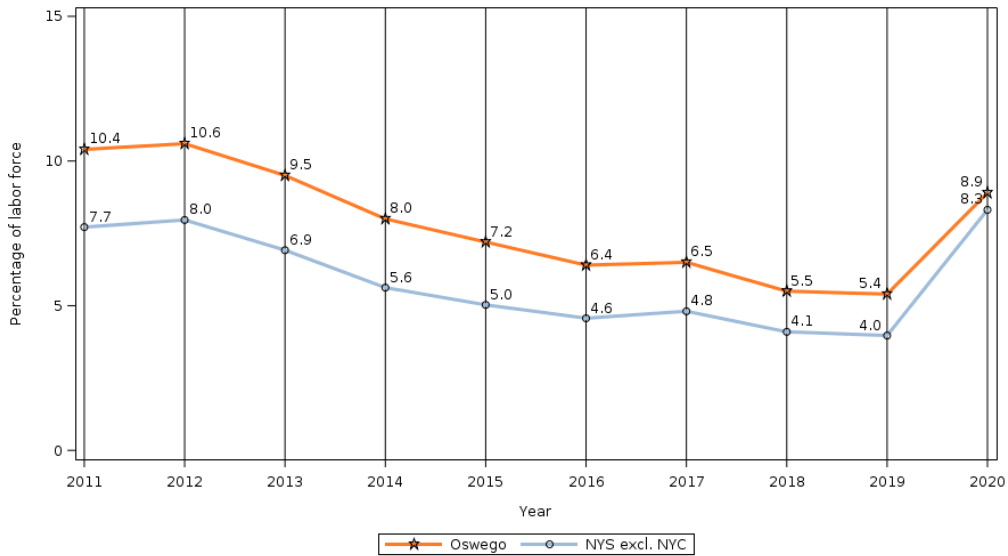
Oswego County - Annual median household income in US dollars



1 Source: CHIRS Dashboard

Oswego County has experienced a steady decline in unemployment over the past few years. However, there was a large spike in unemployment between 2019 and 2020 due to the COVID-19 pandemic. The unemployment rate in Oswego County increased from 5.4% in 2019 to 8.9% in 2020. This trend was also seen at the state level (4).

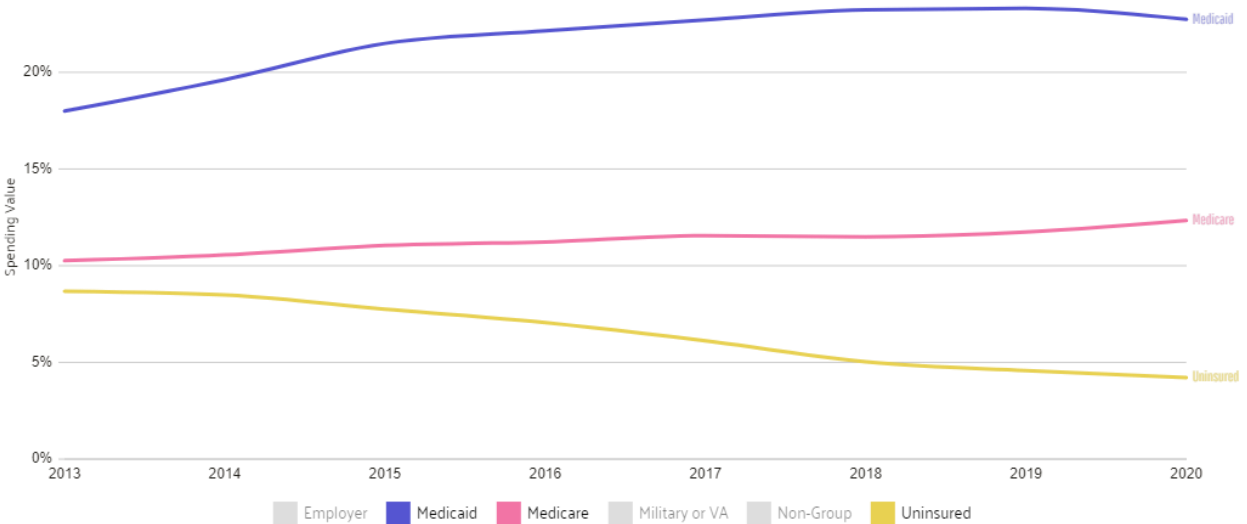
Oswego County - Percentage of labor force unemployed



2 Source: CHIRS Dashboard

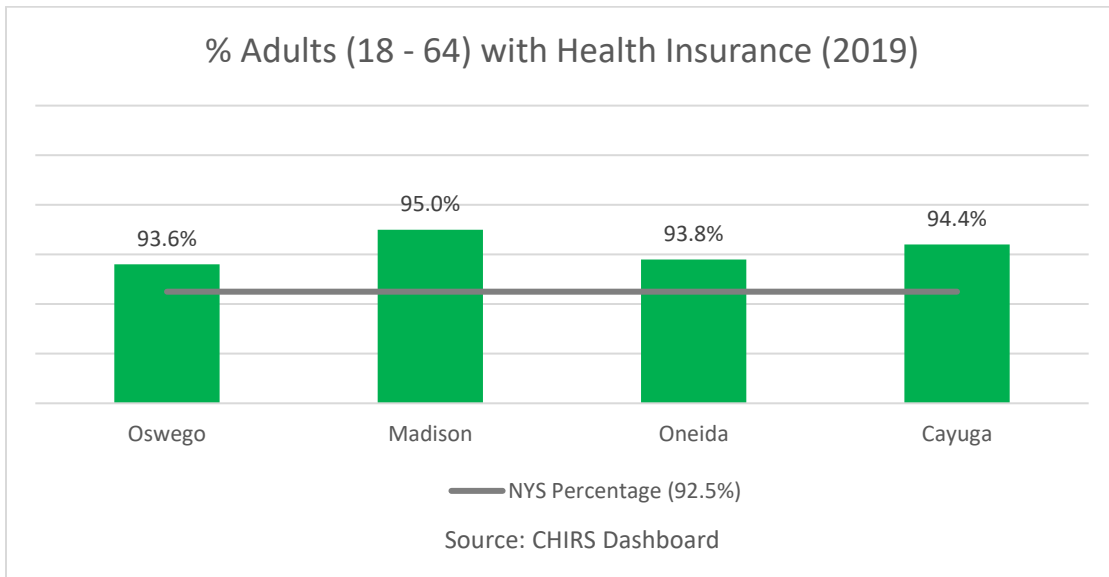
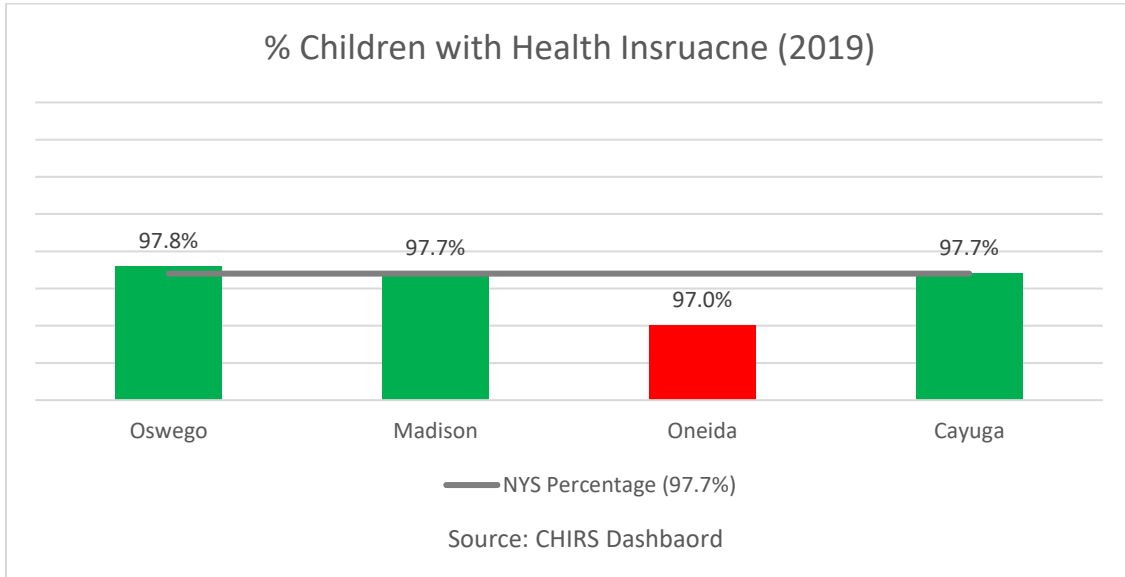
Health Insurance Status

The percentage of persons without health insurance decreased 7.84% between 2019 and 2020. There has been a slow decline in uninsured rates in the county since 2013. In 2020, 4.21% of the Oswego County population was uninsured. Medicaid covered 22.7% of the population and Medicare covered about 12.3% (1).



3 Source: Data USA

The health insurance coverage rate of minors in Oswego County is 97.8%, which is very similar to surrounding counties. Compared to other Central New York counties, Oswego has a value of 93.6% of adults with health insurance, updated in 2019 (4). This is similar to the insurance coverage reported in the previous Community Health Assessment and similar to the New York State percentage. However, the 2024 Prevention Agenda goal for this indicator is 97% (5).

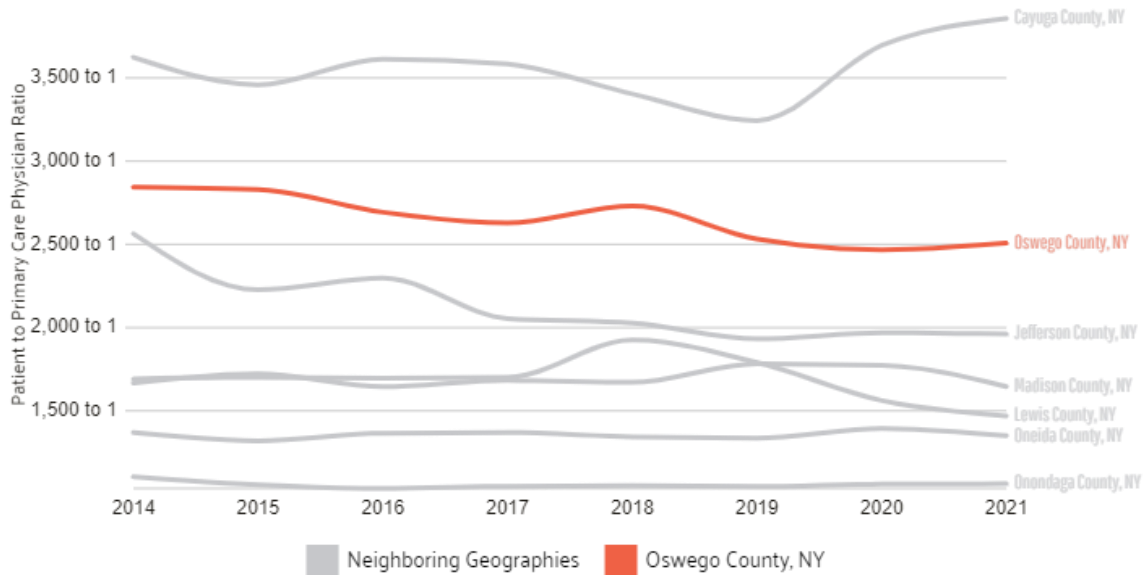


Access to Health Care

The access to health care indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care

provider. This indicator is relevant because access to regular primary care is important to obtaining preventive healthcare and avoiding unnecessary emergency department visits. 81.3% of people in Oswego County report they have a primary care provider, updated 2018 (4).

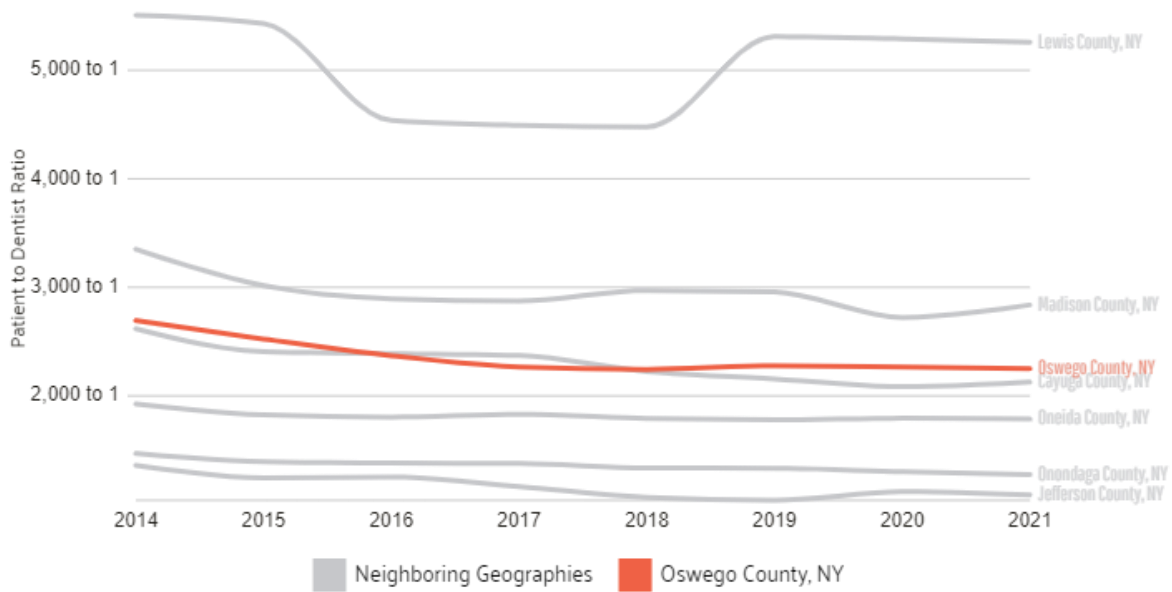
The patient to primary care physician ratio in 2021 for Oswego County is 2,508 to 1. The chart below shows the patient to primary care provider ratio in surrounding counties. Cayuga County has highest ratio and Onondaga has the lowest (1).



4 Source: Data USA

Dental Care Utilization (Adults)

The patient to dentist ratio in Oswego County for 2021 is 2,252 to 1. The chart below shows the ratios for surrounding counties (1). The number of dentists per 100,000 residents in Oswego is 44, which is significantly lower than the New York State average of 85 per 100,000 (4). However, Oswego County’s Dental Care Utilization rate has improved in recent years and now ranks above both the New York State and Central New York rate for 2018, the most recent year for which data is currently available. This indicator reports the percentage of adults aged 18 and older who self-report that they have visited a dentist, dental hygienist or dental clinic within the past year. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services (4).

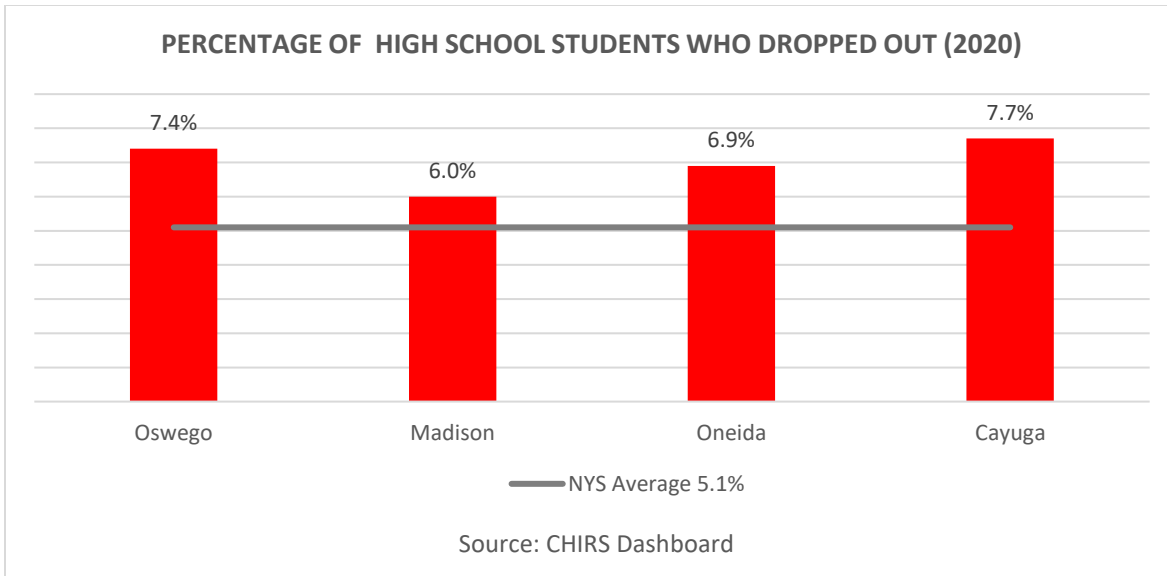


5 Source: Data USA

Education

According to the US Census Bureau, 88.5% of people 25 and older have a high school degree, but only 32.9% have a bachelor’s degree or higher (2). SUNY Oswego and Cayuga Community College are the only two universities in Oswego County. In 2020, 2,206 degrees were awarded in Oswego County. The student population is skewed with slightly more females than males, with a majority being white. The most popular bachelor’s degrees in Oswego County are General Business Administration and Management, Radio and Television, and General Psychology (1).

This following indicator reports the average high school freshman graduate rate, which measures the percentage of cohort students who earned either a Regents or Local diploma. This indicator is relevant because low levels of education are often linked to poverty and poor health. Oswego County had an 85.3% graduation rate in 2022, similar to the New York State average. The graph below shows the percent of high school students who dropped out in Oswego County and similar surrounding counties in 2020. (4).



County Health Ranking Data from 2016 – 2022 showed that 58% of adults ages 25-44 had some level of post-secondary education. The New York State percentage for this indicator is 70%. Higher levels of education are linked to improved economic opportunities, less stress, and healthier lifestyle choices (6).

Disconnected youth are defined as teens and young adults ages 16 – 19 who are not in school or working. These individuals are at a high risk of violence, and poor lifestyle choices such as smoking and drinking. An estimated 6% of teens age 16 – 19 in Oswego County fall into this category based on data from 2016 – 2022 (6).

Housing Issues

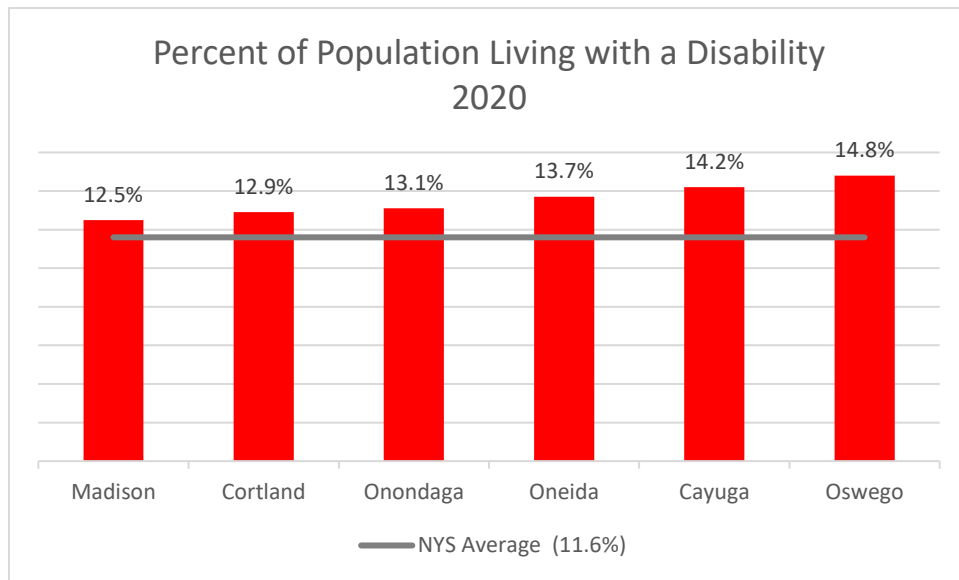
Housing quality has often been identified as a key social determinant of health. A growing body of literature continues to support the idea that access to and quality of housing play a role in one’s health status. The median property value in Oswego County was \$109,500 in 2020 compared to the national average of \$229,800. The home ownership rate in Oswego County is 72.8%, which has increased from the previous report (1). Median gross rent in the county was \$806 in 2020 and there were a reported 8,051 vacant housing units (7).

Economic hardship makes proper housing a challenge for many residents in the county. Homelessness is an increasing yet silent problem in Oswego County. Oswego County Opportunities (OCO), Oswego County Catholic Charities, and Oswego Department of Social Services reported serving 658 adults and children with homelessness issues in 2021 and that number increased to 752 persons in 2022. Based on

a survey done by OCO, most homeless persons in 2022 reported that the top three causes of their living situation were mental health disorders, domestic violence history, and substance use disorders.

Disabilities

The American Community Survey data from 2020 shows that about 14.8% of people in Oswego live with a disability. This is slightly higher than the NY average of 11.6%. The most reported disability is an ambulatory difficulty. Those ages 75+ were the most common age group to report having a disability (7).



Mobility/Transportation

Vehicle ownership is directly related to the ability to travel. In general, people living in a household without a car make fewer than half the number of journeys compared to those with a car. This limits their access to essential local services such as supermarkets, post offices, doctors' offices, and hospitals. The average commute time based on 2020 data is about 24 minutes, and 81.4% of people drove alone. The average number of cars per household in Oswego County is 2, although 2.58% report no car at all (1).

(B) HEALTH STATUS

Health Status & Health Issues

Over the last several years, Oswego County has consistently ranked at the bottom of the county health ranking data in New York State, for health factors (60 of 62) and health outcomes (49 of 62). Oswego County was below the Central New York regional average for the following areas in 2022: adult obesity, adult smoking, physical inactivity, and access to exercise opportunities (4). Several of these health behaviors are known risk factors for the leading causes of death in the state and country (6). In addition, Oswego County has more years lost to premature death than neighboring counties (4). The NYSDOH reported that the leading causes of death for Oswego County residents in 2019 were: 1) heart disease, 2) cancer, 3) chronic lower respiratory disease, 4) unintentional injury, 5) cerebrovascular disease, 6) diabetes, and 7) pneumonia and influenza (8).

Leading Causes of All Deaths for Total Population: Oswego County

Leading Causes of All Deaths for Total Population Selected Counties: Oswego

Top 5 Causes

		Number of deaths and age-adjusted death rate					
		Total Deaths	#1 Cause of Death	#2 Cause of Death	#3 Cause of Death	#4 Cause of Death	#5 Cause of Death
Oswego	2019	Total Deaths 1,158 832.4 per 100,000	Heart Disease 267 187.1 per 100,000	Cancer 261 178.8 per 100,000	CLRD 68 47.8 per 100,000	Unintentional Injury 66 56.9 per 100,000	Cerebrovascular Disease 49 34.7 per 100,000
	2018	Total Deaths 1,095 778.5 per 100,000	Heart Disease 287 205.2 per 100,000	Cancer 245 166.7 per 100,000	CLRD 75 52.0 per 100,000	Unintentional Injury 47 38.4 per 100,000	Cerebrovascular Disease 36 24.2 per 100,000
	2017	Total Deaths 1,135 806.5 per 100,000	Heart Disease 280 196.6 per 100,000	Cancer 249 168.4 per 100,000	CLRD 76 52.1 per 100,000	Unintentional Injury 62 51.7 per 100,000	Cerebrovascular Disease 46 33.5 per 100,000
	2016	Total Deaths 1,065 774.4 per 100,000	Heart Disease 271 193.2 per 100,000	Cancer 240 164.6 per 100,000	CLRD 71 51.9 per 100,000	Unintentional Injury 61 48.7 per 100,000	Cerebrovascular Disease 45 35.4 per 100,000

CLRD: Chronic Lower Respiratory Diseases

*Rates based on fewer than 10 events in the numerator are unstable.

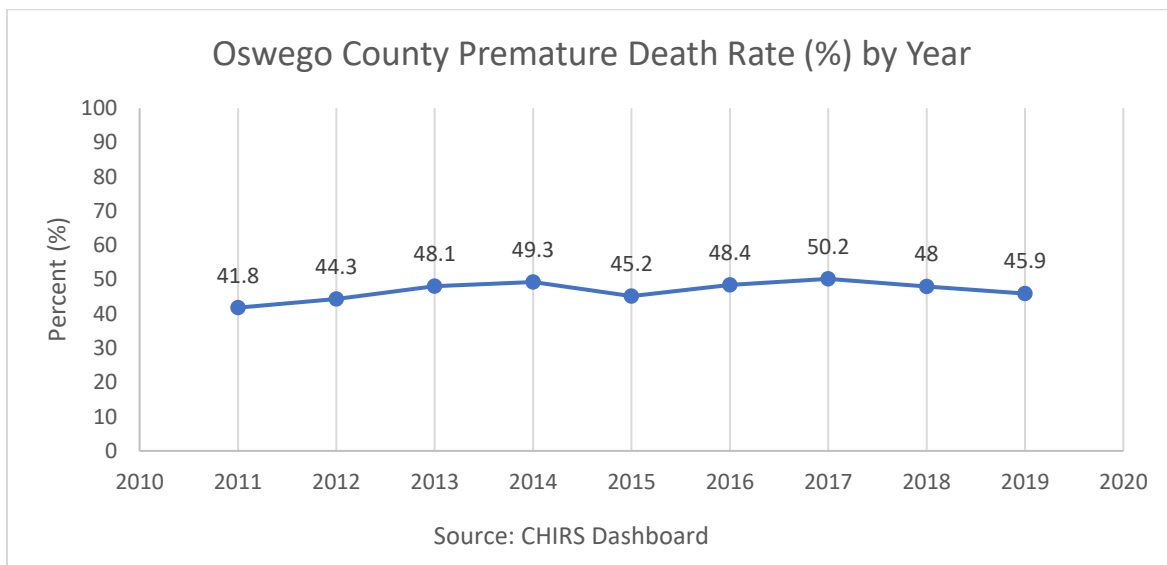
Note: Ranks are based on numbers of deaths, then on mortality rates. Where county's death counts and rates are tied, '(tie)' appears at the bottom of the corresponding cells, and causes are further ranked alphabetically.

If a cell is blank, then there were no deaths from any of the 25 causes used in our tables. These causes are listed in the technical notes.

Source: Vital Statistics Data as of January 2022

Premature Death:

Premature death rate is a measure of mortality that can be helpful in identifying deaths that could have been prevented. This indicator shows the percentage of deaths occurring before the age of 75 in the year specified. Oswego County's premature death rate has not significantly increased or decreased recently, with almost half of all deaths in Oswego County occurring prior to the age of 75. Oswego County's premature death rate was higher than the New York State rate as well as all neighboring counties except Cortland in 2019, the most recent year for which data is currently available (4).



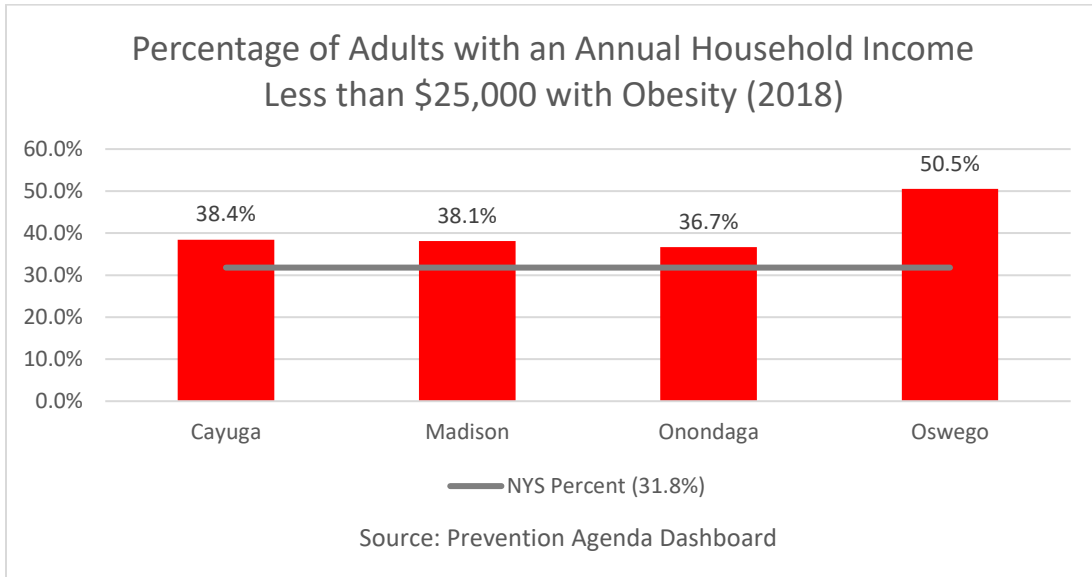
Prevent Chronic Disease

Obesity

Obesity has reached epidemic proportions across the United States and New York State. Oswego County also finds overweight and obesity issues plaguing its residents. Obesity and overweight are the second leading cause of preventable death in the United States and threaten to overtake tobacco use as the single most preventable cause of premature death. According to the National Academy of Medicine, if action is not taken to reverse the obesity and overweight trend, this generation runs the risk of being the first generation that does not have a longer lifespan than their parents (9).

It is important that residents have access to healthy affordable foods, safe places to walk and play, are exposed to less advertising promoting unhealthy foods; workplaces and schools that encourage and promote healthy behaviors; and have health care providers who are willing to engage their patients in discussions about attaining and maintaining a healthy weight. Currently, 76.4% of Oswego County adults are overweight or obese (BMI of 25+), with 44.8% of the adult population falling into the obese status (a

BMI of 30 or above). That is higher than New York State’s 27.9%. Oswego County’s obesity rates are the highest in New York State (4).



Oswego County - Percentage obese (95th percentile or higher) - Students (with weight status information in SWSCRS) in elementary, middle and high school

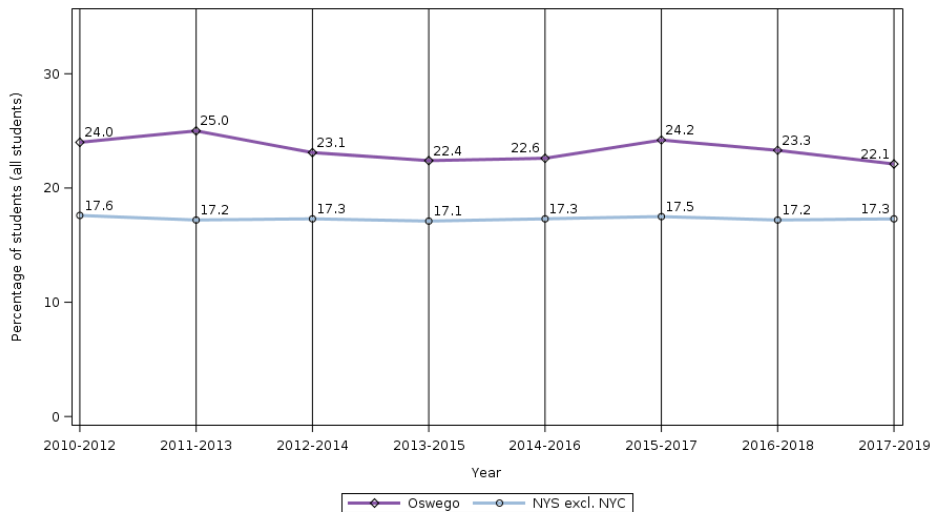
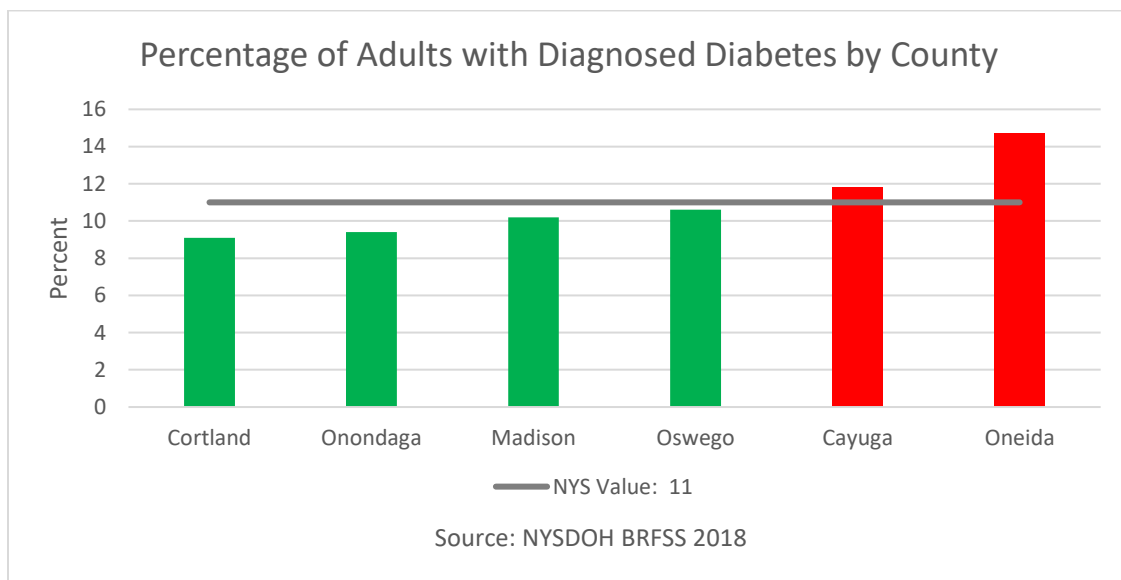


Figure 6 Source CHIRS Dashboard

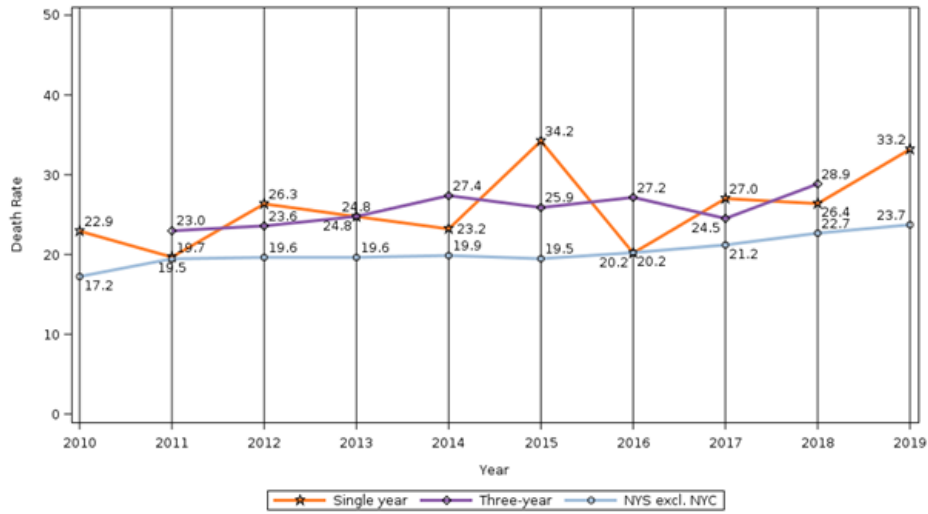
Diabetes

Diabetes is a group of diseases marked by high levels of blood glucose, also called blood sugar, resulting from defects in insulin production, insulin action, or both. Diabetes is the 7th leading cause of death in the United States. According to the Centers for Disease Control and Prevention (CDC), more than 37.3 million people, or 1 in 10, have diabetes. About 1 in 5 people with diabetes don't know they have it. The CDC also estimates that 96 million American adults, more than 1 in 3, have prediabetes (10). The prevalence of diagnosed type 2 diabetes increased six-fold in the latter half of the last century. Diabetes risk factors such as obesity and physical inactivity have played a major role in this dramatic increase. Age, race, and ethnicity are also important risk factors. Diabetes disproportionately affects minority populations and the elderly, and its incidence is likely to increase as minority populations grow and the U.S. population becomes older. This disease can have a harmful effect on most of the organ systems in the human body; it is a frequent cause of end-stage renal disease, non-traumatic lower-extremity amputation, and a leading cause of blindness among working-age adults. Persons with diabetes are also at increased risk for ischemic heart disease, neuropathy, and stroke. In economic terms, diabetes costs a total estimated \$327 billion in medical costs and lost work and wages (11).



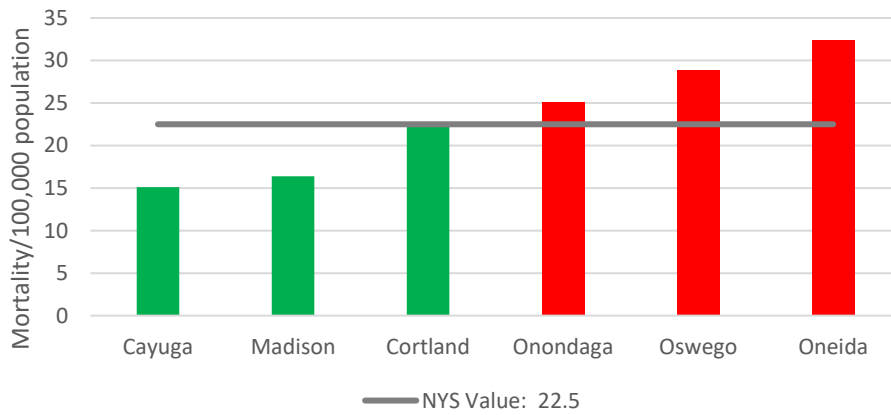
Diabetes age-adjusted mortality for Oswego County is higher than surrounding counties, excluding Oneida, in Central New York and New York State. Hospitalizations due to diabetes short-term complications are elevated for adults and for children aged 6-17 compared to CNY and New York State. There has been no significant change in diabetes mortality between 2011 and 2016 (4).

Oswego County - Diabetes mortality rate per 100,000



7 Source: CHIRS Dashboard

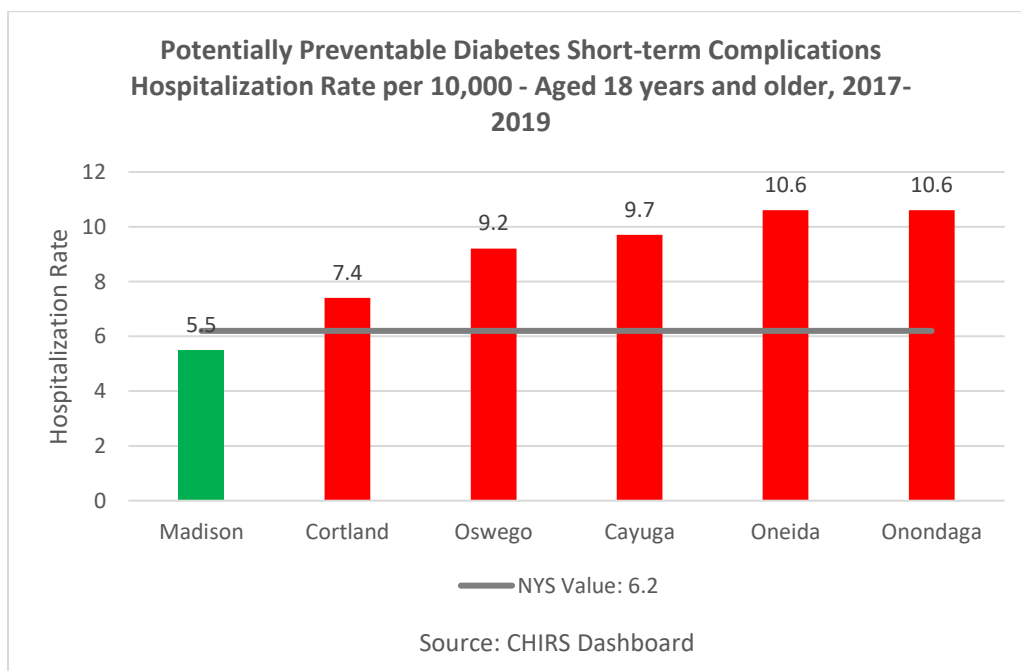
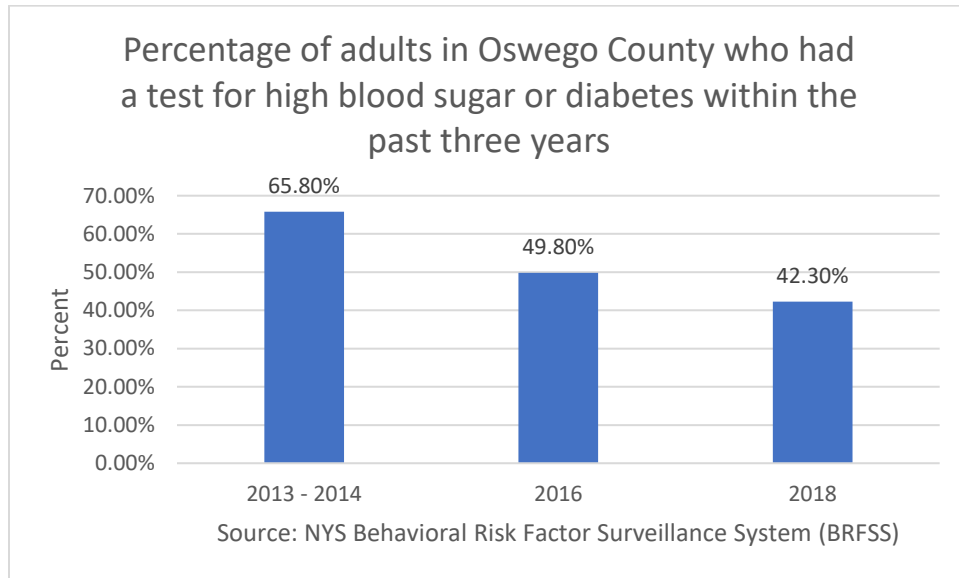
Age Adjusted Mortality Rate Due to Diabetes



Source: CHIRS Dashboard

Diabetes Management and Screening:

This indicator reports the percentage of adults who have had a test for high blood sugar or diabetes within the past 3 years. Data shows a downward trend for testing since 2013 (12). This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.



Tobacco Use

Tobacco use remains the number one preventable cause of premature death in the United States, and the high rate of tobacco use among residents in Oswego County is a concern. Smoking contributes to most of the leading causes of death in Oswego County, including heart disease, cancer, chronic lower, respiratory disease, stroke, diabetes, and pneumonia.

Along with the high smoking rates comes an increase in exposure to secondhand smoke which can lead to or exacerbate health conditions such as cancer, asthma, and respiratory illnesses.

Based on the 2018 BRFSS, currently, 22% of adults in Oswego County are smokers. This is almost twice as high as the New York State use of 12.8%, and well above the Prevention Agenda objective of 11% (5).

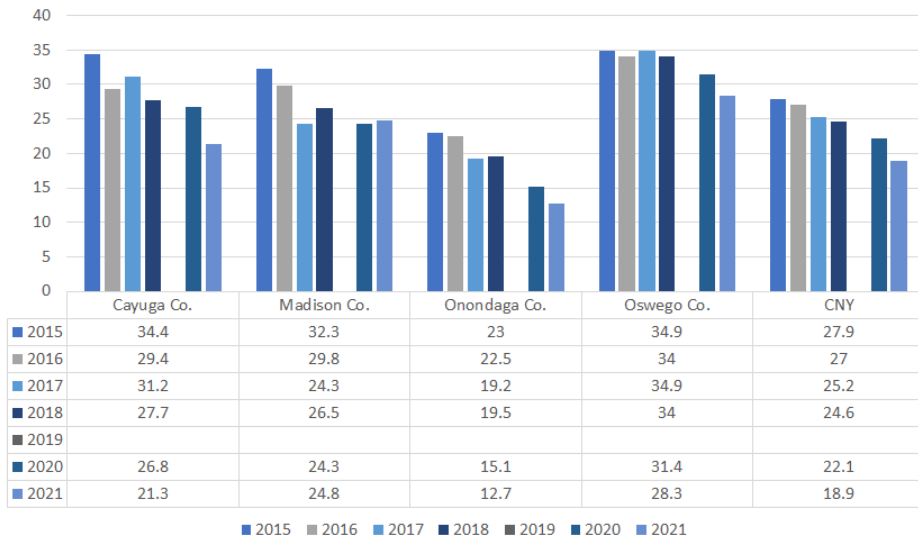
Smoking among Oswego County residents making \$25,000 or less has declined from 37.4 in 2016, to 36.4% in 2018. However, that is still significantly higher than the overall smoking percentage of 22% in Oswego County and the percentage of those making \$25,000 or less in Central New York, which is 31.7%. In addition, more Oswego County residents smoke when compared to neighboring counties (5).

Additionally, data from the CNY Perinatal Data System for 2021 shows that 16.2% of pregnant women in Oswego County smoked during pregnancy. That number has declined from 28.3% in 2012.

Data from the CNY Statewide Perinatal Data system also show approximately 28.3% of pregnant women with Medicaid as a payer source smoked during pregnancy compared to only 2.7% of pregnant women with private insurance. Oswego County continues to work with community partners to offer all pregnant woman smoking cessation options.

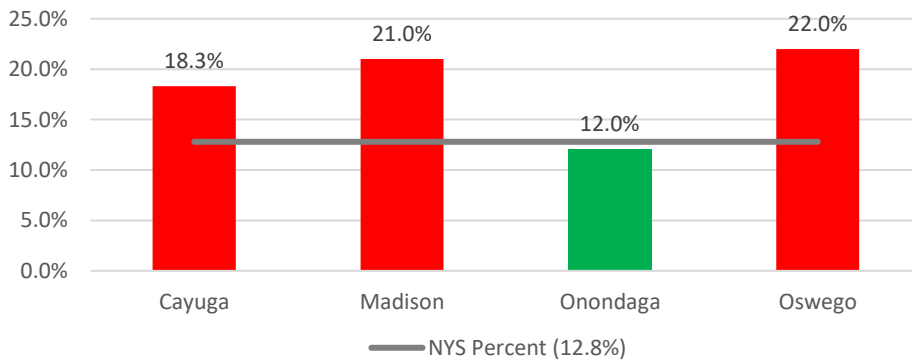
According to the 2008-2009 NYS Expanded BRFSS Data, only 70.4% of adults in Oswego County live in homes where smoking is prohibited. This is below the NYS percentage of 80.1%. Only three other counties have a lower percentage of residents living in homes where smoking is prohibited (12).

Percentage of Women that Smoke During Pregnancy, with Medicaid as a Payor, CNY



Source: Statewide Perinatal Data System

Prevalence of cigarette smoking among adults (2018)



Source: Prevetion Agenda Dashboard

Cancer

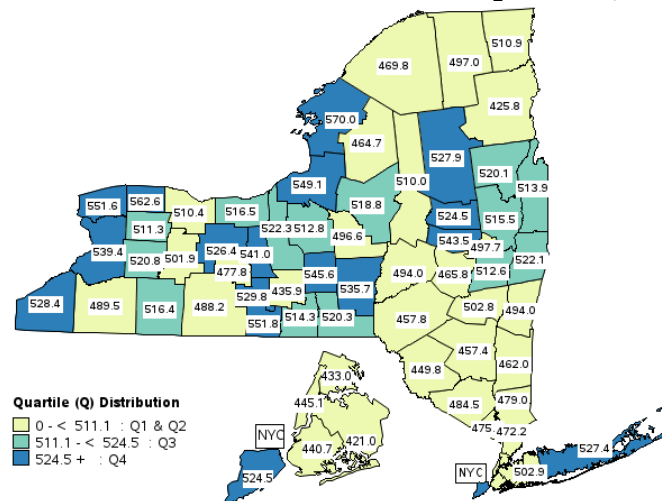
Cancer is one of the most common chronic diseases in New York State, and is second only to heart disease as the leading cause of death. Each year, about 120,000 New Yorkers are diagnosed with cancer.

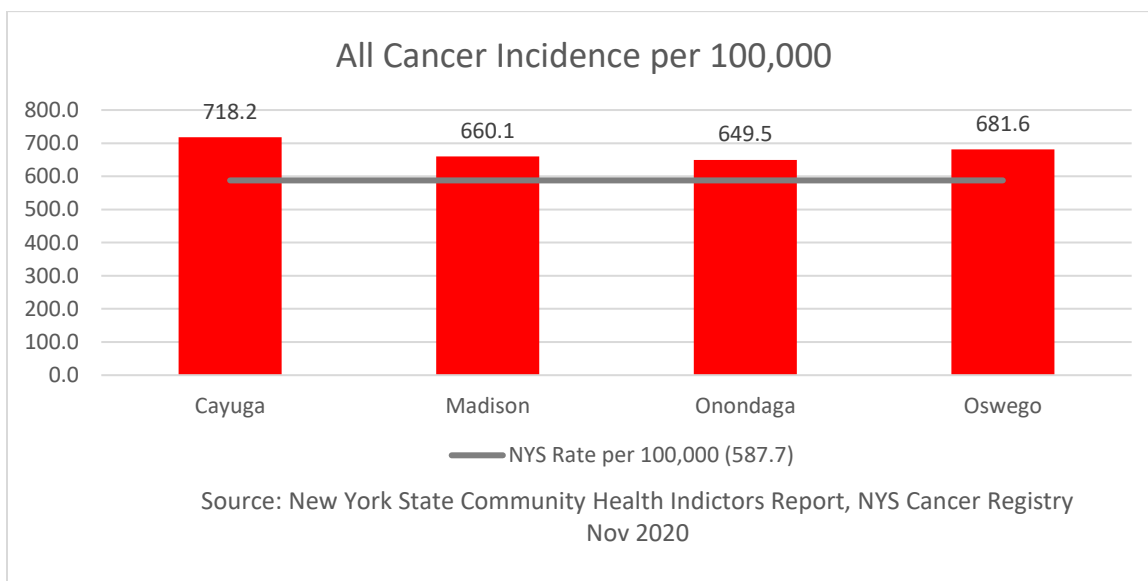
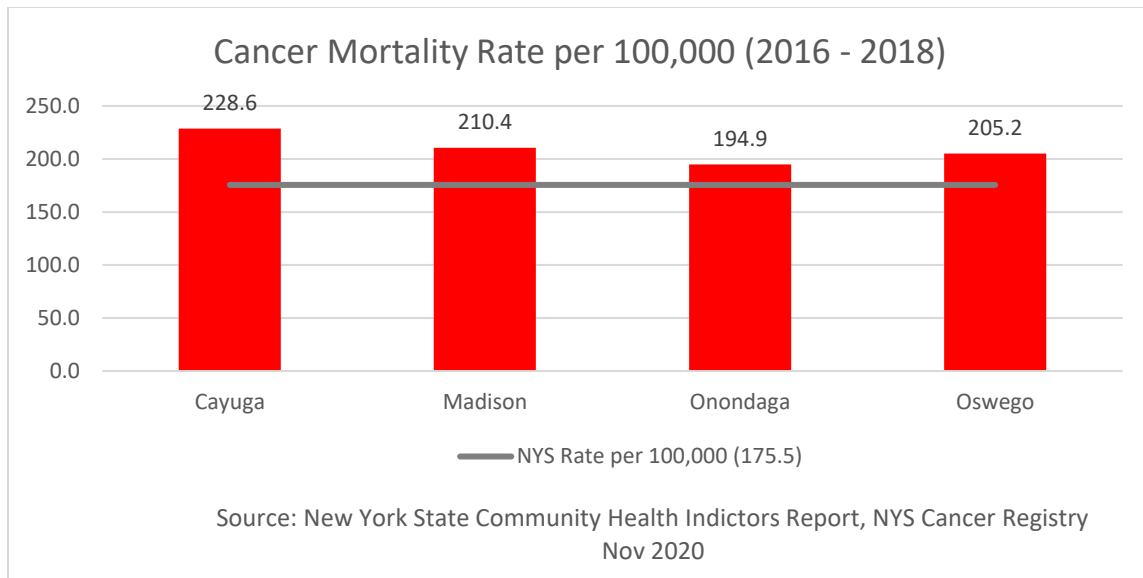
Cancer is the second leading cause of death in Oswego County in 2019, with 205 deaths per 100,000 population, this has not significantly changed from previous reports. While deaths due to cancer seem

to remain stable and on a downward trend, all cancer incidence has worsened going from 624.3 in 2013-2015 to 681.7 from 2016-2018. Rates of lung and bronchus cancer are of concern given the high percentage of smokers in Oswego County. The incidence of age-adjusted lung and bronchus cancer from 2016-2018 is the highest in Central New York, with a rate of 100.6 cases per 100,000 people and a mortality rate of 50.7 people per 100,000 population. Oswego County is a bit higher than the New York State average when it comes to incidence of female breast cancer. Mortality from breast cancer continues to be steady in Oswego County with an age adjusted rate in 2018 of 27.3 per 100,000. Diagnosis of late-stage breast cancer in Oswego County remains below the Central New York and New York State averages.

The Oswego County Cancer Services Program, led by Oswego County Opportunities, does a great job screening uninsured and underinsured residents for breast, cervical and colorectal cancer. In 2020 and 2021, 126 residents received cancer screening through this program.

Age-adjusted all cancer incidence rate per 100,000, 2016-2018



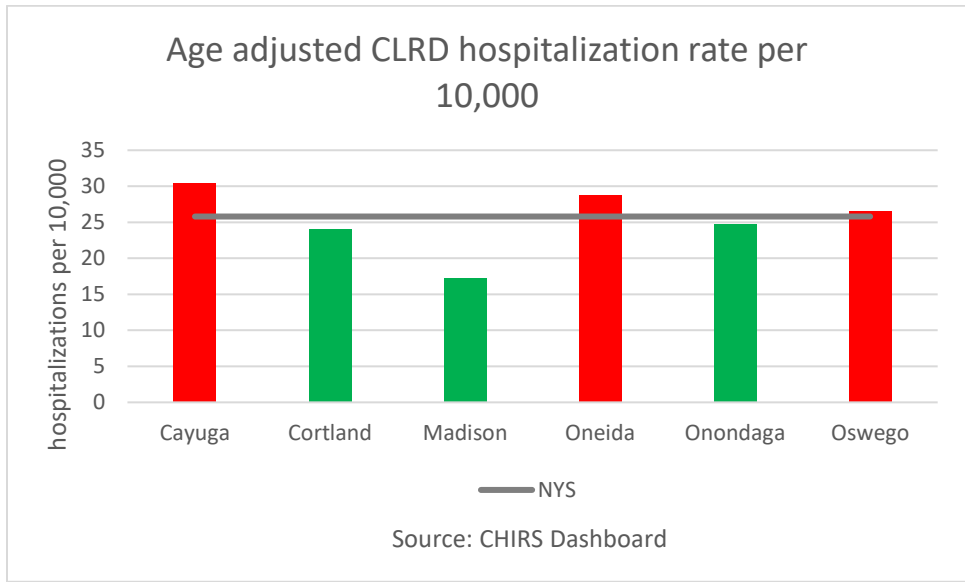
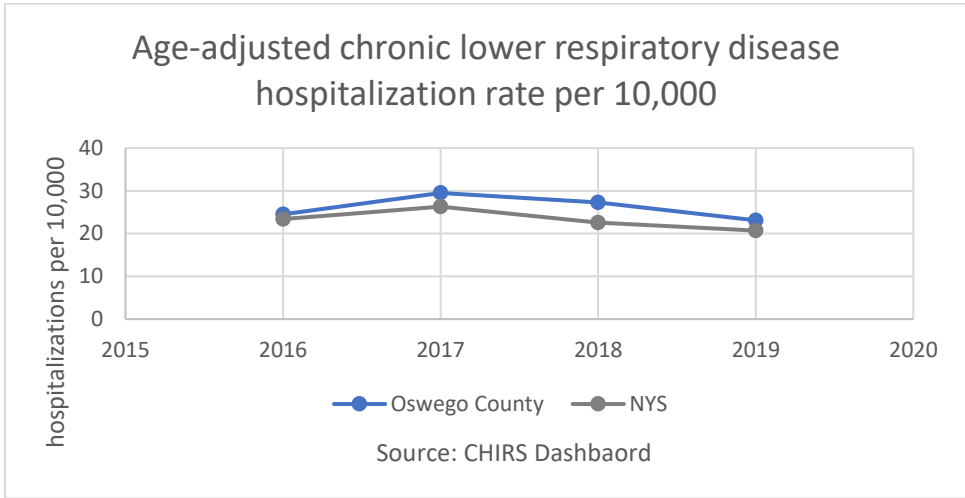


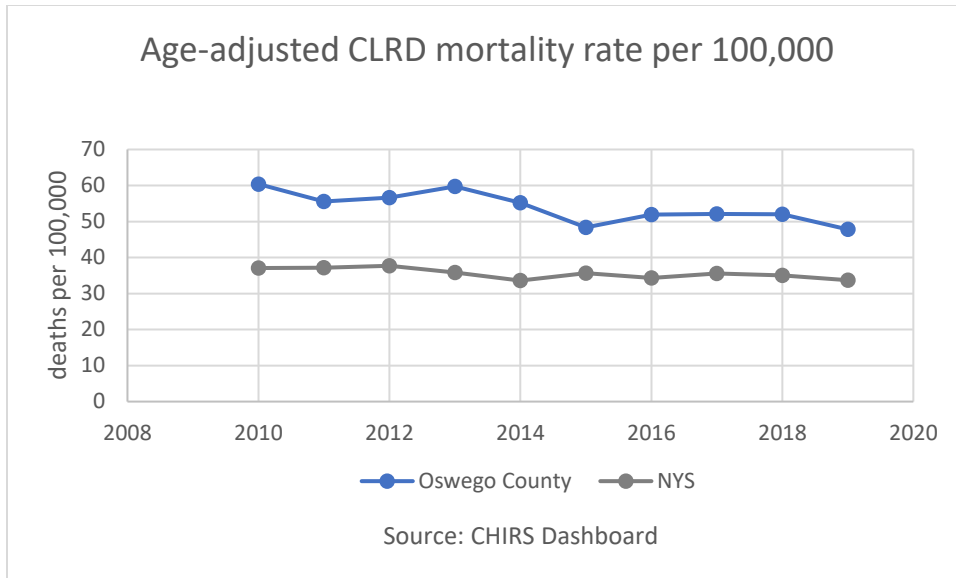
Chronic Respiratory Disease

Chronic lower respiratory disease refers to a diverse group of disorders characterized by airway obstruction, causing shortness of breath and impaired lung function, and includes asthma, emphysema, bronchitis, and chronic obstructive pulmonary disease. Smoking cigarettes as well as exposure to secondhand smoke and chemical irritants are important risk factors.

Deaths due to chronic lower respiratory diseases (CLRD) is higher for Oswego County residents (62/100,000 people) compared to New York State (36.7). Hospitalization rates due to chronic lower respiratory disease (33/10,000) are trending downward while remaining higher than the CNY rate (32.1)

and the New York State rate (29.7). Asthma hospitalization rates among county residents (3.6/10,000) remain lower than the CNY (4.8) and New York State (9.8) rates (4).

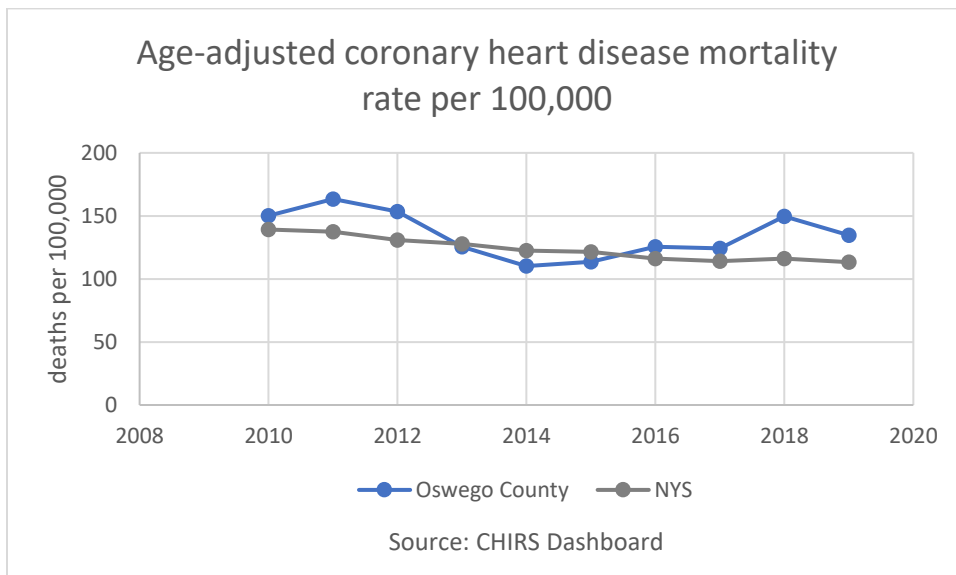


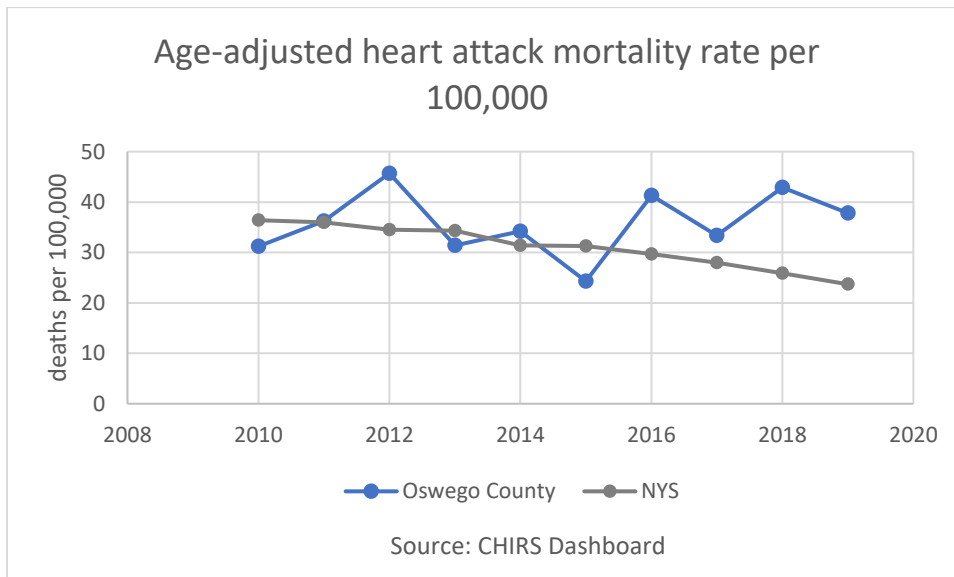
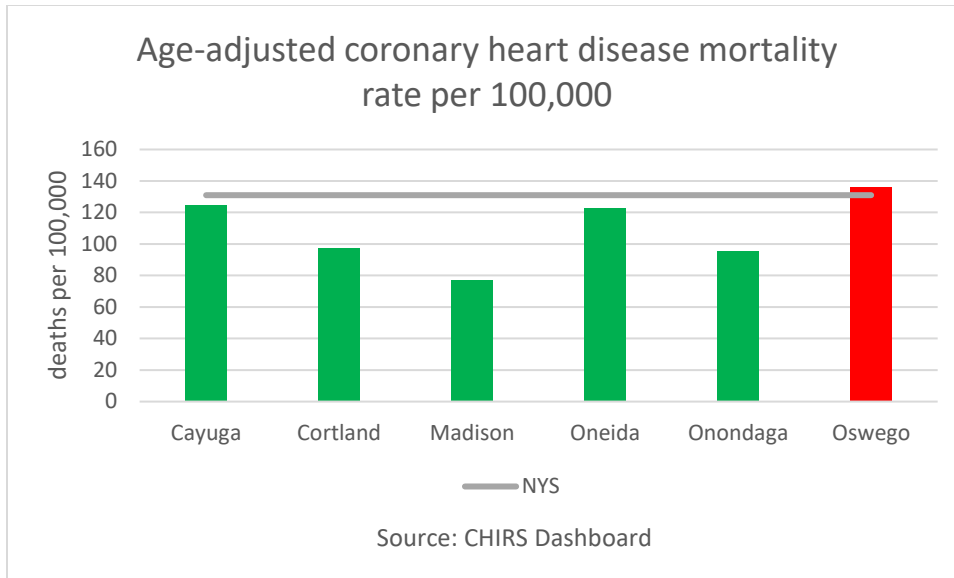


Cardiovascular Disease

Coronary heart disease (also called coronary artery disease) occurs when the coronary arteries become narrowed or clogged by fat and cholesterol deposits (plaques) and cannot supply enough blood to the heart. According to the Centers for Disease Control and Prevention, coronary heart disease is the most common type of heart disease.

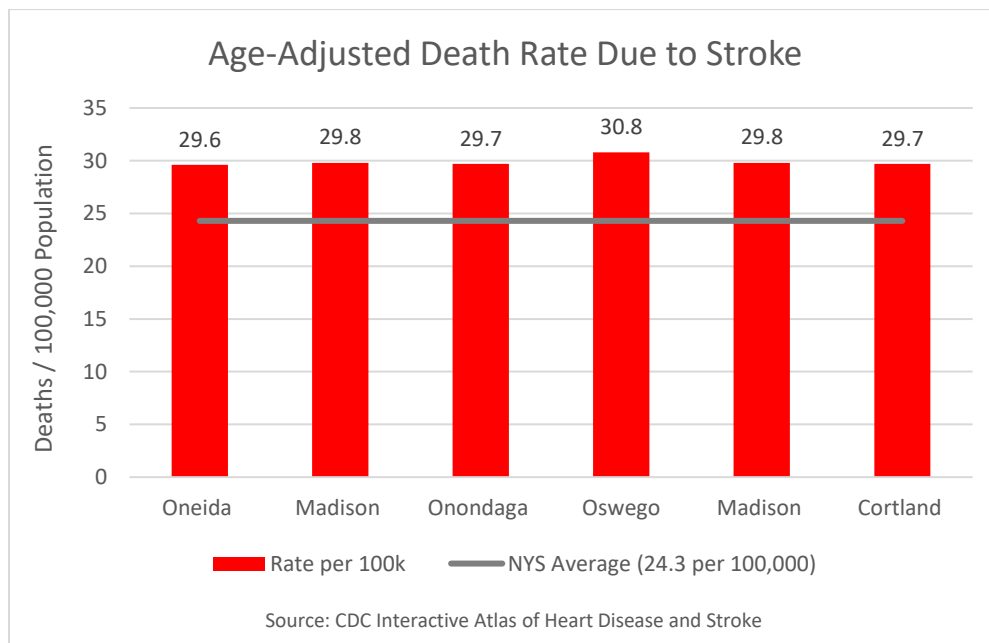
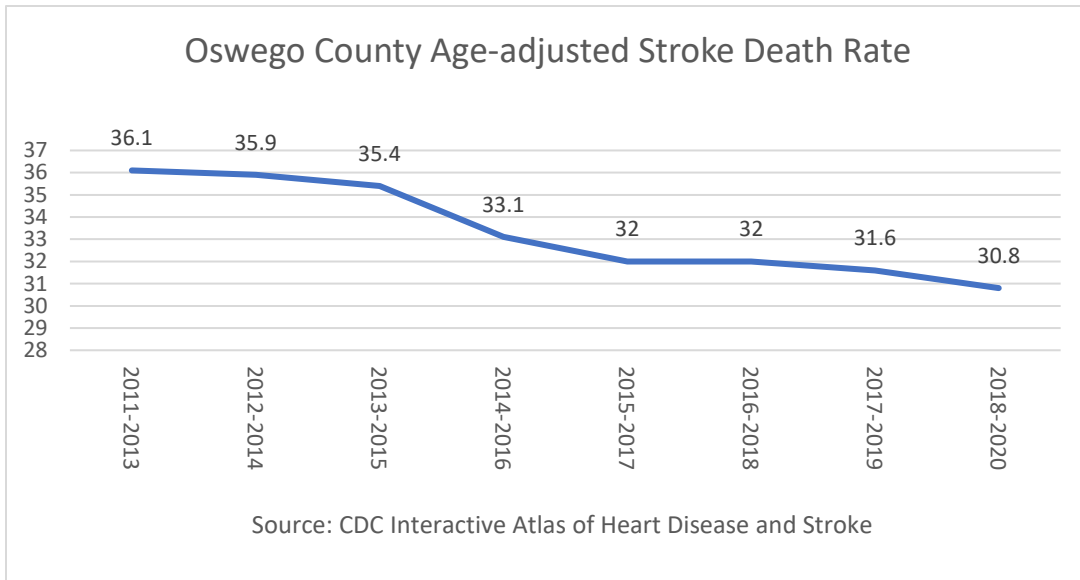
The age-adjusted mortality rate for coronary heart disease in Oswego County is 136/100,000 population. This rate has significantly worsened since the last measure. The county rate has surpassed the Central NY rate (107.7 per 100,000) and the State rate (131 per 100,000) (4).





Stroke

Cerebrovascular disease refers to conditions, including stroke, caused by problems with the blood vessels supplying the brain with blood. A stroke occurs when blood vessels carrying oxygen to the brain burst or become blocked, thereby cutting off the brain's supply of oxygen and other nutrients. The most important modifiable risk factor for cerebrovascular disease and stroke is high blood pressure. Other risk factors include high cholesterol, heart disease, diabetes mellitus, physical inactivity, obesity, excessive alcohol use, and tobacco use. Oswego County ranks in the last quartile of the state for deaths (30.8 per 100,000) due to stroke. The high prevalence of smoking and obesity may contribute to the occurrence of stroke. Death rates due to stroke in Oswego County are higher than the state rate of 24.3/100,000. However, over the last several years deaths due to stroke continue to decline (13).



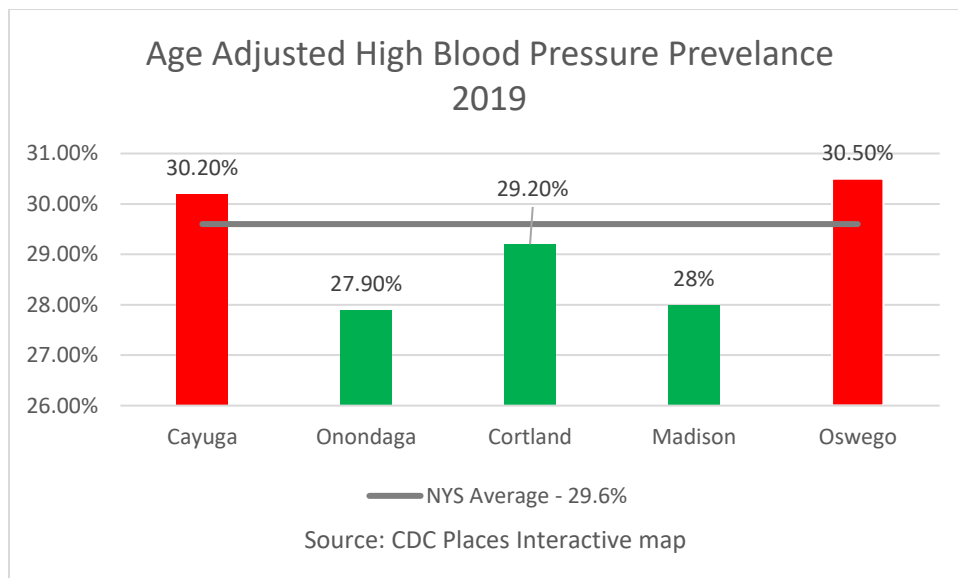
Hypertension

Hypertension, or high blood pressure, is an elevated reading of the pressure of blood as it pushes against the walls of the arteries of the heart. Consistently high blood pressure can cause significant health problems, including damage to the heart and stroke, if left untreated. Because hypertension

alone usually does not present any symptoms or warning signs, the FDA estimates that approximately one third of adults with high blood pressure are not even aware of their condition (14).

The American College of Cardiology and the American Heart Association recently published new guidelines for hypertension management and defined high blood pressure as a reading at or above 130/80 mmHg, as opposed to the old benchmark of 140/90 mmHg. The data used in this entry are reflective of the previous standard, as updated county level measurements are not currently available.

The prevalence of high blood pressure in Oswego County is 30.5%, which is higher than neighboring counties in CNY and above the New York State rate of 29.6%. Blood pressure management is important in the control and prevention of cardiovascular and kidney disease, among others. Chronic diseases and conditions such as obesity, smoking, and diabetes can exacerbate high blood pressure and lead to further complications (15).

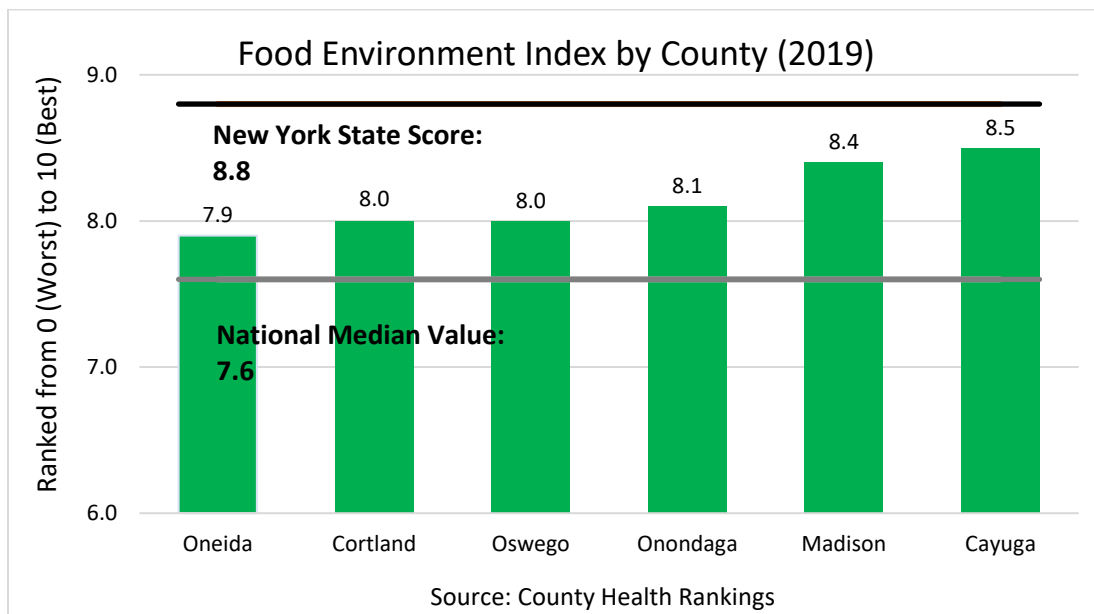


Promote a Healthy and Safe Environment

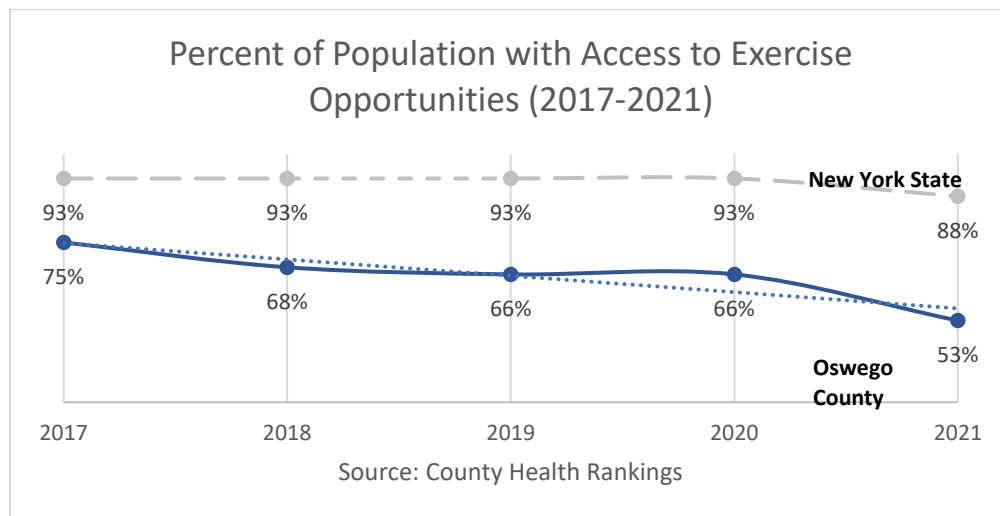
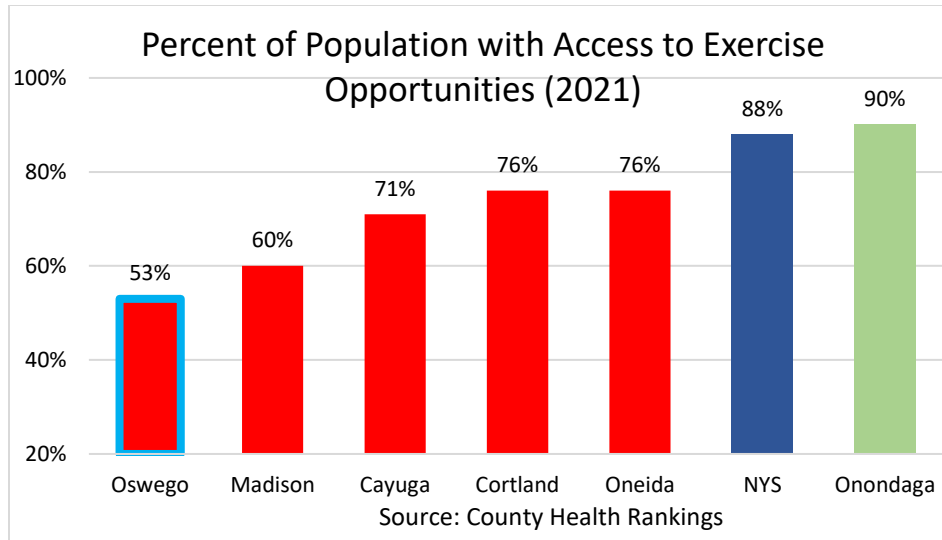
In addition to the more intrinsic factors that affect health status and contribute to chronic disease, there are external factors from the environment that can both affect health and be predictive of health outcomes. Proper nutrition and consistent fitness regimens contribute to a long list of positive health outcomes, such as reduced risk of chronic disease, increased personal independence (especially among older individuals), and reduced county-wide burden of years lost to disability. However, it can be difficult for rural or socioeconomically disadvantaged counties to create a healthy and safe environment that can encourage these proactive healthy behaviors. Especially during the lockdowns of the COVID-19 pandemic, this was especially challenging.

Unfortunately, Oswego County is distinctly lacking in access to exercise opportunities. Only 53% of residents had adequate access to locations for physical activity in 2021, compared to other regional counties like Onondaga (90%) and Cayuga (71%). While these comparisons do not necessarily paint a full picture, as each county has different resources and capabilities at their disposal, looking within Oswego County, this access has decreased consistently from the 75% it was in 2017 (6).

As another indicator of numerous health outcomes, the food environment needs to be assessed critically. Food Environment (as defined by County Health Rankings) accounts for socioeconomic factors of each household and geographic proximity to vendors that provide healthy food. A chronic lack of access to food is associated with poor health outcomes such as obesity, premature mortality, asthma, and increased healthcare costs (6). Ranked on a scale of zero to ten (with ten being the best), Oswego County performs well with an 8.0 when compared to the national median of 7.6. Oswego County's performance is competitive when compared to other regional counties, which range from 7.9 to 8.5 (6).



Recreation and Fitness Facility Access

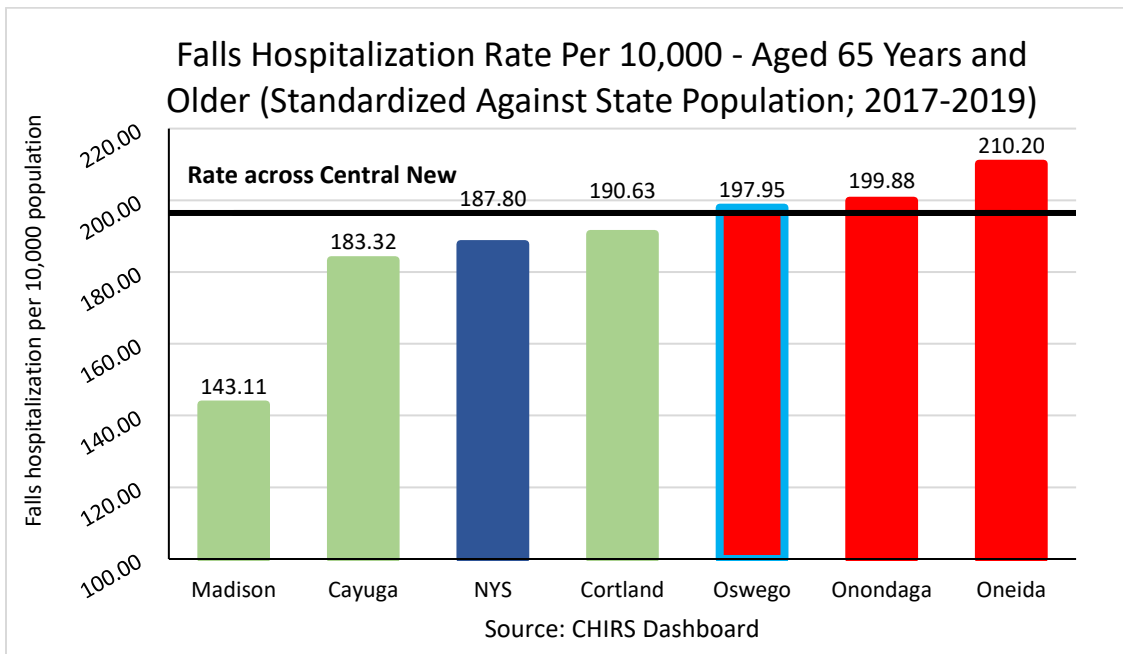
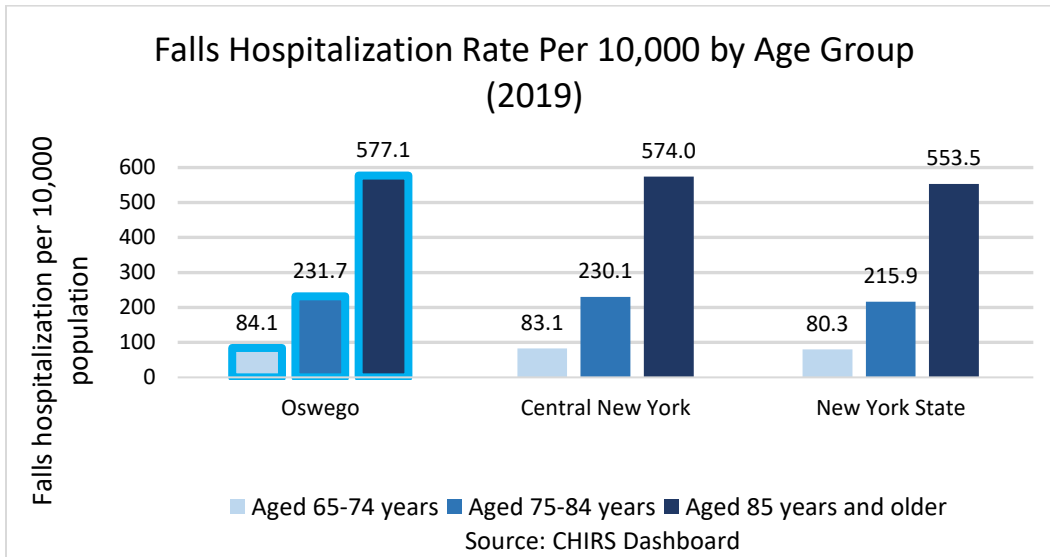


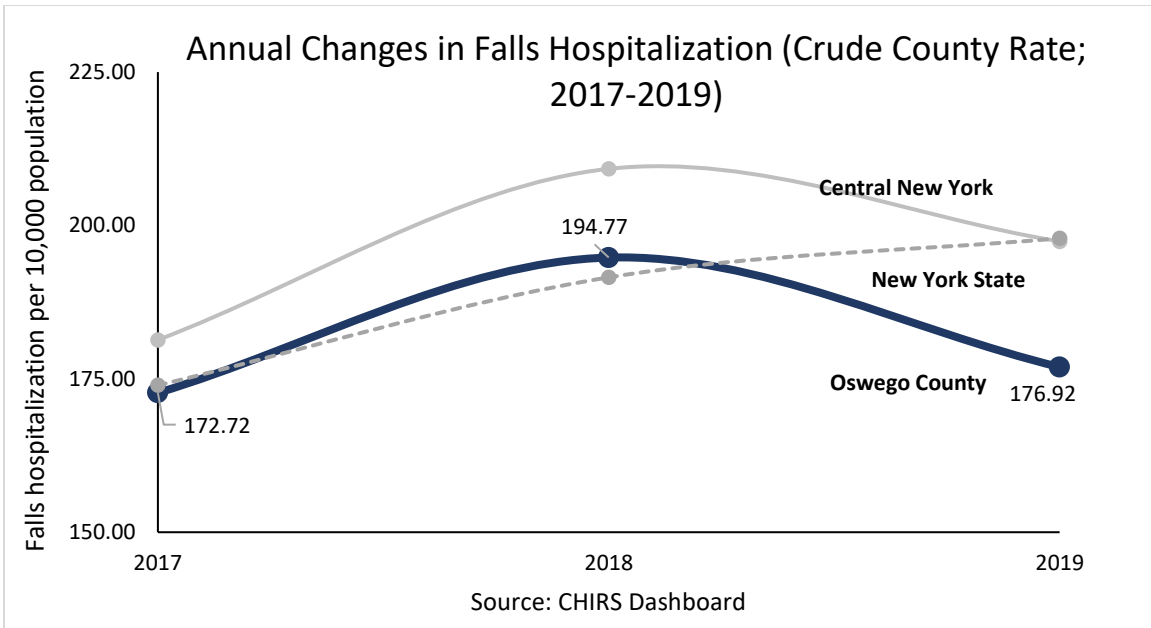
Falls Hospitalization Age-Adjusted Rate Per 10,000

Falls can be attributed to a variety of behavioral and environmental factors, and though the risks increase with age, falls are not a normal part of aging. Falls hospitalization rate increases markedly with age, and Oswego County sees a higher rate of falls per age group than Central New York and New York State as a whole (4). Combining these age groups and standardizing them by age, Oswego County has a falls hospitalization rate of 197.95 per 10,000 population for residents aged 65 years and older. This is slightly higher than the Central New York rate of 196.48, and considerably higher than the New York State rate of 187.80.

Crude falls hospitalization rate increased substantially from 2017 to 2018, and decreased a similar amount from 2018 to 2019 (4). It is difficult to determine a trend from this, and it will be interesting to review data for 2020 and 2021 as it is made available. In an effort to curb injuries and hospitalizations related to falls, the Oswego County Health Department and Office for the Aging report that the Stepping

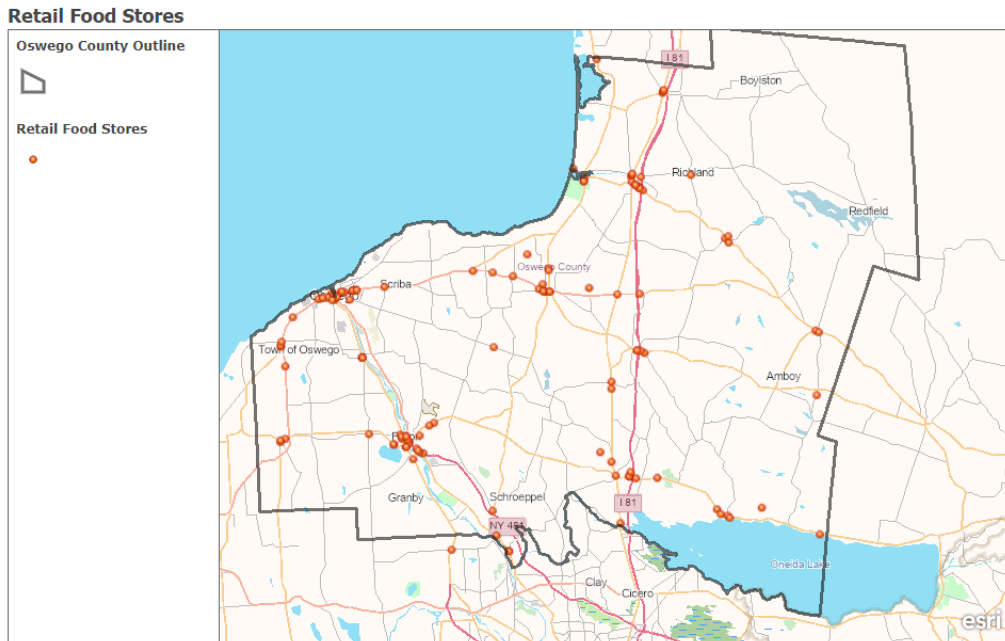
On evidence-based fall prevention program will be back in the curriculum, as a team of six trainers have been certified this summer.



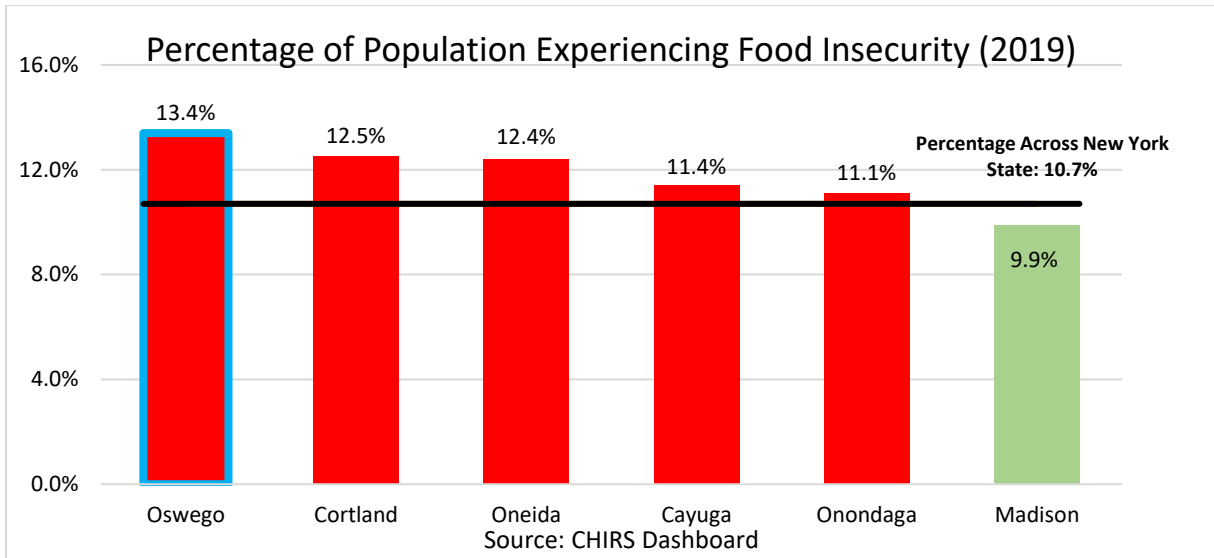
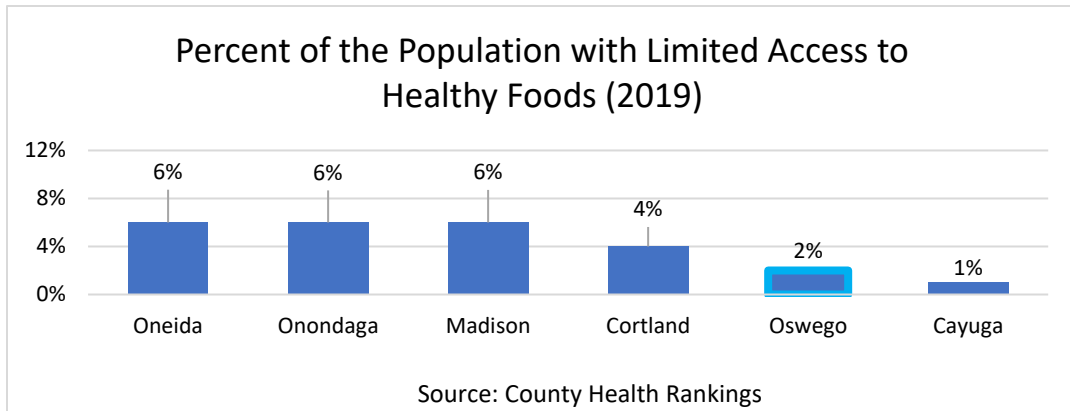


Low Income Population with Low Food Access

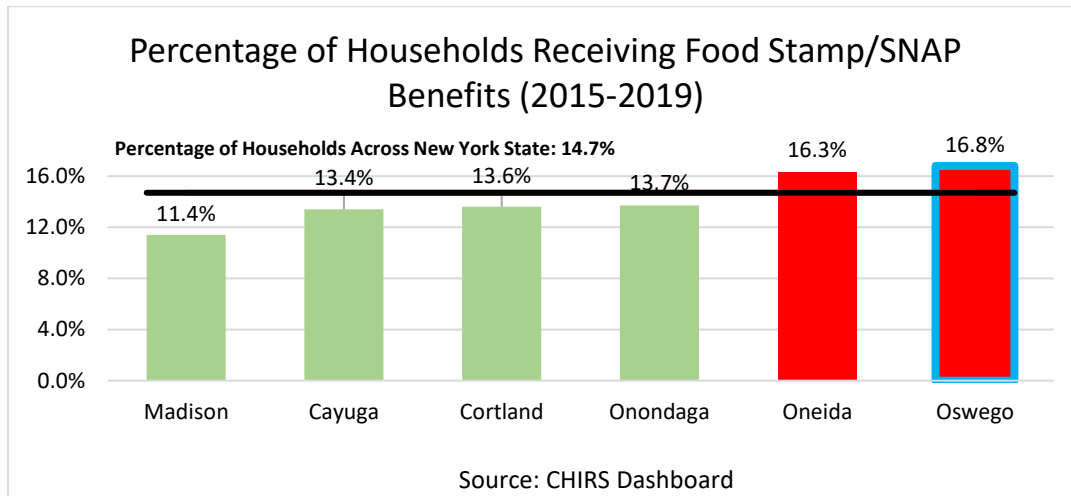
Below is a map showing all retail food stores which that are licensed by the Department of Agriculture and Markets within Oswego County. There are some areas of the county where access to food is limited, especially in the northeast. This map excludes restaurants.



Updated February 2, 2022 - A listing of all retail food stores which are licensed by the Department of Agriculture and Markets. Data from Data.NY.gov
 Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri | NYS ITS GIS Program Office | Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri



Supplemental Nutrition Assistance Program (SNAP) – Authorized Food Store Access

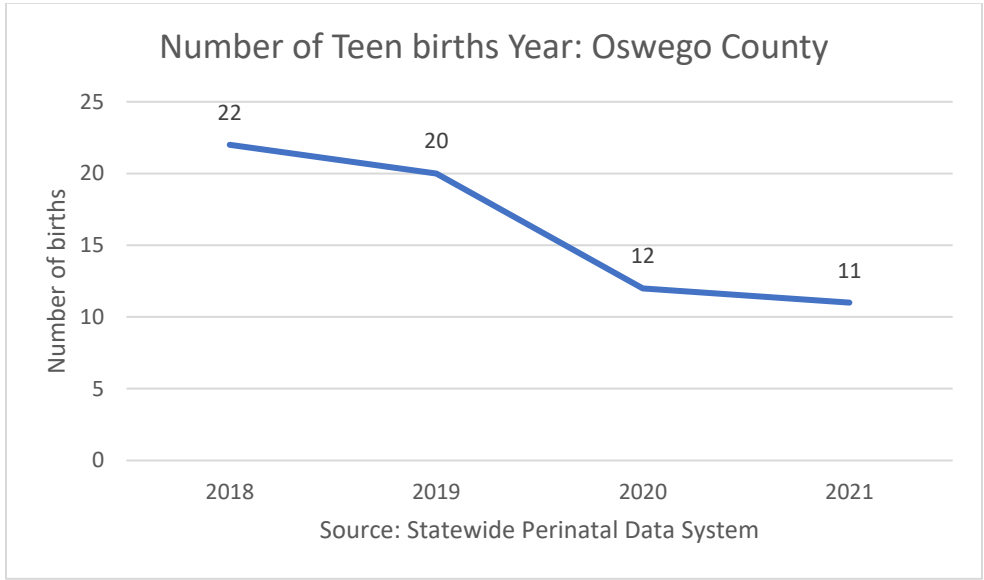
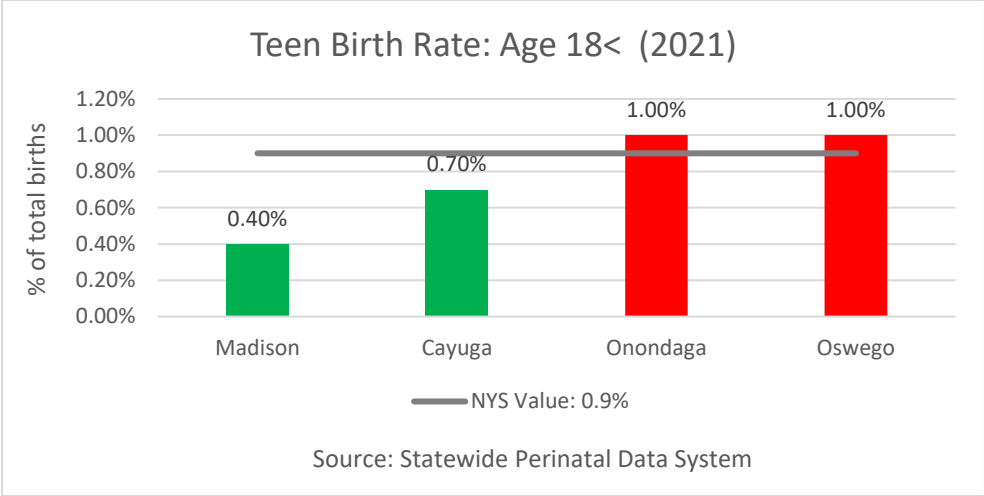


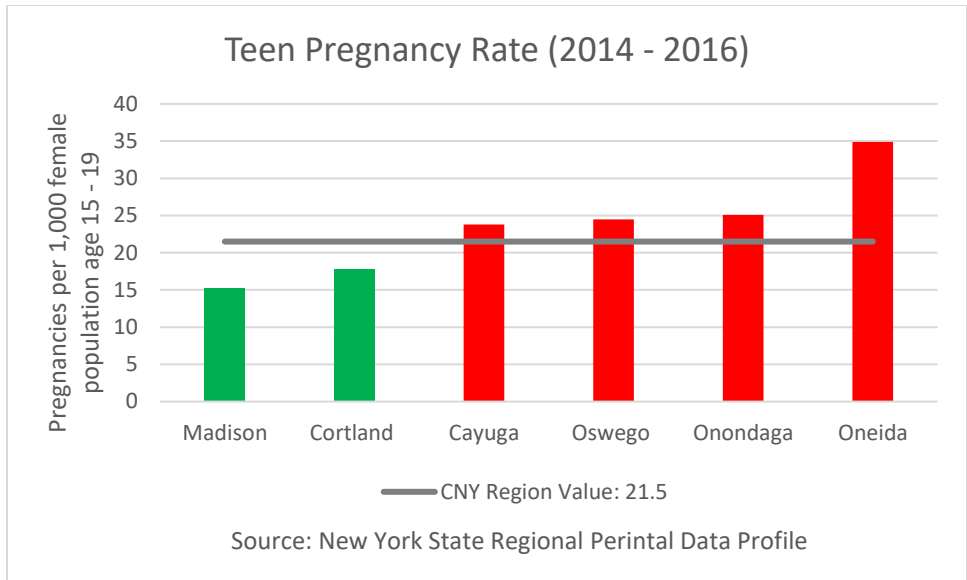
Promote Healthy Women, Infants & Children

In 2021, there were approximately 1099, births to women from Oswego County. This is comparable to the number of births reported in 2018. The percentage of women seeking early prenatal care was approximately 77%, with those with Medicaid as a payer source seeking care at about 68%. Premature births with <37 weeks gestation is 9.7% which is lower than surrounding counties but comparable with the Central New York Region (9.8%) (16).

Teen Birth Rates:

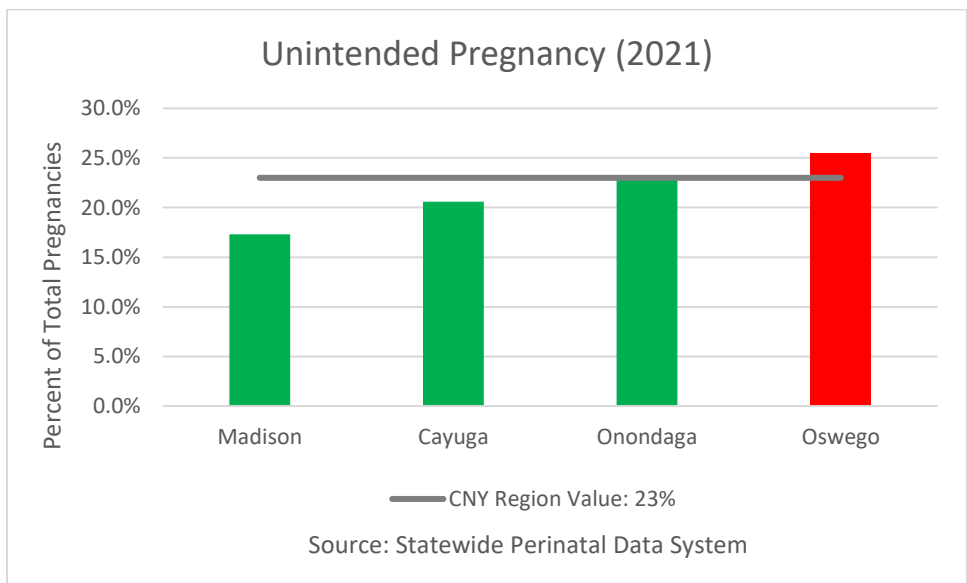
Births to teen mothers under the age of 18 comprise about 1% of the total births among Oswego County women. Early childbearing during teenage years has been associated with adverse health outcomes for the mother-child dyad, the impacts of which can extend to partners, other family members, and the community. Negative outcomes for children and mothers with early childbearing are best explained by social disadvantage and social adversity. Mothers who give birth during teen years face barriers to attaining an education at or above high school completion and face additional mental and physical stress as well as chronic lack of community support. Young parents may struggle to find affordable, quality childcare, and suitable transportation, further hampering options for education or employment. Babies born to teen mothers are more likely to be born preterm and/or low birth weight. Responsible sexual behavior reduces unintended pregnancies, thus, reducing the number of births to adolescent females. Oswego County does fall in the 4th quartile among New York State counties for these measures. Teen pregnancy has continued on a downward trend over the past several years (16).

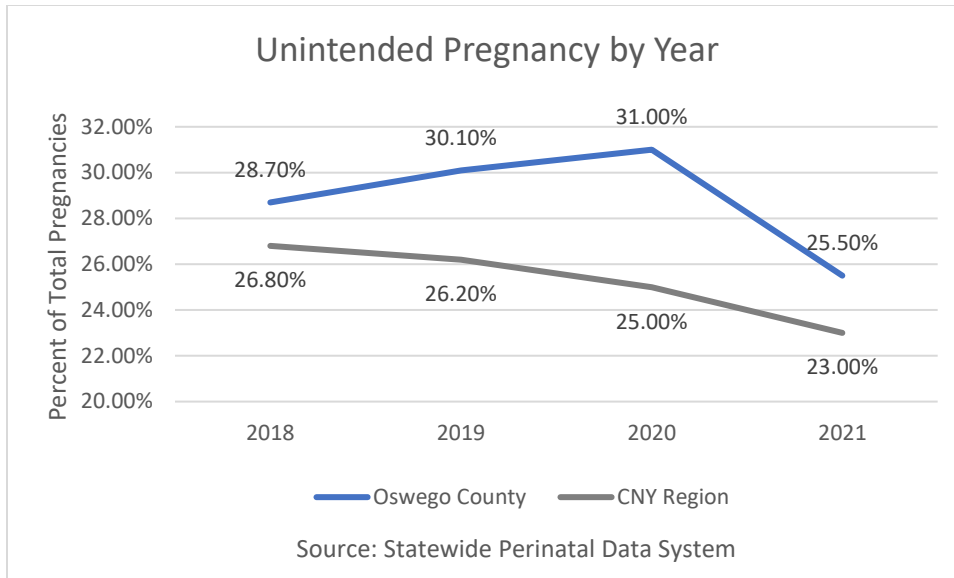




Unintended Pregnancies:

Unintended pregnancy may demonstrate an unmet need for birth control and family planning. Unintended pregnancies are associated with an increased risk of problems for mom and baby which may cause a delay in seeking prenatal care or may not allow for optimal preparation for the arrival of the newborn. Approximately 31% of all pregnancies in 2020, among Oswego County women were unintended based on CNY Perinatal Data System and Vital Statistic records. In 2021, that percentage dropped to about 26%. This is still above the Central New York Region percentage of 23% (16).





Breastfeeding:

Breastfeeding is the best source of nutrition for most infants and is widely recognized as the single best way to feed infants. Breast milk has health benefits for both infants and mothers. Breastfeeding improves the relationship between babies and mothers, and improves the infant's immune system, resulting in fewer episodes of infectious illness. Breast milk provides complete nutrition for infants and is easier to digest than breast milk alternatives. In addition, breastfeeding lowers the risk of breast cancer and may lower the risk of ovarian cancer in mothers. It has also been shown to be cost-effective for families. The American Academy of Pediatrics and the World Health Organization recommend exclusive breastfeeding for about the first 6 months, with continued breastfeeding along with introducing appropriate complementary foods for up to 2 years of age or longer (17) (18). According to the CNY Perinatal Data System, the number of women in the county who breastfeed in the early postpartum period has decreased from 73.2% in 2018 to 71.2% in 2021 (16). This remains lower than the Central New York region at 74.6%. The county has seen increases in the number of WIC moms breastfeeding for at least 6 months, that increase has seemed to plateau, and does lag other CNY counties. Oswego County has seen a significant increase in the percentage of infants receiving any breastmilk while in the delivery hospital, rising from approximately 62% in 2008 to 74% in 2019. This remains below the NYS average of 88.5%. While, in recent years, the county has seen an increase in the number of infants exclusively breast fed while in the hospital, at 57%, this number remains higher than the Prevention Agenda goal for 2019 - 2024 of 51.7% and above the New York State value (16). While breastfeeding rates in the county are improving, more work needs to be done to take full advantage of the many benefits of breastfeeding.

Oswego County - Percentage of WIC infants breastfeeding at least 6 months

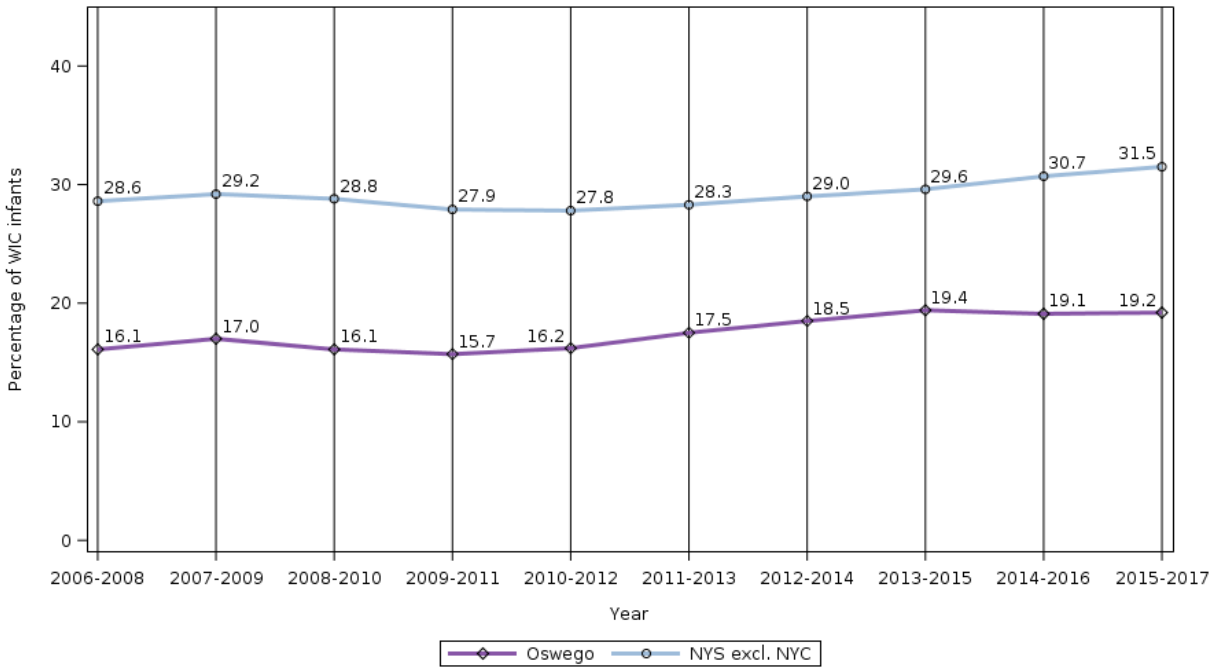
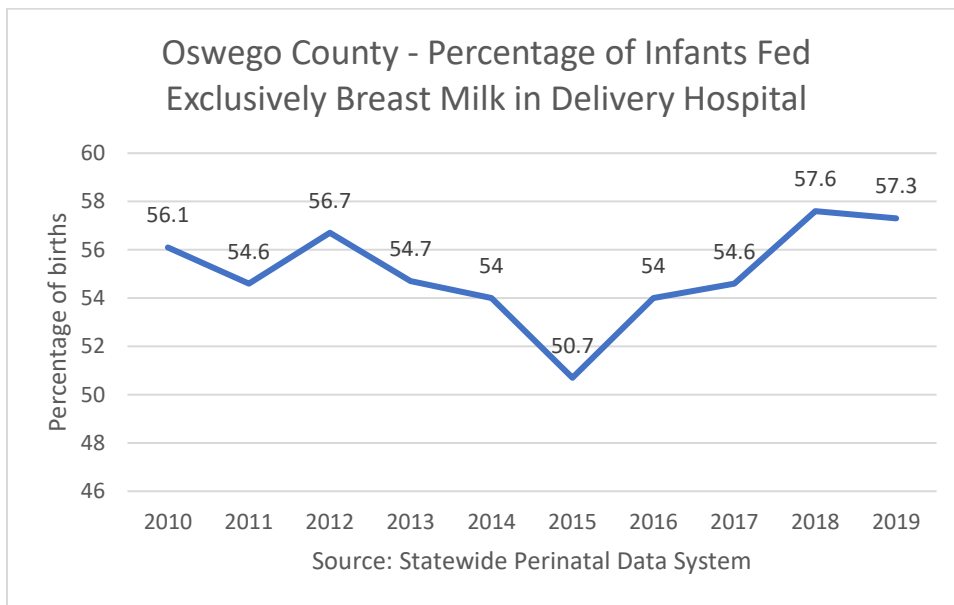
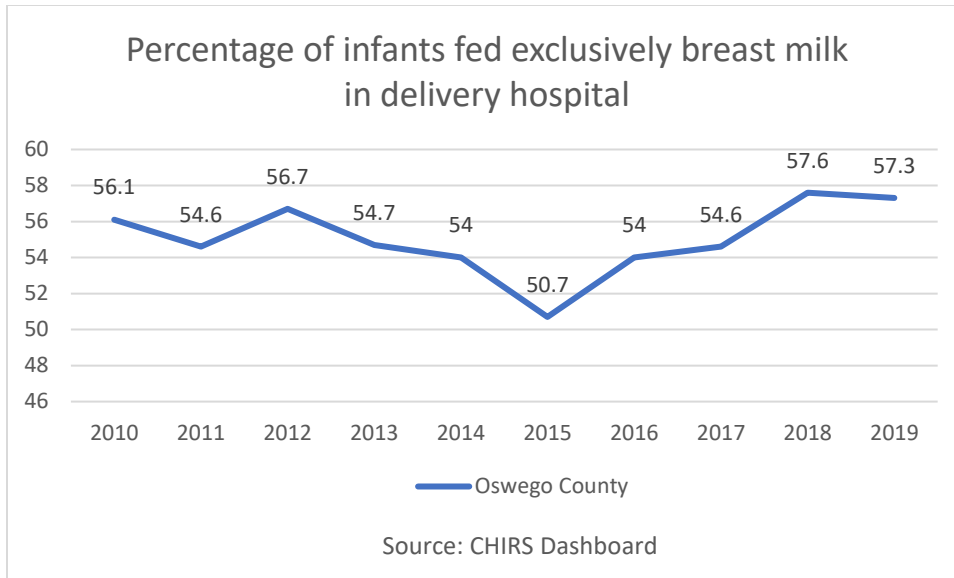


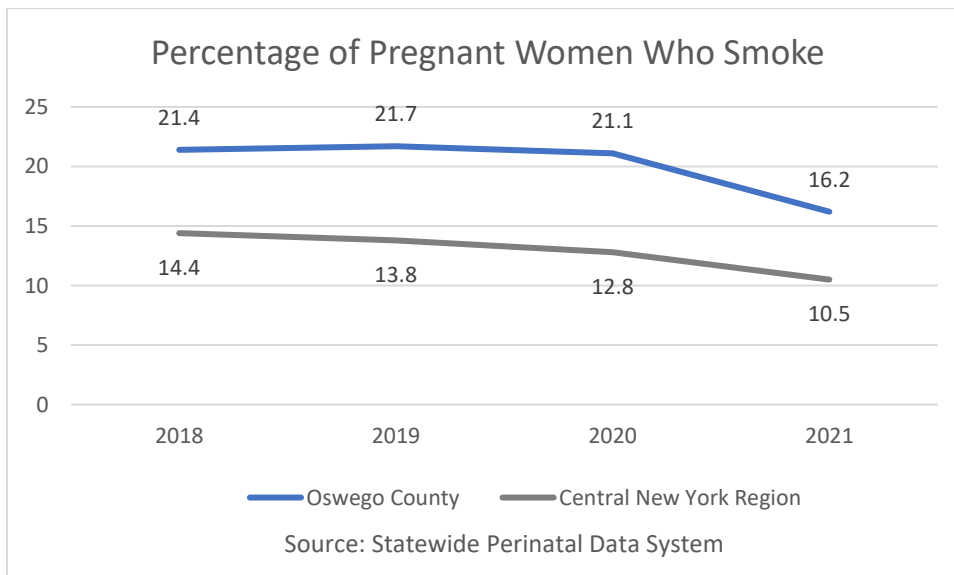
Figure 11 Source: CHIRS Dashboard

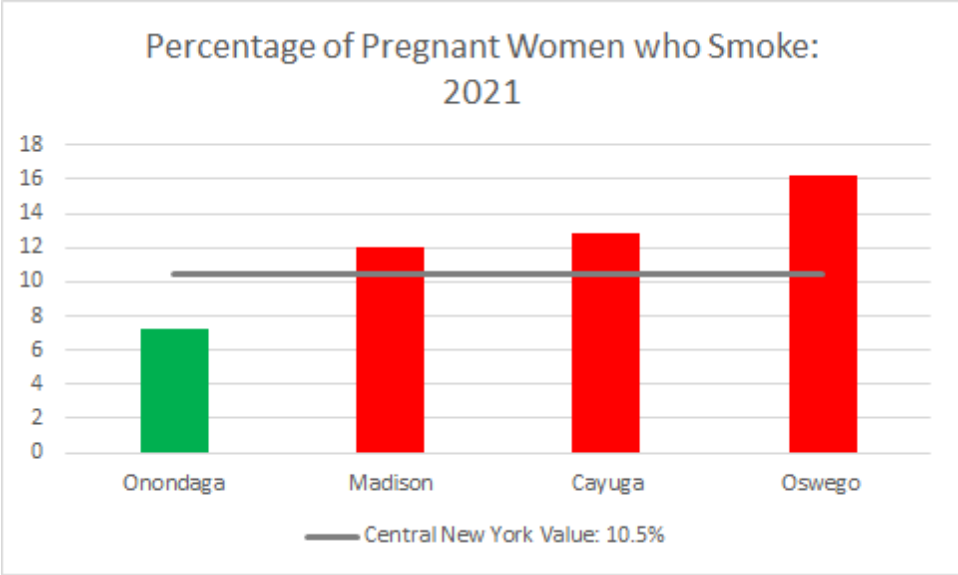




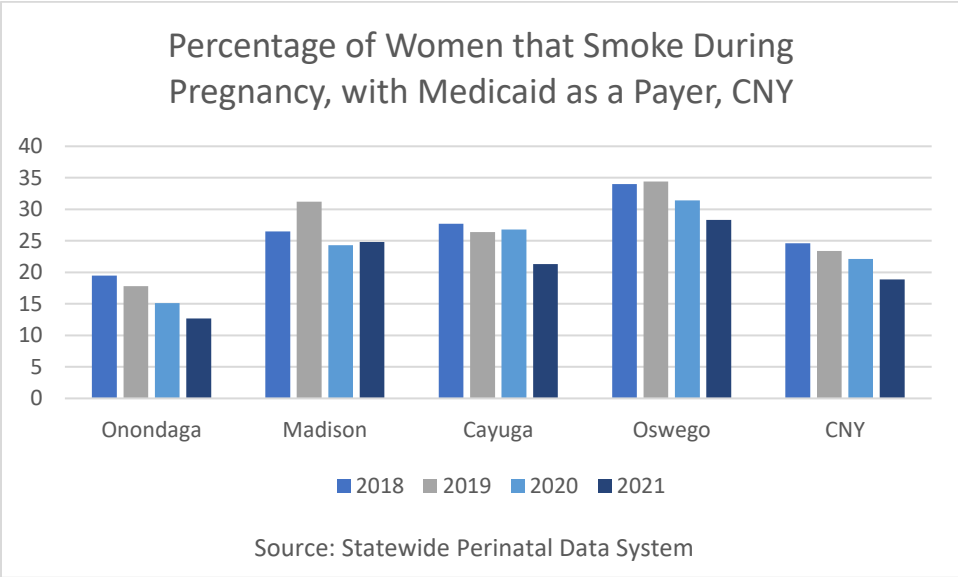
Smoking While Pregnant:

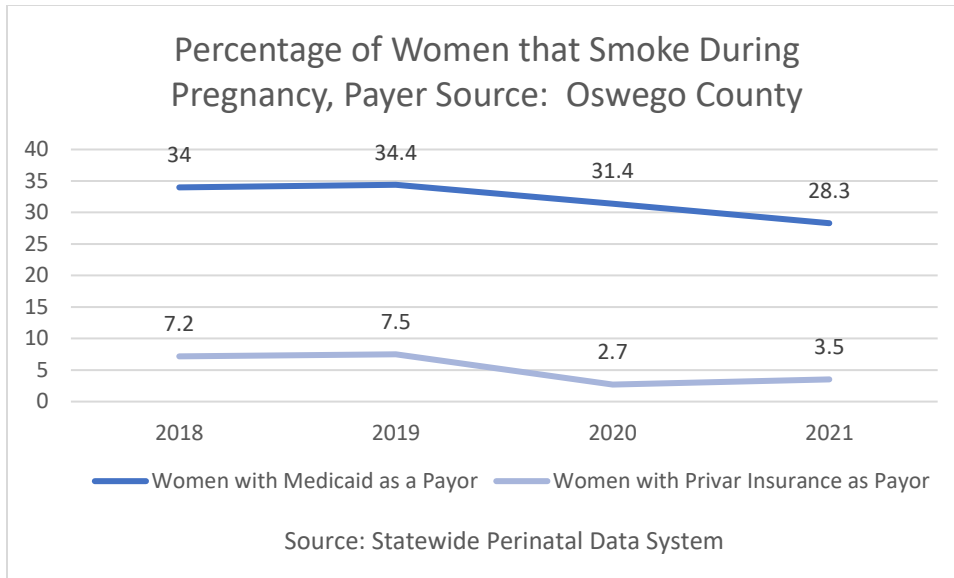
The number of pregnant women smoking decreased from 21.2% to 16.2, from 2018-2021. Nowhere else are health disparities based on income more evident than in the data provided by the CNY Perinatal Data System. On average, 16% of pregnant women in Oswego County smoked during their pregnancies. That percentage jumps to 28% among women with Medicaid as a payer source (4). In addition, compared with women who have private insurance, women with Medicaid as a payer source participate in early prenatal care less often or have late or no prenatal care, smoke significantly more, breastfeed less in early postpartum periods, and have more unintended pregnancies. Reducing smoking during pregnancy continues to be a priority.





Data Source: Statewide Perinatal Data System, 2018 - 2021





Promote Well-Being and Prevent Mental and Substance Use Disorders

Mental health and substance use issues continue to be a concern in Oswego County. Oswego County adults reported that they had an average of 5.1 poor mental health days in the last 30 days, as reported by the NYSBRFSS (2019). Over 13% of adults reported that they had poor mental health for 14 or more days in the past month, which is greater than the state figure of 11.2% (12).

Oswego County has a higher rate of binge drinking at 26.1%, compared to 17.5% for the state.

The ratio of mental health providers to patients is 650 to 1 (6). The number of mental health providers per 100,000 population is 148, less than the figure for New York State, 304 per 100,000 population (4). Oswego County has the highest rate of newborns discharged with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction. In 2019, the rate was 46.3 per 1000 discharges, compared to 19.5 per 1000 discharges in Central NY and 7.9 per 1000 discharges in New York State (19).

Substance Use

The age-adjusted rate of overdose deaths involving any drug is 32.6 per 100,000 population. This rate is greater than Central NY, 27 per 100,000 and New York State, 18.3 per 100,000. The greatest increase is seen in overdose deaths involving synthetic opioids. The age-adjusted rate of overdose deaths involving synthetic opioids other than methadone is 23 per 100,000 in Oswego County. This is greater than the rate of Central NY, 19.5 per 100,000 and New York State, 11.9 per 100,000 (19).

Opioid burden (including opioid overdose deaths, non-fatal outpatient ED visits and hospital discharges involving opioid abuse, poisoning, dependence and unspecified use), crude rate per 100,000 population, 2019

Oswego County ZIP Code Map

Crude rate

Oswego County - 233.2

New York State - 249.8

New York State (Excl NYC) - 231.6

Quartile (Q) Distribution (Excl NYC)

- Data suppressed (s)
- 0 - < 174.7 : Q1 & Q2
- 174.7 - < 305.7 : Q3
- 305.7+ : Q4

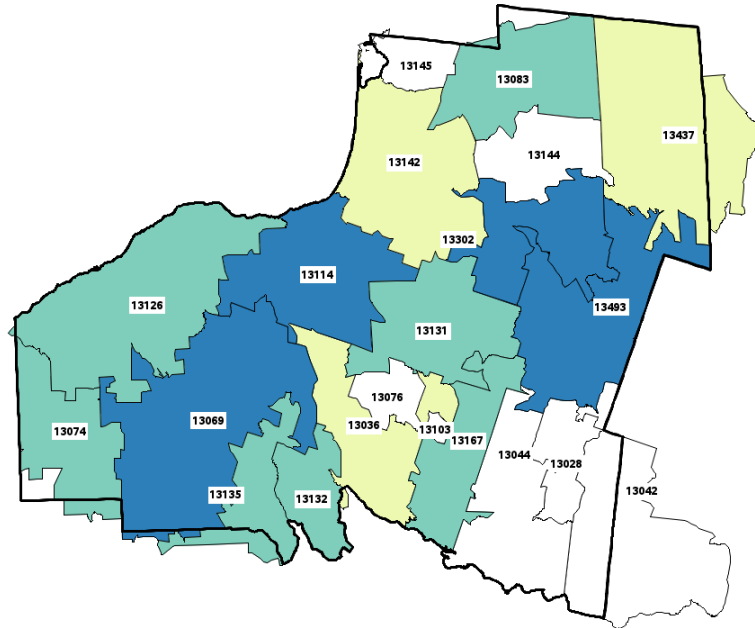
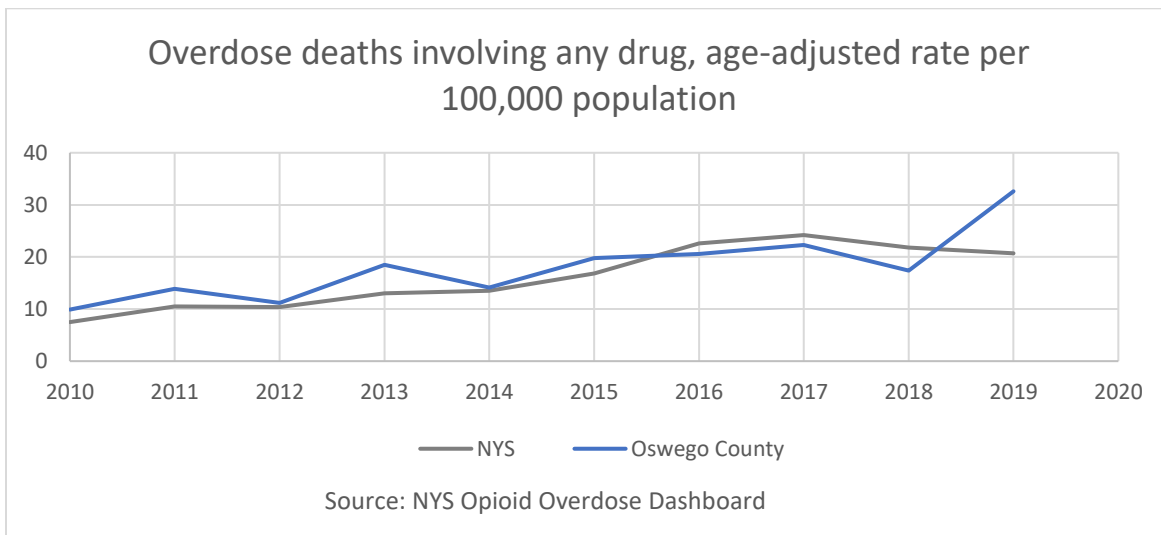
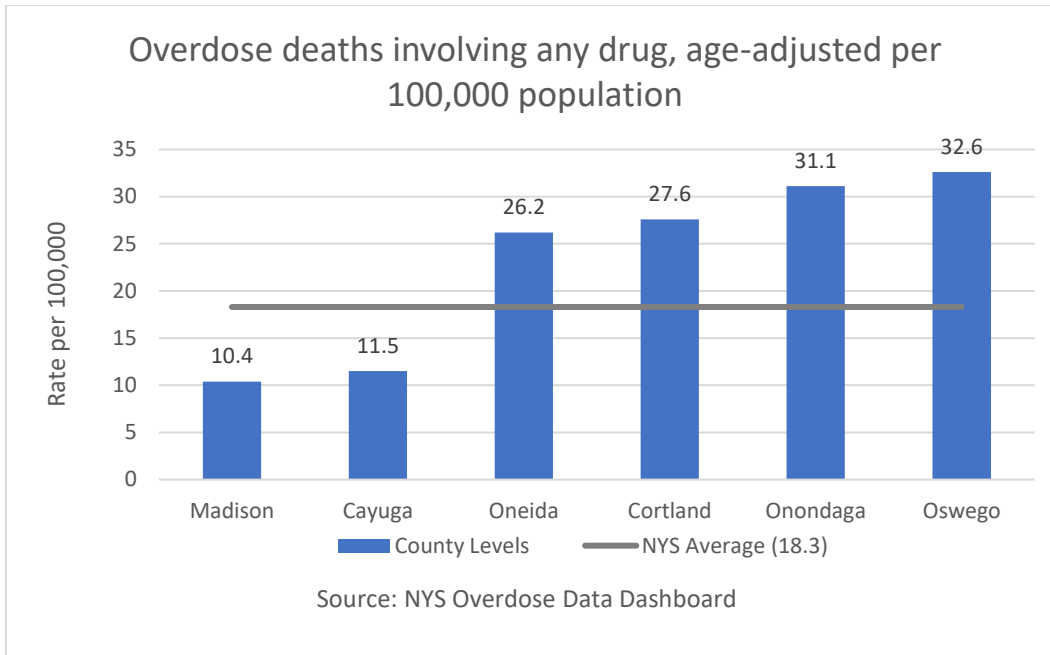


Figure 12 Source: NYS Opioid Data Dashboard

Death Rate Due to Opioids





Neonatal Withdrawals

Newborns with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction (any diagnosis), crude rate per 1,000 newborn discharges, 2019.

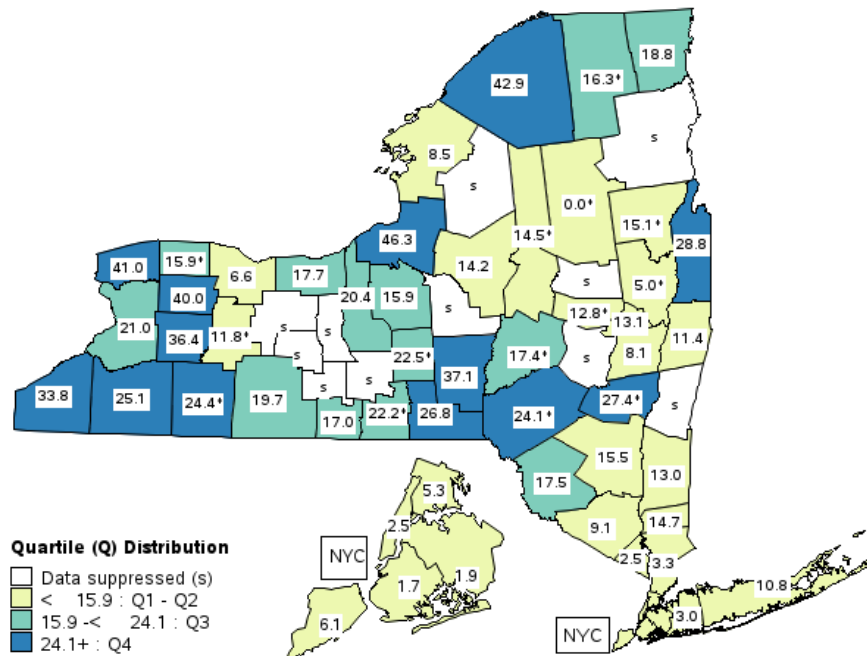
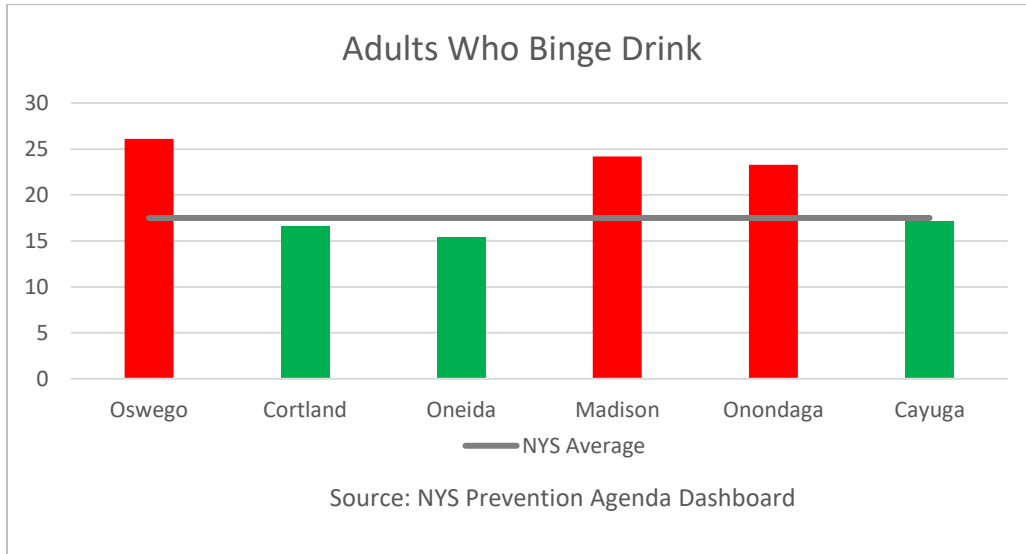


Figure 13 NYS Prevention Agenda Dashboard

Alcohol Consumption

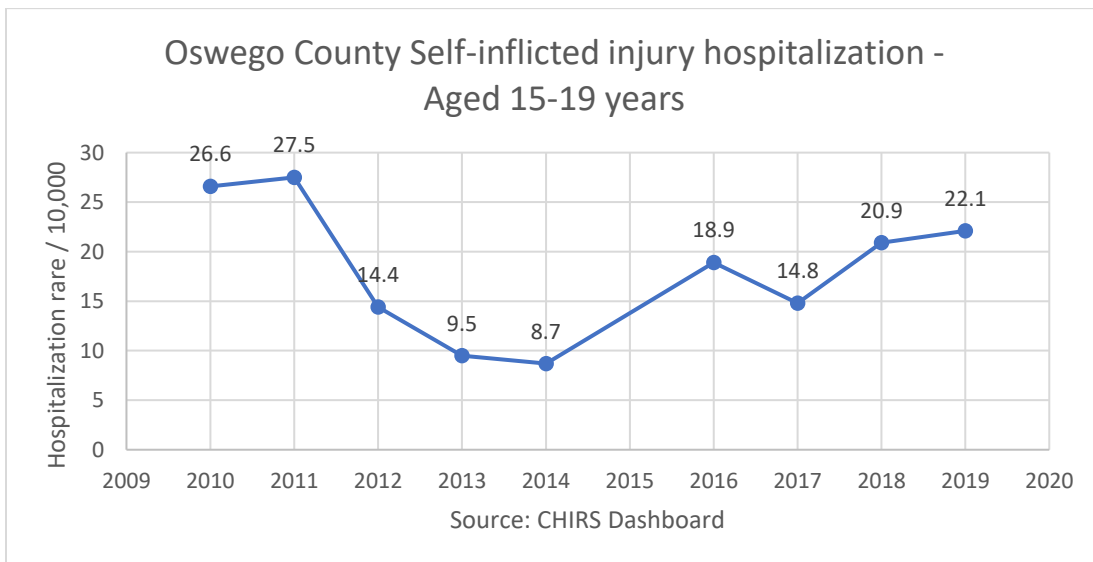
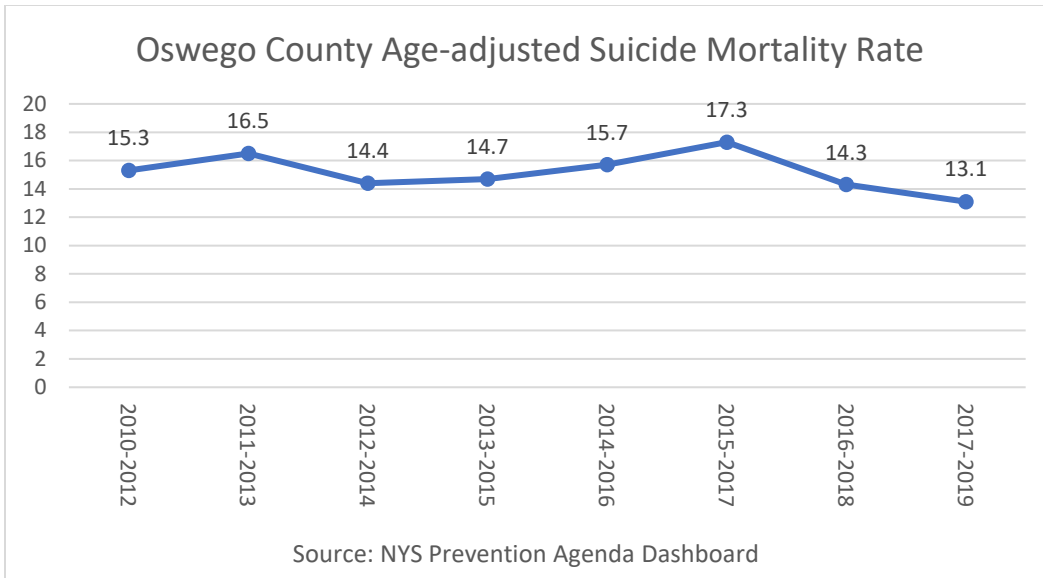
Approximately 26% of adults reported binge drinking at least once in the last 30 days. This is higher than the New York State rate of 17.5% (4). Binge drinking is defined as having more than 5 drinks on one occasion for males, and 4 drinks for females.



Suicide

The Oswego County death rate due to suicide is 13.1 per 100,000 population. The New York State rate is 8.2 per 100,000 (5). Suicide among adolescents is a serious public health issue in the United States. It is the second leading cause of death for youth; in 2019, approximately 6,500 lives were lost due to suicide. However, many more adolescents survive suicide attempts than die. Risk factors include depression, physical/mental illness, alcohol/substance abuse, incarceration, and loss or other stressful life events (20).

In the United States, suicide rates declined between 2018-2020 (20). Studies show that addressing psychiatric illness through early recognition, intervention, and treatment is an effective way to combat suicidal behavior. While the suicide mortality rate for those aged 15-19 years in Oswego County is slightly higher than the New York State rate, 7.7 per 100,000 compared to 6 per 100,000, the self-inflicted injury hospitalization rate for this age group, 19.2/10,000, is more than twice the New York State figure of 9 per 10,000. This is among the worst 25% of counties in New York State. Oswego County is seeing a rising trend in the number of mental health providers available. However, the county still faces a shortage of mental health professionals (4).



Mental Health

Mental and physical health are equally important to an individual’s overall health. Mental illnesses are one of the most common health conditions. One in five Americans experience a mental illness each year. An individual’s mental health is affected by a combination of factors, including biology (genes/brain chemistry), life experiences (trauma/abuse), and family history regarding mental health problems. Due to the complex interplay between so many factors, it is especially important to recognize early warning signs, such as too much or too little sleep, rapid weight loss or weight gain, lack of energy and motivation in talking to people or participating in usual activities, or feelings of helplessness. It is

important to recognize and address potential psychological issues before they become critical, particularly because the greatest opportunity for prevention is among young people (21).

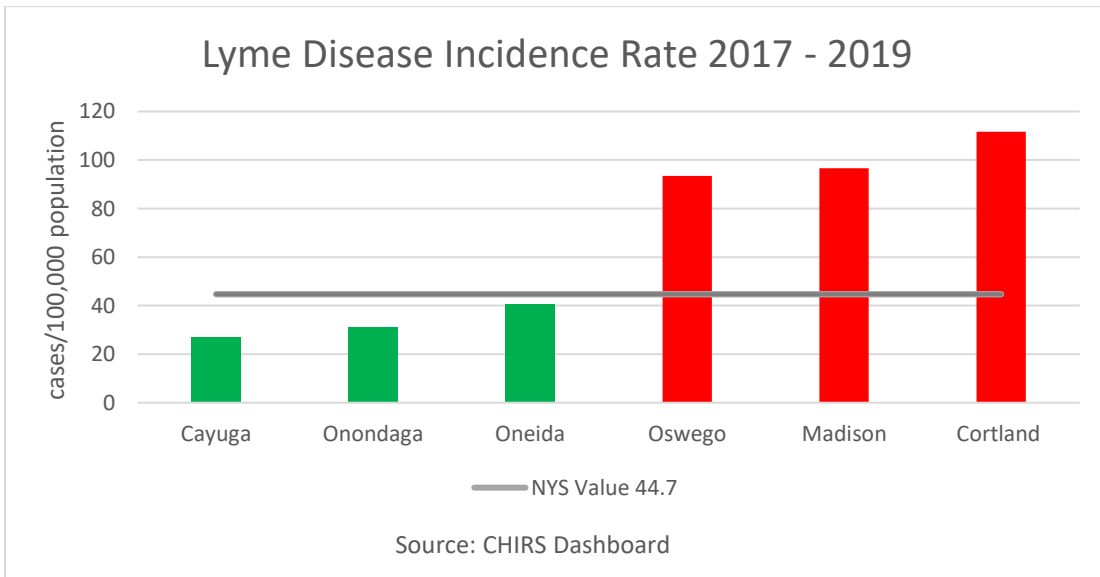
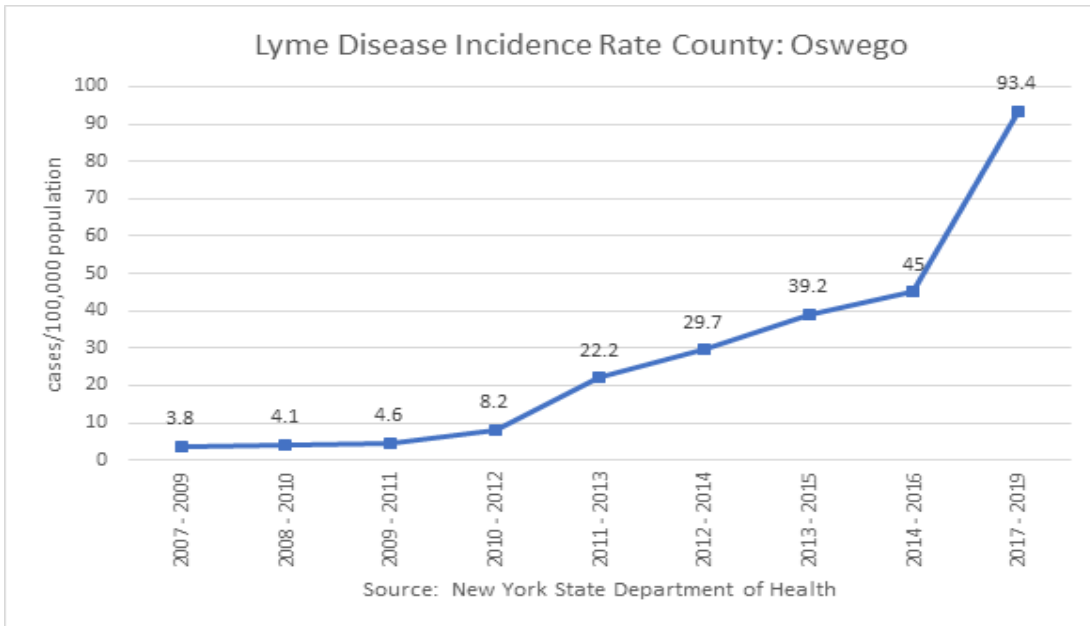
Prevent Communicable Disease

The Oswego County Health Department investigates hundreds of cases of reportable disease, as is required by NYS Public Health Law. In 2021, the health department investigated 752 cases, excluding COVID-19. Some diseases that appear to be trending higher than in previous years include gonococcal and syphilis infections, tickborne infections, and chronic hepatitis C.

Tick Born Diseases

Tickborne diseases (TBDs) have been increasing in Oswego County since the diseases were first recorded in 2009. As of 2021, the County has reported laboratory-confirmed cases of five different TBDs (4 with local transmission and 1 likely travel-related). Lyme disease (*Borrelia burgdorferi*), anaplasmosis (*Anaplasma phagocytophilum*), and babesiosis (*Babesia spp.*) are transmitted by the bite of the blacklegged tick (*Ixodes scapularis*), also known as the deer tick. Ehrlichiosis (*Ehrlichia chaffeensis*, *E. ewingii*, or *E. muris eauclairensis*) is transmitted to humans by the lone star tick (*Amblyomma americanum*). Rocky Mountain spotted fever (*Rickettsia rickettsii*) is transmitted by the American dog tick (*Dermacentor variabilis*), the Rocky Mountain wood tick (*Dermacentor andersoni*), and the brown dog tick (*Rhipicephalus sanguineus*). Among the ticks mentioned above, all live in New York State except the Rocky Mountain wood tick.

Lyme disease continues to be the most prevalent TBD in Oswego County. According to the Centers for Disease Control and Prevention (CDC), the tick must be attached to the skin for 36 to 48 hours or more for borrelia burgdorferi bacterium transmission to occur (22). Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, infection can spread to joints, the heart, and the nervous system. Most cases of Lyme disease can be treated successfully with a few weeks of antibiotics. The ticks that transmit Lyme disease can occasionally transmit other tickborne diseases as well. Lyme disease is the most commonly reported vector borne illness in the United States. Oswego County has seen a significant rise in reported cases. Oswego County Lyme disease incidence rate is 93.4 cases per 100,000 population. This rate is higher than neighboring counties in CNY and higher than the State rate of 44.7 cases per 100,000 population (4).



Additional TBD's reported in Oswego County include:

- o Anaplasmosis: first reported in 2021; accumulated 3 to date
- o Babesiosis: first reported in 2013; accumulated 5 cases to date
- o Ehrlichiosis: first reported in 2017; accumulated 6 cases to date
- o Rocky Mountain Spotted Fever: first reported in 2011; accumulated 4 cases to date

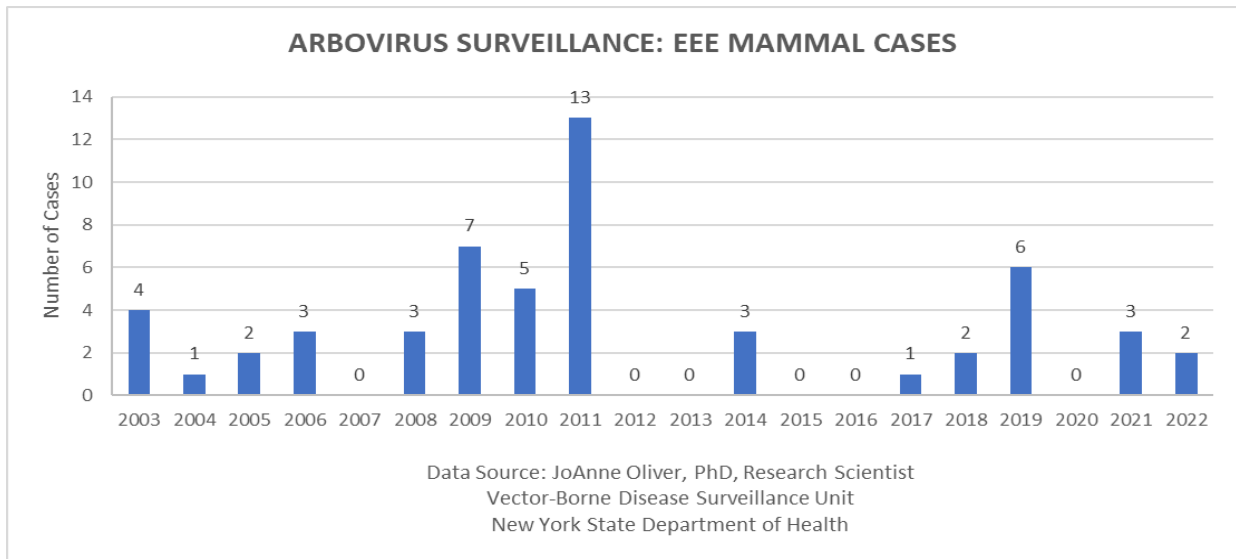
EEE and West Nile Virus

Oswego County sits in New York State’s hot bed of mosquito-borne disease activity and conducts yearly mosquito surveillance to guide mitigation efforts to prevent disease. Oswego County has not seen a human case of Eastern Equine Encephalitis since 2015 or West Nile Virus since 2017, ongoing mosquito surveillance indicates that the virus is still active in Oswego County with multiple mosquitos’ samples testing positive for these pathogens each year and deaths in horses seen annually.

Mosquito surveillance Oswego County 2019-2022

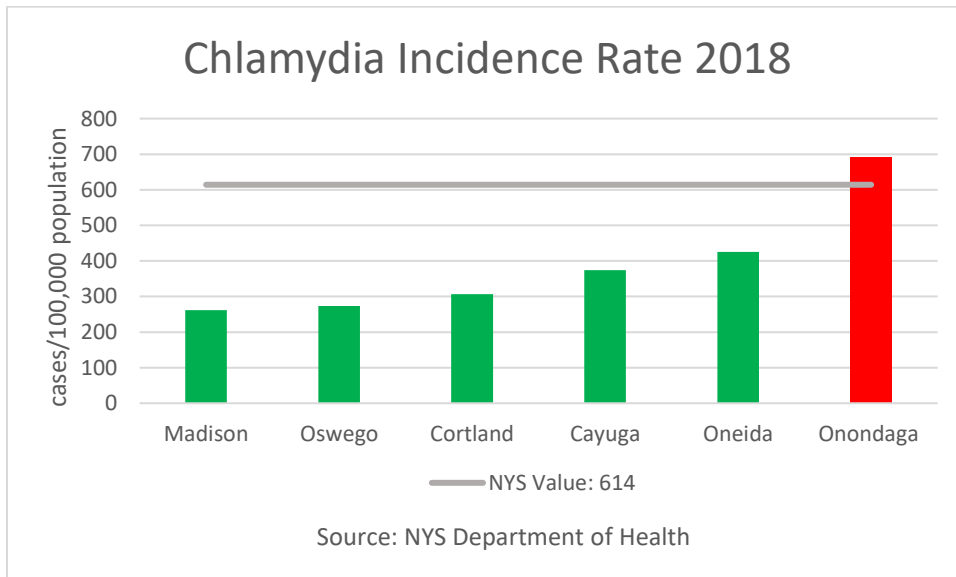
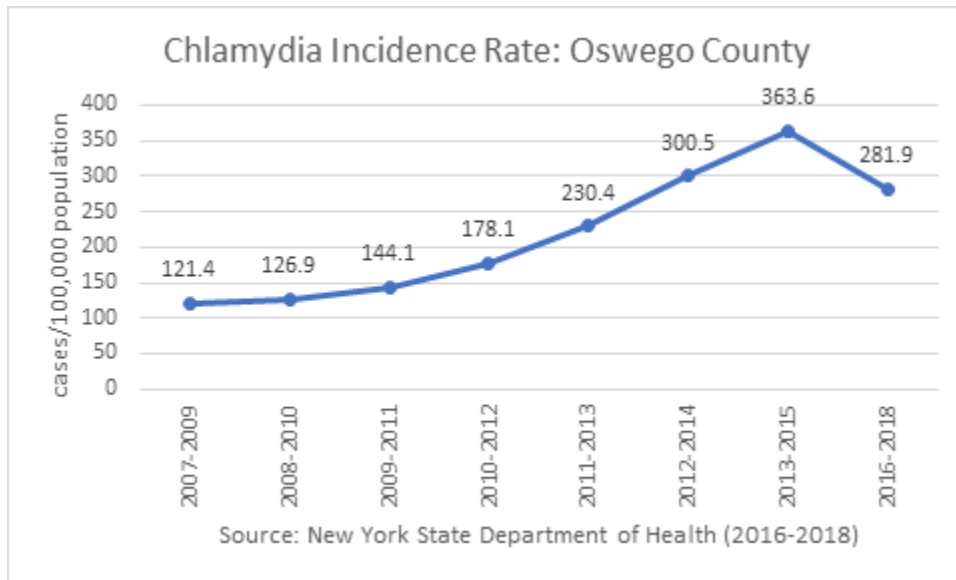
YEAR	# POOLS	# EEE POS	% POS EEE	# WNV POS	% POS WNV
2019	589	44	7.47%	0	0.00%
2020	489	19	3.89%	2	0.41%
2021	708	34	4.80%	2	0.28%
2022	528	15	2.84%	10	1.89%

Oswego County also regularly has mammals that test positive for Eastern Equine Encephalitis (EEE). This disease is caused when an infected mosquito bites a human or other mammal. The graph below shows the number of mammals with confirmed EEE in Oswego County over time. Data was collected by JoAnne Oliver, PhD, Research Scientist, Vector-Borne Disease Surveillance Unit at the New York State Department of Health. Since 2009 there have been 4 cases of human’s contracting EEE – one in 2009, 2010, 2011, and 2015 (23) (24).

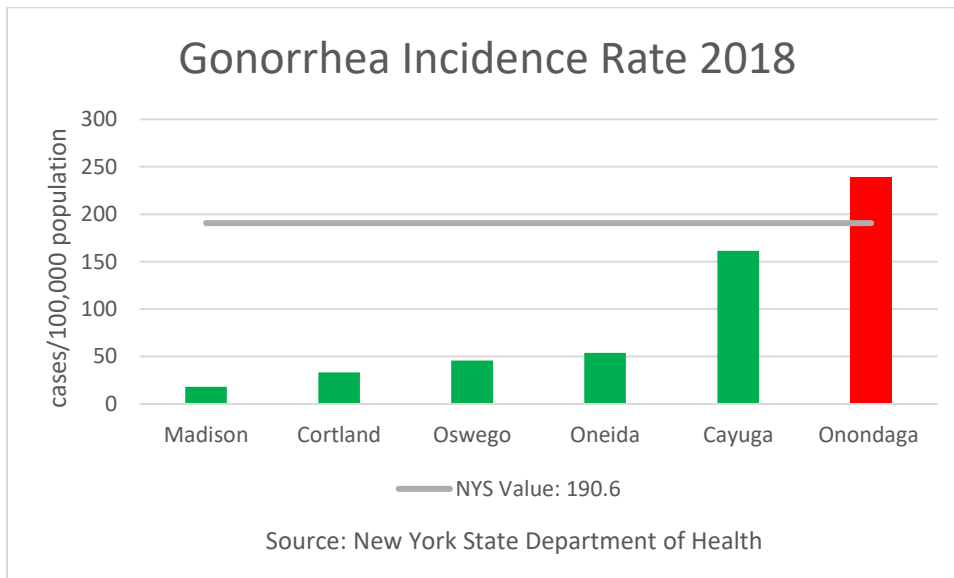
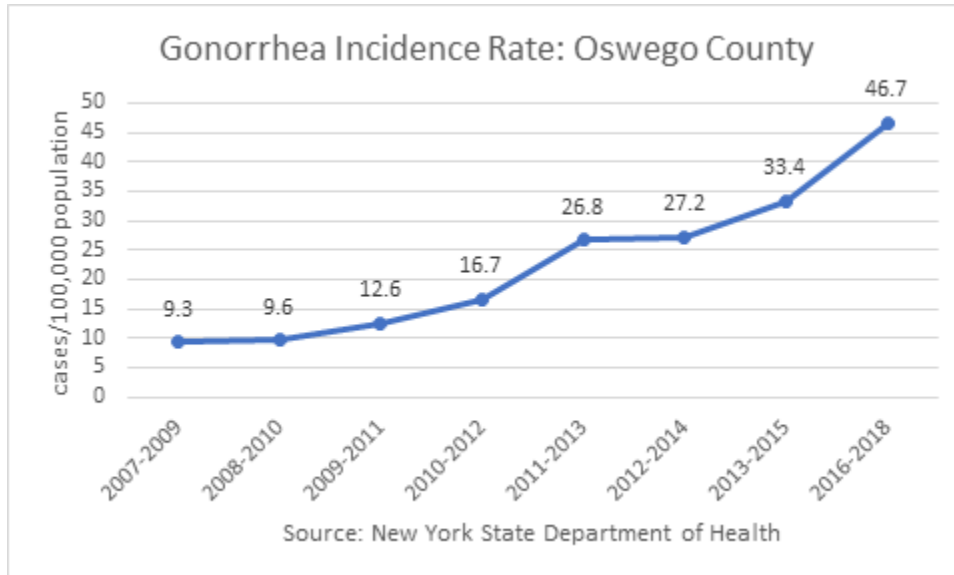


Sexually Transmitted Diseases

While chlamydia incidence rates in Oswego County are lower than the state incidence rate, Oswego County's rate have remained elevated over time. The incidence between years 2007-2009 was 121.4 cases per 100,000 population, which increased to 281.9 cases between years 2016-2018. This trend is consistent with other counties in Central New York (25).



Gonorrhea incidence in Oswego County is lower than the state incidence rate. However, like chlamydia, over time the gonorrhea rate has increased significantly. Rising from 9.3 cases/100,000 in 2007-2009 to 46.7 cases/100,000 in 2016-2018.



Oswego County has experienced a rise in the number of reported syphilis cases in recent years. The incidence is comparable to most counties in the Central New York region but continues to be lower than the statewide average. Untreated syphilis can lead to death or serious health problems, including blindness, mental health disorders, and damage to the brain, heart, eyes and nervous system.

Hepatitis C

Chronic hepatitis C can be a lifelong infection if left untreated. Chronic hepatitis C can cause serious health problems, including liver damage, cirrhosis (scarring of the liver), liver cancer, and even death. Hepatitis C virus is spread when someone comes into contact with blood from an infected person. This can happen through sharing drug-injection equipment, birth, health care exposures, sex with an infected individual, unregulated tattoos or body piercings, sharing personal items, or blood transfusions and organ transplants. Treatment is recommended for all people, including non-pregnant women. Current treatments usually involve just 8–12 weeks of oral therapy (pills) and cure over 90% of cases.

Chronic hepatitis C cases in Oswego County have steadily increased over the past several years. In 2014-2016 case rates per 100,000 were 62.1 and have risen to 84.5 in 2019. These rates are one of the highest in the Central New York (CNY) Region and well over the NYS average of 55.5. In 2019, CNY had the most newly reported diagnoses and highest case rates by region. Oswego County also has both cases and rates per 100,00 in the top 50% of all New York counties outside of NYC (26). In 2020, the hepatitis C rate in NY was 37.2 per 100,000 and Oswego County had a much higher rate of 71.7 per 100,000. However, changes in case definitions and reporting make it so that comparisons between 2020 and 2019 data are difficult (27).

Figure 2.3a Newly Diagnosed Cases Hepatitis C Rate per 100,000 pop. by County New York State, Including Chronic, Acute, and Perinatal cases, Excluding Cases in Persons Incarcerated in DOCCS facilities, 2020

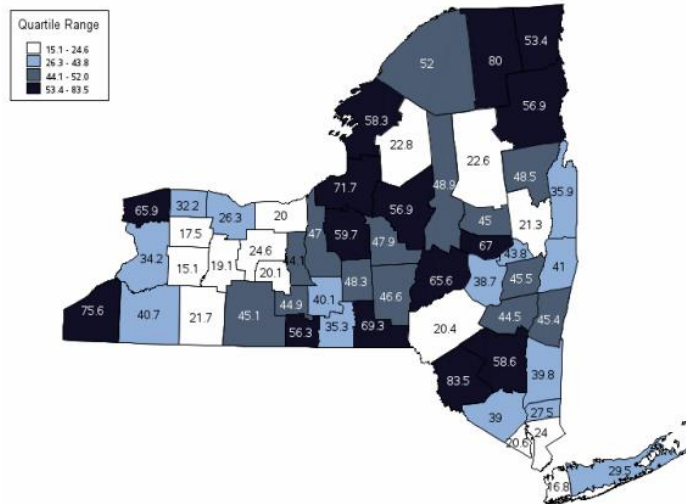


Figure 14 Source NYSDOH Hepatitis B and C Annual Report 2020

Hepatitis C in Central Region* by County

In 2019, Onondaga County had largest **number of cases** in the Central region. **Case rates per 100,000** were highest in Broome County.

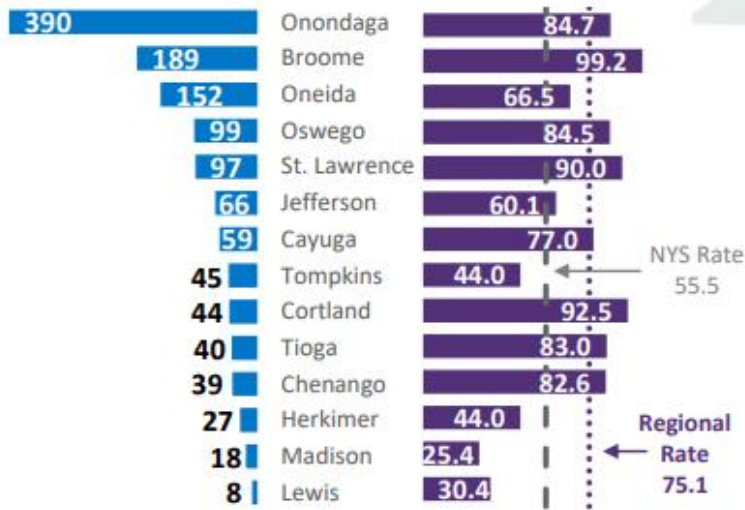


Figure 15 Source: NYS DOH Communicable Disease Electronic Surveillance System, 2020. Data current as of 10/25/2020. Data are preliminary and subject to change.

Newly Reported Hepatitis C Cases and Case Rates: 2019 Excluding DOCCS Inmates

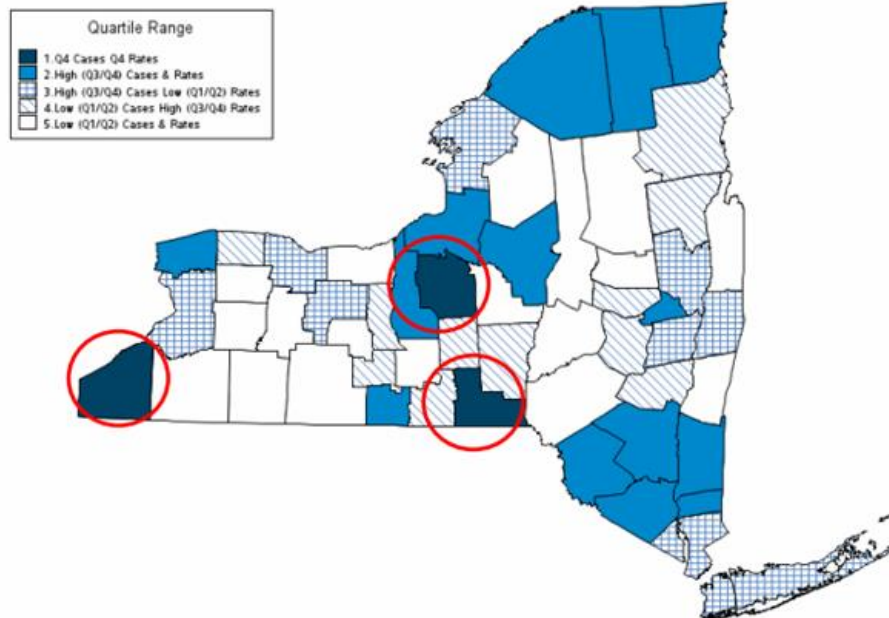
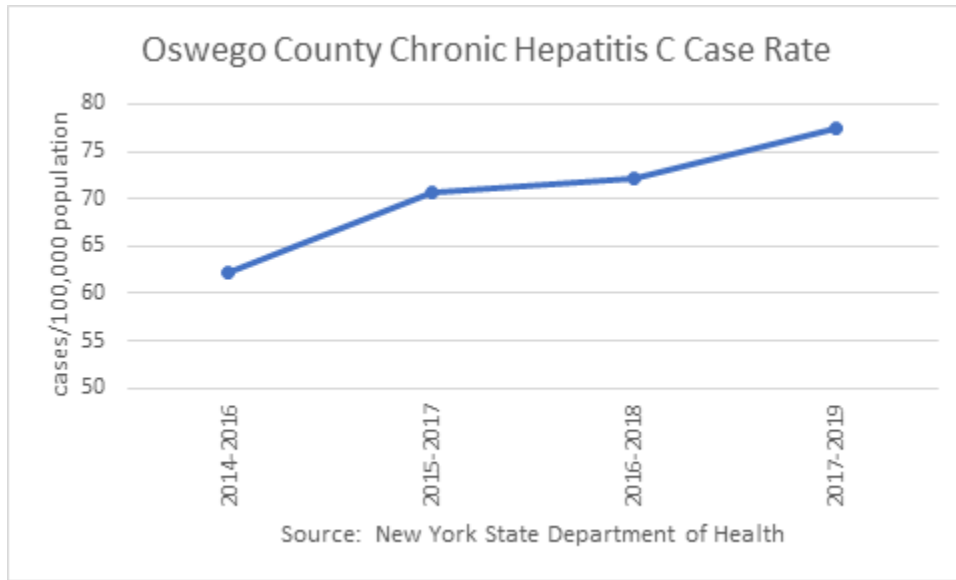


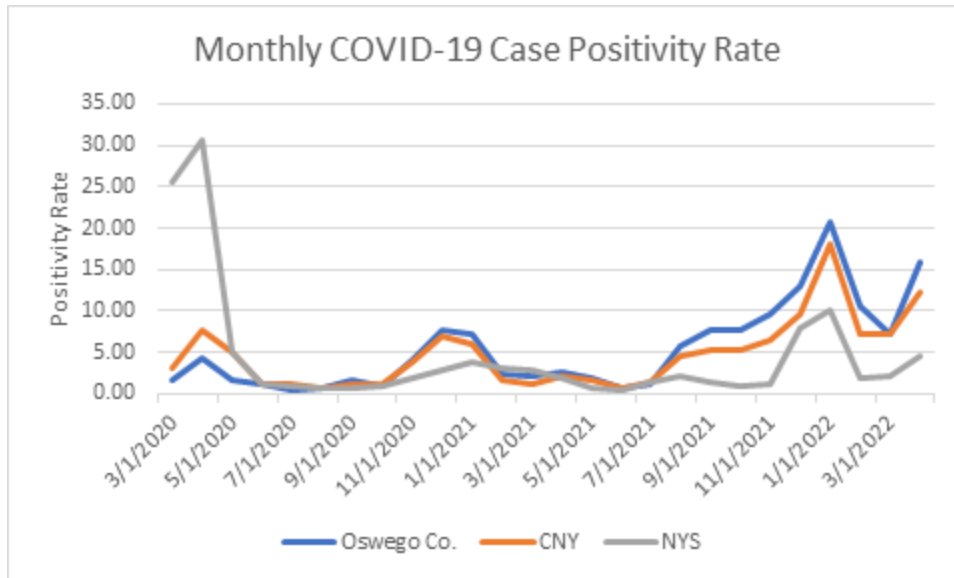
Figure 16 Source: NYS DOH CDESS, as of Oct 25, 2020 & U.S. Census Bureau, Population Division 2019 population estimates.



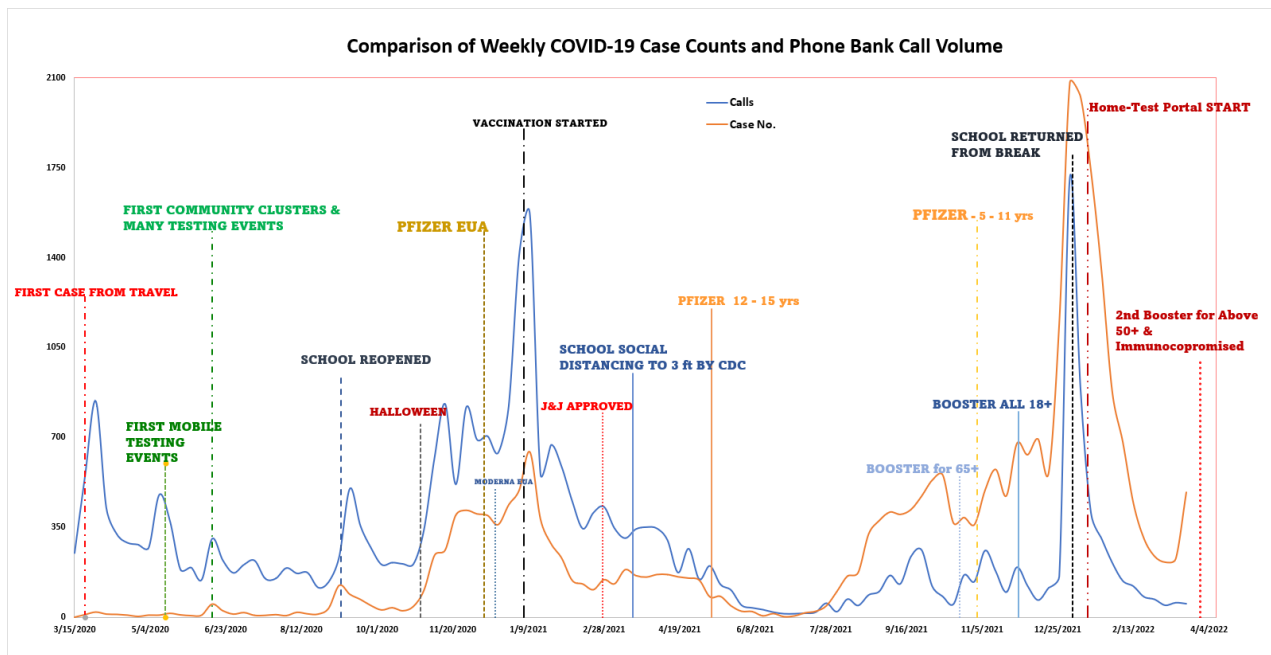
COVID-19

In early 2020, Oswego County, along with the rest of the world, began emergency response planning measures for COVID-19. In March 2020, Oswego County identified its first confirmed case of the virus. Through years of Public Health Emergency Preparedness Drills, the health department and community partners possessed many of the tools and knowledge needed to combat this virus. This includes creating and operating points of distributions (PODs), educating the public, working with community partners. There were also many aspects of the pandemic that Oswego County, nor the world, were prepared for. Some barriers that Oswego County faced at the start of the pandemic include lack of access to personal protective equipment, lack of testing resources and vaccinations, overwhelmed healthcare system (increased hospital admissions, lack of healthcare personnel).

Case positivity rates remained lower than New York State average until around September 2020, after this point Oswego County was consistently higher than the NYS. There were several peaks noted that corresponded with certain events including holidays, start of school, and unmasking.

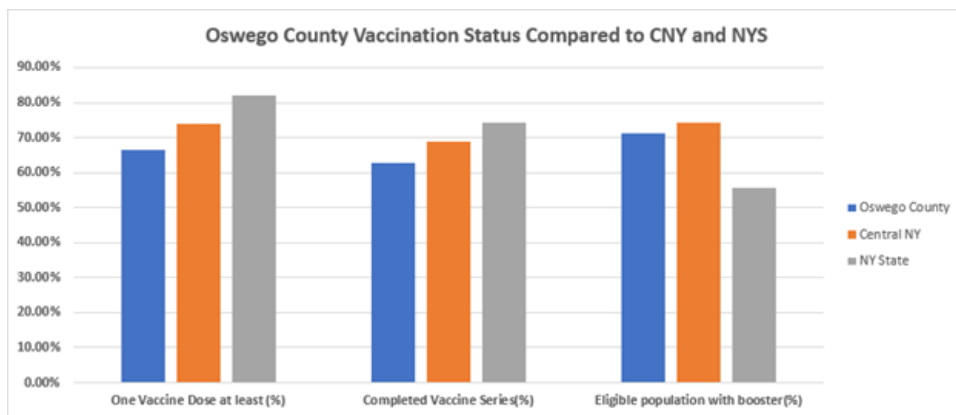
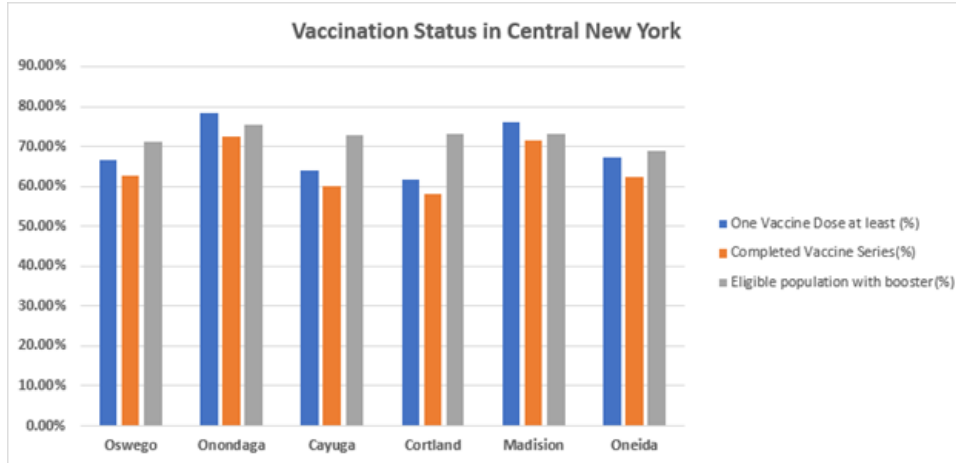


The Oswego County COVID Hotline was created to ensure accurate information and access to services were available to all residents and to overcome barriers due to lack of internet access. It also created a two-way conversation channel, allowing residents to talk with live, trained staff that delivered information, provided linkages to care, and promoted health literacy. As of May 2022, roughly 40,000 calls were received into the hotline.



The Oswego County COVID-19 vaccination efforts began in January 2021. Vaccinations were distributed in phases, per NYSDOH guidance. As of May 23, 2022, 66.5% of Oswego County residents received their first dose of COVID vaccine, compared to 82% of all New Yorkers. In addition, 62.4% of Oswego County residents have completed the COVID 19 vaccination series, compared to 74.4% of New Yorker. There

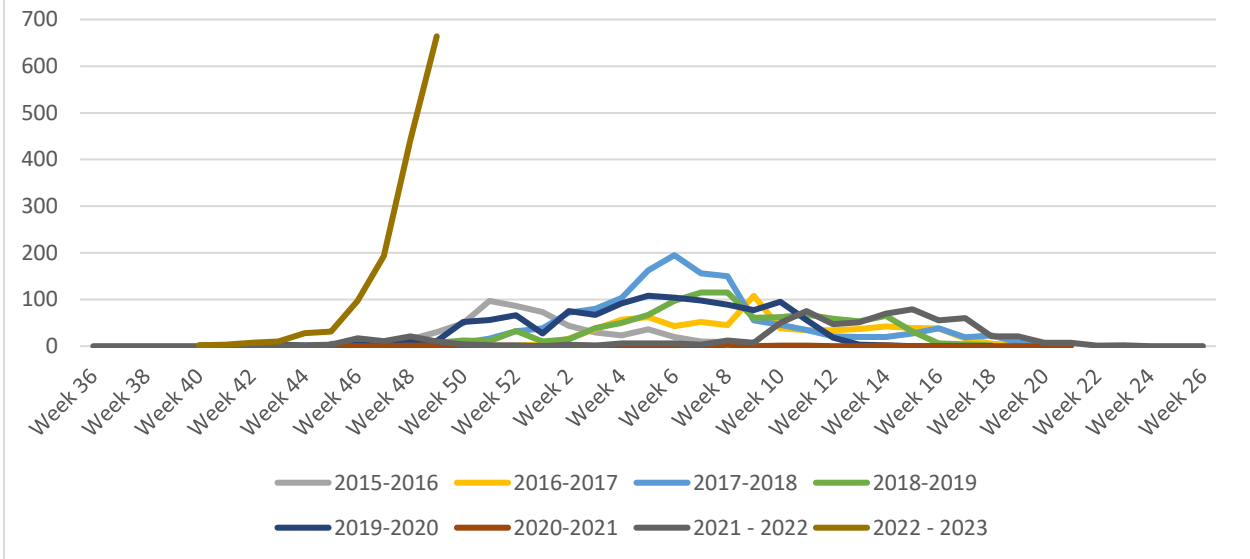
was a decreased demand for vaccinations noted in several localities, mostly in the northern reaches of the county. Extra efforts were made to address health equities in these areas including mobile vaccination clinics, providing transportation, and administering homebound vaccinations.



Influenza:

The following graph shows case trends of influenza in Oswego County by year collected from Communicable Disease Electronic Surveillance System. Most notable is that there was very little flu for the 2020 – 2021 season compared to past seasons and the huge spike in cases for the 2022 – 2023 season. The 2022 – 2023 flu season also started earlier than in past years.

OSWEGO COUNTY LABORATORY CONFIRMED INFLUENZA BY YEAR



(Section 2): Main Health Challenges

Behavioral Risk Factors

According to the County Health Rankings data published by the University of Wisconsin and the Robert Wood Johnson Foundation, Oswego County has ranked near the bottom of counties for overall health factors for the past few years. The largest contributors to this score are high rates of adults smoking (21%), adult obesity (38%), and physical inactivity (29%) (6).

Oswego County: Overall Health Rankings in Health Factors (6)

Year	Rank
2018	61
2019	59
2020	60
2021	57
2022	56

Environmental Risk Factors

Oswego County is a largely rural county with almost 62% of the population living in rural areas (28). The population per square mile in Oswego County is 123.5, as compared to the New York state average of 428.7 (2). The northern and eastern-most portions of the county are also limited by geographic isolation and poverty. The area is often impacted by heavy lake effect snow, which can make travel by car dangerous and walking impossible.

Oswego County has also experienced the effects of a changing climate. Over the past three years there has been a significant increase in the total number of weeks in which the county experienced moderate or greater drought conditions, from 3 in 2019 to 17 in 2021. Extreme heat days within the period of May-September have increased from 14 in 2019 to 19 in 2021. Extreme heat days are a model-based estimate identified as days that the maximum temperature exceeds the 90th percentile of the average county daily maximum temperature. The county has also experienced an increase in extreme heat events within the period of May-September, from 10 in 2019 to 13 in 2021. Extreme heat events are model-based estimates where the maximum temperature exceeds the 90th percentile of the average county daily maximum temperature for two or more days. Extreme precipitation days have slightly increased from 33 in 2019 to 36 in 2021. Extreme precipitation days are a model-based estimate defined by those days in which the daily maximum precipitation exceeded the 90th percentile threshold. Changes in climate can impact health in many ways including heat related illnesses and vector-borne disease (29).

There is limited access to public transportation and in most rural areas, roadways do not have sidewalks. According to data from 2019 less than 1% of Oswego County's population uses public transportation to get to work. Most people, 81.4%, drove alone to work. Approximately 2.5% of Oswego County households do not own a vehicle (1).

Oswego County is fortunate to have many beautiful natural resources. The shores of Lake Ontario, the Oswego River, Salmon River, and Tug Hill Plateau provide many areas to engage in outdoor physical activity. However, many of these are difficult to access without the use of a vehicle. According to County Health Ranking Data, air pollution particulate matter has been decreasing for the past 10+ years and is comparable to the New York and United state averages. Average traffic volume per meter of major roadways is very low at 117, compared to the New York average of 1,684 (6).

According to Feeding America, about 15,640 persons were food insecure in the county in 2020. That is about 13.3%. The annual food budget shortfall is reported to be at \$7,931,000 (30). An average of 16.8% of households in Oswego County received Food Stamp/SNAP benefits between 2015 and 2019. This is higher than the NYS average of 14.7%. The percentage of population with low income and low access to supermarket or large grocery store was 3.5% in 2015 (4).

Socioeconomic Factors

Poverty appears to be an underlying factor in the several health challenges facing Oswego County. The median household income for 2020 was \$59,070 and there has been a steady increase in this number since 2013. Approximately 16.8% of people in Oswego live below the poverty line and the largest demographic living in poverty is females 25 to 34 (1). The unemployment rate in the county was 4.3 in July 2020. This is significant decrease from the May 2020 rate of 18.7 during the pandemic (31). Data from ArcGIS Online shows that most of Oswego County has a socioeconomic vulnerability rating of 4 out of 6, meaning there is a Moderate to High level of overall socio-economic vulnerability. Parts of Fulton and Oswego have a higher score of 5.

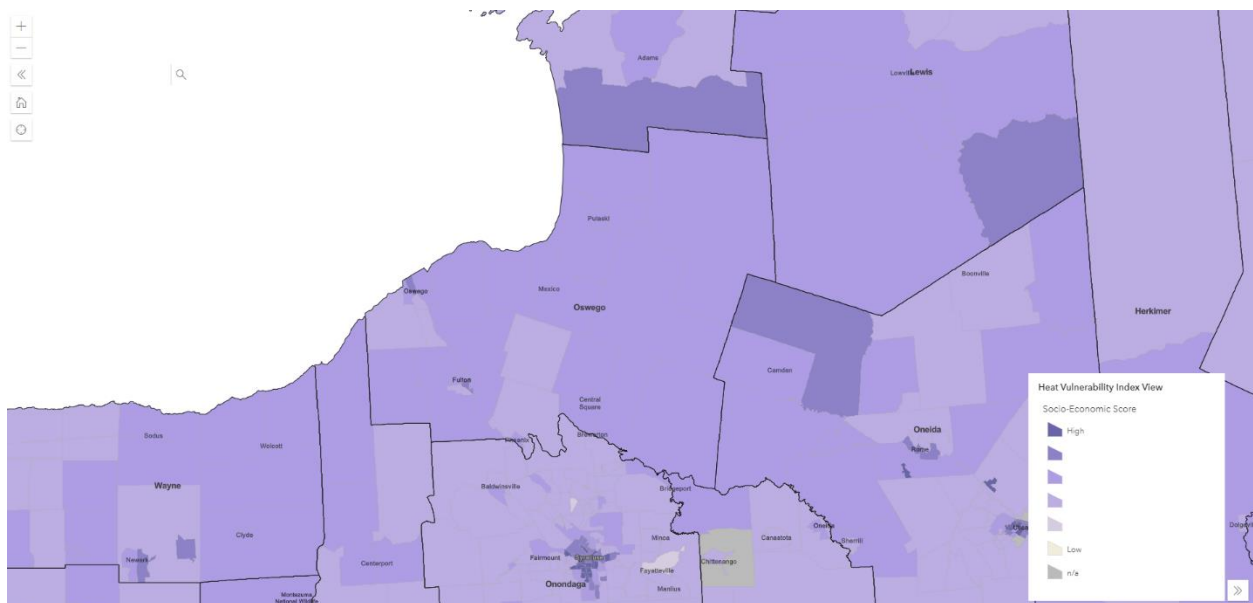


Figure 17 Source

<https://beoe.maps.arcgis.com/apps/Media/index.html?appid=dfca995669b544bba123694e58739209%2Ftarget>

About 28.1% of the population received Medicaid benefits between 2015 and 2019, which was slightly higher than the NYS average. Cost can be a major barrier to seeking medical care and in 2018 11.9% of adults reported not receiving medical care because of cost. Almost half of students are eligible for free/reduced price lunch (4).

Teen births also are relevant because teen parents often have several social, economic, and health service needs. In addition, high rates of teen pregnancy may indicate unsafe sex practices and increase risk of contracting and spreading sexually transmitted diseases. Oswego County's teen birth rate for 2014-2016 is 24.5 births per 1,000 births (16).

Families in crisis are often not able to make lifestyle changes to promote good health. Poverty often creates barriers to accessing health care, obtaining healthy foods and other necessities to promote good physical, mental and emotional health.

Policy Environment (smoke-free parks, menu labeling, zoning for walkable communities)

In 2022, the Town of Volney implemented a stronger Tobacco-Free Outdoor policy. The designated smoke free areas have been expanded to include marijuana.

Additionally, three new apartment complexes in the City of Oswego have been designated as smoke free. Two of the apartment complexes, Harbor View and Locke 7, have worked with Tobacco Free CNY to implement smoke free policies and provide signage for the buildings.

Another major policy change was the implementation of a Social Host Law in the City of Oswego. This law allows officers better ability to shut down house parties where they suspect underage drinking is occurring.

Other Unique Characteristics of the Community That Contribute to Health Status

COVID-19 had a variety of negative impacts on the community. However, it did promote a great deal of collaboration across multiple county agencies. The Oswego County Health Department worked closely with the Emergency Management Office, school districts, Oswego Health providers, and various community organizations. Multiple county divisions, such as Environmental, DSS, Office for the Aging and Youth Bureau, came together to support the COVID-19 response.

The Oswego County Health Department staffed a phone bank 7 days a week during the pandemic. This was a unique project that allowed residents to call with questions, concerns, and complaints in a time when other county offices were difficult to reach. Staffing was made possible through collaboration with various departments who stepped up to assist in the pandemic response. This resource was especially useful because it allowed the OCHD to connect with residents, even if they were located rurally, had low health literacy, or limited technological assets. The phone bank also won a Silver Innovative Practice Award from National Association of County and City Health Officials.

The Rural Health Network of Oswego County facilitated the development of the Oswego County Integrated Delivery Network (OCIDN). The goal OCIDN is joint contracting under value based payment

arrangements to maintain local control and ensure quality service delivery in a coordinated manner across Oswego County through multisector collaboration.

Oswego County also has a Trauma Informed Care Collaborative. In September 2018, 28 individuals from 19 different agencies and organizations began this learning collaborative, facilitated by the Institute on Trauma and Trauma Informed Care at the University of Buffalo School of Social Work and Buffalo Center for Social Research. Champion training led to the development of a cross sector collaboration of key-stakeholders, invested in providing education on the impact of trauma and promoting trauma-informed practices and approaches in Oswego County, with a vision of creating a trauma resilient community.

(Section 3): SUMMARY OF ASSETS AND RESOURCES

Oswego County has a long history of successfully collaborating in order to meet the needs of its residents. Partnerships exist among various government organizations, healthcare providers, local human service providers, universities, school districts, and the business community.

CONNEXTCARE

ConnexCare is a Federally Qualified Health Services Center offering family and internal medicine, pediatrics, dentistry, behavioral health services, social work- operating health centers in Fulton, Mexico, Oswego, Parish, Phoenix, and Pulaski, and six school-based health centers located in the APW, Mexico, Pulaski and Sandy Creek School Districts. In addition, they provide dental services in the Pulaski and Fulton Health Centers. They are active members of the Rural Health Network and lead applicant of many grants used for the planning of the Oswego County Integrated Health Network. ConnexCare is a valuable partner in Public Health Emergency Planning activities, and advocates for health improvement across Oswego County.

CORNELL COOPERATIVE EXTENSION OF OSWEGO COUNTY (CCE)

CCE is a leader in nutrition education in Oswego County. They are a key participant in programs which addresses food insecurity, access to healthy foods, nutrition education, breastfeeding, and the impact a healthy diet has on health.

INTEGRATED COMMUNITY PLANNING (ICP)

ICP is a non-profit human service agency serving Oswego County. The agency consists of the Child Care & Development Council and the Traffic Safety Board. Their mission is to be a community resource agency to support and improve the quality of life for youth and families of Oswego County.

OSWEGO COUNTY OB/GYN

Oswego County OB/GYN is the only provider of obstetrical/gynecological services in Oswego County, and delivers approximately half of all births in the county. The practice is willing to partner to find creative ways for reducing the smoking rate among pregnant women and reducing exposure to secondhand smoke among pregnant women and children. This agency is a partner for the Smoke Free for Baby and Me Program.

OSWEGO COUNTY OPPORTUNITIES (OCO)

The mission of OCO is to build partnerships to improve quality of life and create successful communities. They coordinate services in the following areas:

- Reproductive health
- OPTIONS
- WIC
- Nutrition services for seniors and summer food program for children
- Housing services for homeless, developmentally disabled, substance abuse
- Headstart
- Rural Health Network
- Cancer Services Program

OSWEGO HEALTH

Oswego Health operates the only hospital in Oswego County and is a valuable partner in many health initiatives across the county. They are pursuing opportunities to expand healthy living workshops by having staff trained as peer leaders. The ability to have their discharge planning team refer patients to these workshops has the potential to increase the number of participants in this evidence-based program. The hospital also provides smoking cessation services to county residents.

RURAL HEALTH NETWORK (RHN) OF OSWEGO COUNTY

The RHN is a leader in community mobilization in Oswego County. Advisory meetings bring together over a dozen community members inform and engage community organizations around issues of health and healthcare. Current initiatives supported by the RHN are:

- Oswego County Integrated Delivery Network
- Healthy Highway Program for Elementary Schools
- Step Up to Stop Falls
- Healthy Living Workshops
- Oswego Healthy Miles

STATE UNIVERSITY OF NEW YORK AT OSWEGO SUNY

Oswego is a resource that Oswego County is attempting to utilize more often in public health activities. The university is willing to place interns with the Health Department, and faculty at the college have been willing to partner to assist with testing interventions and the development of strategies for health messaging. These links have been established through the Communications and Health Promotion and Wellness programs at SUNY Oswego.

OSWEGO COUNTY SCHOOL DISTRICTS

School Districts have been integral partners in addressing community health concerns. They allow access to school facilities, students, staff, and families in efforts to reach these populations with health messaging and education. They are valuable partners in the Healthy Highway Program, vaping crisis, promotion of handwashing and general hygiene, immunizations, and tick and mosquito bite prevention.

FARNHAM FAMILY SERVICES

Farnham is the sole OASAS certified treatment center based in Oswego County. The goal of Farnham is to reduce and eliminate the misuse of alcohol and other drugs in Oswego County through the provision of treatment services, education, and intervention strategies, as well as networking with appropriate community agencies and providers of addiction related services.

OTHER POTENTIAL PARTNERS

- Chamber of Commerce
- United Way of Oswego County
- Rotary
- Elks
- Zonta
- RSVP
- Arise
- Public Libraries
- Primary Care Providers
- Shineman Foundation
- Cayuga Community College
- St. Luke's Health Services
- Catholic Charities
- Oswego City-County Youth Bureau
- Oswego County Office for the Aging
- Oswego County Emergency Management
- Oswego County Division of Mental Hygiene/DSS
- Oswego County MICHC Program
- Healthy Families Oswego County

- Oswego County Board of Health
- Oswego County Legislative Health Committee
- Oswego County Health Department Professional Advisory Committee

C.) Community Health Improvement Plan

Prevent Chronic Disease

Physical activity

- Goal 2.3 Increase access, for people of all ages and abilities, to indoor and/or outdoor places for physical activity
- Goal 3.2 Promote tobacco use cessation
- Goal 4.4 In the community setting, improve self-management skills for individuals with chronic diseases, including asthma, arthritis, cardiovascular disease, diabetes and prediabetes and obesity

Promote Healthy Women, Infants, and Children

Perinatal and Infant Health

- Increase breastfeeding
- Reduce infant mortality and morbidity

Maternal & Women's Health

- Increase use of primary and preventive health care services by women, with a focus on women of reproductive age

Prevent Communicable Diseases

Sexually Transmitted Infections

- Reduce the annual rate of growth for STIs

Promote Well-Being and Prevent Mental Health and Substance Use Disorder

Prevent Mental and Substance User Disorders

- Prevent opioid overdose deaths

- Prevent suicides
- Prevent underage drinking and excessive alcohol consumption by adults

Community Engagement Process

1.) Oswego Health: Community Health Needs Assessment 2021 conducted September 2021

- a. Total of 1330 online surveys responded
- b. 15 in-depth individual surveys with key stakeholders from townships and business sectors
- c. Key findings of needs
 - i. Greatest health concerns
 1. Lack of doctors/specialists
 2. Drug addiction/abuse
 3. Mental health
 - ii. Unmet needs in community
 1. Primary providers for preventive care
 2. Mental health services
 3. Local stroke care resources

2.) Oswego County Health Department Health Assessment Survey conducted August to October 2022

- a. Total of 177 online surveys
- b. Key findings of needs
 - i. Greatest community health problems
 1. Addiction and overdose related to prescription medications or illegal drugs
 2. Mental health concerns and suicide
 3. Alcohol dependency and abuse
 4. Weight management and obesity
 5. Cancer

Review of feedback from community engagement activities, progress made on past priorities, and review of the most current data was used in determining priorities for 2022-2024.

Progress and Improvement Tracking/Process Measures

Meeting will be held at least quarterly to review progress made on the Community Health Improvement Plan/Community Services Plan. This team will convene virtually and be comprised of members from Oswego Health, Oswego County Health Department, and relevant community stakeholders. Process measures used will be those outlined in the Community Health Improvement Plan/Community Services Plan work plan

Distribution of Executive Summary

Oswego County Health Department will post the executive summary on the Oswego County website www.health.oswegocounty.com. The summary will also be shared with legislative committees and advisory groups. Oswego Health will also post the entire report on their website www.oswegohealth.org. Additionally, copies will be distributed to public libraries.

D.) ADDENDUM: Community Health Assessment Survey

Survey Design, Distribution, and Analysis

Understanding the needs of the community is a vital part of public health, especially as we strive to grow beyond COVID-19. To conduct this engagement efficiently, the health education team with the Oswego County Health Department drafted a needs assessment survey with inspiration from other health departments in the region and experience from previous outreach within the county. The product, reviewed and approved by Interim Director of Public Health Vera Dunsmoor, MSNE, RN, presented questions to collect information in six main areas:

- “Please select the five (5) things you believe are the **most important for a healthy community.**”
- “Please select the five (5) **biggest health problems** you believe our community is currently facing.”
- “Please select the five (5) **health behaviors or social factors** you believe are the biggest problems for our community.”
- “Please select the five (5) **healthcare system issues** you believe are the biggest problems in our community.”
- “Over the course of the last three years, have you or your family had **difficulty when seeking medical care?**” – If yes:
 - “Which of the following have you, or your family, experienced when seeking medical care in the last three years? (Select all that apply.)”
- “When it comes to **COVID-19, what are you most concerned about** moving forward? (Please select three (3) responses)” {Respondents were asked to choose a certain number of items to encourage them to prioritize their responses.}

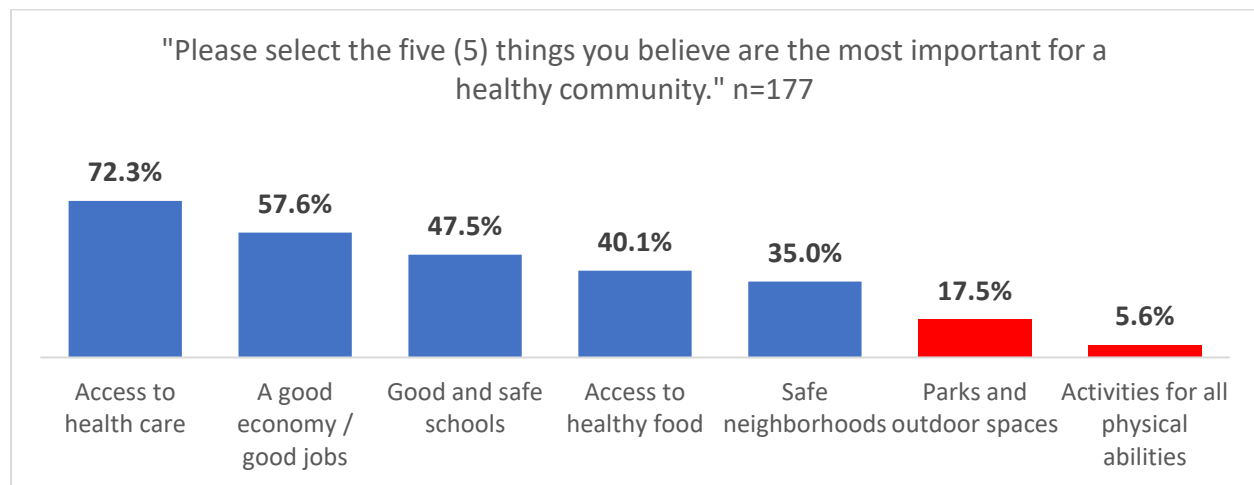
The survey was distributed on social media (Facebook, Instagram, and the Oswego County Health Department Website), through flyers at our COVID-19 vaccine clinics, with a press release distributed to local media agencies, and in an internal email distributed to all County employees. The survey was available through Google Forms from August 1st to October 17th.

Upon closing the survey, the data was exported to Excel where it was cleaned for further analysis using R and RStudio. Because of the nature of the survey items, Pearson’s Chi-squared test with Yates’ continuity correction and Cramér’s V was used to assess the associations in groups’ responses. Statistical significance is defined at a p-value less than 0.05.

Descriptive Statistics

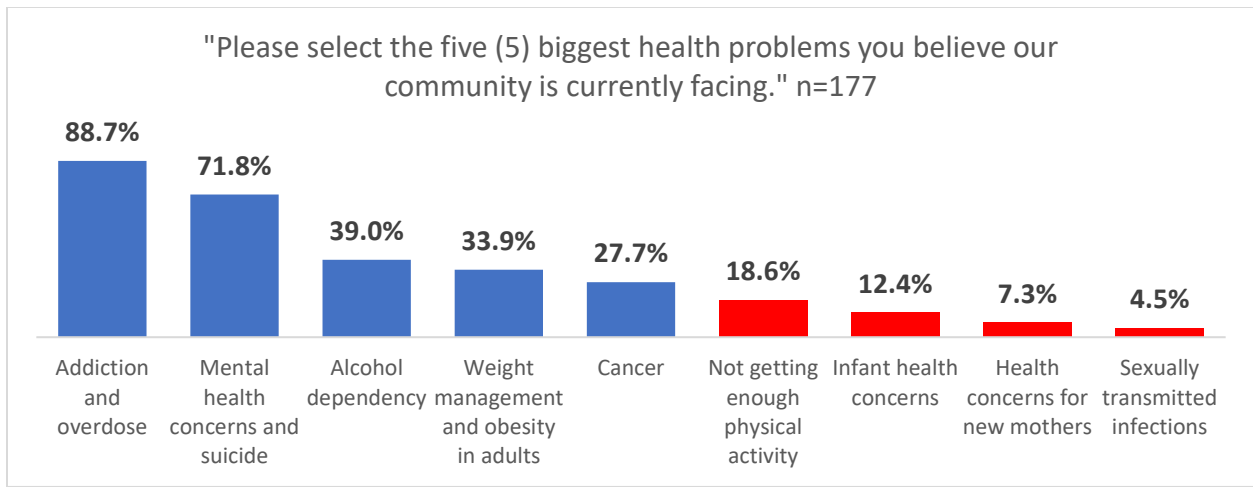
Due to the volume of data collected, this report will highlight only the most relevant results. The descriptive data output is valuable to visualize what respondents prioritize in community health and see how this aligns with the priorities of public health professionals.

Question 1:



The top five items as ranked by respondents are listed in blue. The items in red are those outside of the top five that are goals included in the CHIP or otherwise prioritized by local public health professionals. These two items are related to Goal 2.3: "Increase access, for people of all ages and abilities, to indoor and/or outdoor places for physical activity." As discussed in the "Promote a Healthy and Safe Environment" section, Oswego County scores lowest in Central New York in percent of the population with access to exercise opportunities, with only 53% of residents having consistent access (4). The priority of safe neighborhoods extended beyond this item and into the open-ended questions that were included in the survey. 32 participants mentioned being afraid of walking in their neighborhood, commented on the safety or cleanliness of their neighborhood, or mentioned increased crime in their area.

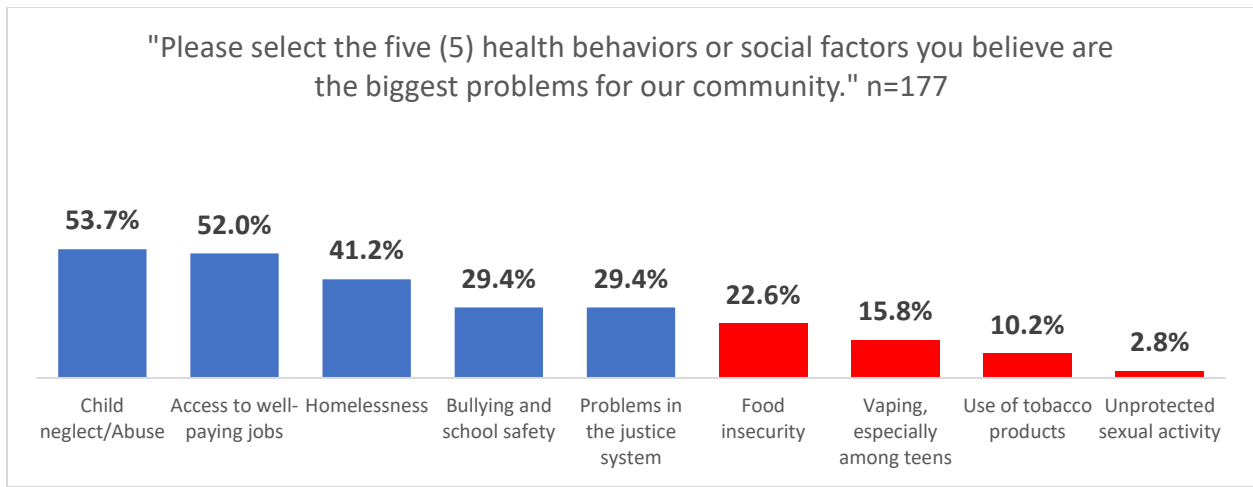
Question 2:



Respondents in this survey identify substance use and mental health concerns as their highest priorities. As was discussed in the “Promote Well-Being and Prevent Mental and Substance Use Disorders” section, the overdose death rates in Oswego County are much higher than Central New York and New York State as a whole (19). Similarly, mental health has consistently been a point of concern in Oswego County, as the suicide rate outpaces that of New York State (4) (12). These are reflected in the CHIP by Goal 2.2: “Prevent opioid overdose deaths” and Goal 2.5: “Prevent suicides.”

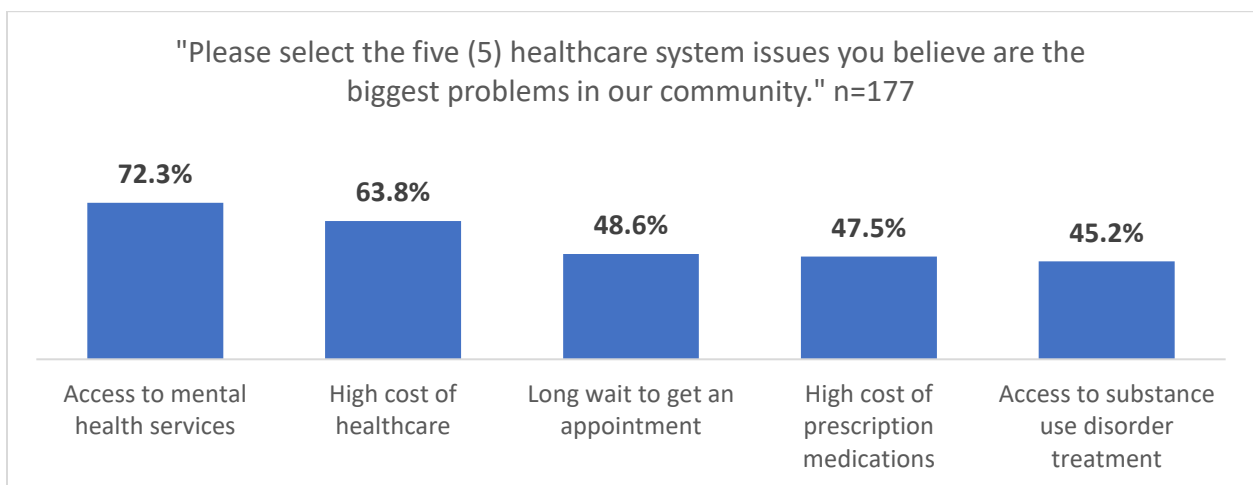
Maternal and infant health concerns are addressed in the CHIP (Goal 1.1: “Increase use of primary and preventive health care services by women, with a focus on women of reproductive age,” and Goal 2.1: “Reduce infant mortality and morbidity”), though they are not highly prioritized among respondents. Similarly, only 4.5% of respondents identified sexually transmitted infections as a concern, though reducing the annual prevalence of chlamydia and gonorrhea is a priority per Goal 3.1: “Reduce the annual rate of growth for STIs.” The “Prevent Communicable Disease” section outlines that incidences of chlamydia and gonorrhea in Oswego County have increased markedly over the last decade, and have remained elevated since. If sexually transmitted infections and, as we see in the figure below, unprotected sexual activity remain a lower community priority, these rates may continue to increase.

Question 3:



From the discussion in the “Promote a Healthy and Safe Environment” section, Oswego County has the greatest percentage of the population experiencing food insecurity among Central New York counties. Vaping and the use of tobacco products have been of growing concern in the county, especially among teens and young adults. Faculty of the county school districts have indicated that underage vaping is becoming an enormous concern. The CHIP includes multiple priorities within Goal 3.2 “Promote tobacco use cessation.”

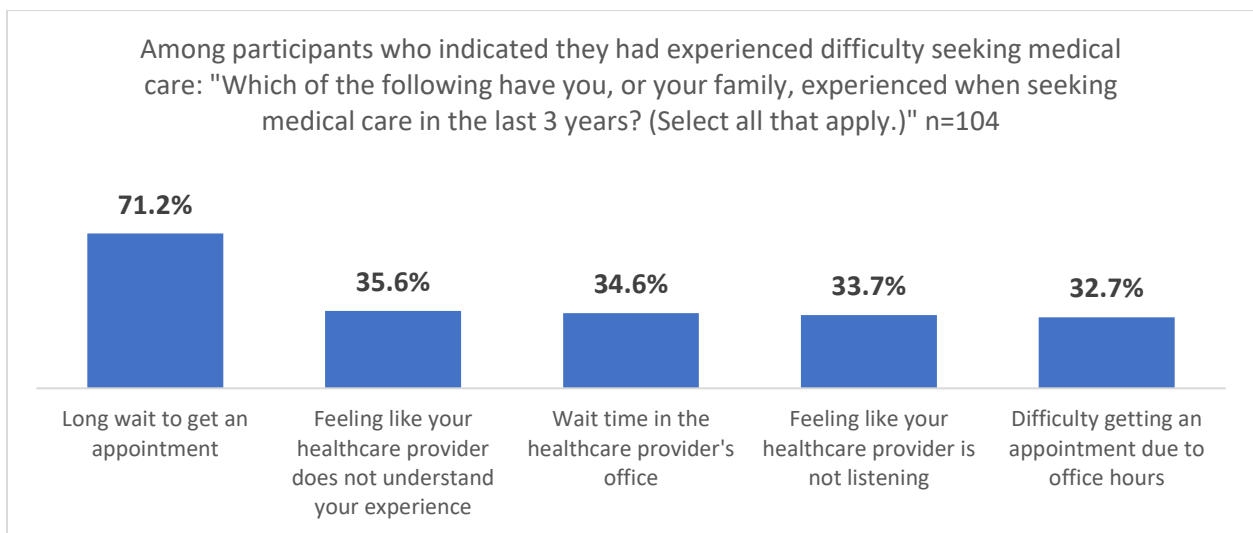
Question 4:



The increasing costs of health care and the long waits for appointments have been prevalent topics in health, especially since the start of the COVID-19 pandemic. Respondents also identified access to mental health services and access to substance use treatment as problems, which corresponds with the strong responses in the health problems section.

Respondents were first asked, “Over the course of the last three years, have you or your family had difficulty when seeking medical care?” If they answered “Yes,” they were directed to a list of adverse experiences. Below are the five most frequently selected responses:

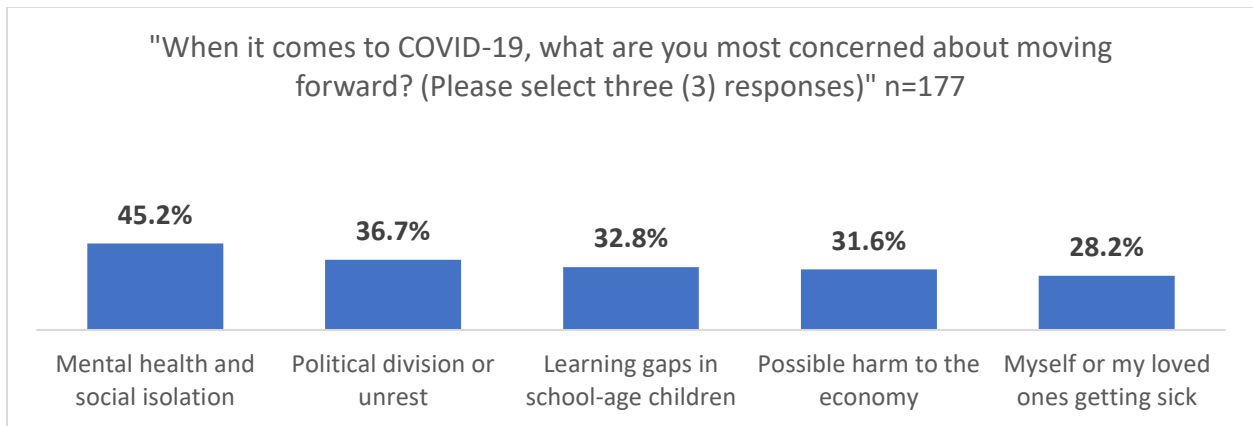
Question 5:



Once again, long waits and difficulty getting appointments were common. Respondents also identified that they felt like their provider was not listening to them, or that their provider did not understand their experience.

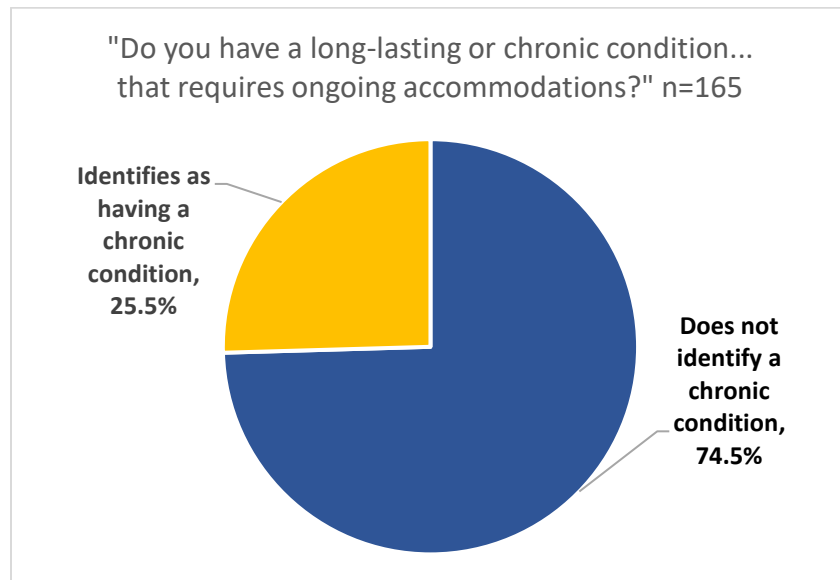
The last core section was about concerns related to COVID-19.

Question 6:

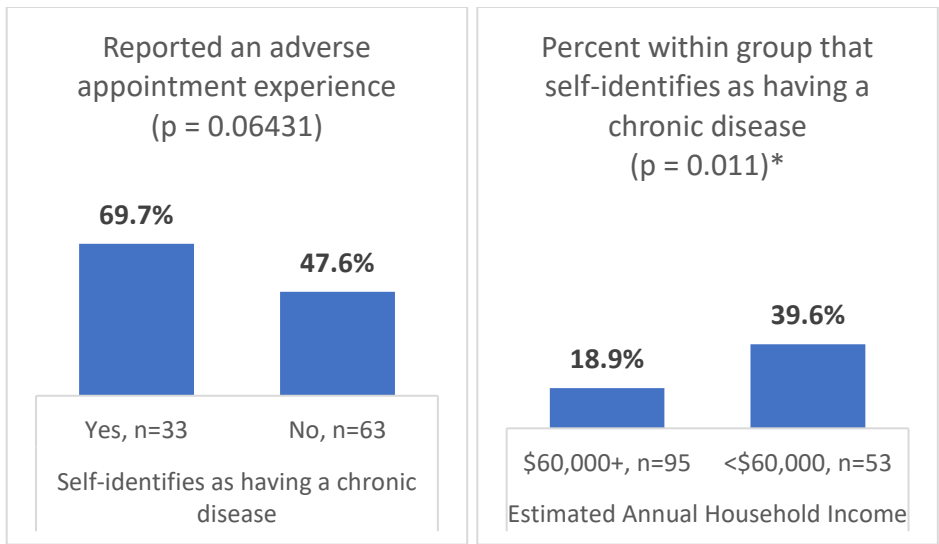


Once again, concerns related to mental health were the most selected by respondents.

Inferential Statistics

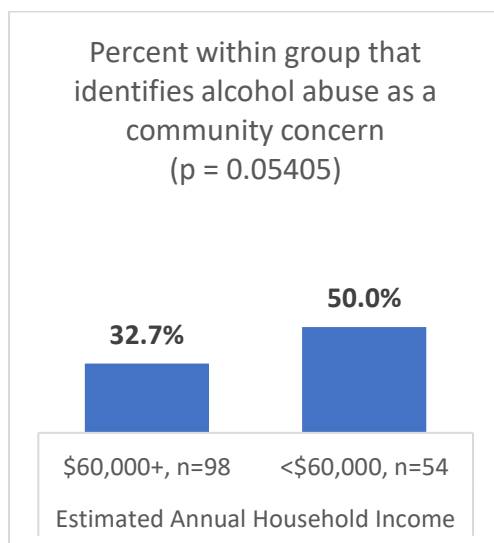


Respondents were also asked to indicate whether or not they have a chronic condition. Of those that volunteered a response, 25.5% identified that they did have a chronic condition. From the earlier questions about challenges in pursuing medical care or negative experiences at visits, an item was created that merged these into one singular "Adverse Appointment Experience."

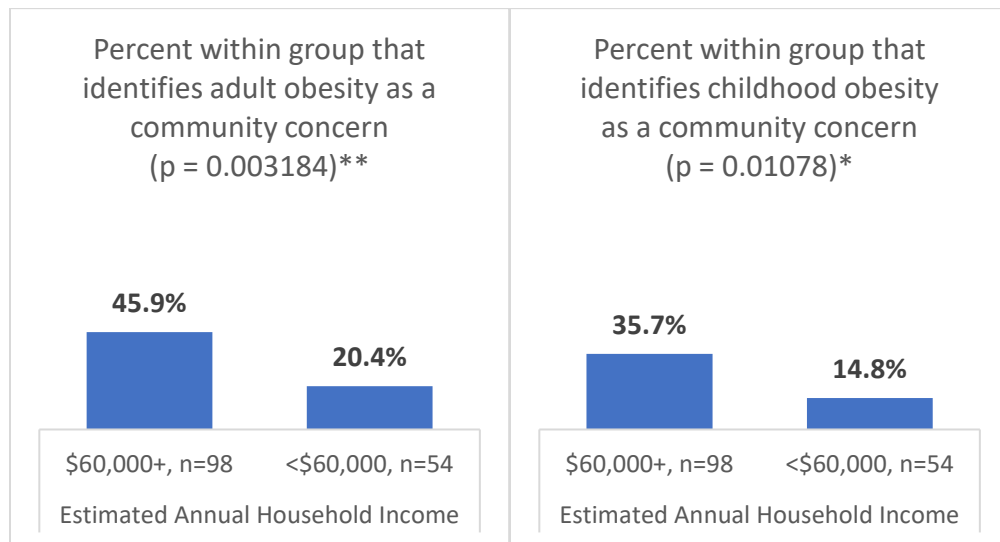


Though quite close, this data is not statistically significant. This being addressed, the trend is interesting and provides some valuable insight into the experience of this respondent group. The majority of respondents who reported having a chronic disease also reported having an adverse medical care experience. Also of note, respondents who reported having a chronic condition were significantly more likely to report a lower household income. Research has shown that during the COVID-19 pandemic, inequities in health care delivery existed for persons of lower socioeconomic status and persons with chronic conditions (32) (33). These results may be an intersection of these health equity concerns. The CHIP includes forward-focusing plans that align with Goal 4.4: “In the community setting, improve self-management skills for individuals with chronic diseases, including asthma, arthritis, cardiovascular disease, diabetes and prediabetes and obesity.”

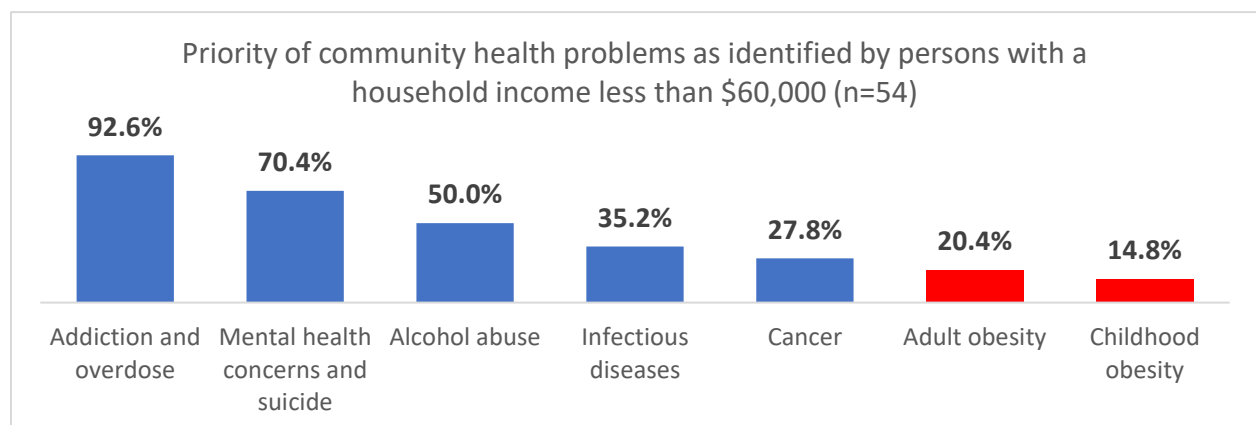
There were several other trends related to reported household income that arose in the health assessment survey data.

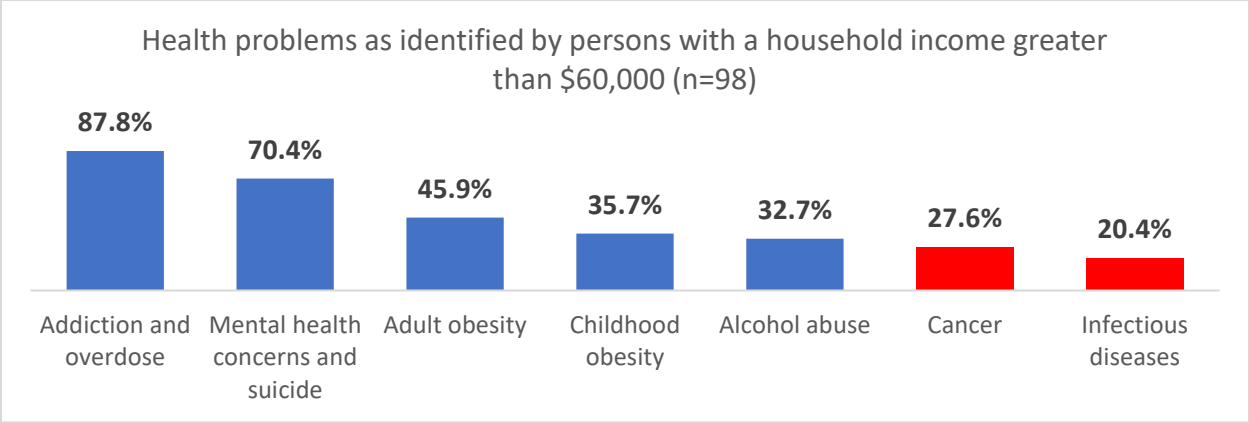


Though not statistically significant, this finding indicates that persons of lower socioeconomic status tend to view alcohol abuse as a community concern more so than persons of higher socioeconomic status. This speaks to an insidious global trend where socioeconomically disadvantaged groups have a generally lower intake of alcohol, but much greater harm associated with alcohol use and abuse (34) (35). Especially in the wake of the stress and social isolation of the COVID-19 pandemic, risks of harm related to alcohol consumption may be greater than what is immediately visible.

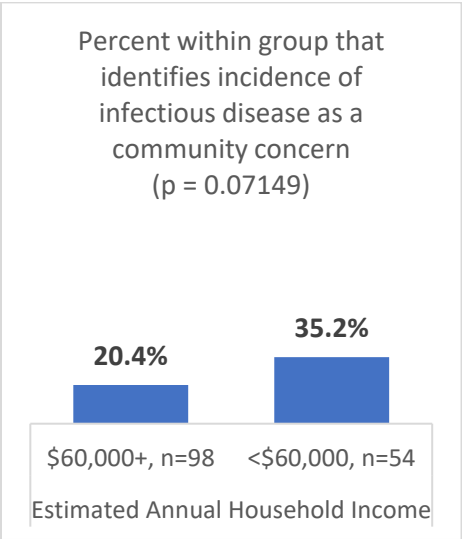


Across both adult obesity and childhood obesity, persons of higher reported socioeconomic status were significantly more likely to identify weight management and obesity as a community health concern. The health consequences and burdens of obesity are known to disproportionately affect persons of lower socioeconomic status (36). Despite this burden, obesity is a significantly lower priority. To explore this further, the figures below depict the top five concerns by household income, where the blue bars are the five most chosen within that group and the red bars are the values which placed within the top five of the other group:



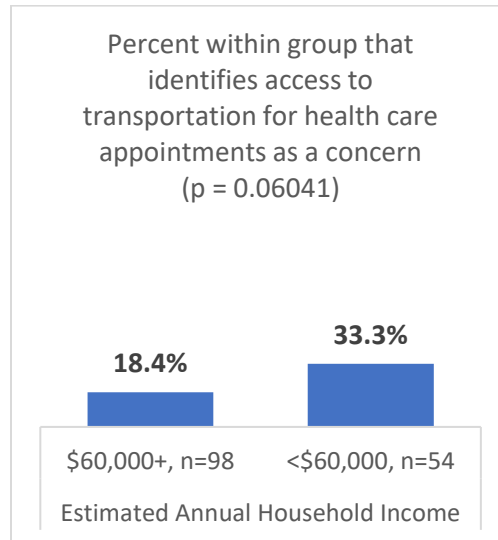


Addiction and mental health concerns remained consistent between groups, where cancer and infectious diseases showed difference in priority. There is a noteworthy difference with regards to infectious diseases:

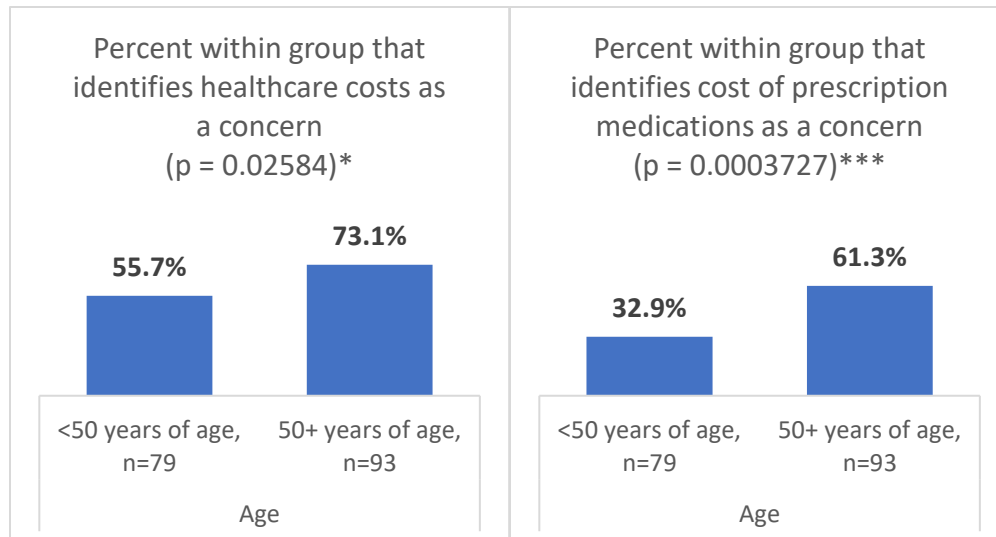


Though not statistically significant, a trend is visible where lower socioeconomic status households lend greater priority to concerns about infectious diseases. This aligns with the disproportionate burden of COVID-19 witnessed among persons of lower socioeconomic status (37).

Beyond these health problems, disparities in some healthcare system concerns were visible from the data:

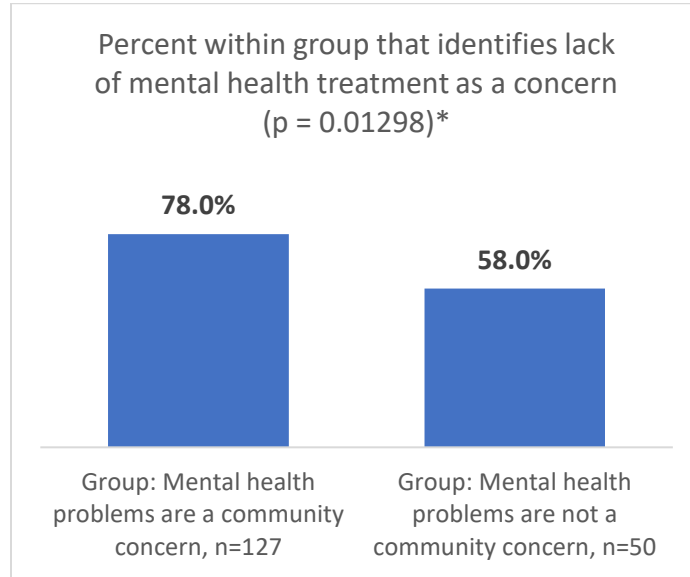


A greater percentage of persons with lower reported household income identified access to transportation for health care appointments as a concern. Though not statistically significant, it does present the possibility of a substantial barrier to health care access.

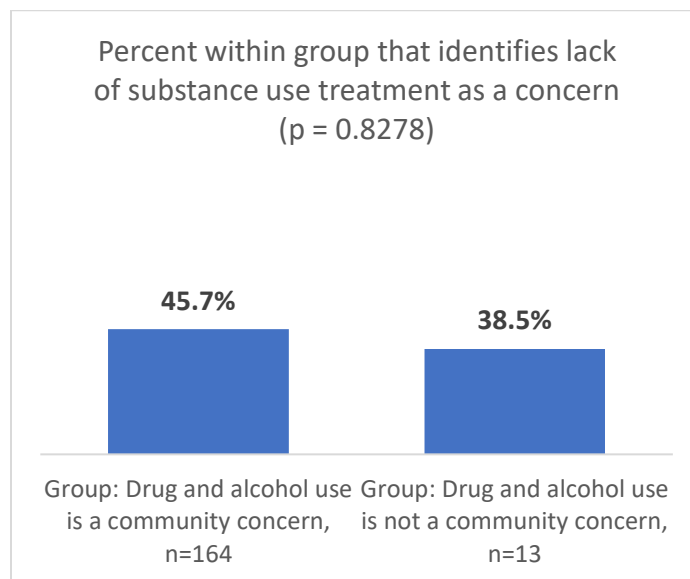


In addition to this, age plays a major role in healthcare system utilization and burden. Persons age 50 and older identified concerns about costs related to health care and prescription medications.

Respondents consistently identified addiction and overdose and mental health and suicide as two primary community health concerns. Hypothetically, these groups should also perceive deficits in treatment in these areas. Regarding mental health, this was the case:



Respondents who indicated that mental health and suicide were a community health concern were significantly more likely to also say that access to mental health treatment was a healthcare system concern. However, this was not the case for respondents that identified addiction and overdose or alcohol abuse as a concern:



To identify a limitation in this method, once the items were merged, it left only 13 respondents not to identify drug and alcohol use as a community concern. This being addressed, less than half of the merged group (accounting for 164 out of 177 total respondents) who identified drug or alcohol use as a community health concern also identified the lack of substance use treatment as a healthcare system concern.

These results may be indicative of the stigma surrounding these two issues. If more respondents are identifying mental health as a community problem and acknowledging a lack of mental health treatment resources, it may suggest that the tide is turning for social awareness regarding mental health treatments. This could also be driven by the repercussions of the COVID-19 pandemic, as respondents in this survey identified that mental health and social isolation were a leading priority. By comparison, 92.7% of all respondents identified that a problem exists with drug or alcohol use, but only 45.2% total identified that access to treatment options was a concern. Nationwide, the stigma persists around the prescription of medications for opioid use disorder and other harm reduction strategies (38) (39). Confronting this stigma may be an important step in accomplishing the objective to increase enrollment in medication-assisted treatment programs associated with Goal 2.2: “Prevent opioid overdose deaths.”

Limitations

While the results of this survey provide valuable insight into the community, it is not without shortcomings. With 177 participants, it would be inappropriate to generalize these findings to the entirety of Oswego County. Similarly, the demographics of the respondents were not representative of the county as a whole. Some key perspectives were underrepresented, especially those from lower-income households, racial and ethnic minorities, and the rural areas of the county. To address these concerns in future iterations of the survey, we will explore additional options to make the survey more accessible and reach broader audiences. We will also remove and consolidate components based on relevance and volume of responses to reduce overall time commitment.

These limitations identify opportunities for growth and improved community engagement. This year’s survey was a resounding success, allowing the partners collaborating on the CHA / CHIP to better understand the needs of the community as defined by the community. The results identified the demand for improved access to mental health resources, and thus the window of opportunity for the Oswego County Health Department to explore evidence-based suicide prevention programs. It also highlights disparities in priority and where stigma may create barriers to vital resources. Building upon this understanding will help the public health professionals in Oswego County better serve the community.

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