

## Warren County Chronic Disease Morbidity & Mortality Annual Brief, February 2022

As the world continues to recover from the COVID-19 pandemic Warren County Public Health is renewing its efforts to focus on more traditional public health programs to improve the lives and health outcomes of Warren County residents. One of the goals of Warren County Public Health is to provide our health care providers and community partners with annual updates about specific public health focus areas to raise awareness and support for health programs and interventions.

This report provides data and information about chronic disease in Warren County. Chronic disease includes the following:

- Cardiovascular disease
- Cancer (primary focus on colorectal cancer, cervical cancer and breast cancer)
- Diabetes
- Tobacco Use
- Obesity

This list is not all inclusive and does not include all factors that contribute to chronic disease.

Included in this report is the most up-to-date data available about the impact chronic disease is having on the community. It also includes data on health behaviors of Warren County residents including utilizing cancer screening programs and or chronic disease management programs.

# Chronic Disease

## Impact Update



The burden of chronic disease is likely to increase in Warren County in the coming years. There are several factors that are likely to contribute. First, Warren County's population continues to age. It is estimated that 21.6% of the population is over 65. It is well documented that as a population ages the burden of chronic disease increases.

The second factor that is likely to increase chronic disease in Warren County is the ongoing COVID-19 pandemic. Many people stopped seeing their doctors for preventive care and early research is indicating that many people were less likely to participate in positive health behaviors.

### Chronic diseases included in this brief...

#### Cardiovascular Disease

CVD includes coronary heart disease (CHD), stroke, heart failure and other conditions affecting the heart and blood vessels. CVD has led to premature deaths and hospitalizations in Warren County.

#### Cancer

Cancers of all types continue to have a significant impact on Warren County residents. The incidence of cancer in Warren County is 804 per 100,000. This is much higher than the North Country at 695 and the rest of NYS at 580 per 100,000. This update will focus on several types of cancers, but that does not mean that other cancers are ignored.

#### Diabetes

In Warren County 9% of adults have been diagnosed with diabetes. It is likely that this number is lower than the actual number of people affected since the data was obtained through self-reporting using the 2018 Behavioral Risk Factor Surveillance System.

#### Obesity

Obesity is a contributing factor to many other chronic diseases. In Warren County 25% of adults are considered obese (BMI greater than 30). The data was obtained through self-reporting using the 2018 Behavioral Risk Factor Surveillance System.

#### Tobacco Use

Tobacco use remains the number one cause of preventable death in the United States. In Warren County 1 in 5 adults still smokes combustible cigarettes. This data does not include chewing tobacco or e-cigarettes. ENDS remain the most commonly used tobacco product by high school youth in NYS. The most recent data show that 1 in 4 youth use some type of tobacco product.

# Chronic Disease

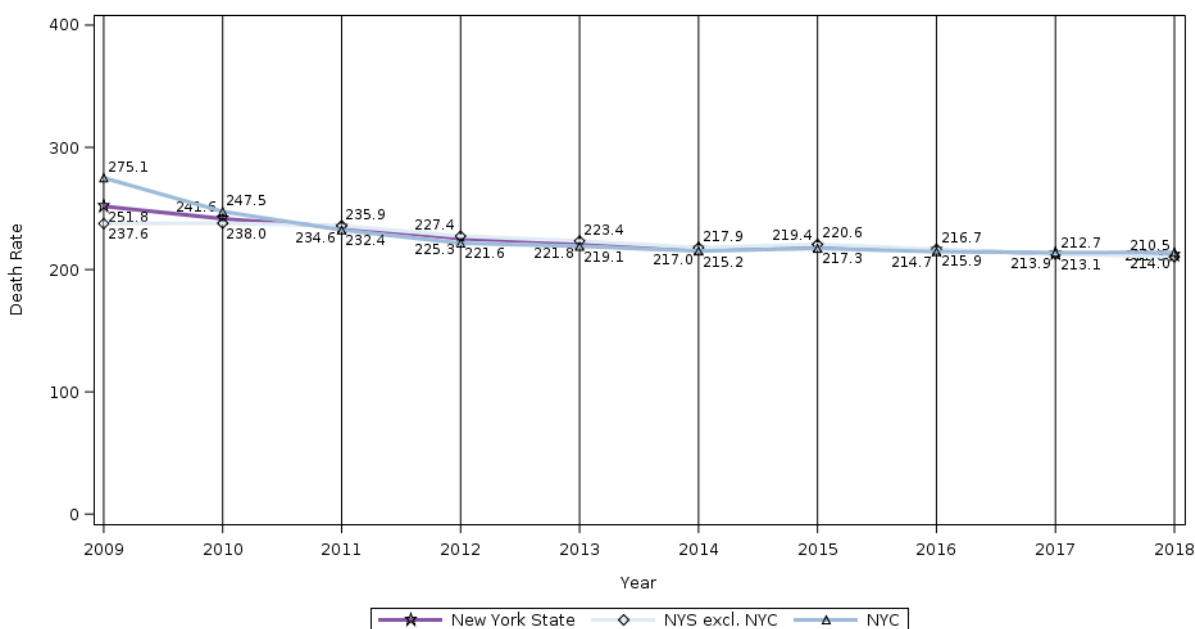
## Cardiovascular Disease

Cardiovascular disease is a daunting task for any public health official. In fact, the CDC reported 47% of Americans having at least one risk factor that creates a higher likelihood of suffering from heart disease. These risk factors are high blood pressure, high cholesterol, and smoking. These factors are some of the most prevalent among Warren County residents. Warren County has a larger portion of elderly individuals which makes the focus for chronic diseases even more crucial to the focus of public health efforts. To clarify the statistics below, age-adjusted rates are used to compare communities with different age structures. Each rate of disease is calculated for each age group, then multiplying each age-specific rate by a corresponding age-specific weight and finally summing across all age groups to give the age-adjusted rate. When referring to the rest of NYS, it is implied that it is excluding NYC unless specified. All data below is collected from the Community Health Indicator Reports between 2016-2018.

### Cardiovascular Disease Warren County

Cardiovascular disease has been a focus for Warren County and all public health officials for years. The current Warren County mortality rate for cardiovascular disease is at 319.5. While not statistically significant in terms of difference from the rest of NYS, it still is a high rate regardless. The age-adjusted rate is 196.4 which better illustrates the impact that cardiovascular disease has. The rate of premature deaths is 103.9, almost the exact same rate for the rest of NYS. The most remarkable rate regarding cardiovascular disease lies within the hospitalization rate. The hospitalization rate per 10,000 is 169.9, nearly 12 above the rate for the rest of NYS. This may be due to the severity that cardiovascular disease can have on an aging population.

**Age-Adjusted Mortality Rate for Cardiovascular Disease Per 100,000**

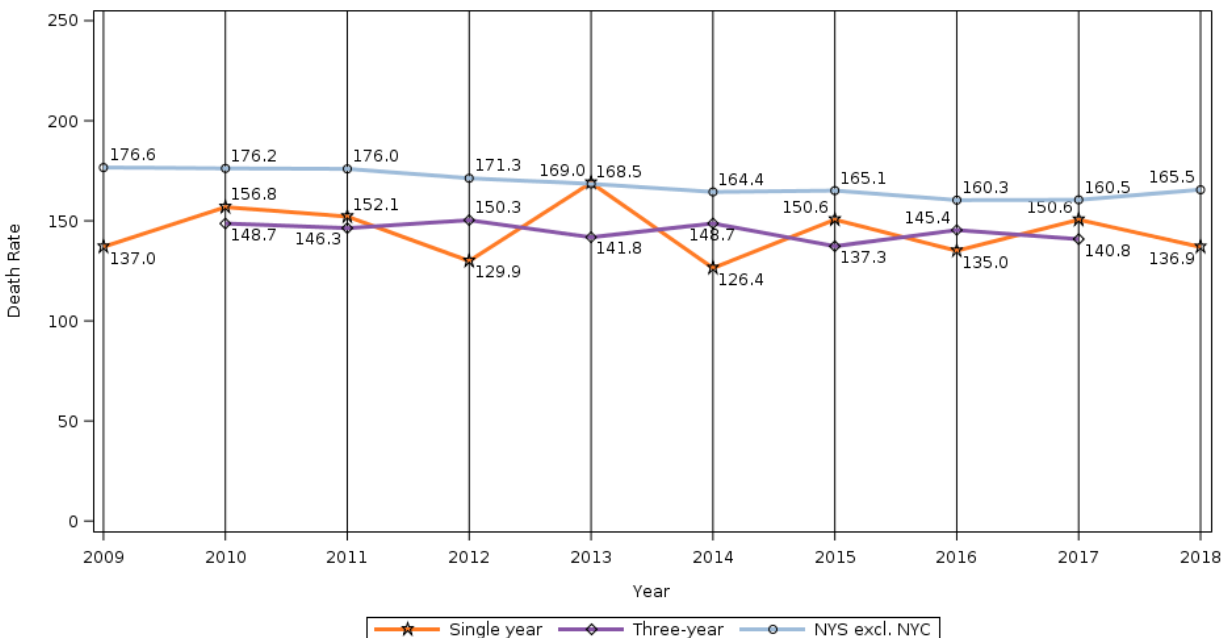


# Chronic Disease

## Coronary Heart Disease

Coronary Heart Disease has an incidence rate of 140.8. This was described as statistically significant by NYSDOH since the rest of NYS has an incidence rate of 162.1. This is a great step forward and should serve as a motivator to continue this downward trend for Warren County. This trend follows over to the age-adjusted mortality rate at 87.3. The rate of premature deaths is at 57. While not a large difference it is lower than the rest of NYS at 61.2.

**Warren County Mortality Rate for Coronary Heart Disease Per 100,000**



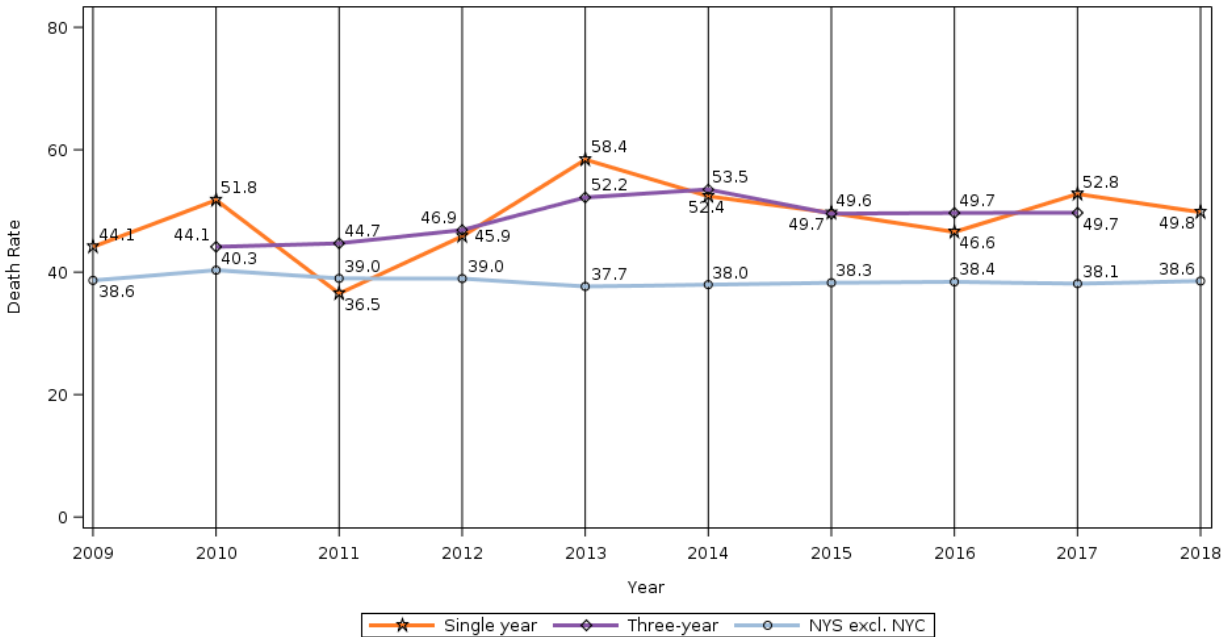
**Data Source: Vital Statistics as of June 2020**

## Cerebrovascular Disease (Stroke)

Cerebrovascular disease has a mortality rate of 49.7, notably higher than the rest of NYS which has a mortality rate of 38.4. This may be due to the aging population, however the prevalence of smoking as described in the Tobacco Use section is likely to contribute to this rate. The age-adjusted rate for cerebrovascular disease is 29.7 which is described as not statistically significant when compared to the rest of NYS. However, the largest area for concern lies in the stroke pre-transport mortality rate at 26.9. The rate is substantially higher than the rest of NYS which is 17.7. The hospitalization rate per 10,000 also is area for concern as it currently is at 33, higher than the rest of NYS at 27.6.

# Chronic Disease

## Mortality Rate for Cerebrovascular Disease Per 100,000



**Data Source: Vital Statistics as of June 2020**

### Congestive Heart Failure

Congestive heart failure currently has a mortality rate 15.5, lower than the rest of NYS at 24. The age-adjusted rate currently is at 9.5 which is also lower than the rest of NYS at 16.7. These rates again are continuing downwards and are important to continue this downward trend.

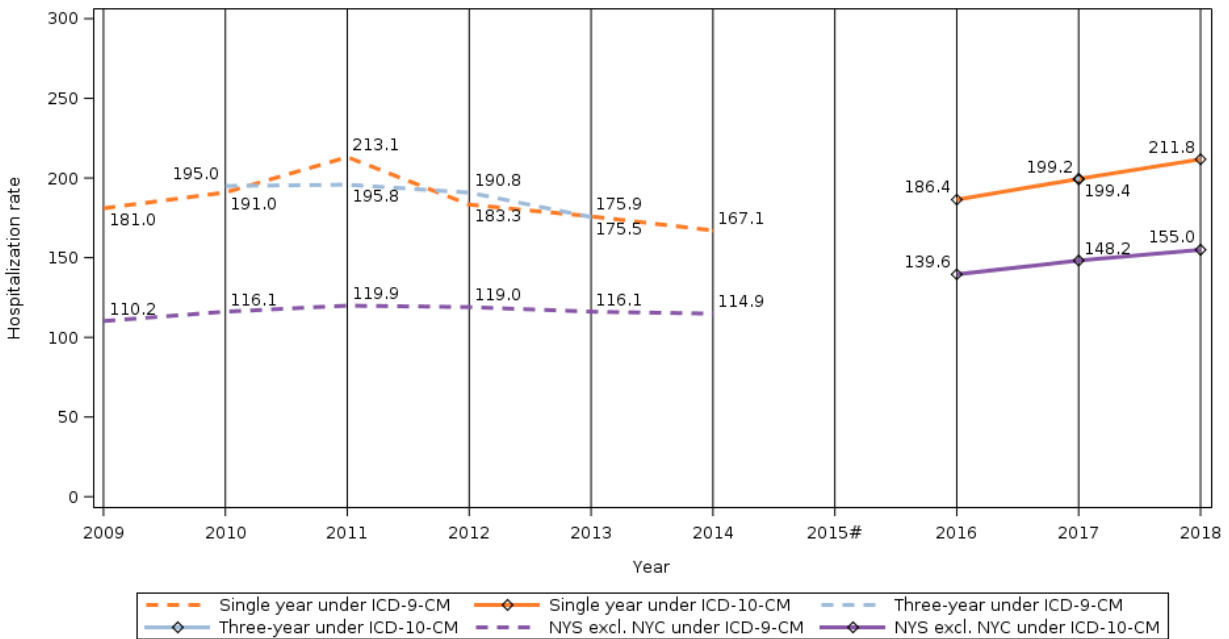
### Hypertension and Other Conditions

Cardiovascular disease is more than just heart failure, heart attacks, and strokes. It is also important to look at other indicators or diseases such as chronic kidney disease and hypertension. Hypertension has been prevalent in Warren County and is significant when comparing to the rest of NYS. The incidence rate of potentially preventable heart failure hospitalizations for individuals aged 18 years or older per 10,000 is at 47.4, higher than the rest of NYS at 40.9 in 2018. The rate of hospitalizations without heart failure for individuals aged 18 years or older per 10,000 is at 578.3. This is much higher than the rest of NYS at 536.

Chronic Kidney Disease has also been extremely widespread in Warren County compared to the rest of NYS with a hospitalization of 199.2 in contrast to 147.6. The age-adjusted rate is 128.3 and 112 respectively. The hospitalization rate follows this trend at 199.2 compared to 147.6 for the rest of NYS with an age-adjusted rate of 128.3 and 112 for the two rates. The Emergency Department visit rate is 128.3 with an age-adjusted rate of 144.2. Compared to the rest of NYS which sits at 112 and 130.6.

# Chronic Disease

## Hospitalization Rate for Chronic Kidney Disease Per 10,000\*



\*Gap between 2014-2016 due to coding switch for diseases

**Data Source: SPARCS data as of January 2021**

## Conclusion

Cardiovascular disease can be overwhelming and daunting due to the countless factors that play into the risk for cardiovascular disease. However, this report shows there are opportunities to help the community. The CDC reported that nearly 80% of all heart attack and stroke deaths can be prevented, given the correct mitigation opportunities. These mitigation opportunities may be self-management classes, exercise programs and initiatives, diet and nutrition programs, and many more. These initiatives require collaboration, creativity and confidence in the programs and residents.

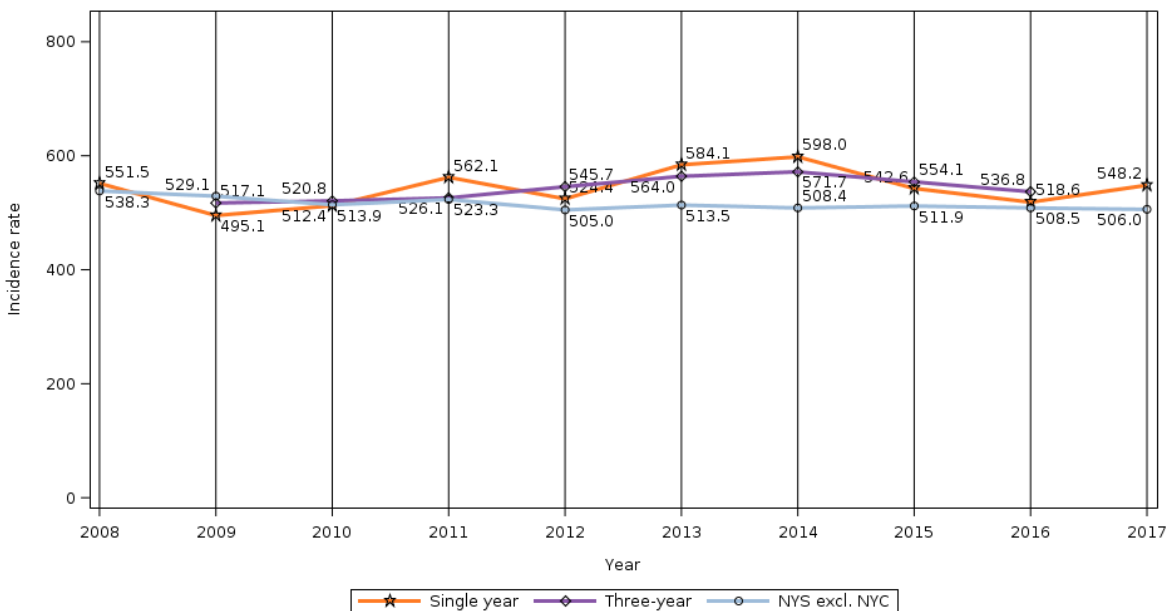
# Chronic Disease

## Cancer

In 2019 the New York State Department of Health released a cancer incidence report for Warren County because of the very high cancer rates Warren County was experiencing compared to other counties in New York. Cancer continues to significantly impact our communities year after year. This update will provide an overview of three specific cancer rates (breast, cervical and colorectal) in Warren County that for the last two years have been unintentionally ignored. The information included in this update can be used to help justify the need for cancer screening programs and interventions.

Warren County had an age-adjusted cancer incidence rate of 560.6 per 100,000 from 2011-2015 for all cancers. The cancer incidence rate for Warren County was higher than the North County and NYS (excl. NYC). From 2015 to 2017 the cancer rate was 536.8, which is the most recent data available due to the covid-19 pandemic. The mortality rate of all cancer in Warren County was 185.6 (age-adjusted), which was higher than the North Country and NYS (excl. NYC). It is unknown if Warren County cancer rates increased or decreased throughout the pandemic, but Warren County Public Health will continue to monitor the data with the hope a continued a downward trend.

Warren County - Age-adjusted all cancer incidence rate per 100,000

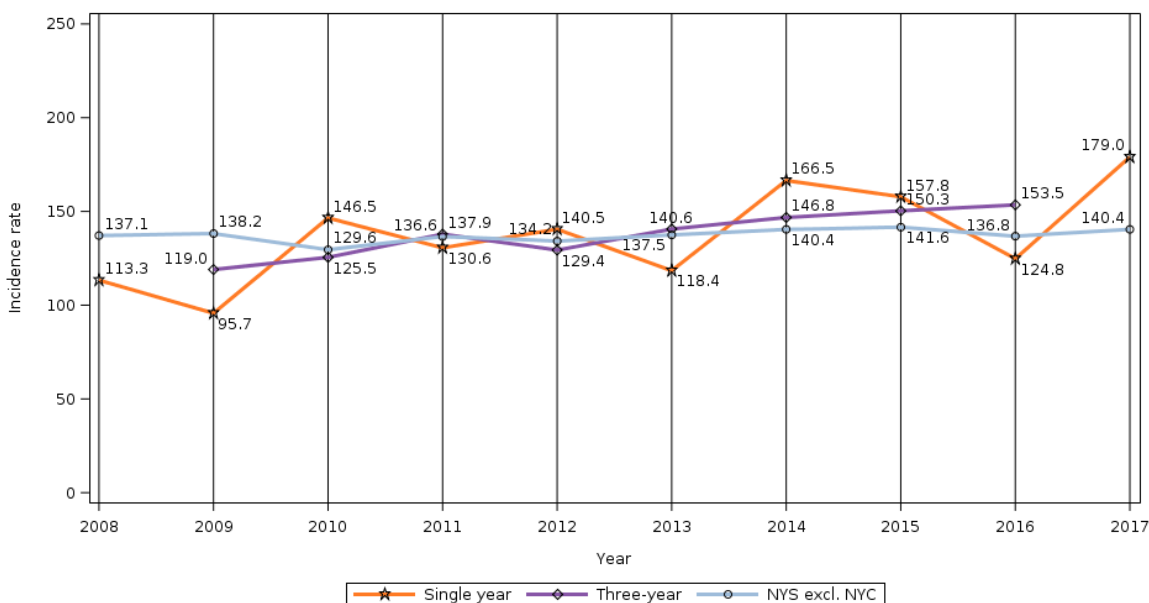




# Chronic Disease

**Breast cancer** is a primary focus for Warren County Public Health because it continues to have the highest incidence rates in Warren County. The age-adjusted rate is 153.5 per 100,000, with a late stage rate of 42.2. This is the most recent accessible data from before the pandemic. Breast cancer has a lot of awareness around it and Warren County continues to see high rates among women. Encouraging more women living in Warren County to get breast exams and mammograms when they are within screening guidelines is the goal. Only 65.5% of women between the ages of 50 and 74 had a mammogram between 2016 and 2018, which is low. The COVID-19 pandemic very likely disrupted a lot of annual check-ups and screenings, so it will be important for women to catch up on any missed preventive cancer screening appointments. Reducing late stage breast cancer rates in Warren County is ideal, since catching cancer early is so important when it comes to successfully treating it.

**Warren County - Age-adjusted female breast cancer incidence rate per 100,000**



NYS Community Health Indicator Reports (CHIRS) 2020, 2

**Cervical cancer** remains a primary focus of Warren County Public Health on because it can be caught early on and therefore treated more successfully. The incidence rates are among the lowest of all cancers in Warren County, at about 6 per 100,000 (age-adjusted). The mortality rate has been 0. The percentage of women aged 21 to 65 who received cervical cancer screenings in 2018 was 90.4%. The goal is to screen 100% of Warren County women who meet cervical cancer screening guidelines. That is something Warren County Public Health will work with its community partners to try and achieve. Cervical cancer screenings are available and provided at the Glens Falls Hospital along with the breast cancer screenings. Cervical and breast cancer screenings can be provided for free to women who are uninsured and underinsured.

**Colorectal cancer** is the third type of cancer that is a primary focus of Warren County Public Health. The colorectal cancer incidence rate from 2015-2017 was 41.4 per 100,000 (age-



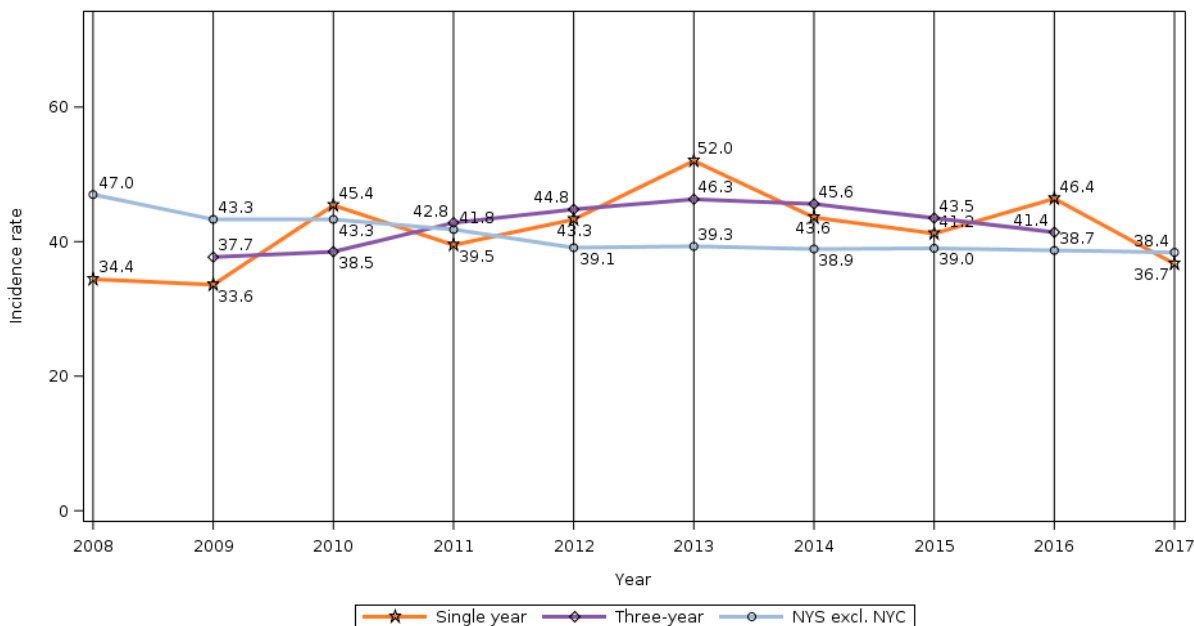
# Chronic Disease

adjusted), which is in line with the North Country, but higher than New York state (excl. NYC). The mortality rate was 16.1, which was again in line with the North Country, but higher than NYS (excl. NYC).

In 2019 NYSDOH identified Warren County as 1 of 5 locations in New York with higher than expected cancer rates. NYSDOH conducted an in-depth review of Warren County to try and determine what might be contributing to the higher cancer rates. The report generated by NYSDOH stated that a family history of colorectal cancer was a strong predictor for someone's cancer risk. The report also discussed the usual things like higher tobacco use, obesity, and an unhealthy diet as playing a role in cancer rates in Warren County. NYSDOH recommended increasing efforts to persuade Warren County residents who meet current colorectal screening guidelines to have colonoscopies to reduce incidence rates.

The Glens Falls Hospital provides colorectal cancer screenings for men and women often at no cost. The percentage of adults aged 50 to 64 who received a colorectal cancer screening in 2018 was 74.2. The statewide goal for colorectal cancer screenings is 80%. Warren County Public Health will continue to engage with community partners to raise colorectal cancer screenings to 80% of Warren County residents that meet current screening guidelines.

## Warren County - Age-adjusted colon and rectum cancer incidence rate per 100,000



NYS Community Health Indicator Reports (CHIRS) 2020, 3

## Other Cancers of Interest

Other cancers that should be mentioned that are not necessarily primary focuses are lung cancer and prostate cancer, both of which have fairly high incidence rates in Warren County. Lung cancer had an incidence rate of 81 per 100,000 (age-adjusted), and prostate cancer had a rate of 114.3

# Chronic Disease

with a late stage rate of 27.5 per 100,000 (age-adjusted). Both of these rates are higher than the North Country and NYS (excl. NYC).

Lung cancer is a leading cause of death from cancer, and Warren County had mortality rate of 54 per 100,000 (age adjusted) which is higher than the North Country and NYS (excl. NYC). Lung cancer rates are linked with tobacco use rates. Tobacco prevention would strongly influence the incidence rates of lung cancer specifically, but probably other cancers as well. Prostate cancer screenings and early detection might need more awareness in our county to lower those rates as well.

Overall, we have known that cancer is a large health problem in Warren County. Throughout the covid-19 pandemic it was difficult to know how cancer preventions programs and cancer screening programs were affected. When new data is released we will have better knowledge of the current cancer trends. Until then the focus is on raising awareness about the importance of preventive cancer screenings and how to access those screenings. Warren County Public Health will also work with providers to encourage people to seek other healthcare services that might have been overlooked for the last few years. Increasing health programs for cancer specifically would be beneficial for our communities, no matter which way the data trends.

## **Cancer Screening Resources**

Warren County relies on Glens Falls Hospital's, C.R. Wood Cancer Center to provide cancer awareness and education, along with cancer screenings through the New York State Cancer Services Program. Affordable and accessible screenings include breast exams and mammogram screenings for all women, which free to women between 40 and 64 who do not have health insurance, cervical and colorectal cancer screenings for people who are uninsured and meet screening guidelines.

Warren County is also home to Hudson Headwaters Health Network (HHHN) a Federally Qualified Health Center, with locations almost every community in Warren County. HHHN provides healthcare, including cancer screening services, to everyone regardless of income or insurance.

There are also a few local independent health offices that offer cancer screenings for their patients and are hopefully encouraging all of their patients to take advantage of them. Raising awareness in the community is the first step to raising the percentage of people getting screenings when appropriate to prevent late stage cancer diagnoses. Warren County Public Health wants everyone to be aware of their options and to choose the healthy behavior of getting the screenings done when they reach that certain age.

## **Cancer Data Sources:**

New York State Department of Health: Governor's Cancer Research Initiative - Cancer Incidence Report for the Warren County Study Area, August 2019

New York State Community Health Indicator Reports (CHIRS): Warren County Dashboard, 2020

Glens Falls Hospital: Hospital Programs and Services: C.R. Wood Cancer Center: Prevention and Detection

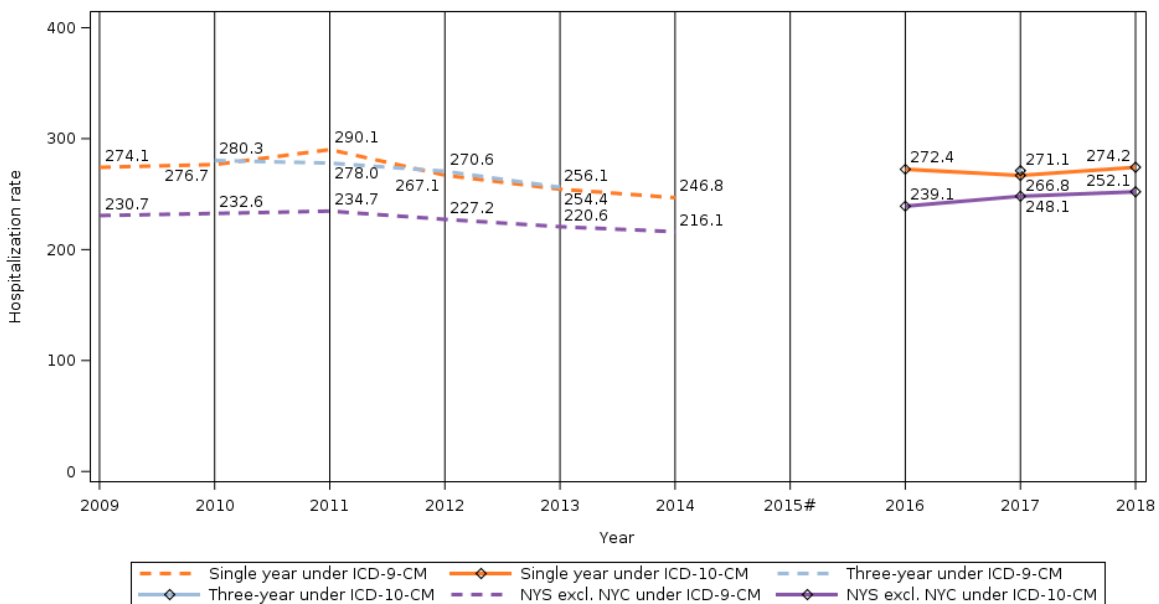
# Chronic Disease

## Diabetes

Type 2 diabetes is a chronic disease mostly related to healthy behaviors. It's not extremely prevalent in Warren County, but it is something we focus on a lot to ensure that those with type 2 diabetes are managing it well, and to prevent as many new cases as possible. According to the 2018 Behavioral Risk Factor Surveillance System, the incidence rate for diabetes was 8.8%. Type 2 diabetes can potentially be prevented with a healthy diet and minimal exercise for most people who are diagnosed. Many factors increase the risk of diabetes for adults and educating the community on them is always a good place to start.

Preventing type 2 diabetes is the main goal but helping those who have been diagnosed with type 2 diabetes manage it is important too. The incidence rate of hospitalizations due to type 2 diabetes is 271 per 10,000, which is higher than the North County and NYS (excl. NYC). It is unknown how the Covid-19 pandemic impacted these rates of hospitalizations in Warren County, since type 2 diabetes was one of the underlying conditions we were concerned about. Research has shown that people with type 2 diabetes are more likely to have more severe symptoms or complications from covid, especially if they don't have their diabetes under control. Managing diabetes by eating healthy and exercising daily can significantly improve the quality of life of those diagnosed, as well as reduce any other health issues they may occur as a result.

Warren County - Diabetes hospitalization rate per 10,000 (any diagnosis)



# Chronic Disease

Some health care facilities in Warren County specifically offer diabetes care and management programs. There might be some that are not mentioned, which Warren County Public Health could probably look more into and help raise awareness for. Hudson Headwaters has a homeward bound program that offers home based primary care for those with chronic diseases, which includes diabetes management. They are able to go to an individual's homes for care in some areas of Warren County to ensure that those with diabetes are getting the routine check-ups they need. Glens Falls Hospital also has a diabetes and nutrition center, which is designed to educate people with different chronic diseases (especially diabetes) and teach them how to self-manage their disease. Things like healthy eating, being active, glucose monitoring, taking medication correctly, and other educational topics are available. Throughout the Covid-19 pandemic these services were most likely unavailable, but Warren County's goal is to get them up and running again and to increase new self-management programs in the community.

## **Data Sources:**

New York State Community Health Indicator Reports (CHIRS): Warren County Dashboard, 2020

Hudson Headwaters Health Network: Services: Homeward Bound (Pathways)

Glens Falls Hospital: Outpatient Programs and Services: Diabetes and Nutrition Center

New York State: Behavioral Risk Factor Surveillance System (BRFSS) Health Indicators by County and Region, 2018

# Chronic Disease

## Obesity

Obesity is a condition that involves excess body fat in individuals. This condition can affect individuals of all ages and is a condition that can increase risk for cardiovascular disease, type 2 diabetes, and some forms of cancer. Obesity has been described as an epidemic by the United States Center for Disease Control and Prevention (CDC). All data ranges are from 2017-2019 unless otherwise stated. It is also implied that data compared to NYS excludes NYC.

Warren County ranks higher in obesity compared to the rest of NYS. The main concern however, is among the youth of Warren County. According to a systematic review and meta-analysis done by Simmonds in 2015<sup>1</sup>, obese children and adolescents were around five times more likely to obese in adulthood than those who were not obese.

### Children/Adolescents

The percentage of overweight or obese students in elementary, middle and high school was 33.8%, the exact same as the rest of NYS. In elementary school, 18.5% were obese compared to NYS which was only 16.2%. The percentage of obese or overweight students in elementary school is 33.8% compared to NYS at 31.9%. These statistics are startling for our youth due to the severity it can have on their overall health and their future into adulthood. These rates may be due to a poor diet or lack of exercise. Diet can be seen through the percentage of students who are eligible for free/reduced price lunch. This percentage has seen an increase in the past couple of years with 40.4% of students being eligible for a free/reduced price lunch. Public health initiatives to encourage physical activity or a balanced diet may help lower this percentage.

### Adults

The age-adjusted percentage of adults that are overweight or obese (using BMI of 25 or higher) in 2018 was 59.5% in contrast to the rest of NYS which is at 64.4%. This is interesting to look at since 79.1% of Warren County adults reported leisure-time physical activity in 2018. This may be due to not being specific as to what leisure-time physical activity is. There are also factors such as time, intensity and frequency. Diet may be a contributing factor as well since 23.6% of adults in 2018 reported themselves eating less than one fruit or vegetable a day.

### Conclusion

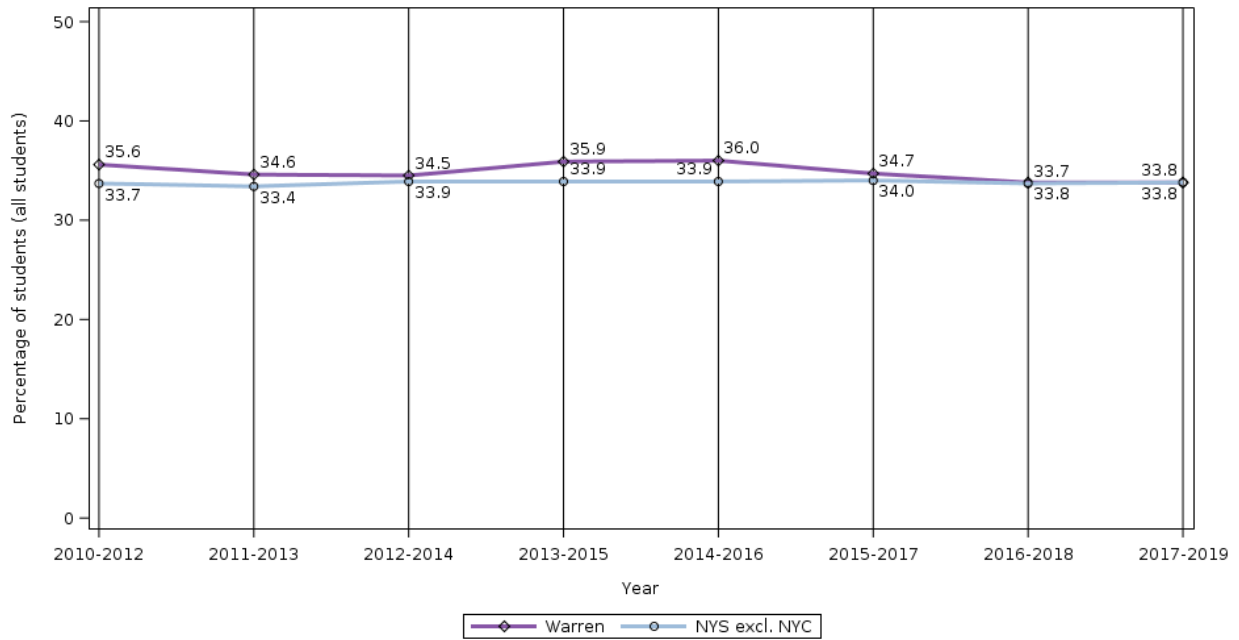
The obesity epidemic is still prevalent for Warren County and the rest of NYS. Obesity correlates to type 2 diabetes, cardiovascular disease and some forms of cancer. Possible interventions to combat the epidemic may be nutrition programs, encouraging physical activity and balanced diets, and new physical activity programs.

---

<sup>1</sup> Simmonds, M et al. "Predicting adult obesity from childhood obesity: a systematic review and meta-analysis." *Obesity reviews : an official journal of the International Association for the Study of Obesity* vol. 17,2 (2016): 95-107. doi:10.1111/obr.12334

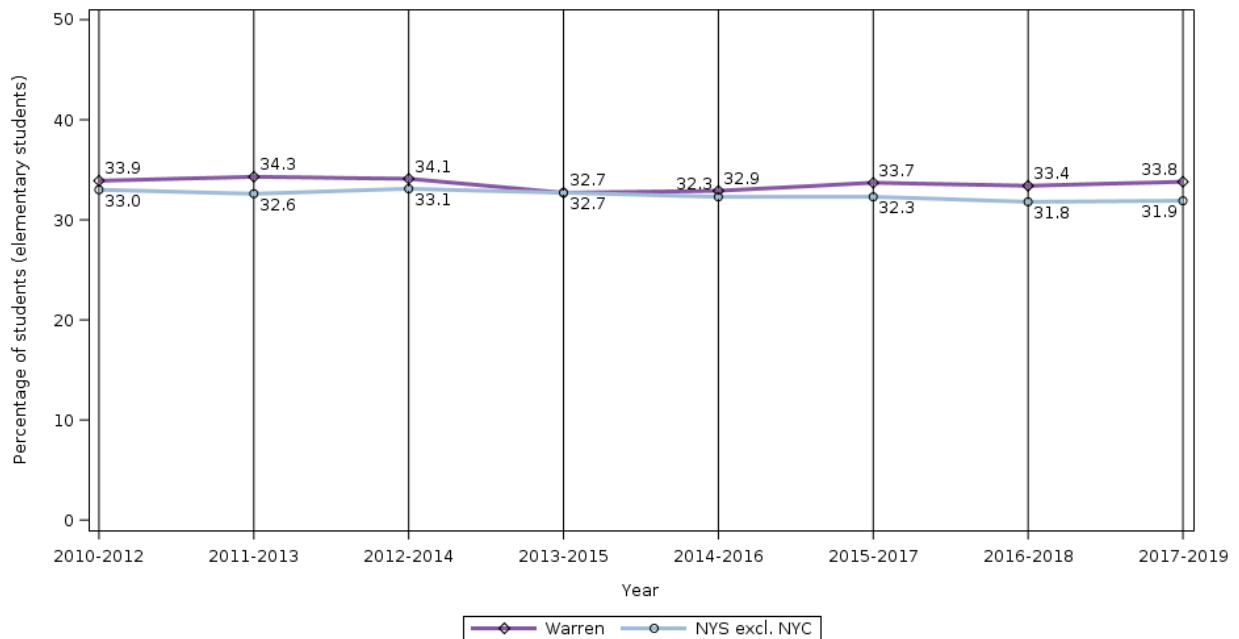
# Chronic Disease

## Overweight & Obesity Percentage for All students



Data Source: Student Weight Status Category Reporting System (SWSCRS) Data as of July 2020

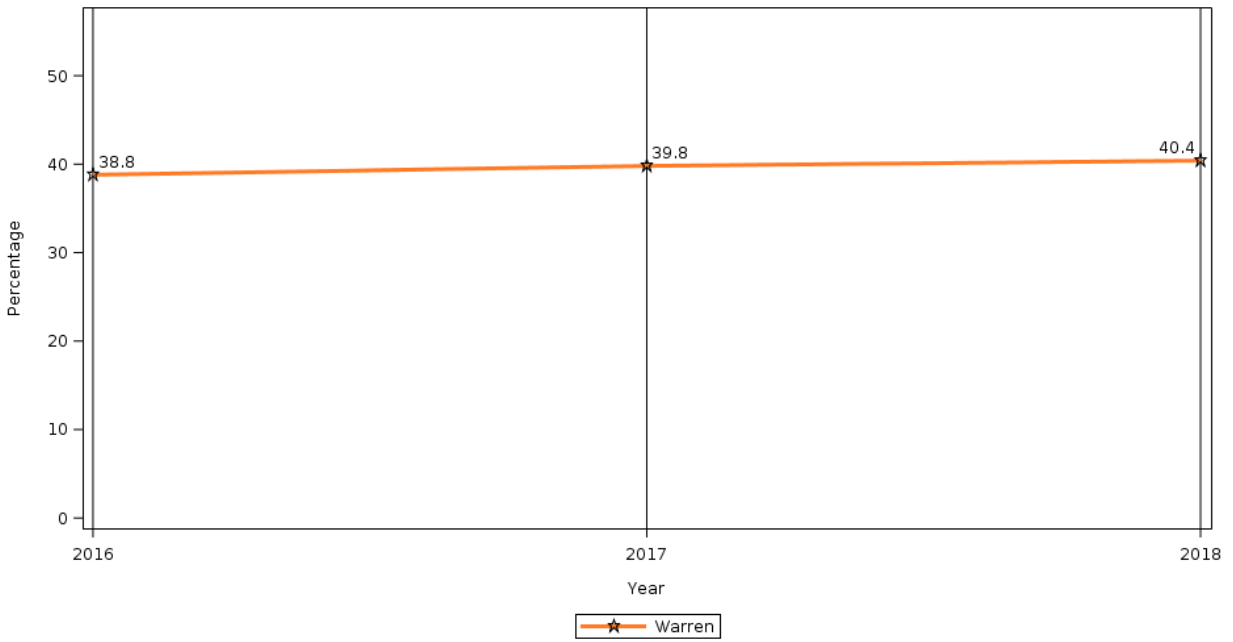
## Percentage of Obese Children in Elementary School



Data Source: Student Weight Status Category Reporting System (SWSCRS) Data as of July 2020

# Chronic Disease

## Percentage of Children Eligible for Free/Reduced Price Lunches



Data Source: NYS Department of Education Data as of September 2019



# Chronic Disease

## **Tobacco Use**

Tobacco use is a large issue all over the United States and Warren County is no exception. Nearly 14% of all U.S adults aged 18 and older are current smokers and smoking has played a role in nearly 1 in 5 of all deaths. As of 2017, New York had 22,290 deaths due to smoking and secondhand exposure. It also resulted in 549,397 Disability-Adjusted Life Years Lost and 413,927 Years of Life Lost. Chronic diseases made up 91% of the deaths and 84% of the disability in New York as a result of smoking.

Economically, smoking cost residents a total of \$9.7 billion healthcare expenditures with \$3.57 billion is hospital costs. Nearly half of all smoking-attributable healthcare expenditures are paid for through public funds. Medicaid alone paid for an estimated \$2.7 billion in smoking-attributable healthcare expenditures.

## **Combustible Tobacco Use**

The prevalence of tobacco use is an important behavior to combat as tobacco use has been linked to cardiovascular disease, numerous cancers, Chronic Obstructive Pulmonary Disease (COPD), and many more chronic diseases. Smoking increases the risk of these diseases more than any other preventable habit. In fact, just over half of all smoking-attributable deaths were some form of cancer such as lung cancer, oral cancer, and cancer of the larynx. Cardiovascular disease due to secondhand smoke resulted in 669 deaths.

The age-adjusted percentage of active adult smokers is currently at 19.1% as of 2018, well above NYS which is 13.9%. The CDC estimates 1,600 children under 18 years of age smoke their first cigarette with a resulting 235 beginning to smoke cigarettes daily.

There are currently 104 Tobacco Retailers in Warren County alone. However, there is a bigger story underneath this number. Of the 104 retailers, 69 reside in Glens Falls, Lake George, and Queensbury. Queensbury currently has the largest number of tobacco retailers at a staggering 34. Four of the municipalities in the county currently have 2/3 of all tobacco retailers in Warren County. Queensbury holds 33% of all tobacco retailers. The positioning of all these stores are important to point out as well. The average distance between the tobacco retailers from Queensbury High School is only 2.73 miles. Of the 34 retailers in Queensbury, 11 are within 1.5 miles of the Queensbury High School and 4 are within just 1 mile. This is an alarming number to keep in mind because marketing for cigarettes largely targets the younger population. This has been proven with scientific evidence according to the CDC. A breakdown of the type of businesses is broken down below.

# Chronic Disease

Type of Industry	Number
Grocery/Supermarket	13
Convenience Store	27
Discount Store	7
Other	1
Bar/Lounge	6
Liquor/Beverage Store	2
Convenience/Gas	28
Delicatessen	5
Tobacco Retail	7
Gas Station	1
Pharmacy	6
Restaurant/Atupa	1
<b>Total</b>	<b>104</b>

New York State Department of Health: Active Retail Tobacco and Vapor Product Vendors

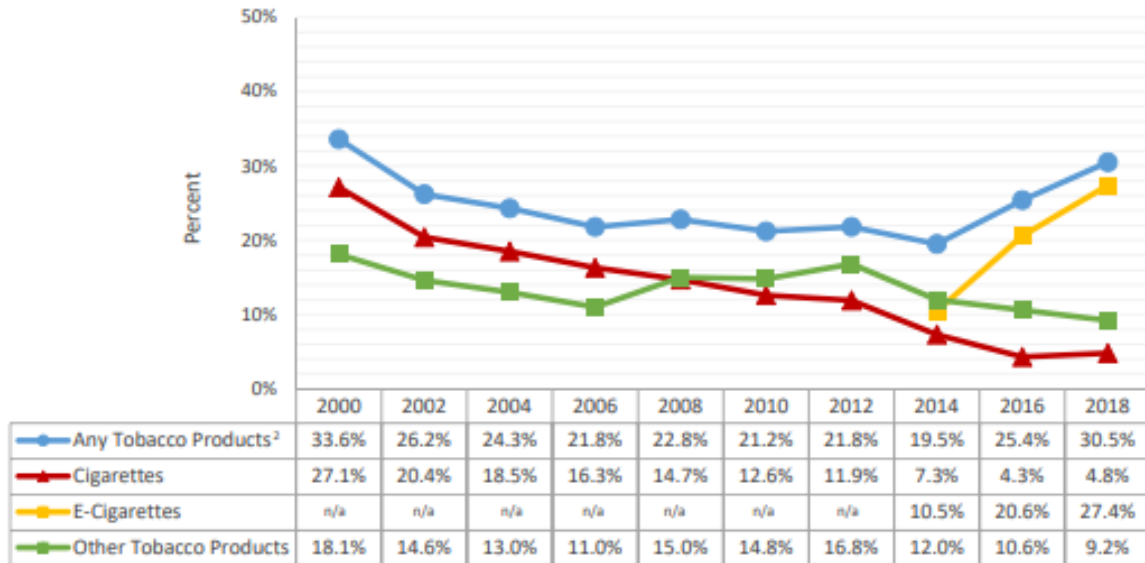
<https://health.data.ny.gov/Health/Active-Tobacco-Retailers-Interactive-Search/4k3j-hkhk>

## E-cigarettes/Vaping

Easily the largest concern for the youth of Warren County and across New York State is the use of vapes or e-cigarettes. These devices use a battery that heats a coil and in turn “vaporizes” a liquid that can contain nicotine, THC, flavorings or other chemicals. Vaping has spread rapidly across New York State with an increase of 160% in youth between 2014-2018. It is reported through the Youth Tobacco Survey (YTS) that 27.4% of youths were using e-cigarettes in 2018.

# Chronic Disease

**Trends in Any Tobacco Product Use among High School Students<sup>3</sup> in NYS, 2000-2018**



E-cigarettes can be harmful due to the chemicals that can be found in the liquid itself. Whether the individual uses customized mods, rechargeable devices, disposable devices or vape pens, the liquid itself can contain lead, metals, vitamin E, nicotine, THC and more. Even if the liquid itself is advertised as “nicotine-free” it can still contain nicotine. Vitamin E is the largest concern here due to the nature of it once inhaled. Vitamin E is a broad term for the actual chemicals called tocopherols that are often found in food oils or cosmetics. These chemicals can be synthetically made through petroleum and once inhaled can coat the inside of the lungs.

The lipid properties of tocopherols make inhalation a large concern due to how they bind with lung-surfactant, the lining of the lungs. This binding process blocks the necessary gas exchanges your body needs to oxygenate and function properly. The result of this process is that lung cells continue to die, and the lungs become inflamed producing a hypersensitivity-pneumatosis reaction.

While it is unclear whether vapes are an effective alternative to combustible cigarettes, inhaling anything other than fresh air, is harmful for the lungs.

## Conclusion

The alarming number of tobacco retailers can be a large reason why tobacco is so prevalent according to the BRFSS. This requires massive amounts of collaboration but is ultimately vital to the betterment of Warren County. While it may seem like a massive undertaking, the result is more than capable of speaking for itself. With multiple collaborators and individual efforts, the work can be expanded and thus more effective. A reduction in tobacco use could result in lower chronic disease rates, better school performance, better quality of life, and more.