2016
Community Health Assessment
Community Health Improvement Plan
Community Service Plan

Analytical Review of Selected Priority Areas

March 17, 2016

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EXECUTIVE SUMMARY

The purpose of this report is to provide analytical support for the 2016 updates to the Community Health Improvement Plans (CHIP) and Community Health Assessments (CHA) and Community Services Plans (CSP) for each of the nine counties in the Finger Lakes Region. Data were collected from the Expanded Behavioral Risk Factor Surveillance System, the New York State Department of Health 2013-2018 Prevention Agenda, the Statewide Planning and Research Cooperative System (SPARCS), the NYS Department of Health (NYSDOH) VITAL Statistics Mortality file, the FLHSA High Blood Pressure Registry and the FLHSA Multi-Payer Claims Database (MPCD).

A meeting held with community leaders representing the counties in the Finger Lakes Region took place in early January of 2016. The discussion centered on the request from the NYSDOH to update 2013 priorities and evaluate emerging issues. As a result of this discussion, eight priority areas were identified. These include: obesity, tobacco use, chronic disease, behavioral health, falls slips and trips, and chronic low back pain. Throughout this report, data have been compared to either the New York State Prevention Agenda Objective for 2018 or the average for Upstate New York.

Key findings from the data analysis revealed that adult obesity remains a prominent issue for the region. Likewise, diabetes was found to be a noteworthy concern for several counties, with almost the entire region exceeding the Upstate New York average for the percentage of adults diagnosed with diabetes. Additionally, short-term diabetes complications were also found to be an important matter in the region. Staff looked at both prevalence and indicators of system efficiency to help prioritize issues and identify opportunities for both prevention and system improvement. For instance, the prevalence of diabetes in some regions are substantially high, yet their rates of diabetes related PQIs and short-term complications are low.

Additionally, there is continued recognition of the elevated rates of tobacco use in the region. A number of counties exceed more than double the Prevention Agenda Objective for 2018 for the percent of current cigarette smoking adults. Furthermore, some of the various co-morbidities associated with smoking were also found to be elevated in these counties.

Behavioral health, specifically the use of heroin, was identified by community leaders as one of three emerging health issues in the region. Based upon the data, heroin related discharges in the region are substantially higher than the rates for Upstate New York indicating a cause for concern. The data also revealed that overall heroin related admissions and emergency department discharges in the region have substantially increased from 2010.

An additional emerging health issue identified by the community leaders were falls, slips and trips in the 65 and older population. The rate of these occurrences in Schuyler County were found to be particularly concerning with over 50% of the 65+ population reporting at least one fall in the past 12 months. Moreover, rates of emergency department discharges related to falls, slips and trips for this same population were also considerably elevated in Schuyler County.

Finally, in relation to chronic low back pain, data revealed a somewhat consistent trend in diagnosis of low back pain in the region. To gather this information, aggregated claims data were analyzed and found that roughly 9-12% of the insured adult population were diagnosed with low back pain. However, it is important to note that only those who sought medical care for their pain were captured in this estimate.

In relation to the 2013 Community Health Assessments, the updated data from 2013 and 2014 revealed the following:

- Obesity remains a substantial concern in the Finger Lakes Region.
- Tobacco use in the region is significantly higher than the New York State Prevention Agenda Objective for 2018.
- Hypertension rates in the region remain higher than that of the New York State average.
- Behavioral Health, and specifically substance use disorders, are a significant emerging issue across the Finger Lakes Region.

Unfortunately, for many of the key health indicators reviewed in this report, data collected to determine disparities in the region were largely unreliable due to large standard errors. However, staff have made efforts to provide additional information about socio-economic status, which is the disparity addressed by all counties in the region in 2013, either directly or as 'low income'. If during the process of priority area identification there is additional interest in gathering additional disparity data, staff may be able to provide limited data to assist.

APPROACH & METHODOLOGY

Data were collected from the Expanded Behavioral Risk Factor Surveillance System, the New York State Department of Health 2013-2018 Prevention Agenda, the Statewide Planning and Research Cooperative System (SPARCS), the NYS Department of Health VITAL Statistics Mortality file, and Aggregated Claims data. All of the data were collected for the most recent year available. Additionally, all data were gathered at the county level for the Finger Lakes Region. Each of the nine counties in the region were benchmarked to either the New York State Prevention Agenda objective for 2018 or Upstate New York.[1]

To select the data for this report, the Finger Lakes Health Systems Agency convened with community leaders who represented the counties in the Finger Lakes Region. The community leaders identified areas of concern relating to obesity, tobacco use, chronic disease, behavioral health, falls slips and trips, and chronic low back pain.

The process of gathering data for the report began with a review of the New York State Prevention Agenda Dashboard. Data were collected to vet and highlight the priority areas identified at the Regional Leadership meeting. To expand on the Prevention Agenda data, and to explore emerging health issues, the Finger Lakes Health Systems Agency gathered additional data from SPARCS, VITAL statistics, and aggregated claims data.

Conversations with Community Leaders

In October of 2012, the Finger Lakes Health Systems Agency expressed its desire to expand its presence in the Finger Lakes Region. Since that time, FLHSA has organized frequent meetings with community leaders to discuss health priority areas and emerging health issues. These meetings serve as a setting for regional discussions of community health topics and data updates. As such, this meeting was utilized as the venue for the discussion of the 2016 Community Health Improvement Plan and Community Health Assessment health priority areas for data collection.

For the 2016 Community Health Improvement Plans (CHIP), Community Health Assessments (CHA), and Community Service Plan (CSP) update, each county is required to identify two community health priority areas and one disparity. Prompted by the New York State Department of Health, the counties are also encouraged to explore emerging health issues in the community. Furthermore, the counties are required to collaborate with community organizations in their selection of new or confirmation of existing priority areas.

At the January 2016 Regional Leadership meeting, conversations to identify priority data collection areas took place. Each community leader who participated in the meeting was engaged in the updates of the 2016 CHIP/CHA/CSPs. At the Regional Leadership meeting, community leaders were actively engaged and prompted to discuss health issues relevant to each county.

Following discussion with the leaders, it was decided to further examine data related to the priority areas previously identified in each county's 2013 CHIP/CHA documents. A summation of the priorities are

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[1] In most cases throughout this report, Upstate New York refers to New York State excluding NYC, Long Island, Westchester and Rockland County. However, if the benchmark is labeled as "NYS Excl NYC," only NYC has been excluded.

shown in Table 1. The group also requested exploration on the following emerging issues: substance abuse including opiate and heroin use, falls slips and trips in the population 65+, and low back pain.

2013 Priorities

In 2013, each of the counties in the Finger Lakes Region completed a Community Health Assessment. These assessments analyzed community data to determine the health needs of each county's population. Based on the data, each county decided on two priority areas and a health disparity to focus on changing in the next three years. The priority areas each county identified are listed in Table 1. Significantly, each of the counties listed obesity in either children, adults, or both as their first priority issue.

Table 1: County Health Priorities as identified in the Community Health Assessments

County	Issue #1	Issue #2	Disparity
Chemung	Reduce Obesity in Children and Adults	Reduce Tobacco Use	Reduce tobacco use of low income populations including those with mental health and substance abuse issues.
Livingston	Prevent Chronic Disease: Obesity/Diabetes	Promote Mental Health/Prevent Substance Abuse	Decrease Obesity in Low-Income Populations
Monroe	Reduce Obesity	Reduce Illness, Disability and Death Related to Tobacco Use and Secondhand Smoke Exposure	Increase access to high-quality chronic disease preventive care and management in clinical and community setting.
Ontario	Reduce the Rate of Obesity in Children and Adults	Reducing the Rate of Hypertension	Reducing Obesity Among the Low-Income Population
Schuyler	Reduce Obesity in Children and Adults	Reduce Illness, Disability and Death Related to Diabetes	Screen for Diabetes Risk 10% of the County's 20-49 Year Old Population, as many do not have Primary Care Physician nor Health Insurance Coverage. Once Screened for their Risk of Diabetes, they would be Referred to a Primary Care Physician (PCP) and if Appropriate a Navigator to be Screened for Health Insurance Eligibility.
Seneca	Reduce Obesity in Children and Adults	Prevent Substance Abuse and Other Mental, Emotional, and Behavioral Health Disorders	Tobacco use among those with Poor Mental Health
Steuben	Reduce Obesity in Children and Adults	Reduce Heart Disease and Hypertension	Promote Tobacco Cessation, Especially Among Low SES Population and Those with Mental Health Illness
Wayne	Reduce Obesity	Reduce Heart Disease	Reduce Obesity Among Low-Income Population
Yates	Prevent Obesity	Prevent Hypertension	Access to Specialty Care for the Low-Income Population

Header row above table: **County Health Priorities as identified in the Community Health Assessments**

THE FINGER LAKES REGION

High Level Demographics

The nine county Finger Lakes Region includes Chemung, Livingston, Monroe, Ontario, Schuyler, Seneca, Steuben, Wayne and Yates County. There are approximately 1,281,374 persons living in the Finger Lakes Region. Figure 1 stratifies the population based on age and gender. The gender ratios remain relatively equivalent until approximately age 75 where the population trend begins to shift towards the female population.

Figure 1: Population by Age and Sex
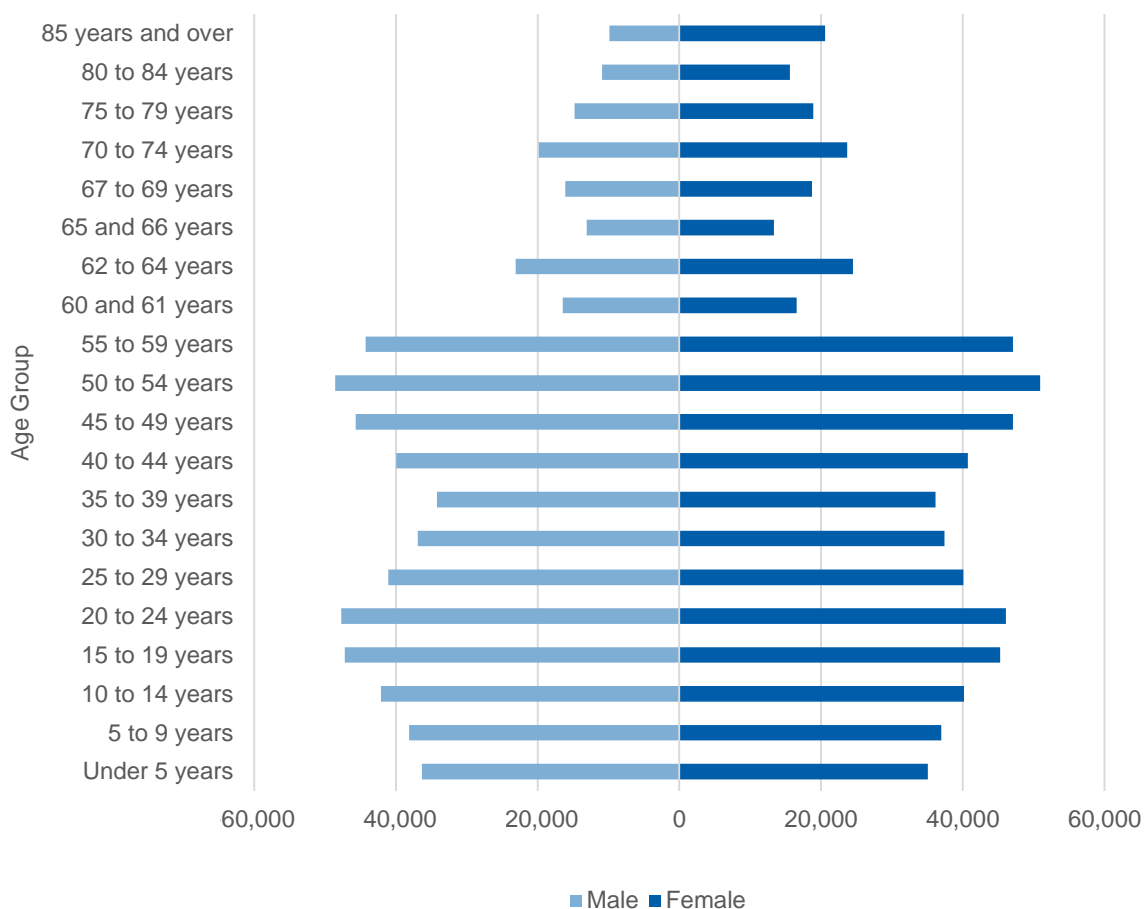
Data Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2010-2014

Population projections from the Program on Applied Demographics at Cornell University are demonstrated in Figure 2. In 2020, there is expected to be little change for the preschool, school aged and child bearing aged residents in the region. However, the 65+ population is projected to increase indicating increasing demands on the health care system.

Figure 2: 2000 to 2020 Population Trends by Age Group
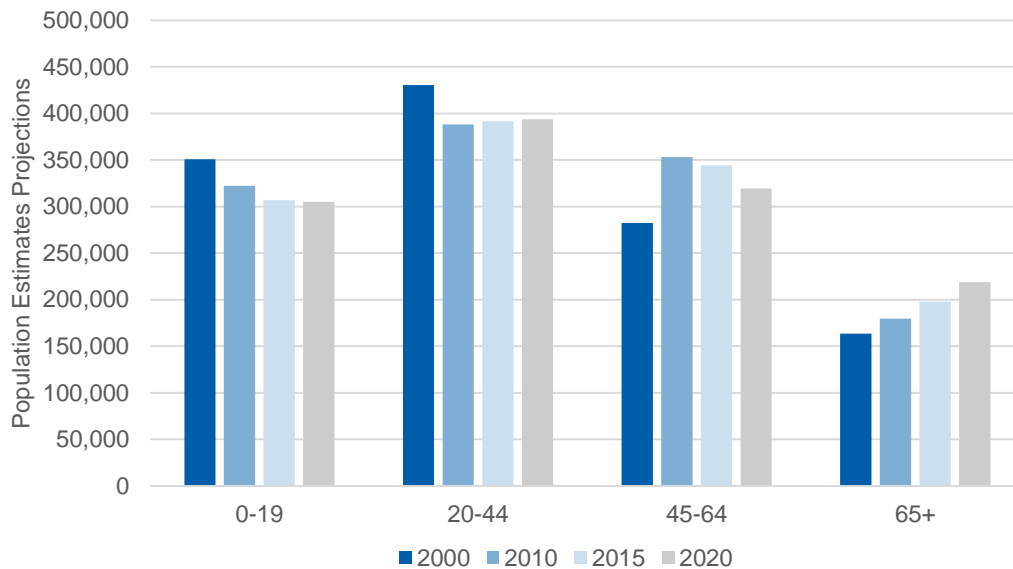
Data Source: Cornell University, Program on Applied Demographics 2011 Population Projections

Education has been correlated with the health status of individuals, including overall life expectancy. The Agency for Healthcare Research and Quality reports that adults aged 25 "without a high school diploma can expect to die 9 years sooner than college graduates."[2] The educational attainment of the Finger Lakes Region is listed below in Figure 3. Notably, over half of Schuyler, Seneca and Yates County's populations have only achieved a high school graduate degree (or less). Of potential significance, Monroe and Ontario County have higher rates of post-secondary education than any of the other counties in the region.

Figure 3: Educational Attainment of the Population Age 25+ by Finger Lakes County, 2012
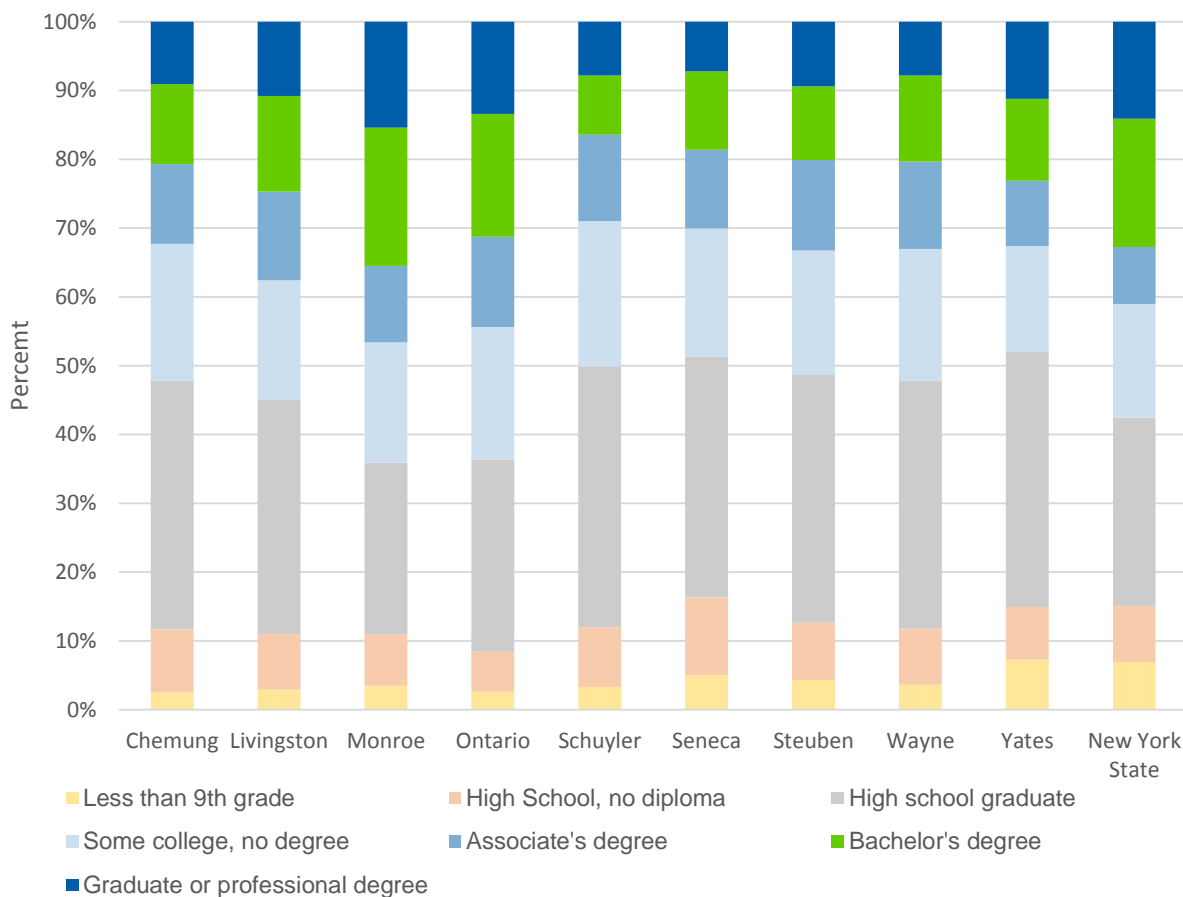
Data Source: US Census Bureau; 2012 ACS 5-Year Estimates

The average life expectancy at birth for males and females in New York State is 78.9 and 83.5, respectively.[3] In the Finger Lakes Region, data reveals a slightly lower life expectancy in the female population for counties with lower educational attainment (80.4), but hardly any variation in the male population (78.2). Notably, data indicates the Finger Lakes Region appears to have a slightly lower life expectancy than New York State as a whole (78.1 for males and 82.0 for females).[4]

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[2] Agency for Healthcare Research and Quality, Population Health: Behavioral and Social Science Insights, Understanding the Relationship between Education and Health.
[3] New York State Department of Health Life Expectancy report, 2013.
[4] Data Source: HealthData.Org

Listed in Figure 4 is the percent of each county's population living with a disability.[5] Interestingly, each of the counties are higher than the New York State average rate of 10.9% of the population. The highest rate of disability is in Steuben County with 15.5% of its population living with a disability.

Figure 4: Percent of Non-Institutionalized Population with a Disability by County, 2012
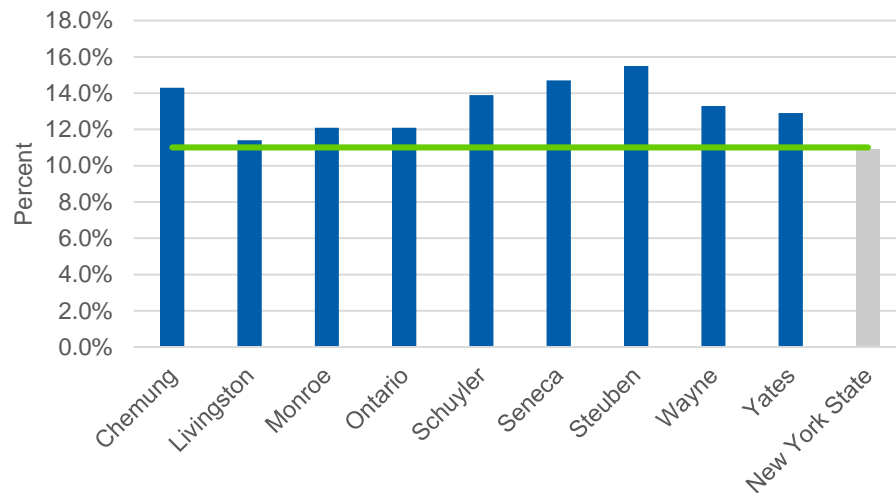
Data Source: US Census Bureau; 2012 ACS 5-Year Estimates

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[5] As defined by the U.S. Census Bureau, a disability includes sensory conditions (i.e. blindness), physical limitations, mental conditions (i.e. difficulty learning, remembering or concentrating), self-care disability, go-outside disability (difficulty going outside of the home alone), and employment disability.

Socioeconomic status impacts several areas of a person's life, including their health status. Data have revealed that low-income families are less likely to receive timely preventative services or have an established regular healthcare provider than families with higher incomes. Map 1 reveals the socioeconomic status of the Finger Lakes Region based on zip code. Note that a substantial portion of Wayne County was found to be of the two lowest socioeconomic statuses in the region. The FLHSA estimation of socio-economic status developed from U.S. Census and American Community Survey data by ZIP Code. It is based on the average income, average level of education, occupation composition, average value of housing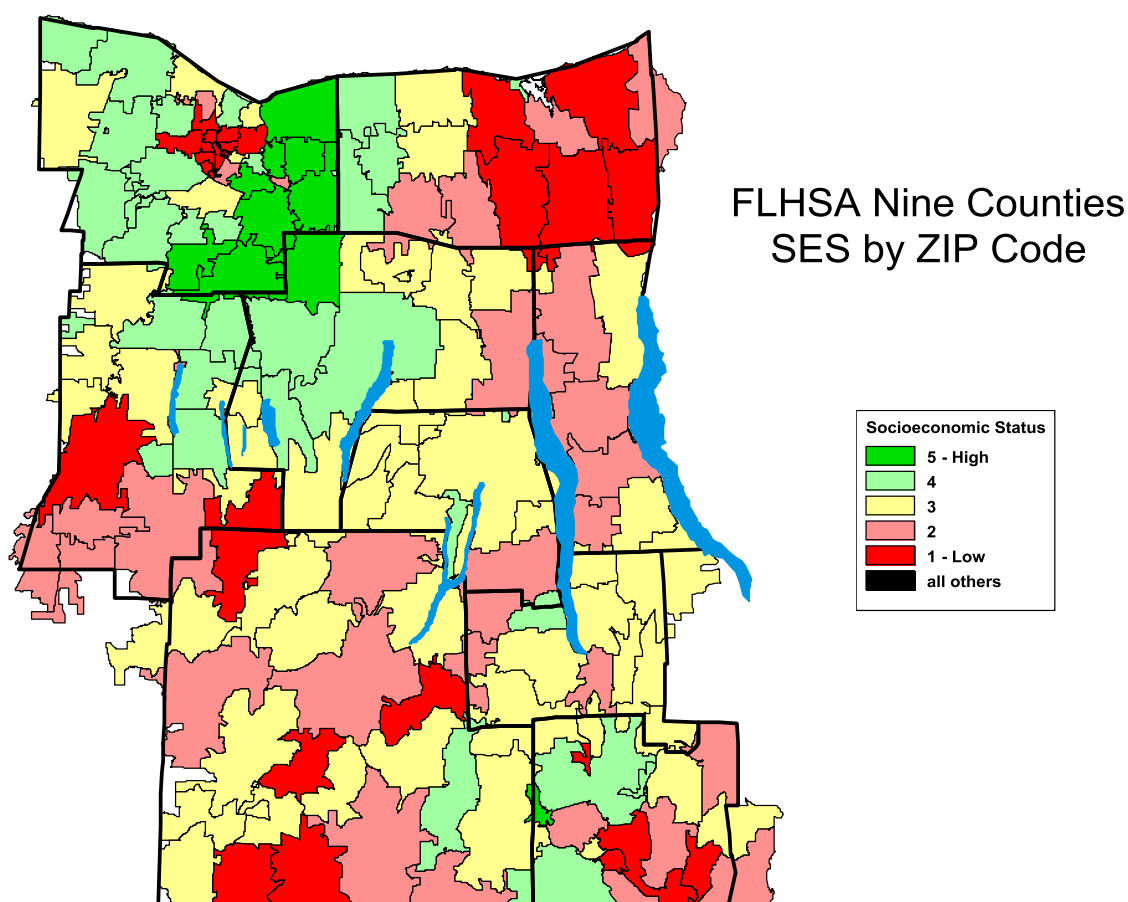 stock, age of the housing stock, a measure of population crowding, percentage of renter-occupied housing, percent of persons paying more the 35% of their income on housing, and percent of children living in single parent households

Map 1: Socioeconomic Status of Finger Lakes Region based on ZIP Code

Health insurance helps individuals access the care that they need. Like the low socioeconomic status population, the uninsured are less likely to receive or seek preventative care such as health screenings, are less likely to have an established regular healthcare provider, and are more likely to use the emergency room for services which could have been rendered in a primary care provider setting. However, health insurance attainment is not the only barrier to health care.

Prior to the implementation of the Affordable Care Act in 2014, a large portion of the Finger Lakes Region were uninsured (Map 2). Currently, it is unknown what percent of the population remains uninsured in the

region as data are not yet available. While it is likely that the percent of population uninsured have decreased since the implementation of the Affordable Care Act, the issue of access to care is *unlikely* to have been solved. When comparing Map 1 to Map 2, one can see the inverse relationship of socioeconomic status to the rate of uninsured. Despite the mandate in the Affordable Care Act for health insurance coverage for all, it is very unlikely that the issue of poverty will be eliminated. Ultimately, access to health care is influenced upon not only health insurance status, but by income level, educational attainment, access to transportation and more.

Map 2: Percent of Finger Lakes Region Uninsured by ZIP Code
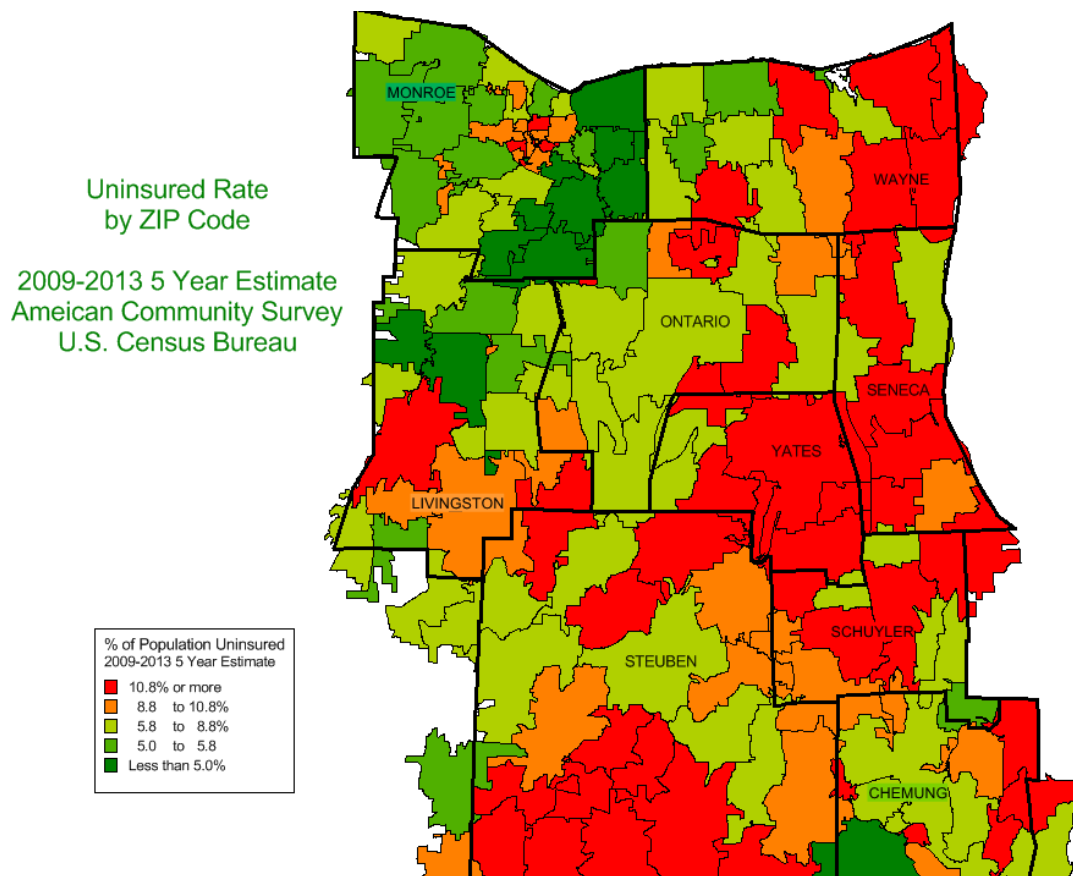
PRIORITY AREAS

The priority areas outlined in this report are obesity, chronic disease (which includes hypertension, heart disease, and diabetes), tobacco use, behavioral health, falls slips and trips for the population 65+, and chronic low back pain. These areas are derived from the input of regional stakeholders and from the identified focus areas in the each of the county's 2013 CHIP / CHA.

Obesity

The consequences associated with obesity are lengthy and are a cause of concern for a person's physical and emotional health. Associated health conditions include increased risk for heart disease, stroke, diabetes, high blood pressure, elevated cholesterol levels, asthma, and more.[6] Map 3 demonstrates the percent of each county's adult population reported to be obese. Not one of the counties in the Finger Lakes Region have reached the New York State Department of Health Prevention Agenda goal for 2018 (23.2% of adults). However, Monroe and Schuyler County are approaching the goal with only 24.1% of their adults reported as obese. The highest obesity rate in the region is found in Wayne County, with 35.5% of its adult population reported as obese.

Map 3: Percent of Adults who are Obese in Finger Lakes Region
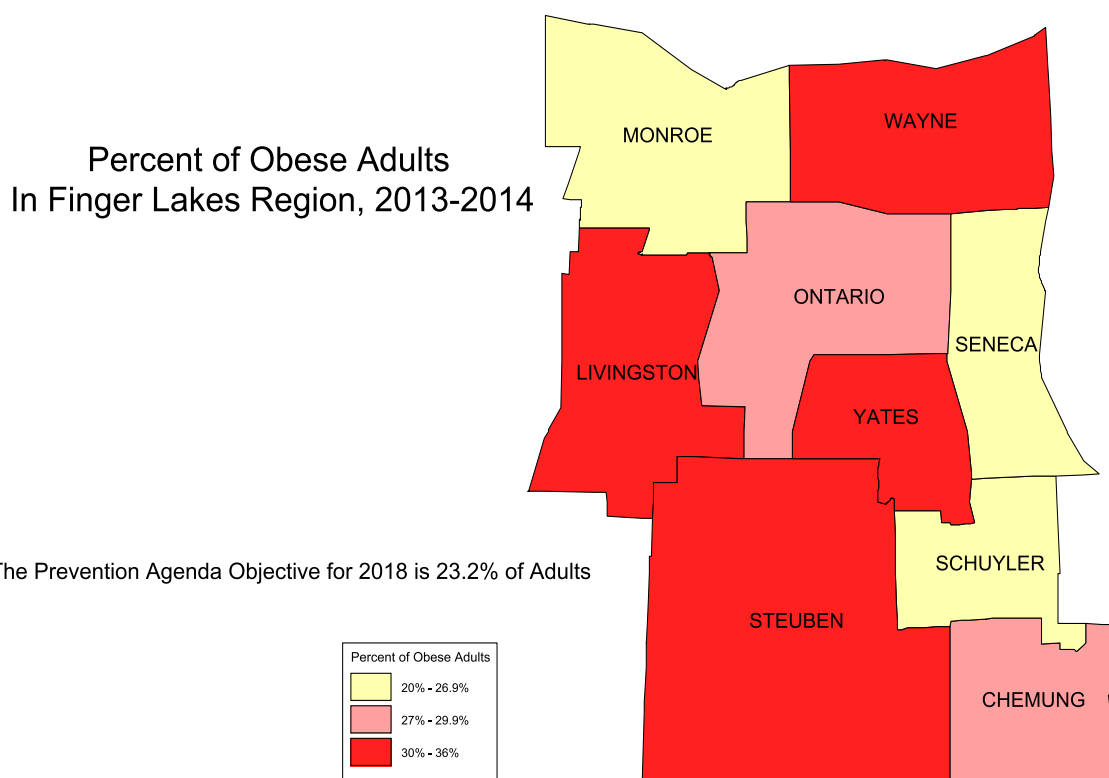
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014

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[6] Data Source: the Harvard School of Public Health

Figure 5 includes the percent of adults reported as either overweight or obese in the region. Rates in this aspect are generally lower than that of New York State (62.2% of adults). However, Chemung (67.7%), Steuben (69.2%) and Wayne County (69.7%) exceed the New York State average. Please note that data for Chemung and Seneca County are unreliable due to a large standard error. For reference, the error bars have been included to demonstrate the 95% confidence intervals.
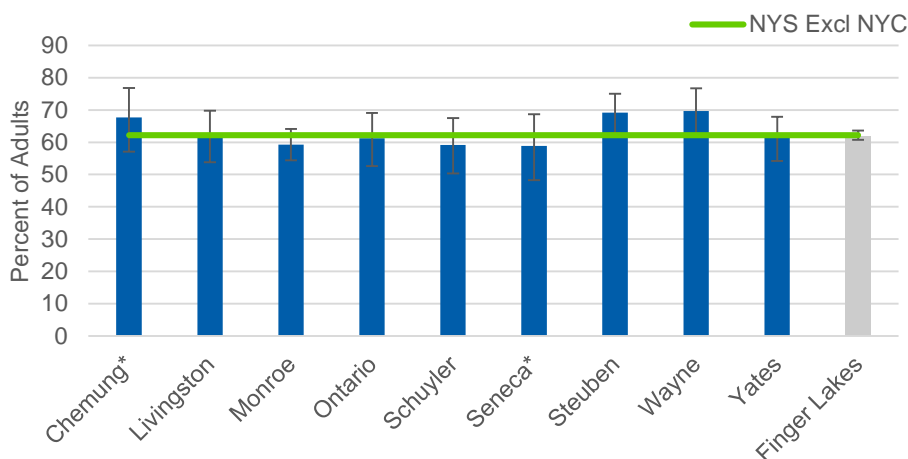
Figure 5: Percentage of Adults who are Overweight or Obese

Data Source: Expanded Behavioral Risk Factor Surveillance System,
2013-2014
*Unreliable due to large standard error.

Data relating to obesity is particularly sparse signifying the need for more consistent and reliable data. Obesity statistics on the percentage of adults whose annual household income was less than $25,000 as well as the percentage of adults with a disability were also collected for this report. However, nearly all of the data obtained from the Expanded Behavioral Risk Factor Surveillance System were unreliable due to large standard errors. For this reason, specific data has not been reported here. Nevertheless, the data appears to show that for both of the aforementioned examples, obesity rates are higher than the general population for each of the counties in the region. However, the counties highlighted as having the highest rates of obesity in the region are also those found to be of a lower socioeconomic status, potentially indicating a disparity in the low income populations.

Of particular concern are rates of obesity among the youth population. A child facing obesity is more likely to be diagnosed with prediabetes, high blood pressure, high cholesterol, and to maintain risk factors for cardiovascular disease than a non-obese child.[7] Figure 6 reveals the percent of children and adolescents who are obese in the region. Monroe, Ontario and Schuyler County have lower rates of childhood obesity and have surpassed the Prevention Agenda Objective for 2018. However, the remainder of the region has rates exceeding the Prevention Agenda Objective for 2018. Furthermore, Yates County has the highest rate of childhood obesity in the region with 22.9% of its children and adolescents report as obese.

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[7] Data Source: The Centers for Disease Control and Prevention

Figure 6: Percentage of Children and Adolescents who are Obese
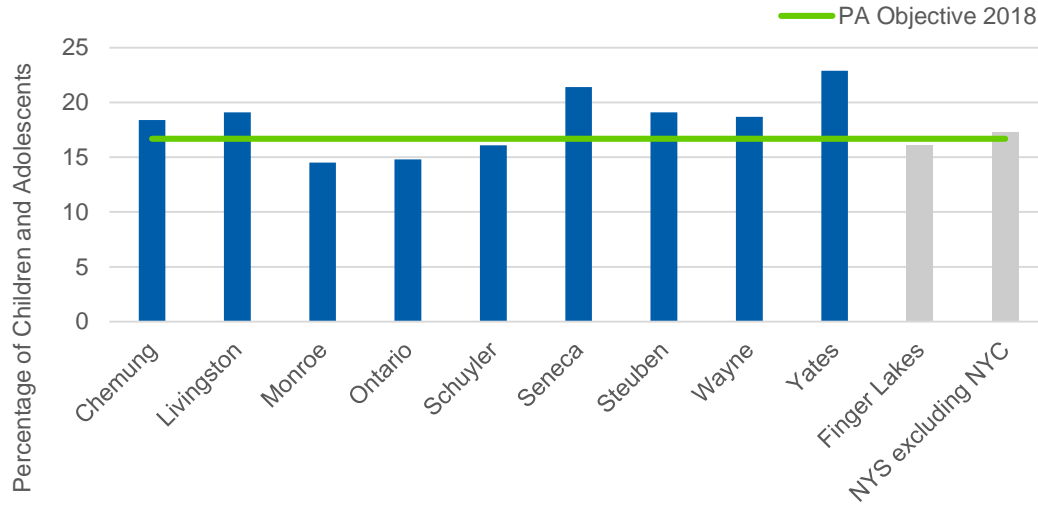
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2012-2014

Chronic Disease

Three chronic diseases were determined as priority areas by the community leaders at the regional meeting. These areas include Hypertension, Heart Disease, and Diabetes.

Hypertension

An average of 30% of adults are diagnosed with high blood pressure in New York State. Significantly, almost every county in the Finger Lakes Region is higher than this rate (Figure 7), with the exception of Yates County which has only 28.6% of adults diagnosed with high blood pressure. Additionally, Ontario and Steuben County have the highest rates of hypertension in the region.

Figure 7: Percentage of Adults with Physician Diagnosed High Blood Pressure
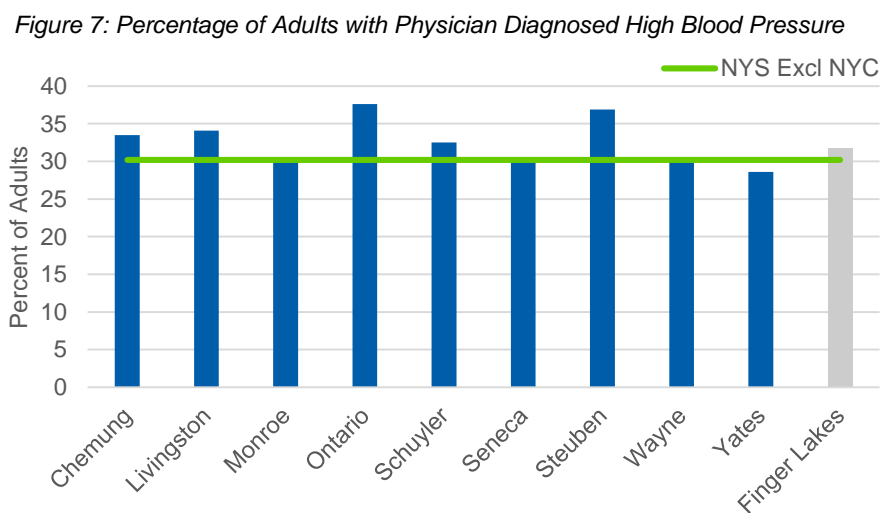
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014

Data from the Finger Lakes Health Systems Agency High Blood Pressure Registry from June 2015 shows that many of the counties are reaching the Upstate New York average for hypertension control. Additionally, there are numerous counties which have exceeded the Upstate New York Benchmark.

Figure 8: Hypertension Control Rates, June 2015
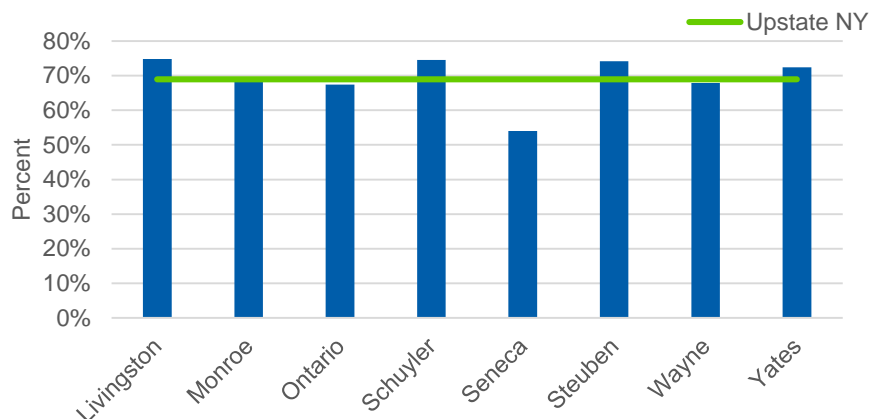
Data Source: FLHSA/RBA High Blood Pressure Registry, June 2015
Note: Chemung has been excluded due to small sample.

Prevention Quality Indicators related to hypertension discharges are shown in Figure 9.[8] Rates in Chemung (57.0 per 100,000) and Wayne County (43.3 per 100,000) are higher than the rates for Upstate New York (30.5 per 100,000). Had sufficient primary care been provided to the patients shown in the figure, these admissions could have potentially been prevented or avoided.

Figure 9: Rate of Inpatient Prevention Quality Indicators for Hypertension Discharges per 100,000
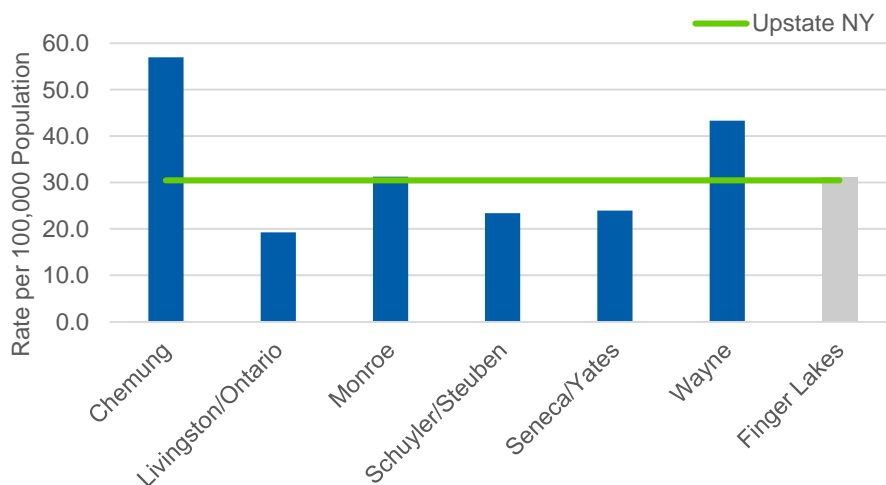
Data Source: SPARCS, 2013

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[8] Developed by the Agency for Healthcare and Research Quality, Prevention Quality Indicators (PQI) are based on ICD-9 coding and classifies conditions that are seen as potentially preventable/avoidable had sufficient care been given in the primary care setting prior to the presentation.

Uncontrolled hypertension can lead to heart attacks and heart failures.[9] The county level inpatient admissions related to these diagnoses are shown in Figure 10.[10] In terms of heart attack admissions, several counties are higher than the Upstate New York average of 151.4 per 100,000. Admissions related to heart failure are highest in Wayne and Monroe County which are also significantly higher than Upstate New York.

Figure 10: Rate of Inpatient Heart Attack and Heart Failure Discharges per 100,000

Data Source: SPARCS, 2013

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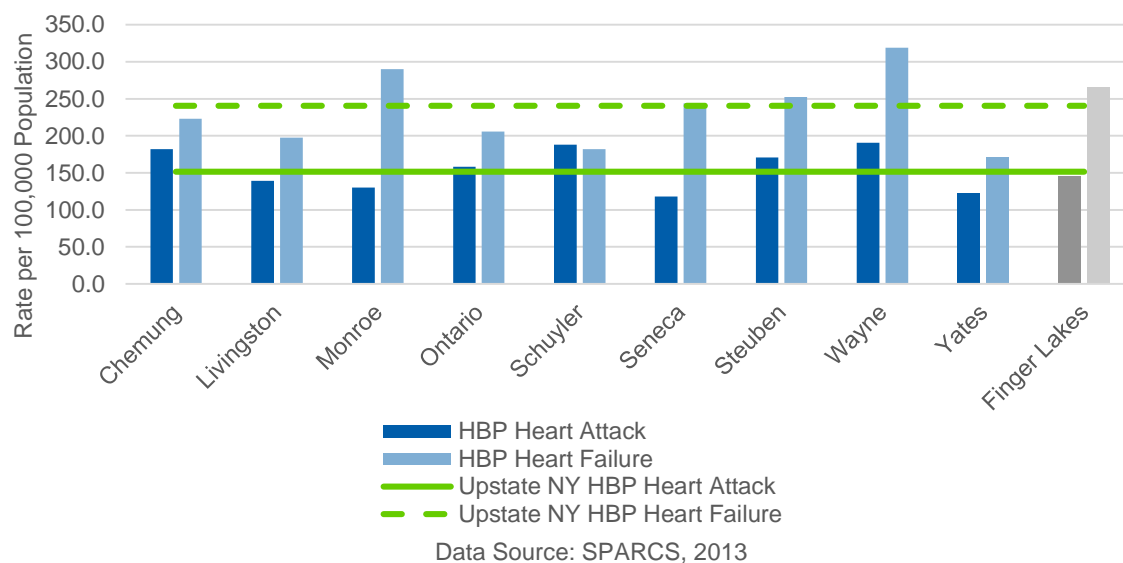
[9] Centers for Disease Control and Prevention, Heart Disease Facts, 2015
[10] Rates are for patients diagnosed with a heart attack or heart failure caused by hypertension.

Heart Disease

Heart Disease is the leading cause of death in the United States.[11] There are a number of risk factors for development of the disease such as diabetes, being overweight or obese, physical inactivity, excessive alcohol use, and poor diet.[12] Rates of heart disease inpatient admissions are presented in Figure 11. Admission rates in Chemung, Steuben, and Wayne County are higher than Upstate New York.

Figure 11: Rate of Inpatient Heart Disease Admissions per 100,000

Data Source: SPARCS, 2013
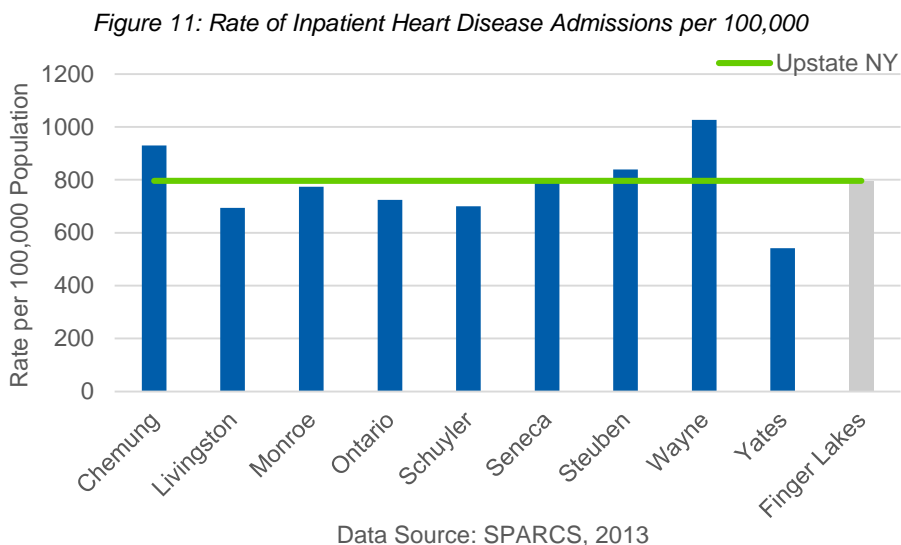
Figure 12 shows the rate of inpatient ischemic heart disease admissions in the region. Chemung, Schuyler, and Wayne County have rates higher than Upstate New York.

Figure 12: Rate of Inpatient Ischemic Heart Admissions per 100,000

Data Source: SPARCS, 2013

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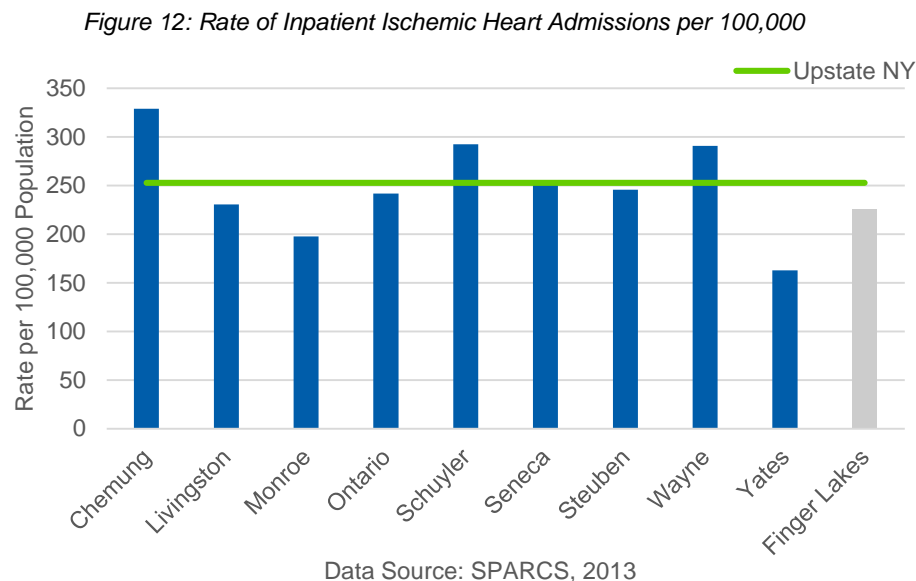
[11] Heart disease includes conditions such as ischemic heart disease (coronary artery disease), rheumatic pericarditis, and aortic diseases.
[12] Data Source: The Centers for Disease Control and Prevention

Figure 13 indicates the percentage of adults in the Finger Lakes Region who have physician diagnosed diabetes. Notably, several of the counties in the region are higher than the New York State average of 9%. Moreover, 13% of Yates and 12% of Livingston and Steuben County adults have been diagnosed with diabetes.

Figure 13: Percentage of Adults with Physician Diagnosed Diabetes
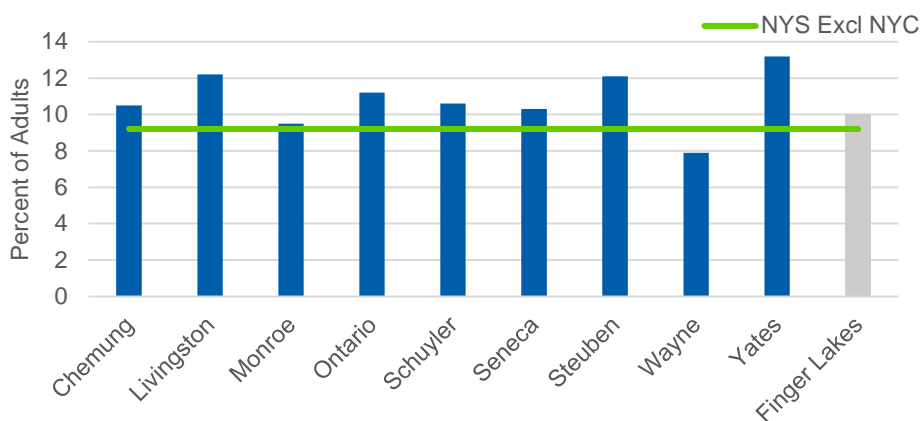
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014

Figure 14 reveals the percent of adults in the region who with physician diagnosed prediabetes.[13] Of potential concern, the rate of prediabetes in Ontario County (9%) are substantially higher than that of New York State (5%).

Figure 14: Percent of Adults with Physician Diagnosed Prediabetes
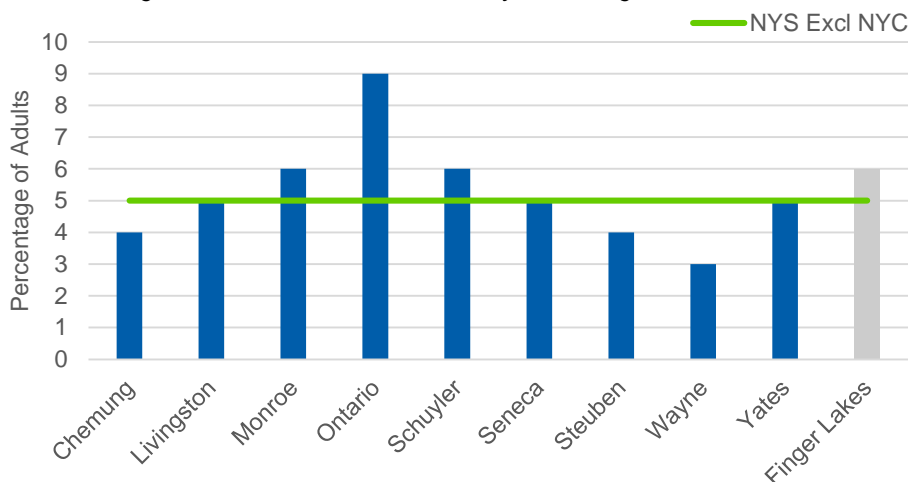
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014

While the above data are valuable indicators for health status of the counties, it is important to note these data are self-reported and subject to recall bias and/or response bias.   More reliable data regarding personal health status are needed in order to obtain a more accurate representation of the community.

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[13] Prediabetes is a condition where blood glucose levels are higher than normal, but are not yet high enough to diagnose a person with diabetes.

Figure 15 indicates the rate of hospitalizations for short-term complications related to diabetes in the region. For the population aged 18+, only Yates County has passed the 2018 Prevention Agenda goal of 4.86 per 10,000.

Figure 15: Rate of Hospitalizations for Short-Term Complications of Diabetes per 10,000
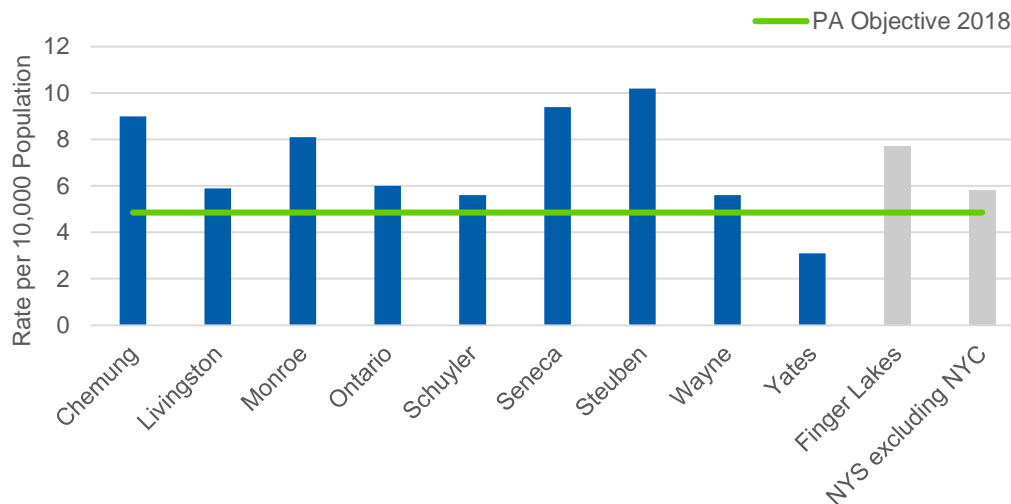
Data Source: New York State Prevention Agenda, 2011-2013

Data were also examined to determine the diabetes rollup prevention quality indicators in the region. The rollup prevention quality indicators include both short and long term diabetes complications, uncontrolled diabetes and lower extremity amputations due to diabetes diagnosis. Figure 16 displays the rates of preventative diabetes discharges per 100,000. Seneca County has the highest rate in the region (265 per 100,000) and is higher than the Upstate New York rate (172 per 100,000).

Figure 16: Rate of Diabetes Rollup Prevention Quality Indicators per 100,000
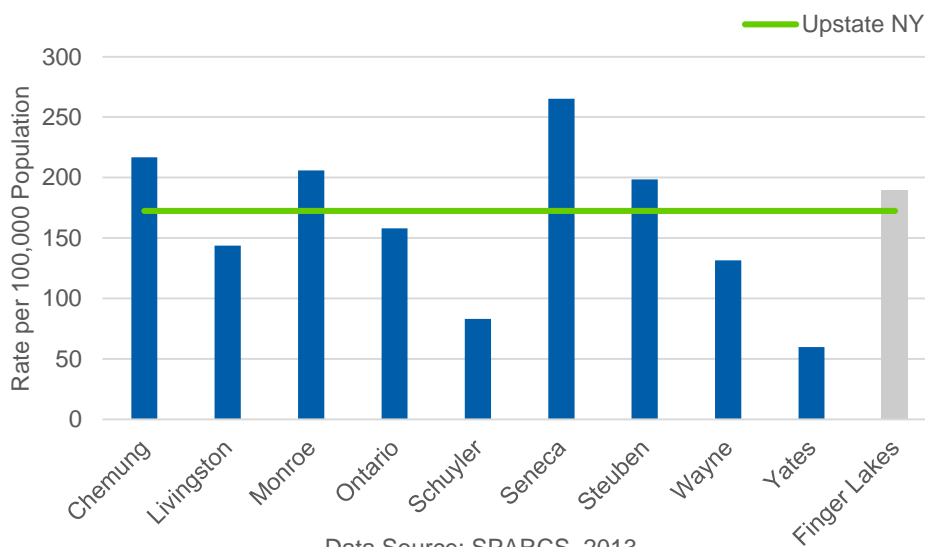
Data Source: SPARCS, 2013

Interestingly, Seneca County also had one of the highest rates of hospitalizations related to short-term complications of diabetes (Figure 15), and one of the higher rates of physician diagnosed diabetes in the region (Figure 13). These findings may indicate a concern for both prevalence of disease and a lack of delivery system care coordination in the county. Notably, Yates County were found to have a high prevalence of physician diagnosed diabetes in the region, but had the lowest rates of diabetes short-term complication hospitalizations and PQIs in the region. This finding indicates that while the prevalence is high, treatment appears to be well coordinated in the county. Therefore, the issue may be in the initial prevention of disease as opposed to treatment and control. The same could be said for Ontario County as well.

Tobacco Use

Tobacco use in the Finger Lakes Region is significantly higher than the 2018 Prevention Agenda Objective of 12.3% of adults (Figure 17). Rates of cigarette smoking adults are highest in Chemung (24.8%), Livingston (23%), Schuyler (22.3%), Steuben (23.7%), and Wayne County (24.5%).

Figure 17: Percentage of Cigarette Smoking Among Adults
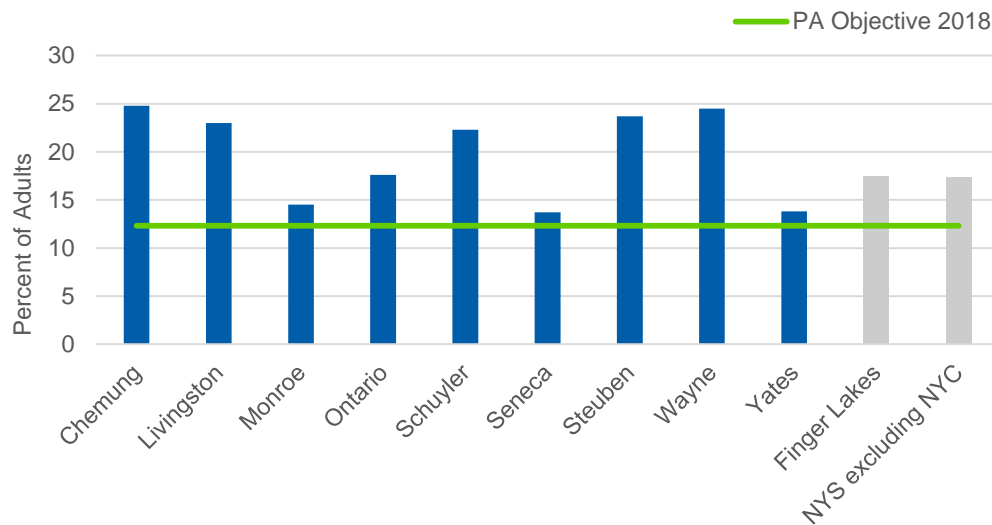
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014

Data was also collected for the percent of adults whose annual household income was less than $25,000 who were also a current smoker. However, the data were largely unreliable due to large standard errors. In general, the rates appear to be higher for this specific income level in comparison to the general population shown in Figure 17.

Map 4 indicates the percentage of adults with asthma in the region. Chemung County rates (19%) are almost double that of the New York State average (10%). As exposure to cigarette smoke has been correlated with the likelihood of asthma, it is not surprising that Chemung County also had the highest percentage of cigarette smoking adults in the region (Figure 17).[14] However, please note that the rate for Chemung County asthma rates are unreliable due to a large standard error (standard errors are shown in Figure 18).

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[14] Data Source: The Centers for Disease Control and Prevention

Percent of Adults with Current Asthma Finger Lakes Region, 2013-2014

The New York State Average is 10.2% of Adults

MONROE

WAYNE

ONTARIO

SENECA

LIVINGSTON

YATES

SCHUYLER

STEUBEN

** CHEMUNG

Percent of Adults
with Current Asthma

6.4% - 10.2%

10.3% - 11.2%

11.3% - 19.1%

** Chemung Data Unreliable Due To Large Standard Error
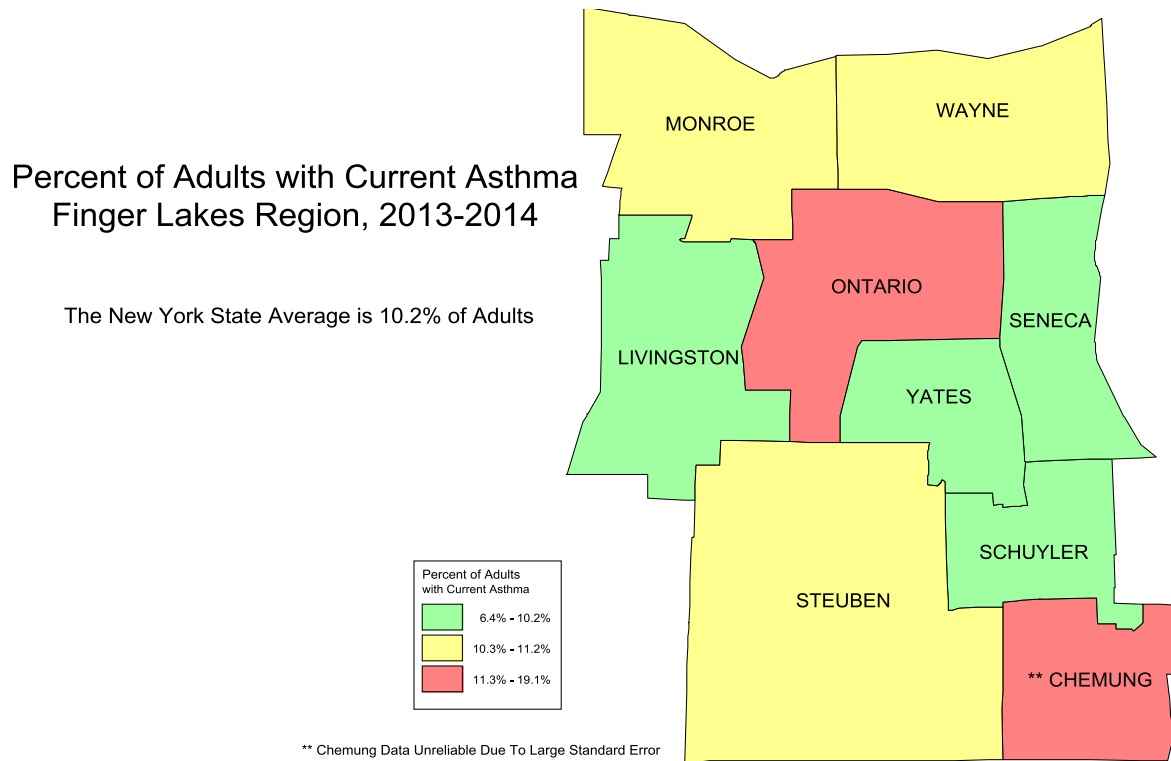
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014

Figure 18: Percentage of Adults with Current Asthma
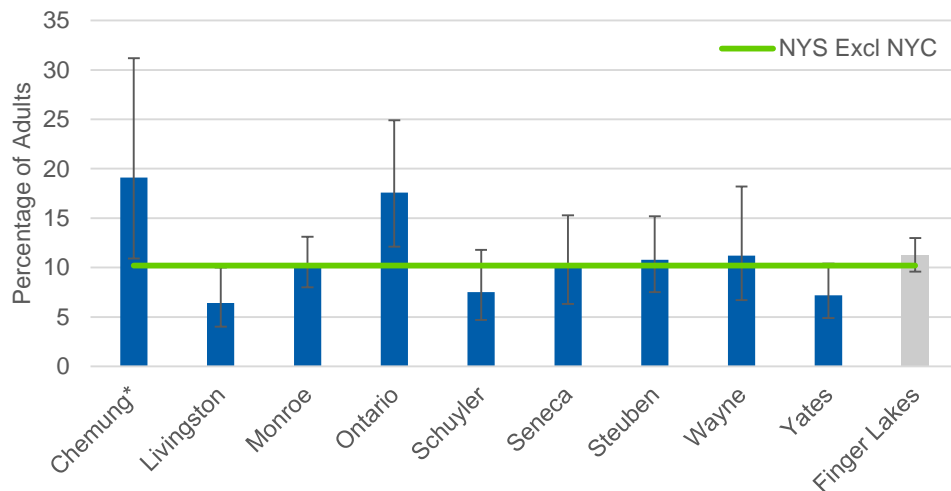
Data Source: New York State Prevention Agenda, 2013-2014
*Unreliable due to large standard error.

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As a proxy for potentially preventable hospital presentations related to tobacco exposure, Adult asthma related prevention quality indicators are shown in Figure 19. Chemung and Seneca/Yates County have the highest rates (28.8 and 23.4 per 100,000, respectively) and are higher than the Upstate New York rate (16.1 per 100,000).

Figure 19: Rate of Asthma Prevention Quality Indicators
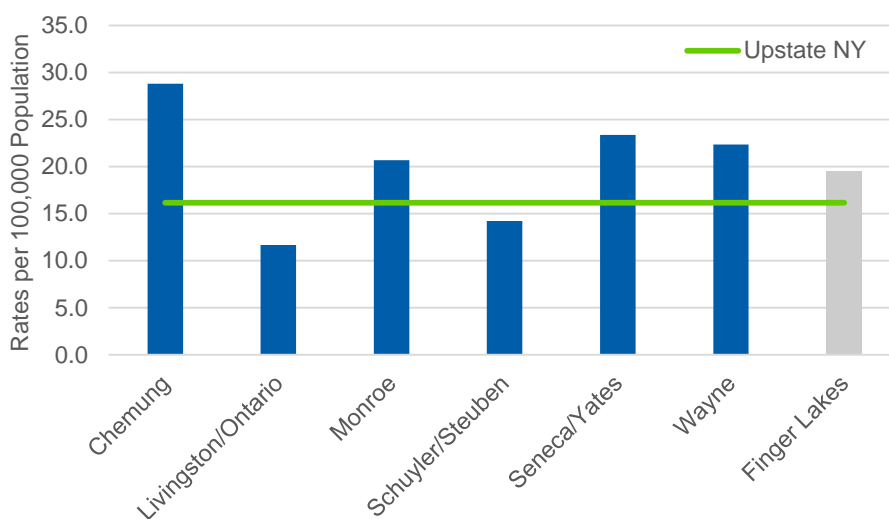
Data Source: SPARCS, 2013

Additionally, respiratory prevention quality indicators, which include adult asthma, bacterial pneumonia, and COPD are shown in Figure 20. Finally, Chronic Obstructive Pulmonry Disease (COPD) prevention quality indicators are shown in Figure 21.

Figure 20: Rate of Respiratory Prevention Quality Indicators
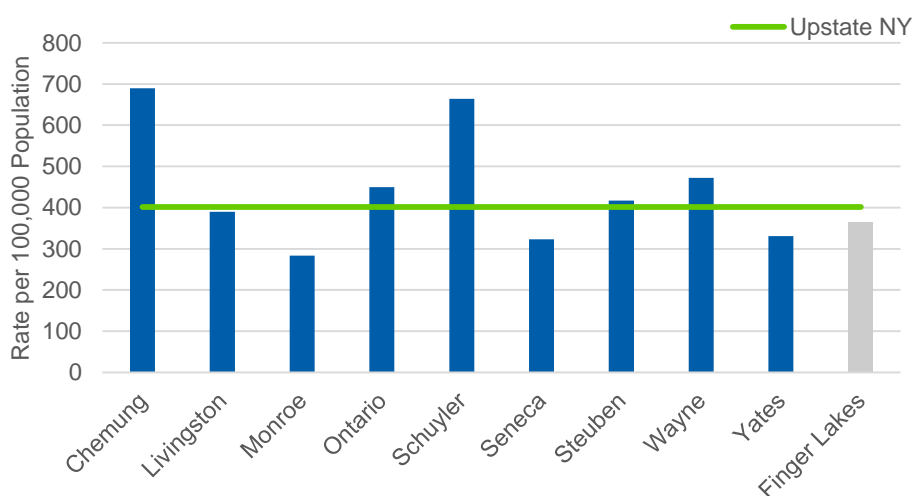
Data Source: SPARCS, 2013

Figure 21: Rate of COPD Prevention Quality Indicators
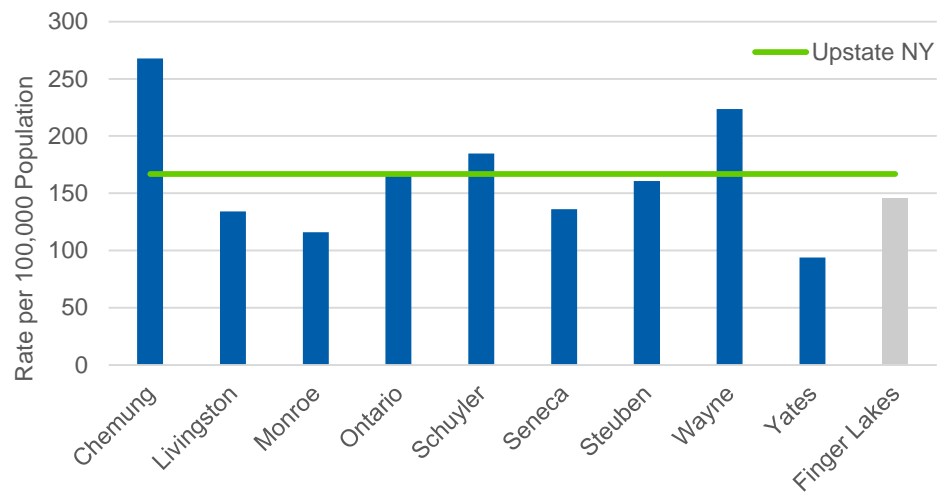
Data Source: SPARCS, 2013

Not surprisingly, rates for each of the above prevention quality indicators are highest in Chemung County. It is likley these findings could be related to the substantial percent of the adult population reported as a current smoker.

Behavioral Health

Behavioral Health is an important indicator of social and emotional well-being. It is a confluence of both physical and emotional health and is indicated in this report through the prevalence of mental health disorders, substance abuse, self-inflicted injury, and suicide in the region. The community leaders identified this area of health as an emerging health issue in the region- a thought which is largely supported by the data.

The rates of poor mental health in the Finger Lakes Region are high. Figure 22 reveals the percentage of adults in the region who reported experiencing 14 or more poor mental health days in the past month. Chemung County has the highest rates, which are more than double the Prevention Agenda Objective for 2018, with 24% of adults reporting 14 or more poor mental health days in the past month.[15] The need for behavioral health services in this community is significant.

Figure 22: Percentage of Adults with Poor Mental Health for 14 or More Days in the Last Month
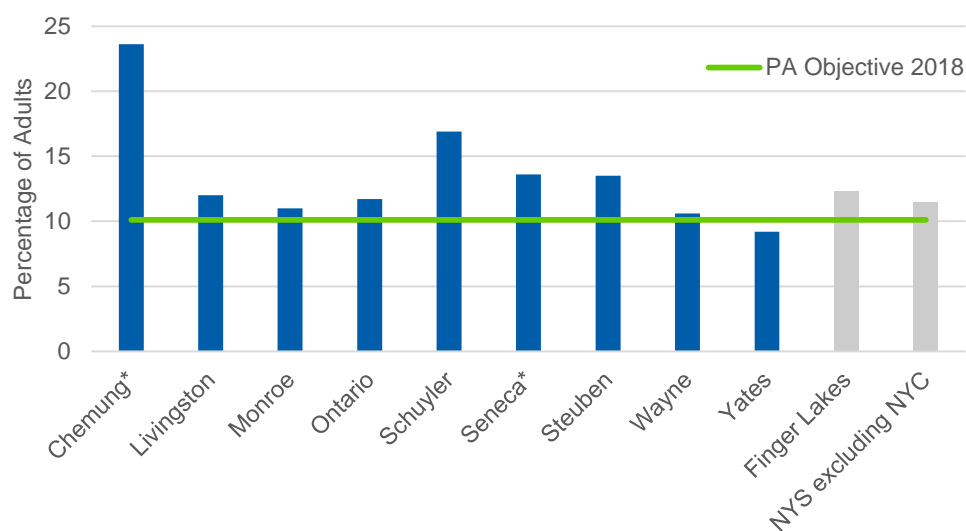
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014
*Unreliable due to large standard error.

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[15] It is important to note the 2013-2014 data in this category for Cheung County is unreliable due to a large standard error.

Figure 23 shows the rate of inpatient admission and emergency department (ED) discharges where a patient received a mental health diagnosis.[16] Of note, in 2014, Chemung County has the highest inpatient admission rate in the region (3,121 per 100,000), a rate also higher than Upstate New York. Chemung County also had the highest rate of ED discharges in the region (4,962 per 100,000) in 2014. Of note, the rates of mental health diagnoses have increased from 2013, mostly in terms of emergency department visits. In 2013, the Finger Lakes Region rate for ED diagnoses for mental health was 2,066. In 2014, this rate increased to 2,872. This finding could be an indicator for lack of treatment in a primary care setting.

Figure 23: Rate of Inpatient and ED Discharges with a Mental Health Diagnosis
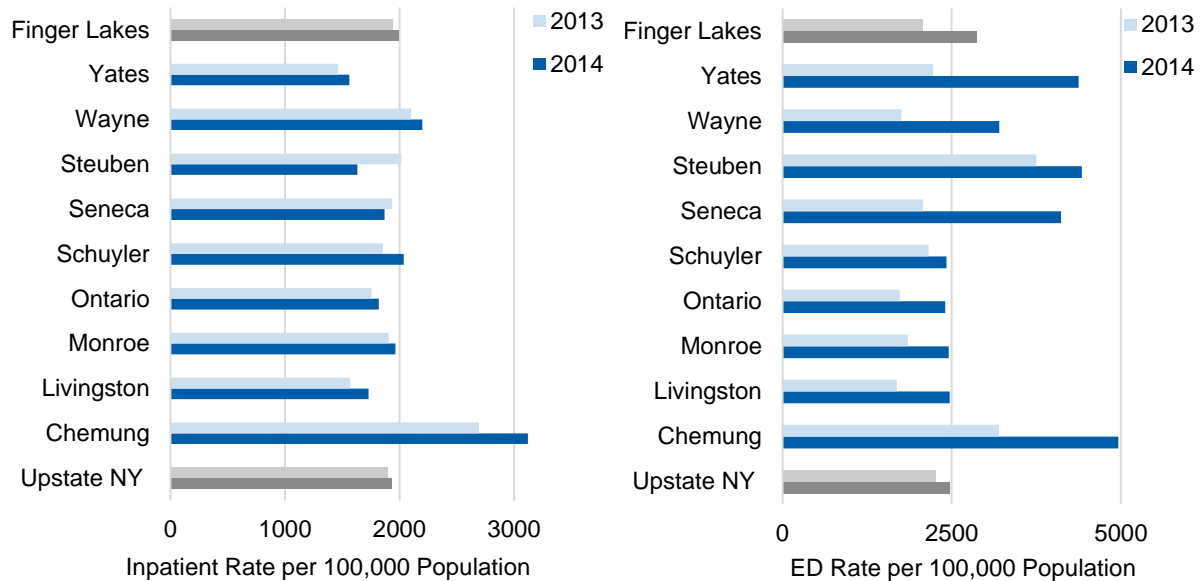
Data Source: SPARCS, 2013-2014. Diagnosis includes primary or comorbidity

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[16] These diagnoses include mental health diseases (i.e. schizophrenia, depression), anxiety, phobias and psychotic episodes.

Substance abuse discharge data were also examined in the region. Figure 24 shows the rate of inpatient admissions and ED discharges where a patient received a substance abuse diagnosis.[17] Chemung County had the highest rate on inpatient admissions related to substance abuse in 2014 (2,598 per 100,000). Additionally, Chemung County also had the highest rate ED discharge rates in 2014 (10,853 per 100,000) further emphasizing the need for behavioral health services in this county. Steuben County also maintains one of the highest rates of ED discharges with 10,648 per 100,000 visits being related to substance abuse. Rates of substance abuse ED visits have increased from 2013-2014, especially in counties such as Yates, Wayne, Seneca, and Chemung. The total number of ED visits in the Finger Lakes Region increased from 55,105 in 2013 to 78,788 in 2014.

Figure 24: Rate of Inpatient and ED Discharges with a Substance Abuse Diagnosis

Data Source: SPARCS, 2013-2014. Diagnosis includes primary or comorbidity

Of growing concern is the presence of opiates and heroin use in the Finger Lakes Region.[18] Figure 25 and Figure 26 indicate the rate of inpatient and ED discharges where a patient received an opiate abuse or heroin overdose diagnosis. The rates of opia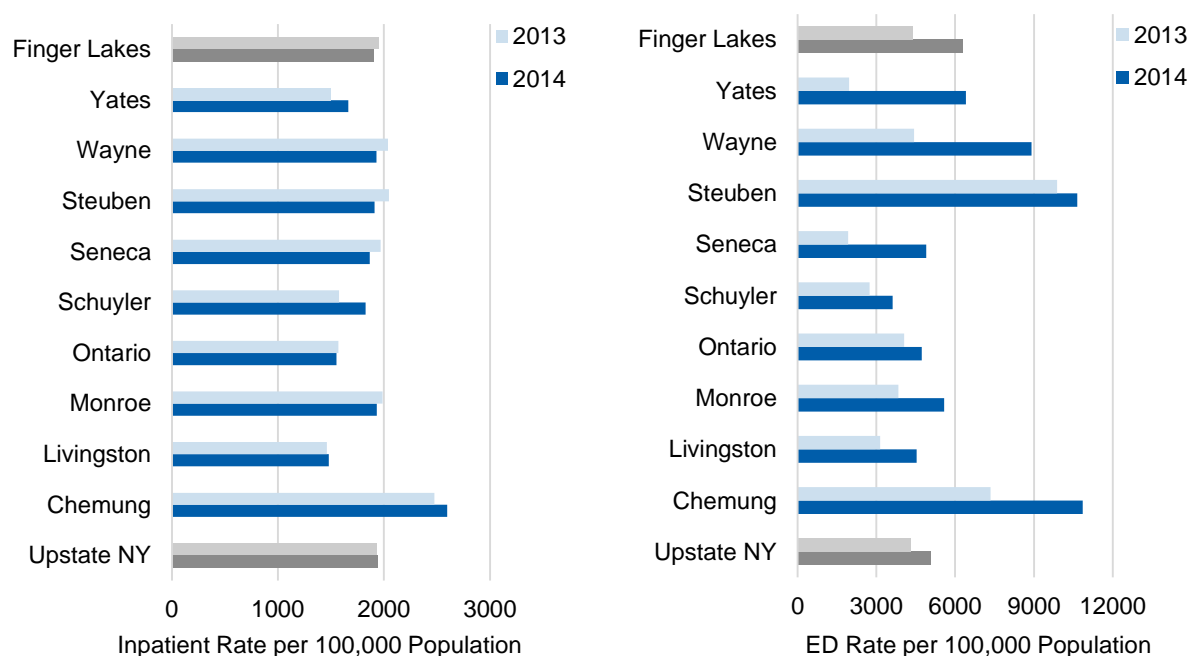te inpatient admissions and ED discharges in the region are lower than that of Upstate New York. The total number of inpatient admissions and ED visits in the Finger Lakes Region related to opiates in 2014 were 2,564 and 2,351 respectively.

Figure 26 shows the rates of inpatient and ED heroin overdose visits in the region. Significantly, Monroe County has rates higher than Upstate New York for inpatient admissions with a heroin overdose diagnosis. In Livingston/Ontario and Monroe County, ED rates are also higher than Upstate New York indicating a potential concern for the counties.

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[17] Included as a diagnosis code for substance abuse were categories such as alcohol dependence, drug induced mental disorders, drug dependence, and non-dependent abuse of drugs.
[18] Included as an opiate diagnosis codes used were opioid drug dependence (3040, 3047), opioid abuse (3055), and opioid poisoning (96500-96509). The external causes included were accidental poisoning of heroin (E8500), methadone (E8501), and other opiates (E8502). Included as a heroin diagnosis (96501) and external cause (E8500) were heroin poisoning.

Figure 25: Rate of Inpatient and ED Discharges with an Opiate Diagnosis
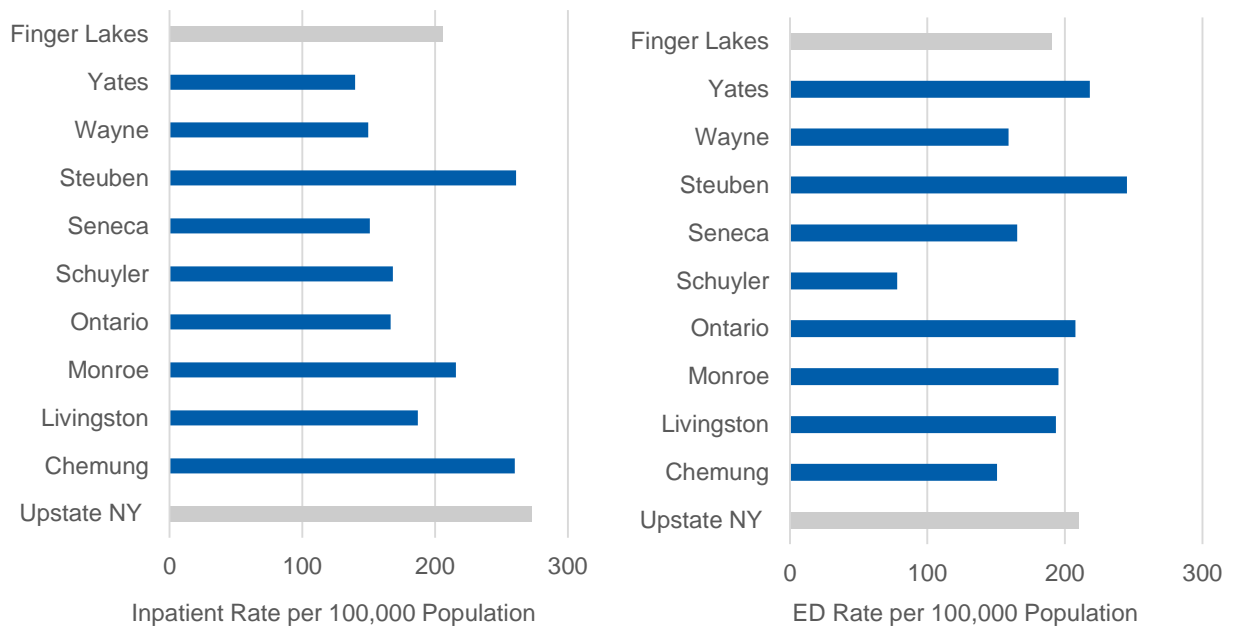
Data Source: SPARCS, 2014

Figure 26: Rate of Inpatient and ED Discharges with a Heroin Overdose Diagnosis
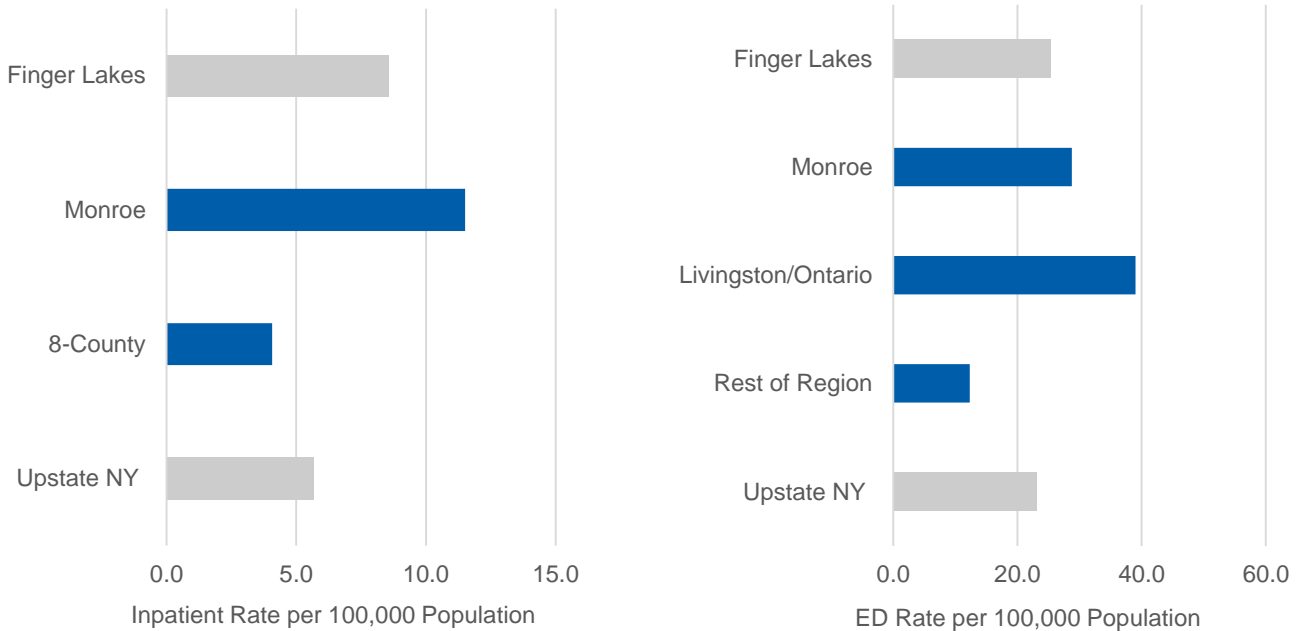
Data Source: SPARCS, 2014

Data were gathered for the Finger Lakes Region on the number of hospital admissions related to heroin overdoses. Figure 27 demonstrates the number of discharges in the region related to heroin overdoses. Since 2010, inpatient heroin admissions have increased from a total of 19 patient visits, to 108 patient visits in 2014.

Figure 27: Number of Heroin Overdose Hospital Admissions for Finger Lakes Region, 2010-2014
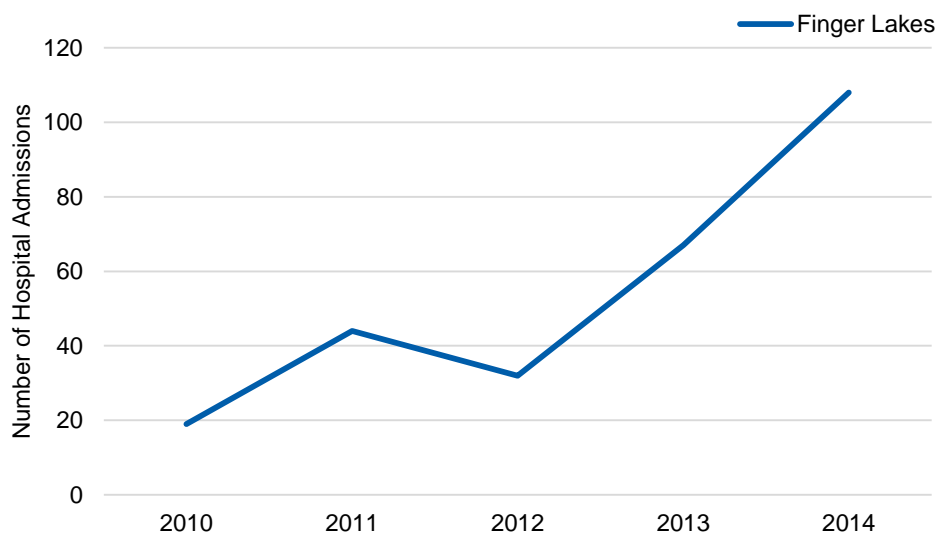
Data Source: SPARCS, 2010-2014

Emergency Department discharges related to heroin overdoses have also substantially increased from 2010-2014 (Figure 28). Patient visits have jumped from 33 ED visits in 2010, to 309 ED visits in 2014. The drastic increase for patients seeking care further emphasizes the notion of heroin use as an emerging issue in the region. While the data does not measure the rate of heroin use in the region, it does measure the rate of overdoses. It can be expected that the dramatic increase in overdoses in the region is also indicative of a dramatic increase in heroin use.

Figure 28: Number of Heroin Related Emergency Department Overdoses for Finger Lakes Region, 2010-2014
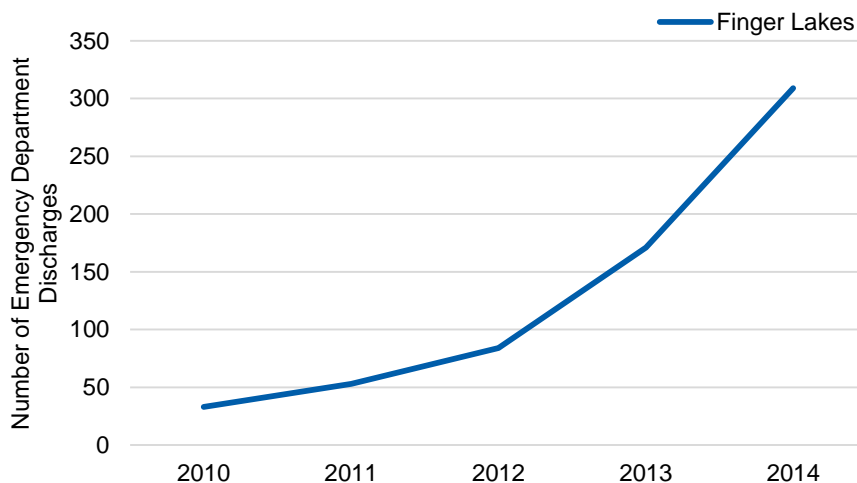
Data Source: SPARCS, 2010-2014

Inpatient and ED discharges where patients received a self-inflicted injury diagnosis code are shown in Figure 29. For both types of visits, at least four of the nine counties in the region are higher than the rate for Upstate New York indicating a potential regional concern. Monroe, Seneca, Wayne, and Chemung County have higher rates for both inpatient and ED discharges when compared to Upstate New York. Across the Finger Lakes Region in 2014, there were 899 inpatient admissions, and 1,443 ED visits related to self-inflicted injury.

Figure 29: Rate of Inpatient and ED Discharges with a Self-Inflicted Injury Diagnosis

Inpatient Rate per 100,000 Population

ED Rate per 100,000 Population
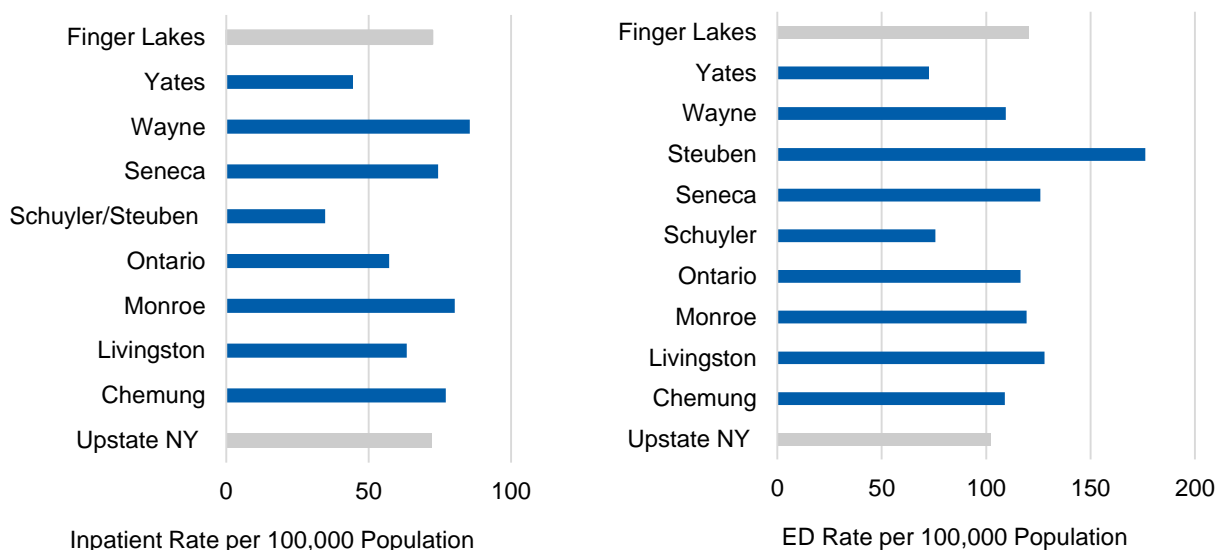
Data Source: SPARCS, 2014

Suicide rates in the region are also higher than Upstate New York rates in Livingston/Ontario County (Figure 30). Interestingly, the counties with the highest suicide rates are not necessarily those with the highest self-inflicted injury rates. Furthermore, the data speaks to not only the incidence rates, but to the combination of patient utilization rates. It could be that patients inflicting injury on themselves may not be seeking care through an inpatient or outpatient setting and therefore are not accounted for in Figure 29. In the Finger Lakes Region, there were 120 suicides in 2013.

Figure 30: Suicide Mortality Rate per County
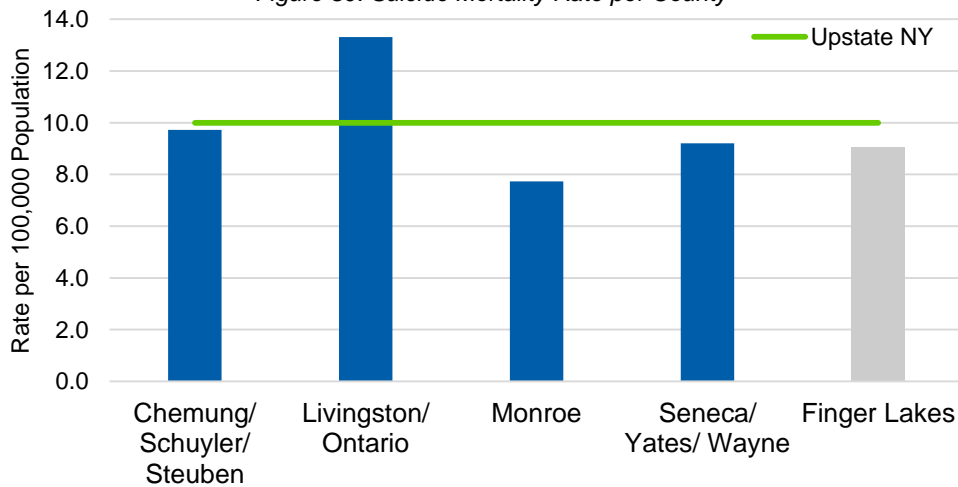
Data Source: New York State Department of Health Vital Statistics, 2013

As the data have revealed, the indicators for behavioral health are an important concern for the Finger Lakes Region. Rates related to the indicators have increased over the past year, indicating an emerging issue. Of concern in the Finger Lakes Region is the lack of provider availably to accommodate to the needs of the region. According to the Health Resources and Services Administration, there is a noted shortage of mental health provider availability for the community.[19] This finding is particularly concerning based upon the significant need for behavioral health services previously discussed. Map 5 shows the counties identified as a mental health professional shortage area in the Finger Lakes Region. You will see that there is a significant shortage for the low income population throughout the entire county in Seneca, Yates, Schuyler, Steuben, and Chemung County. Notably, these counties are predominantly low income, with high rates of behavioral health needs.

Map 5: Mental Health Provider HPSAs for the Finger Lakes Region

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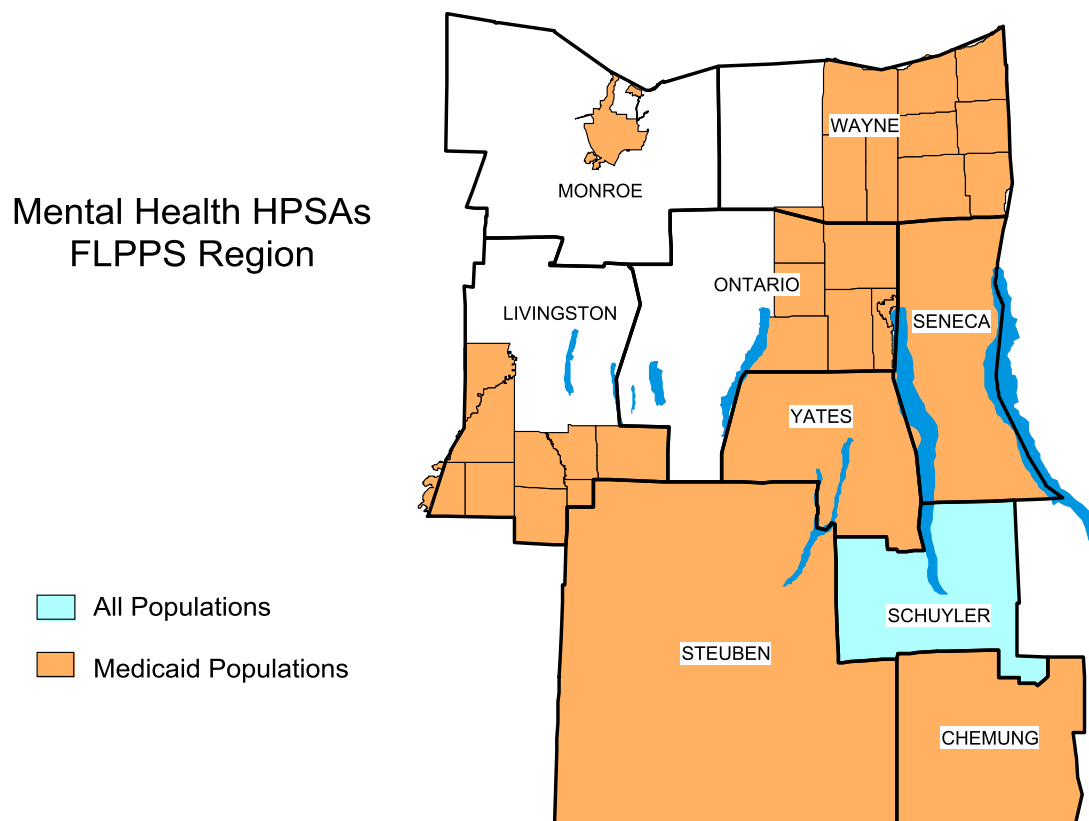
[19] The Health Resources and Services Administration (HRSA) identifies Health Professional Shortage Areas (HPSAs) through an application process that documents need for a particular service.

Falls/Slips/Trips

Another priority area identified by community leaders at the Regional Leadership meeting were falls, slips, and trips in the 65+ population. Figure 31 summarizes the percent of adults aged 65+ who had at least one reported fall in the past twelve months. The New York State average for this population is 30%. Of concern, Schuyler County has the highest rate in the region by far with 51% of the 65+ population in this county reported as having at least one fall. However, the total number of falls were only 1,607.

Figure 31: Percent of Adults Aged 65+ with at Least One Reported Fall in Past 12 Months
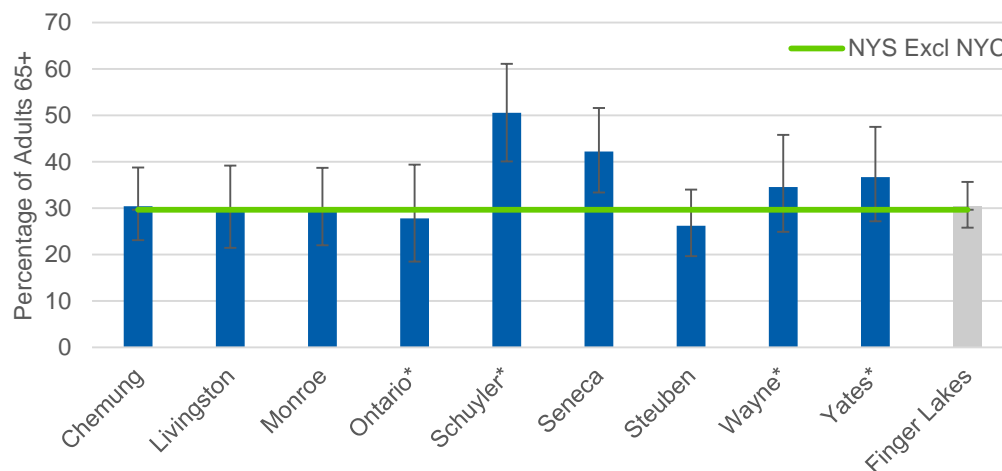
Data Source: Expanded Behavioral Risk Factor Surveillance System, 2013-2014
*Unreliable due to large standard error

The rate of emergency department (ED) visits related to falls, slips or trips for the population aged 65+ is shown in Figure 32. You will see that Schuyler County also has the highest rate of ED visits for this population, with 7,470 per 100,000. The Upstate New York average is 4,075 visits per 100,000.

Figure 32: Rate of ED Fall Visits per 100,000 for Population Aged 65+
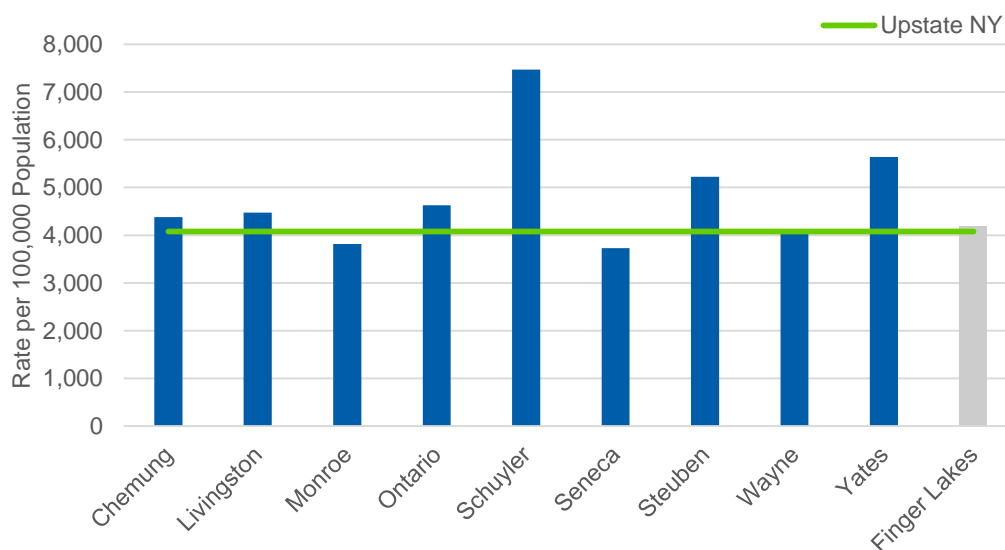
Data Source: SPARCS, 2013

Chronic Low Back Pain

The final priority area identified by community leaders is the matter of persons suffering from chronic low back pain. According to data from the 2013 National Health Interview Survey, 28.4% of adults reported experiencing low back pain during the past three months (See Appendix A). Stratification of the data revealed that the elder populations (75+ years) were more likely to report low back pain (34.2%) compared to younger populations (18-24 years, 18%). The stratification also revealed that females were slightly more likely to report chronic low back pain than males (30.2% vs. 26.4%, respectively).[20]

Utilizing aggregated claims data from 2014, estimations were made to the percent of the insured population with low back pain.[21] The percent of insured's with a primary diagnosis related to low back pain for the population 18+ years is shown in Figure 33. It is important to note that those captured are only those who sought medical care for their back problems. In the Finger Lakes Region, there were 59,285 diagnoses made for low back pain in 2014. However, it is likely that there is large portion of the population which did not seek medical care for their low back pain.

Figure 33: Percent of Claims Data Members 18+ with a Diagnosis for Low Back Pain
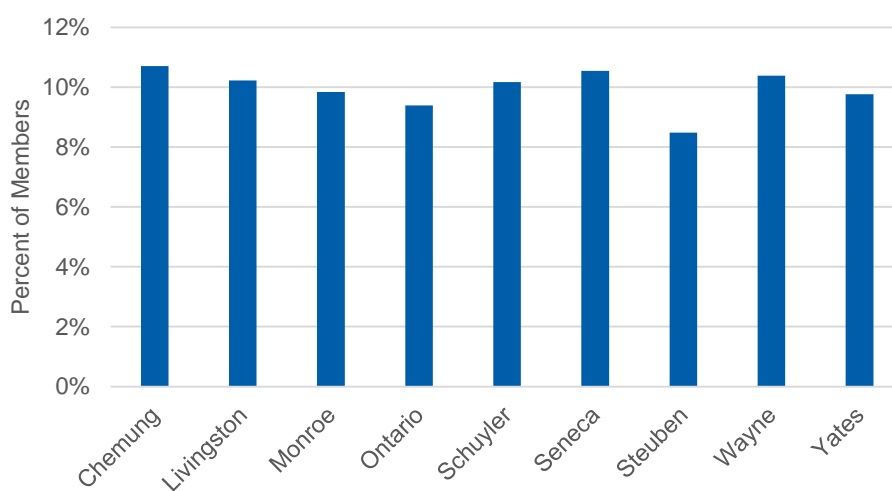
Data Source: Aggregated Claims Data, 2014

Estimations were also made to determine the percent of the population whose back pain was severe enough to undergo a procedure. Like the methodology behind estimating the presence of low back pain, procedure codes were gathered to those related to low back pain.[22] Across the Finger Lakes Region, there were a total of 8,253 procedures in 2014. Figure 34 demonstrates the percent of insured by county who received an injection of some sort to alleviate low back pain.

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[20] Data Source: The Centers for Disease Control and Prevention
[21] To estimate this percent, diagnosis codes for disorders of the back were obtained. These codes include problems related to the back such as spinal stenosis, sciatica, lumbago, disorders of the sacrum and coccyx and more. The specific codes were 7240-7249.
[22] These procedures include spinal injections to various parts of the spine, joints, and nerves: 64483, 62311, 64493, 64635, 62310, 64479, 64520, 64490, and 64581.

Figure 34: Percent of Claims Data Members 18+ with a Procedure for Low Back Pain

Data Source: Aggregated Claims Data, 2014

Data from 2010-2014 were collected to determine the trend for low back pain diagnoses in the region. Figure 35 depicts the percent of claims data members who received a low back pain diagnosis from 2010-2014. Generally, the rates have remained relatively stable across the five year time period.

Figure 35: Percent of Claims Data Members 18+ with a Diagnosis for Low Back Pain, 2010-2014

Data Source: Aggregated Claims Data, 2010-2014
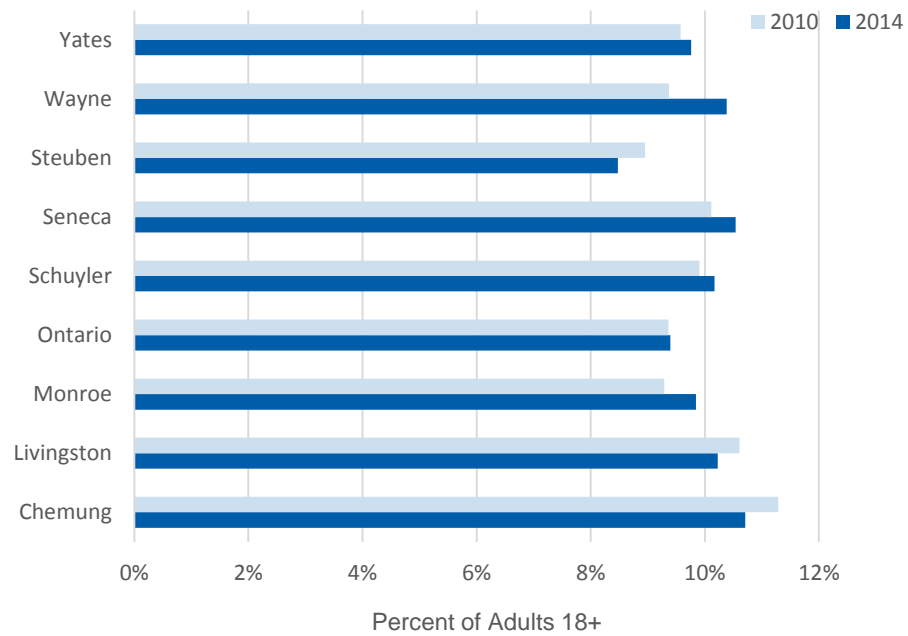
FINDINGS

Key findings from the data analysis revealed that adult obesity remains a prominent issue for the region, although additional information needs to be collect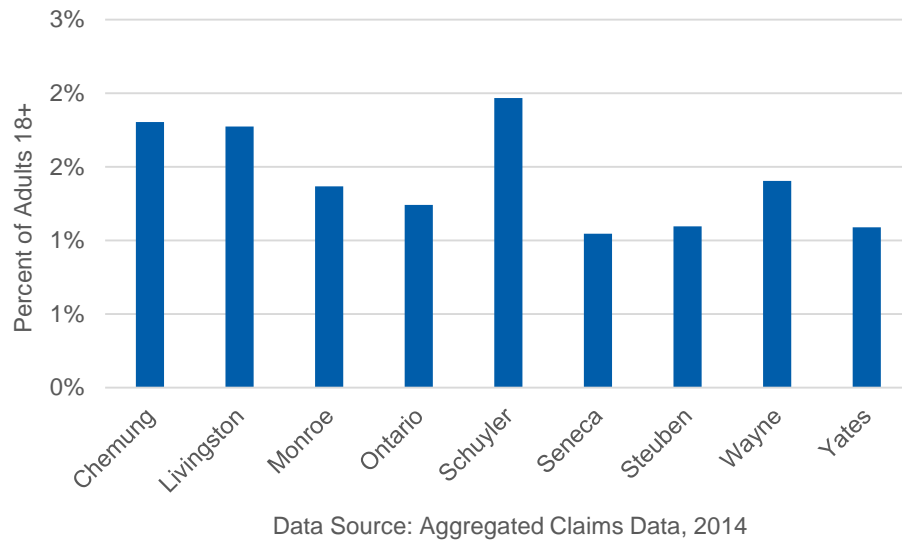ed about this population. Diabetes, a condition commonly associated with obesity, was also found to be a noteworthy concern for many counties, with almost the entire region exceeding the New York State average for the percentage of adults diagnosed with diabetes. Short-term diabetes complications were also found to be an important concern for the region indicating a potential lack of primary care treatment in the region. Staff looked at both prevalence and indicators of system efficiency to help prioritize issues and identify opportunities for both prevention and system improvement. The prevalence of diabetes in some regions are substantially high, though their rates of diabetes related PQIs and short-term complications are low Determination of priorities and potential interventions at a county level should account for both prevalence and treatment efficiency.

There are several communities in the region with notable tobacco use. A number of counties have rates of currently smoking adults that are more than double the Prevention Agenda Objective for 2018. The various co-morbidities associated with smoking were also found to be elevated throughout the region.

Behavioral health, specifically the use of heroin, was identified by community leaders as one emerging health issue in the region. The mortality and overdose hospitalization data indicate that heroin related discharges in the region are substantially higher than the rates for Upstate New York indicating a cause for concern. Schuyler, Ontario, Monroe and Chemung County were also found to have the highest inpatient discharge rates in the region. Of concern, overall rates of heroin related admissions and emergency department visits in the region have substantially increased from 2010-2014.

An additional emerging health issue identified by the community leaders were falls, slips and trips in the aging population. The rate of these occurrences in Schuyler County were particularly concerning with over 50% of its 65+ population reporting at least one fall in the past 12 months. However, the total number of falls for Schuyler County in this population were only 1,607. Furthermore, rates of emergency department visits related to falls, slip sand trips for this same population were also significantly elevated in Schuyler County.

Finally, in relation to chronic low back pain, data revealed a somewhat consistent trend in diagnosis of low back pain in the region. To gather this information, aggregated claims data were analyzed and found that roughly 9-12% of the insured adult population were diagnosed with low back pain. However, it is important to note that only those who sought medical care for their pain were captured in this estimate.

In relation to the 2013 Community Health Assessments, the current data revealed the following:

- Obesity remains a substantial concern throughout the Finger Lakes Region.
- Tobacco use in the region is significantly higher than the New York State Prevention Agenda Objective for 2018.
- Hypertension rates in the region are higher than that of the New York State average.
- Behavioral Health is a significant emerging issue across the Finger Lakes Region.

Unfortunately, for many of the key health indicators reviewed in this report, data collected to determine disparities in the region were largely unreliable due to large standard errors. However, staff have made efforts to provide additional information about socio-economic status, which is the disparity addressed by all counties in the region in 2013, either directly or as 'low income'. If during the process of priority area identification there is additional interest in gathering additional disparity data, staff may be able to provide limited data to assist.

Table 46 (page 1 of 3). Severe headache or migraine, low back pain, and neck pain among adults aged 18 and over, by selected characteristics: United States, selected years 1997–2013

Updated data when available, Excel, PDF, more data years, and standard errors: http://www.cdc.gov/nchs/hus/contents2014.htm#046.

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Severe headache or migraine[1]			Low back pain[1]			Neck pain[1]		
	1997	2010	2013	1997	2010	2013	1997	2010	2013
	Percent of adults with pain during the past 3 months								
18 years and over, age-adjusted[2,3]	15.8	16.6	16.0	28.2	28.4	28.4	14.7	15.4	14.4
18 years and over, crude[3]	16.0	16.4	15.6	28.1	28.8	29.0	14.6	15.8	14.9
Age									
18–44 years	18.7	20.4	18.8	26.1	25.2	23.8	13.3	13.1	11.2
18–24 years	18.7	19.6	17.1	21.9	19.4	18.0	9.8	8.3	6.7
25–44 years	18.7	20.7	19.5	27.3	27.2	26.0	14.3	14.8	12.9
45–64 years	15.8	15.6	15.6	31.3	32.4	33.7	17.0	20.0	19.4
45–54 years	17.8	16.7	17.9	31.3	31.3	32.5	17.3	19.1	19.4
55–64 years	12.7	14.1	13.0	31.2	33.8	35.0	16.6	21.0	19.4
65 years and over	7.0	6.4	7.3	29.5	31.8	33.7	15.0	14.8	15.9
65–74 years	8.2	7.4	8.1	30.2	32.5	33.3	15.0	15.5	17.3
75 years and over	5.4	5.1	6.2	28.6	30.9	34.2	15.0	14.0	14.1
Sex[2]									
Male	9.9	11.0	10.1	26.5	26.3	26.4	12.6	13.1	12.2
Female	21.4	22.1	21.6	29.6	30.3	30.2	16.6	17.6	16.5
Sex and age									
Male:									
18–44 years	11.9	13.5	12.0	24.8	23.2	21.4	11.6	11.0	9.3
45–54 years	10.3	10.4	10.7	29.4	29.6	31.4	13.9	16.3	16.3
55–64 years	8.8	9.6	9.1	30.7	32.8	34.9	14.6	17.6	17.8
65–74 years	5.0	5.5	4.5	29.0	28.4	32.2	13.6	12.8	16.0
75 years and over	*2.4	4.0	4.1	22.5	27.4	29.7	12.6	13.0	9.7
Female:									
18–44 years	25.4	27.3	25.5	27.3	27.1	26.1	14.9	15.2	13.1
45–54 years	24.9	22.9	24.8	33.1	33.0	33.6	20.6	21.8	22.3
55–64 years	16.3	18.2	16.5	31.7	34.7	35.1	18.4	24.1	20.9
65–74 years	10.7	9.1	11.1	31.1	36.1	34.3	16.1	17.8	18.4
75 years and over	7.4	5.8	7.6	32.4	33.2	37.3	16.5	14.6	17.1
Race[2,4]									
White only	15.9	16.7	16.0	28.7	29.1	29.0	15.1	16.0	14.8
Black or African American only	16.7	18.2	16.9	26.9	27.2	27.9	13.3	13.3	13.1
American Indian or Alaska Native only	18.9	18.8	18.9	33.3	33.6	31.2	16.2	16.9	17.3
Asian only	11.7	10.1	10.9	21.0	19.1	18.8	9.2	9.6	9.5
Native Hawaiian or Other Pacific									
Islander only	- - -	*	*	- - -	*	*	- - -	*	*
2 or more races	- - -	21.5	24.7	- - -	35.6	33.0	- - -	22.0	21.3
Hispanic origin and race[2,4]									
Hispanic or Latino	15.5	16.2	15.6	26.4	27.4	25.1	13.9	15.1	13.3
Mexican	14.6	15.7	15.5	25.2	26.5	23.3	12.9	14.7	12.9
Not Hispanic or Latino	15.9	16.8	16.2	28.4	28.7	29.0	14.9	15.5	14.8
White only	16.1	17.0	16.5	29.1	29.7	30.0	15.4	16.3	15.4
Black or African American only	16.8	18.4	16.7	26.9	27.1	27.8	13.3	13.3	13.0
Education[5,6]									
25 years and over:									
No high school diploma or GED	19.2	18.2	18.7	33.6	34.5	34.5	16.5	18.9	17.6
High school diploma or GED	16.0	17.4	16.5	30.2	31.9	31.9	15.5	16.8	16.4
Some college or more	13.8	15.1	15.0	26.9	28.0	28.4	14.6	15.8	15.0