Livingston County 2019-2021 Community Health Assessment (CHA), Community Service Plan (CSP) and Community Health Improvement Plan (CHIP)

County Name:	**Livingston County**
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Introduction

The Prevention Agenda is New York State's blueprint to help improve the health and well-being of its residents and promote health equity through state and local action. Every three years, New York State requests that local health departments and their local hospital systems work together to create a joint community health assessment and improvement plan using the Prevention Agenda guidelines. Local entities must choose two areas to focus community improvement efforts during the plan period. Local entities can choose from five priority areas:

1. Prevent Chronic Diseases
2. Promote a Healthy and Safe Environment
3. Promote Healthy Women, Infants and Children
4. Promote Well-Being and Prevent Mental and Substance Use Disorders
5. Prevent Communicable Diseases

During each new cycle, public health and hospital systems turn to key partners and community informants to help determine what the course of action ought to be to improve the population's health. For this particular cycle, eight local health departments and hospitals opted to leverage a local regional health planning agency (Common Ground Health) to conduct a community health assessment for the eight county region.

The following report summarizes Common Ground Health's assessment of local demographics and health data relating to the above priority areas for the eight county region. The report also contains a section devoted toward discussion of Livingston County's local health challenges, assets and resources and selected interventions to improve community health. A copy of the complete Regional Community Health Assessment (which includes a chapter on each of the eight counties) can be found on Common Ground Health's website.

www.CommonGroundHealth.org

Key Findings

Eight County Region

The total population in the region[1] has increased since 1990. Over the next ten years, however, Cornell University's Program on Applied Demographics projects a decrease in the overall population with an increase in the aging (65+) population. The most recent American Community Survey reports that 92% of the region's residents are white non-Hispanic. However, the community is becoming more diverse. Since 1990, there has been a 63% regional growth in the Hispanic population and a 32% regional growth in the African American population. In addition, there is anecdotal evidence to suggest a growing number of Amish and Mennonite settlements within the region due to the affordability of land. In fact, it is estimated that nearly 20% of Yates County's population is Amish or Mennonite.

There are several implications that both the growing diverse and aging population will have an impact on health. Healthcare providers must be equipped to care for patients with more co-morbid conditions than ever (aging population) as well as remaining culturally competent and relatable to diverse patients (growing number of Hispanics, African Americans, Amish and Mennonites). Ensuring a competent workforce is one of public health's ten essential services, which is why it is important to consider the population shift in health planning.

As identified through several avenues of local research, lack of transportation is one of the top barriers in each of the regional counties. Access to a vehicle and/or public transportation is not a privilege that all residents have. For those living on the outskirts of the populous cities and towns, access to transportation is essentially nonexistent unless they have their own vehicle or nearby neighbors, family and friends who have vehicles. This is particularly concerning for the aging population due to their need to attend more medical appointments than the average person, which could necessitate greater transportation planning in rural communities.

In addition, when looking at food insecurity data for the Community Health Assessment, data revealed that a portion of each county's population (average of 5%) are low income and have low access to a supermarket or grocery store. According to *My Health Story 2018* survey data, a supermarket or grocery store is where the majority of residents access their fresh fruits and vegetables (75%). Ensuring access to healthy and affordable food is essential to practicing a healthy lifestyle.

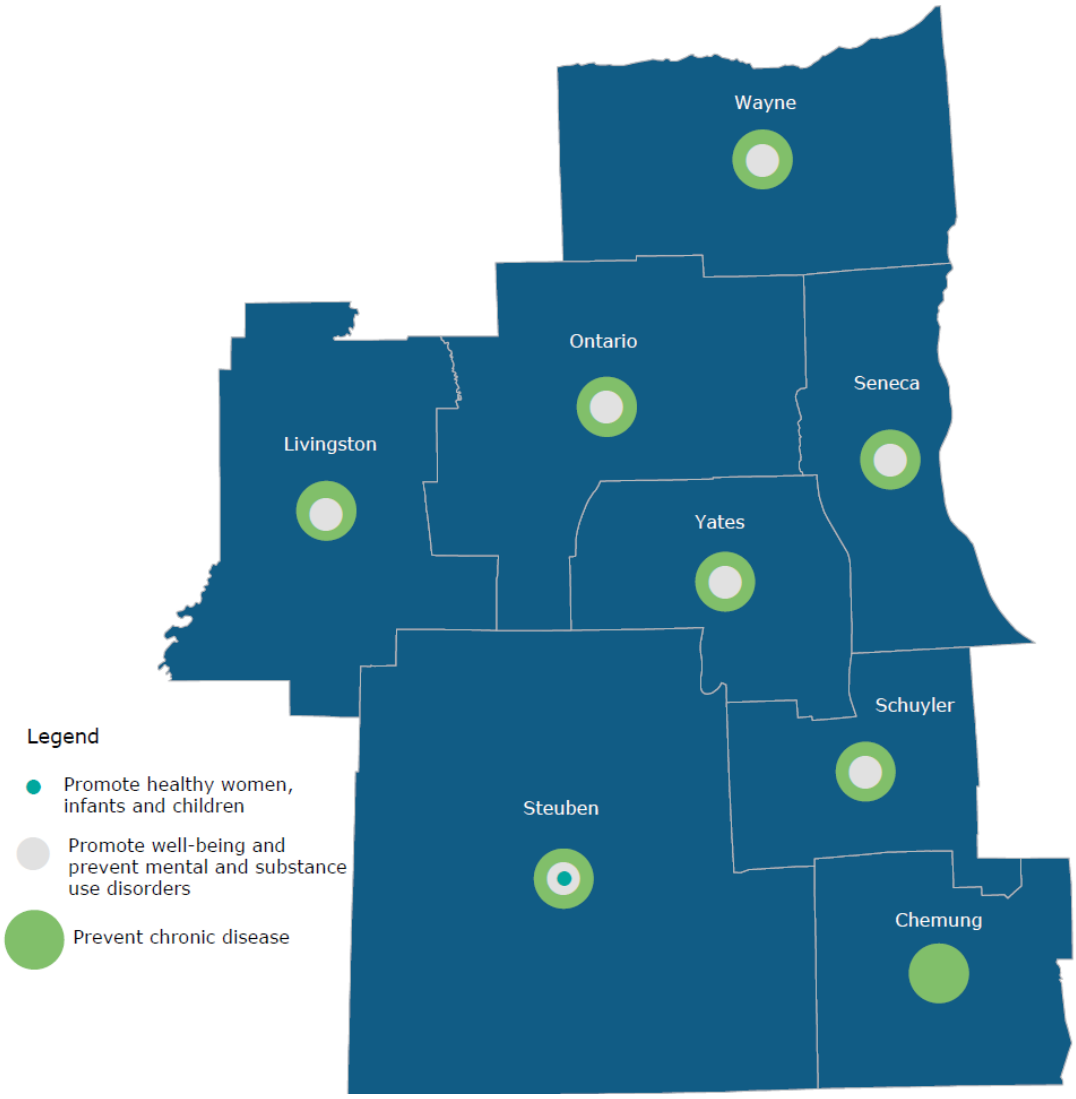
[1] Region includes Chemung, Livingston, Ontario, Schuyler, Seneca, Steuben, Wayne and Yates Counties

Regional Priority Alignment

It is not surprising that each of the eight counties have selected Prevent Chronic Diseases as one of their priority areas to focus on through 2021. It has been an opportunity for improvement for the past several assessment periods and remains one of the top priorities for each department. The most commonly selected focus areas within Prevent Chronic Diseases are (1) chronic disease preventative care management (six out of eight counties), (2) tobacco prevention (five out of eight counties) and (3) healthy eating and food security (four out of eight counties).

Promote Well-Being and Prevent Mental and Substance Use Disorders was the second most popular priority area with seven out of eight counties selecting this area. The particular focus area the majority of counties have selected revolve around prevention (seven out of eight counties).

Map 1: Selected Priority Areas



Interventions

To address the top focus areas, counties have selected the following interventions:

Focus Area	Intervention* & # of Counties Selected
Chronic disease preventative care and management	**4.1.2** Conduct one-on-one (by phone or in-person) and group education (presentation or other interactive session in a church, home, senior center or other setting) (selected by three counties) **4.1.3** Use small media such as videos, printed materials (letters, brochures, newsletters) and health communications to build public awareness and demand (selected by four counties)
Tobacco prevention	**3.1.2** Use media and health communications to highlight the dangers of tobacco, promote effective tobacco control policies and reshape social norms (selected by four counties) **3.2.3** Use health communications targeting health care providers to encourage their involvement in their patients' quit attempts encouraging use of evidence based quitting, increasing awareness of available cessation benefits (especially Medicaid) and removing barriers to treatment (selected by three counties) **3.3.1** Promote smoke-free and aerosol-free (from electronic vapor products) policies in multi-unit housing, including apartment complexes, condominiums and co-ops, especially those that house low-SES residents (selected by four counties)
Healthy eating and food security	**1.0.3** Implement worksite nutrition and physical activity programs designed to improve health behaviors and results (selected by three counties)
Prevent mental and substance use disorders	**2.2.2** Increase availability of/access to overdose reversal (Naloxone) trainings to prescribers, pharmacists and consumers (selected by five counties) **2.2.4** Build support systems to care for opioid users at risk of an overdose (selected by three counties) **2.2.5** Establish additional permanent safe disposal sites for prescription drugs and organized take-back days (selected by three counties) **2.3.3** Grow resilient communities through education, engagement, activation/mobilization and celebration (selected by three counties) **2.5.4** Identify and support people at risk: Gatekeeper training, crisis intervention, treatment for people at risk of suicide, treatment to prevent re-attempts, post-intervention, safe reporting and messaging about suicides (selected by five counties)
*Interventions shown are those where three or more counties selected the intervention. A full list of selected interventions can be found in the county improvement plan found in appendix A.	

Several of the above interventions include communication and small-media. As several counties have selected the same interventions, this poses an opportunity to create unified regional messaging. Residents do not remain within their counties' borders, so this concept will create an opportunity for Finger Lakes residents, regardless of where they live, work and play, to receive consistent messaging on health related topics. In addition, local departments have the opportunity to work together and leverage each other's resources when creating and disseminating these communications and educational materials.

Regional Assets and Resources to be Mobilized

The Finger Lakes region already has a long-standing reputation of collaboration and coordination among its partners. The region also has two designated agencies which promote and facilitate collaboration: the S2AY Rural Health Network and Common Ground Health.

The S2AY Rural Health Network is a partnership of seven local health departments including Chemung, Ontario, Schuyler, Seneca, Steuben, Wayne and Yates Counties. The network's mission is to be a leader in improving health outcomes for rural communities and has a vision of their rural communities being among the healthiest in the nation. Common Ground Health covers the same geographic area as the network, with the addition of Livingston and Monroe Counties. The agency brings together leaders from health care, business, education and other sectors to find common ground on health challenges.

Both of these agencies together help support the work of the Community Health Improvement Plan process and continually strive towards highlighting alignment, leveraging shared resources, and creating opportunities for shared learning. With facilitation and coordination by each agency, local leaders are able to regularly meet to discuss health challenges and issues as a team and devise plans towards improving health of all Finger Lakes residents (via S2AY's Public Health Directors/Board Development Committee and Common Ground Health's quarterly Regional Leadership meeting). Regular discussions regarding challenges in health outcomes and resources take place at both of these meetings.

In addition to the resources available at both S2AY and Common Ground, there are regional workgroups and local nonprofit organizations. The S2AY Rural Health Network has helped in leading four regional workgroups designed to address health needs of residents. The workgroups include:

1. **Farm to Table**
    - *A regional workgroup that addresses increased access to healthy foods, and collaborates with schools, food pantries, farmers, and local communities to get locally grown, fresh produce and raised products to them.*
2. **Healthy Living**
    - *A regional workgroup which enhances skills in our communities through collaboration among partners to prevent and control chronic health conditions with the delivery of evidence-based and evidence-informed interventions.*
3. **Worksite Wellness**
    - *A regional workgroup to help improve worksite wellness at area businesses and organizations for employers and their employees.*

4. **Finger Lakes Breastfeeding Partnership**
    - *A regional coalition that focuses on supporting breastfeeding mothers and increasing the number of women who breastfeed in the Finger Lakes region.*

Local nonprofit organizations are additional assets and resources that Finger Lakes region leaders may mobilize when implementing their community health improvement plans. There are several organizations in addition to those already mentioned which cover several counties in their work efforts. For example, the Tobacco Action Coalition of the Finger Lakes (TACFL) and the Southern Tier Tobacco Awareness Coalition (STTAC) may be leveraged in support of tobacco prevention efforts. In relation to healthy eating and food security, local Cornell Cooperative Extension agencies and worksite wellness coordinators (such as at hospitals, school districts, etc.) are potential agencies and departments which may support initiatives outlined in the improvement plans.

In addition to the above referenced regional partners, each county has built and sustained relationships with countless partner organizations that help to support initiatives within their specific county. Within each community health improvement plan, the roles of each agency are identified in relation to the selected priority areas, focus areas and interventions.

Livingston County Executive Summary

The Livingston County Health Department, in partnership with UR Medicine|Noyes Health, has selected the following priority areas and disparity for the 2019-2021 assessment and planning period:

County	Priority Areas & Disparity
Livingston County	**Prevent Chronic Disease** 1. Healthy eating and food security 2. Physical activity 3. Chronic disease preventative care and management **Promote Well-Being and Prevent Mental and Substance Use Disorders** 4. Promote well-being 5. Mental and substance use disorders prevention **Disparity: low socioeconomic status and older adults**

Selection of the 2019-2021 Community Health Assessment (CHA), Community Service Plan (CSP) and Community Health Improvement Plan (CHIP) priority and disparity areas was a joint process which began in the summer of 2018 with assistance from the Genesee Valley Health Partnership and Common Ground Health. A variety of partners were engaged throughout the process including the public health department and hospital staff, Community Based Organizations (CBOs), Office for Aging, Skilled Nursing Facility, CASA, county government employees, the Genesee Valley Health Partnership, Common Ground Health, community members and more. The community at large was engaged throughout the assessment period via a regional health survey in 2018 (*My Health Story 2018*) and focus groups. Partners' role in the assessment were to help inform and select

the 2019-2021 priority areas by sharing any pertinent data or concerns and actively participating in planning meetings.

On June 11, 2019, the health department engaged key stakeholders on the CHA Leadership Team in a prioritization meeting facilitated by Common Ground Health. Key partners and community members were invited to attend the prioritization meetings, including all those who attended prior focus groups. Social media platforms, e-mail, news media and newsletters were utilized to help stimulate participation. Common Ground Health provided group members copies of county specific pre-read documents in advance of the meetings. The documents included information on current priority areas and progress made to date, as well as a mix of updated quantitative, qualitative, primary and secondary data on each of the five priority areas outlined in the New York State Prevention Agenda. Data were collected from a variety of different sources including, but not limited, to the American Community Survey, the enhanced Behavioral Risk Factor Surveillance System, County Rankings and Roadmaps, Vital Statistics, communicable disease and dental reports, primary data collected from the *My Health Story 2018* Survey and local data sources such as Livingston County's Prevention Needs Assessment. A copy of the pre-read document, prioritization meeting materials and meeting attendees are available upon request.

Using the above referenced data and group discussions, participants utilized Hanlon and PEARL methods[2] to rank a list of group identified priorities. To address the

[2] Hanlon and Pearl are methods which rate items based on size and seriousness of the problem as well as effectiveness of interventions.

previously mentioned priorities and disparities, the health department facilitated a CHIP planning meeting where partners discussed opportunities to leverage existing work. Existing work efforts were then compared to intervention options (primarily selected from the New York State Prevention Agenda Refresh Chart) and were informally voted on and selected.

Regionally[3], Livingston County aligns with nearby counties on several interventions including the following:

Focus Area	Intervention* & # of Counties Selected
Healthy eating and food security	**1.0.3** Implement worksite nutrition and physical activity programs designed to improve health behaviors and results (selected by three counties)
Prevent mental and substance use disorders	**2.2.2** Increase availability of/access to overdose reversal (Naloxone) trainings to prescribers, pharmacists and consumers (selected by five counties) **2.2.4** Build support systems to care for opioid users at risk of an overdose (selected by three counties) **2.2.5** Establish additional permanent safe disposal sites for prescription drugs and organized take-back days (selected by three counties) **2.3.3** Grow resilient communities through education, engagement, activation/mobilization and celebration (selected by three counties)
*Interventions shown are those where three or more counties selected the intervention. A full list of selected interventions can be found in the county improvement plan found in appendix A.	

Mental and substance use disorder prevention was a widely selected focus area by several regional counties (seven out of eight counties). Several counties, including Livingston, have selected goals that revolve around prevention of suicides, addressing adverse childhood experiences (ACEs) and prevention of opioid and other substance use and misuse deaths. Leveraging region-wide all of the previously mentioned interventions will aid in reaching as many persons as possible

[3] The region includes eight of the nine Finger Lakes counties: Livingston, Livingston, Ontario, Livingston, Seneca, Steuben, Wayne and Yates Counties.

throughout the region. The complete list of Livingston County's selected interventions, process measures and partner roles in implementation processes can be found in the county's Community Health Improvement Plan grid (Appendix A).

The CHIP's designated overseeing body, Genesee Valley Health Partnership and CHA Leadership team, meets a minimum of twice per year. The group has historically reviewed and updated the Community Health Improvement Plan and will continue to fulfill that role. During meetings, group members will identify any mid-course actions that need to be taken and modify the implementation plan accordingly. Progress will be tracked during meetings via partner report outs and will be recorded in meeting minutes and a CHIP progress chart. Partners and the community will continue to be engaged and apprised of progress via website postings, email notification and at the annual State of the County Health Report presentation in Livingston County.

In addition, the ongoing collaborative process for updating and revising the assessment, including new information on data, will occur during the annual State of the County Health Report presentation and during GVHP membership meetings and subcommittee meetings such as the Suicide Prevention Task Force and Be Well meetings. These committees are comprised of diverse community sectors including community members. Recruitment of new members occurs on partners' websites and social media. The GVHP Board reviews annual membership to identify gaps in membership based on current health priorities.

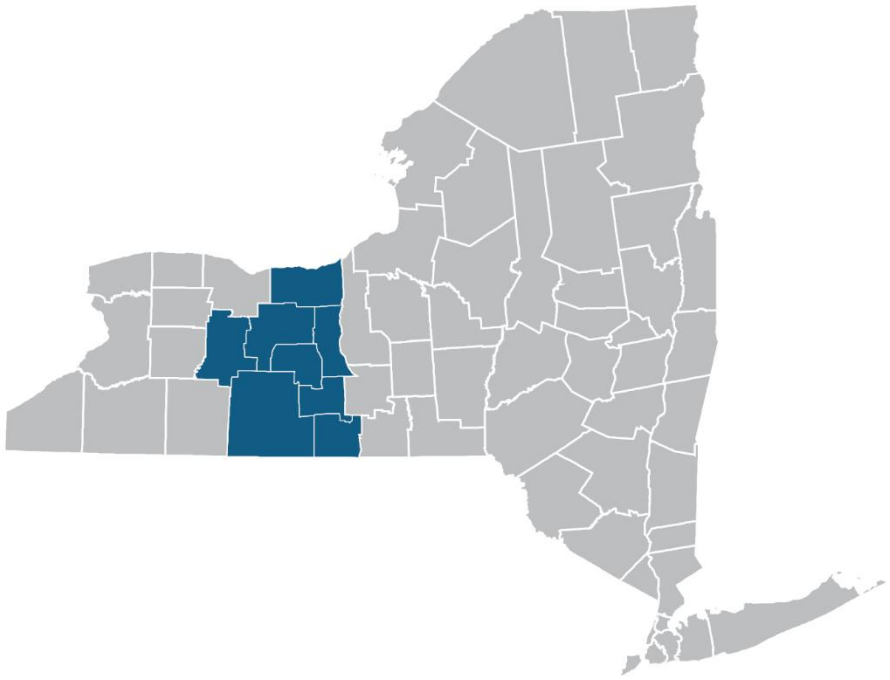
Community Health Assessment

Eight County Region

Total Population

Located in the Western half of New York State between Lake Ontario and the New York/Pennsylvania border, the Finger Lakes region is home to visions of renowned waterfront, hiking trails, thousands of acres of farmland, quaint and lively towns and villages, and active small cities (Map 2). Such a picturesque region brings in thousands of tourists each year. Despite all of its assets, residents experience health related issues and illness just like any other community in New York State. The following assessment will take a closer look at the health of Finger Lakes region residents and selected interventions to improve the health of its residents.

Map 2: The eight-county Finger Lakes region



The total population of the eight county region has increased by approximately 11,000 residents since 1990, with an estimated 528,000 total residents. Projections from Cornell University's Program on Applied Demographics expect a decrease in overall population (13,000 residents) over the next ten years, though there is an expected increase in the aging (65+) population. Implications of the growing aging population ought to be considered when health planning in the region.

According to the most recent American Community Survey data, 92% of the region's residents are white non-Hispanic. Since 1990, there has been a 63% regional growth in the Hispanic population (6,000 to 17,000 residents), and a 32% regional growth in the African American population (13,000 to 19,000 residents).

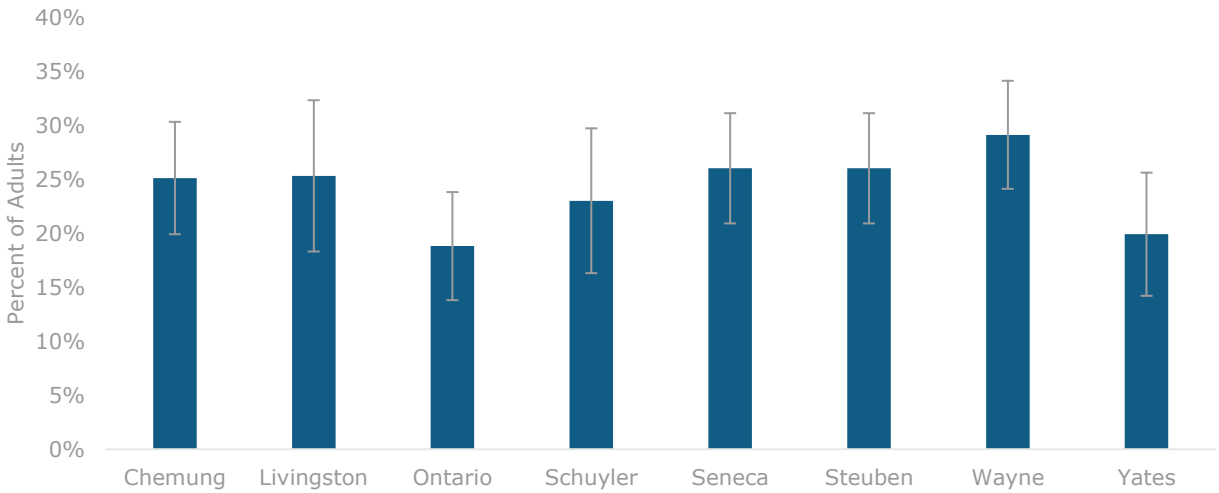
Disability

Those living with any form of disability (physical, activity or daily functioning impairments) are at greater risk for development of chronic conditions including

obesity, heart disease, and diabetes. Creating a built environment that helps eliminate structural barriers and building a culture of inclusion helps to reduce disparities in health outcomes for the disabled. Doing so requires support from a variety of change initiatives such as policy, system and environmental changes.

In the eight county region, an average of 24% of adult residents are living with a disability. The rates range from 19% in Ontario County to 29% in Wayne County (Figure 1).

Figure 1: Percent of adults living with a disability



Source: Division of Chronic Disease and Injury Prevention, Bureau of Chronic Evaluation and Research, New York State Department of Health, Behavioral Risk Factor Surveillance System, Year 2016.

Household Language

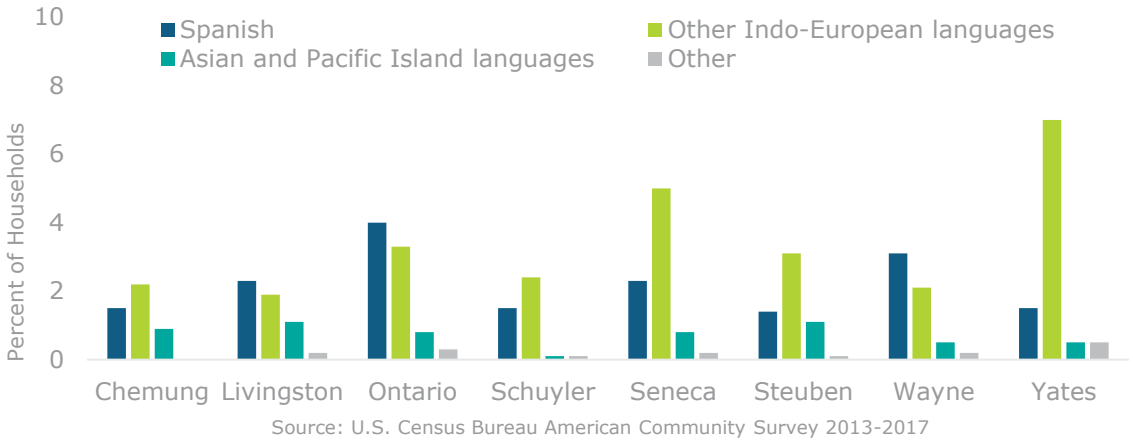
Providers of all types (medical, social service, etc.) should be aware of language and cultural differences when working with patients/clients. Being respectful of a person's cultural practices is important to building a trusting and positive relationship. A system where healthcare providers are culturally competent can help improve patient health outcomes and quality of care. In addition, it can help to eliminate racial and ethnic disparities in outcomes.[4]

The majority of residents in the eight county region speak English. A small percentage speak limited English (<1.5% of total population per county). Other popular languages spoken in the home include Spanish, Asian and Pacific Island

[4] Source: Health Policy Institute at Georgetown University, "Cultural Competence in Health Care: Is it important for people with chronic conditions?"

languages, and other Indo-European languages. Figure 2 shows the percent of each county's residents who speak a language other than English.

Figure 2: Percent of households speaking a language other than English



Special Populations

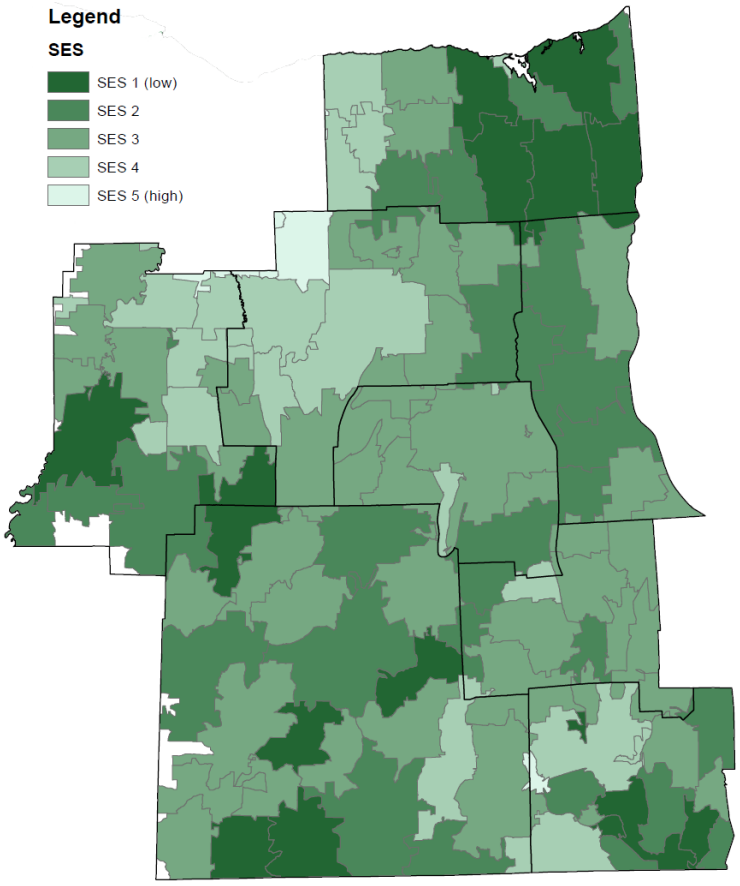
Finding accurate and up-to-date data on Amish and Mennonite populations is a challenge. This population often does not respond to surveys such as those conducted by the U.S. Census Bureau. Local churches, however, collect information on their members and may share this information with public health officials. The Groffdale Conference Mennonites (Old Order Mennonites), for instance, releases an annual map of its congregation. Groffdale Conference Mennonite families span the area between Canandaigua and Seneca Lakes (Yates County), and from Geneva (Ontario County) all the way down to Reading, NY (Schuyler County). The church reports a total of 697 Groffdale Conference Mennonite households throughout Yates, Ontario, Schuyler and Steuben Counties; the majority of whom reside in Yates County.[5] Important to note, however, is that these data do not include the Crystal Valley Mennonite and Horning Order groups- two additional congregations which are found in the region.

Cultural practices of Amish and Mennonites must be considered when reviewing data and planning health initiatives. It is customary in Amish and Mennonite cultures to practice natural and homeopathic medicine as opposed to traditional American medical care (family planning, preventative care visits, dental screenings, vaccinations, etc.). Late entrance into prenatal care and home births are common practices. Children attend school through eighth grade and learn farming and other trades throughout childhood and adolescence, creating potential for unintentional and farm-related injuries. Bikes and buggies (horse drawn) are common forms of transportation and, combined with speeding traffic on rural roads, can create the potential for road accidents. Health decision making is often based on the attitudes,

[5] Source: Groffdale Conference Mennonites in the Finger Lakes Area of New York State, March 2019 Map

beliefs and practices of church leadership. These factors with the anticipated growth in this population create unique challenges for Public Health practitioners.

Map 3: Socioeconomic status in the eight-county Finger Lakes region



Socioeconomic Status

Socioeconomic status[6] affects 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 3 reveals the socioeconomic status of the Finger Lakes region based on ZIP code. Note that almost half of Wayne County was found to be in the two lowest socioeconomic statuses in the region, yet pockets of poverty exist throughout the eight counties.

One of the factors influencing socioeconomic status is income, largely driven by employment status. Having a job may afford a person the ability to maintain safe and adequate housing, purchase healthy foods, remain up to date on health visits, and more. The type of position a person holds plays a significant role in the individual's ability to become self-sufficient and is closely related to educational attainment. Higher paid jobs are directly correlated to greater self-sufficiency. The 2017 American Community Survey estimates 28% of regional residents have received a Bachelor's degree or higher, which has increased since 2012 (26%).

Unemployment

Unemployment in the Finger Lakes region has declined since 2012, as shown in the table below (Table 1). The percent of the population who are not in the labor force, however, has increased. It is important to note the percent not in the labor force

[6] The Common Ground Health estimation of socioeconomic status is 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.

includes those over the age of 65. With a growing number of elderly in the region, it is not surprising that this rate has increased since 2012.

Table 1: Percent of 16+ by labor force and employment status

	2012		2017	
	% 16+ in Labor force Unemployed	% 16+ Not in Labor Force	% 16+ in Labor force Unemployed	% 16+ Not in Labor Force
Chemung	7	41	5	43
Livingston	6	39	5	43
Ontario	7	34	5	36
Schuyler	6	41	7	41
Seneca	6	44	5	43
Steuben	9	40	7	41
Wayne	8	34	6	37
Yates	6	38	6	40
8 County Region	**7**	**38**	**6**	**40**
NYS	9	35	7	37

Source: US Census Bureau American Community Survey 5-Year Estimates

Unemployed persons under age 65 do not have access to employer-based subsidized health insurance, and are therefore more likely to be uninsured. 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 that could have been rendered in a primary care provider setting. Since the implementation of the Affordable Care Act, the rate of uninsured individuals has decreased 3% over the past six years to 5% of residents. This is a step in the right direction, but health insurance attainment is not the only barrier to health care. Underinsured individuals, or those who have high deductibles that affect their ability to access healthcare, is a real concern. Transportation, lack of provider availability (including difficulty scheduling with providers) and cost (i.e. cost of care, time away from work, and childcare) were repeatedly identified as barriers and top concerns in *My Health Story 2018* survey discussions and are areas that could see improvement.

Health Assessment

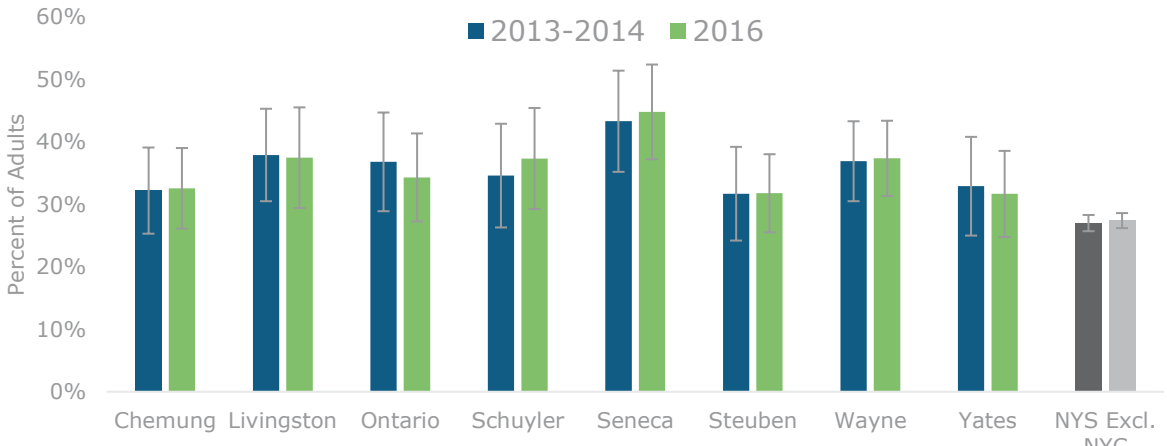
Eight County Region

At priority setting meetings, participants reviewed and discussed data from a variety of sources and five different topic areas recommended by the NYS Prevention Agenda. A summary of regional health challenges by topic area are below.

Prevent Chronic Diseases

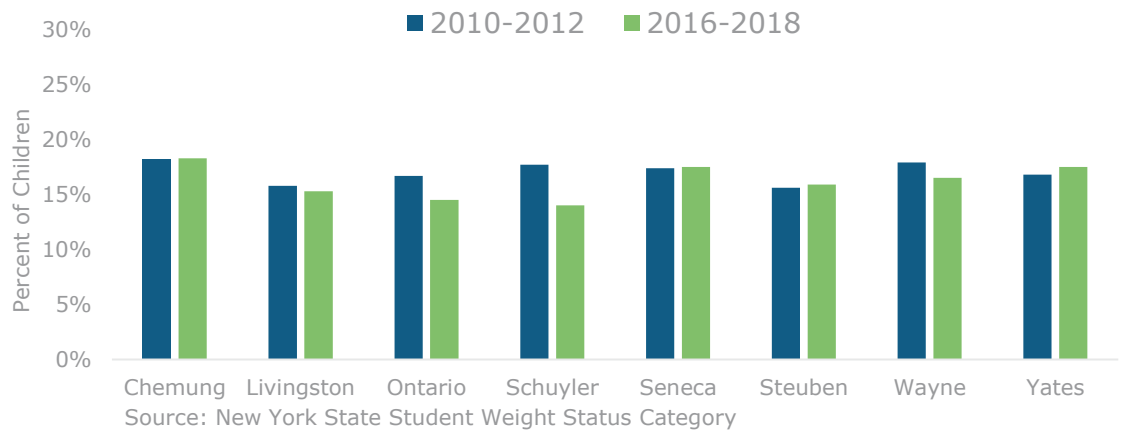
Preventing chronic disease has been a long standing priority area in the eight county region. Efforts have largely been focused on reducing illness, disability and death related to hypertension, tobacco use and second hand smoke, and reducing obesity in children and adults. Rates of obesity in the eight county region have not changed significantly in recent years. Affecting both adults (Figure 3) and children (Figure 4), long-term health complications may lead to development of diabetes, hypertension, and premature mortality due to related conditions. Regionally, respondents to the *My Health Story 2018* survey indicated that better diet, nutrition and physical activity habits would help them manage their weight better.

Figure 3: Percent of adults 18+ who are obese



Source: Division of Chronic Disease and Injury Prevention, Bureau of Chronic Evaluation and Research, New York State Department of Health, Behavioral Risk Factor Surveillance System, Year 2016. Analysis Completed by Common Ground Health

Figure 4: Percent of children who are obese



Obesity disproportionately affects specific populations. Both the low-income population and those living with a disability have higher rates of obesity than the general population, as shown in Table 2 below.

Table 2: Obesity rates among low income and those living with a disability

	Obesity	Obesity among low-income population	Obesity among those living with a disability
Chemung	33%	45%	49%
Livingston	38%	39%	48%
Ontario	34%	41%	51%
Schuyler	37%	54%	46%
Seneca	45%	46%	46%
Steuben	32%	37%	36%
Wayne	37%	42%	45%
Yates	32%	29%	48%
8 County Region	**35%**	**41%**	**45%**
NYS	27%	33%	40%
Source: Behavioral Risk Factor Surveillance System, 2016			

In addition, there are some stark differences in rates of obesity by sex. Data appears to demonstrate that more males are reported obese than females (Table 3).

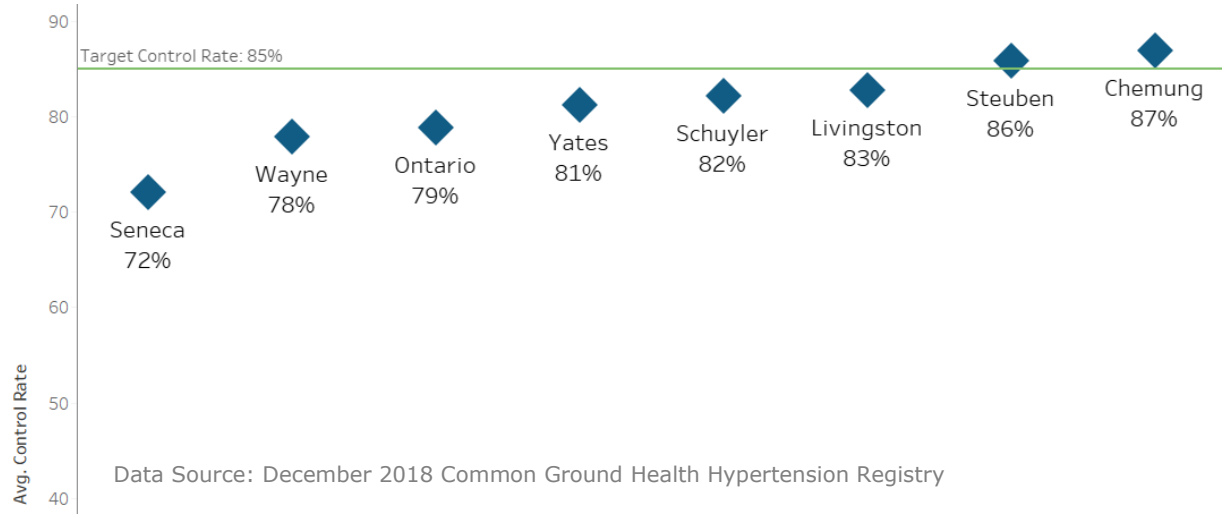
Table 3: Obesity rates by sex

	Obesity- Males	Obesity- Females
Chemung	34%	30%
Livingston	31%	40%
Ontario	40%	36%
Schuyler	24%	42%
Seneca	56%	35%
Steuben	33%	31%
Wayne	43%	31%
Yates	31%	30%
8 County Region	**37%**	**34%**

Source: Division of Chronic Disease and Injury Prevention, Bureau of Chronic Evaluation and Research, New York State Department of Health, Behavioral Risk Factor Surveillance System, Year 2016. Analysis Completed by Common Ground Health

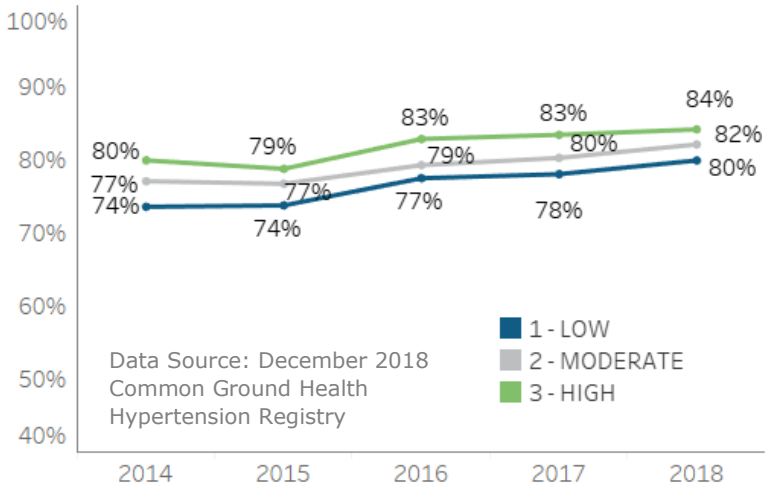
An estimated 36% of adults in the region have been diagnosed with hypertension. However, it is important to note the hypertension control rate for residents. According to the December 2018 High Blood Pressure Registry[7], 79% of hypertensive patients in the region are in control of their blood pressure. Rates of blood pressure control in the eight county region range from 72-87%, with an overall target of 85% control (Figure 5). Maintaining greater control of blood pressure can lead to lower risk of heart attack, stroke and death. Among those who reported they were not managing their high blood pressure well in the *My Health Story 2018* survey, respondents indicated that prescriptions and better diet and nutrition would help them manage their disease better.

Figure 5: Percent of patients with blood pressure controlled, December 2018 high blood pressure registry



[7] The High Blood Pressure Registry is a biannual effort led by Common Ground Health, which collects data on hypertensive patients from healthcare providers in the nine county Finger Lakes region.

Figure 6: Regional control rate by socioeconomic status over time



There is a four percent difference in hypertension control rate by socioeconomic status in the eight county region (Figure 6). Reducing the disparity requires engaging patients in taking control of their blood pressure through various methods including blood pressure medication adherence, being physically active and eating healthy. Low income patients are less able to afford medications and healthy foods and may live in circumstances that limit their ability to exercise regularly. Working with providers to prescribe generic medications covered by insurance, mitigating lack of access to healthy foods and addressing the built environment are important interventions to consider when looking to reduce disparities.

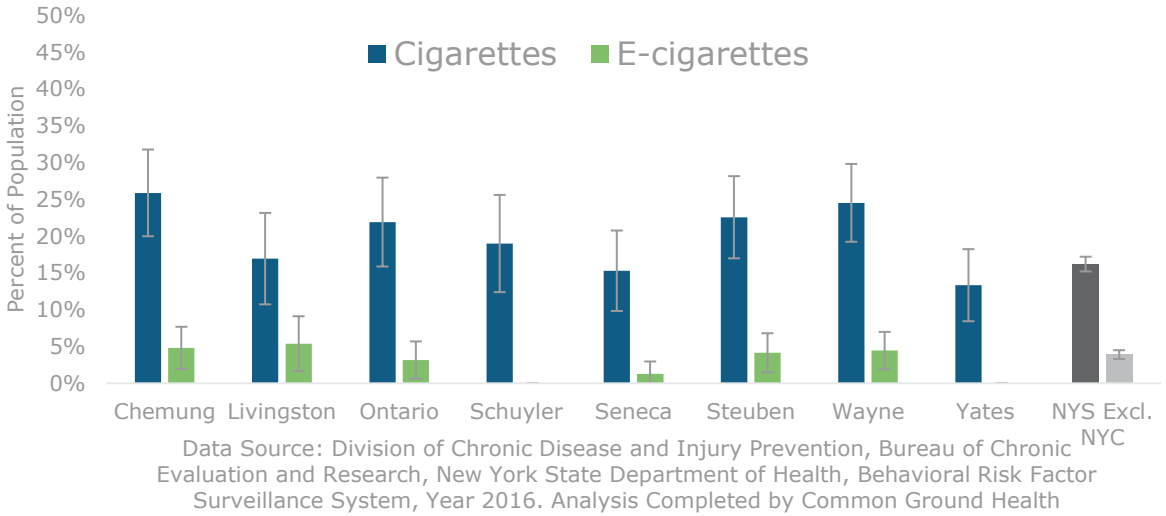
Those diagnosed with hypertension and/or obesity are at greater risk for other diseases such as chronic kidney and cardiovascular (heart) disease. In fact, heart disease is one of the top two leading causes of death in the eight county region (additional data can be found later in report). Cardiovascular disease (CVD), similar to its contributing factors (obesity, hypertension and smoking), impacts different populations at varying levels. Data have revealed that those living with a disability are at greater risk for development of cardiovascular disease (Table 4) and may be a population where health intervention ought to be focused.

Table 4: Cardiovascular disease by demographic

	CVD	CVD- those living with a disability
Chemung	13%	24%
Livingston	9%	20%
Ontario	8%	16%
Schuyler	9%	27%
Seneca	13%	28%
Steuben	15%	37%
Wayne	10%	21%
Yates	8%	24%
8 County Region	**11%**	**25%**
NYS	9%	21%
Source: Behavioral Risk Factor Surveillance System, 2016		

Tobacco use increases the risk of cardiovascular disease. An emerging issue identified in the region is the use of e-cigarettes and other nicotine delivery systems, especially among younger adults. Nicotine is addictive – regardless of the form in which it is consumed - and has deleterious effects on developing fetuses and underdeveloped brains in children and adolescents. Unregulated child-friendly flavorings and colorings found in vaping and other devices damage the oral mucosa and airway. There is much still unknown about the full health effects of electronic cigarettes. A recent NY State DOH Health Alert (August 15, 2019) of severe pulmonary disease among ten NY State residents related to vaping highlights the need for public health professionals to address this issue in the coming years. While data at this time are sparse, the popularity of these devices have grown substantially. It is likely that use is actually much higher than estimates shown in Figure 7.

Figure 7: Percent of adults (18+) who smoke every day or some days



Smoking rates vary by demographic. For instance, the low-income population has higher rates of smoking than the general population, as shown in Table 5Table 2 below. Additionally, those living with a disability are also estimated to have higher rates than the general population.

Table 5: Smoking rates by demographic

	Current smoker	Current smoker- low income	Current smoker- those living with a disability
Chemung	26%	37%	34%
Livingston	17%	20%	20%
Ontario	22%	45%	29%
Schuyler	19%	32%	32%
Seneca	15%	33%	20%
Steuben	23%	31%	29%
Wayne	25%	32%	30%
Yates	13%	30%	27%
8 County Region	**26%**	**33%**	**28%**
NYS	16%	25%	23%

Source: Behavioral Risk Factor Surveillance System, 2016

There are also differences in rates of smoking by sex (Table 6). Some counties, such as Chemung, Seneca and Livingston Counties, see a fairly big difference in smoking rates by sex. In these counties, males are upwards of 10% more likely to report smoking than females. Targeting public health interventions towards males and the above mentioned disparate populations may help to reduce disparities.

Table 6: Smoking rates by sex

	Current smoker- Males	Current smoker- Females
Chemung	32%	22%
Livingston	11%	19%
Ontario	22%	21%
Schuyler	18%	21%
Seneca	19%	11%
Steuben	24%	25%
Wayne	27%	21%
Yates	13%	14%
8 County Region	**21%**	**23%**

Source: Division of Chronic Disease and Injury Prevention, Bureau of Chronic Evaluation and Research, New York State Department of Health, Behavioral Risk Factor Surveillance System, Year 2016. Analysis Completed by Common Ground Health

Healthy eating habits are important when it comes to decreasing the burden of obesity in children and adults. According to *My Health Story 2018* survey data, 9% of the region's respondents reported the nearest grocery store is 20+ minutes away, where vehicles are needed to access them. Of note, the majority of residents (75%) indicated they usually get their fruits and vegetables from a supermarket or

grocery store or local grocery store (47%). A substantial amount utilize local farm stands (39%), farmers markets (29%), or grow their own in their garden (22%), with estimates higher in Schuyler, Seneca, Wayne and Yates Counties.

My Health Story 2018 respondents were also asked the biggest challenges or barriers keeping them from eating healthier. Table 7 reveals barriers reported by residents. The biggest barrier to eating healthier, particularly for those with low income, is that healthy food is too expensive. Other issues which rose to the top were not enough time and lack of knowledge of how to shop for and prepare the food.

Table 7: Barriers to eating healthy

	8 County Region				
	under $25K	**$25-50K**	**$50-75K**	**$75K+**	**Overall**
Buying healthy food is too expensive	57%	50%	43%	24%	42%
I don't enjoy the taste of healthy food	3%	6%	11%	8%	7%
I don't have any place nearby to buy healthy food	4%	5%	2%	3%	3%
I don't have the supplies and equipment I'd need to cook healthy food	8%	4%	3%	1%	4%
I don't have the time to shop for, and prepare, healthy food	15%	18%	22%	22%	19%
I don't have the transportation to go shopping for healthy food	11%	1%	0%	0%	3%
I don't know how to cook and prepare healthy meals that taste good	16%	15%	14%	9%	13%
The others in my household don't eat healthy, and we eat together	14%	13%	14%	13%	13%
I really don't have any barriers keeping me from eating healthy food	22%	33%	37%	48%	36%
I don't want or need to eat healthier than I already do	5%	6%	10%	11%	8%

Source: My Health Story *survey 2018. Analysis by Common Ground Health incorporates weighting to reflect demographics of each county and the region.*

In the eight county region, 74% of residents reported engaging in physical activity in the past month (2016 BRFSS). According to *My Health Story 2018* data, the main reason for not engaging in more physical activity is lack of time and feeling too tired to exercise (Table 8). Of note, the low income population reported inability to afford a gym membership as the biggest barrier to being physically active.

Table 8: Barriers to being physically active

	8 County Region				
	under $25K	$25-50K	$50-75K	$75K+	Overall
I always seem to be too tired to exercise	29%	31%	33%	26%	29%
I can't afford a gym membership or other fitness opportunities	46%	31%	22%	10%	26%
I can't exercise because of a physical limitation or disability	25%	13%	12%	7%	14%
I don't have a safe place nearby to get more exercise	9%	6%	5%	3%	6%
I don't have anyone to exercise with, and don't like to exercise alone	21%	19%	17%	11%	16%
I don't have the time to get more exercise	17%	38%	46%	54%	40%
I don't have transportation to get places where I could get more exercise	11%	2%	1%	0%	3%
My life is too complicated to worry about exercise	6%	10%	9%	7%	8%
I really don't have any barriers keeping me from being physically active	16%	27%	20%	30%	24%
I don't want or need to be more active than I already am	8%	8%	10%	8%	8%

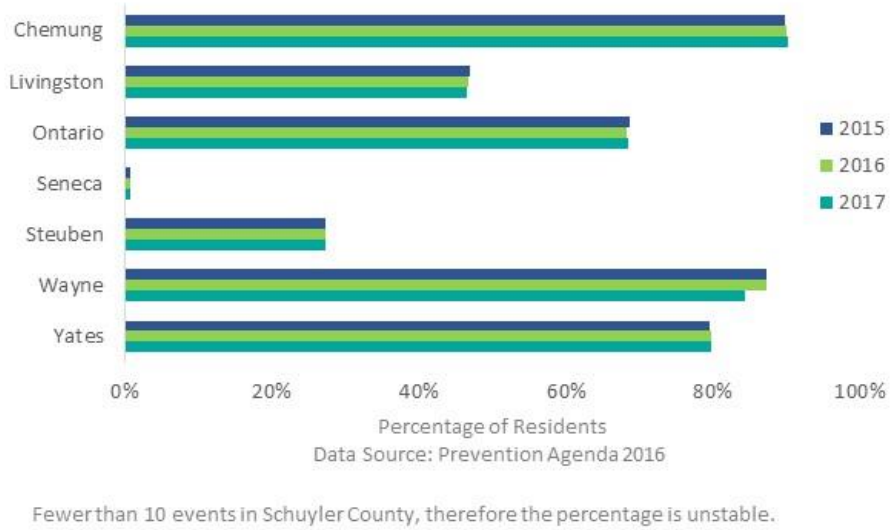
Source: My Health Story *survey 2018. Analysis by Common Ground Health incorporates weighting to reflect demographics of each county and the region.*

Promote a Healthy and Safe Environment

Healthy and safe environments relate to all dimensions of the physical environment(s) in which we live, work and play that impact health and safety. This includes the air we breathe, the water we drink and utilize for recreational use, interpersonal violence, incidence of injury and more.

Water quality is one way to examine healthy environments and is measured by the percentage of residents served by community water systems with optimally fluoridated water. Fluoridation benefits both children and adults by rebuilding weakened tooth enamel and helping to prevent tooth decay. There are varying levels of optimal water by county as shown in Figure 8. Several counties in the region exceed 50% of residents served by optimally fluoridated water. Progress could be made in Steuben and Seneca Counties.

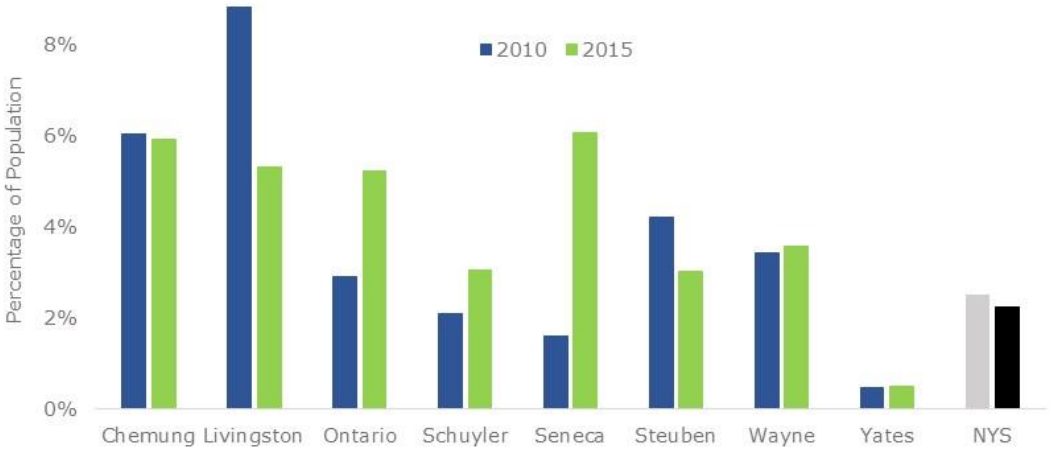
Figure 8: Percent of residents served by community water systems with optimally fluoridated water



Fewer than 10 events in Schuyler County, therefore the percentage is unstable.

As previously discussed, access to a supermarket or grocery store is important for accessing healthy foods. In the eight county region, 9% of *My Health Story 2018* respondents indicated the nearest grocery or supermarket store was 20+ minutes away. Access to a vehicle may be particularly challenging for the low income population. Figure 9 shows the percent of residents who are low income and have low access to a grocery store.[8] NYS rates are much lower than several counties in the region with the exception of Yates County. Rates of low income and residents with low access have increased since 2010 in Ontario, Schuyler and Seneca Counties.

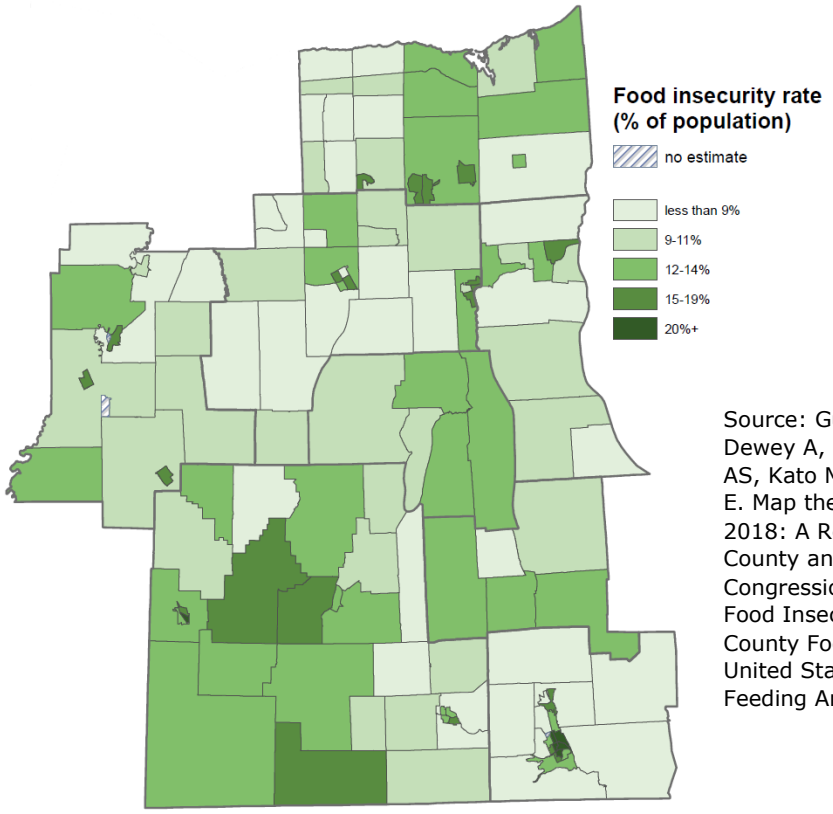
Figure 9: Percent of population that is low income and has low access to a supermarket or large grocery store



[8] Source: NYS Prevention Agenda Dashboard

Over 22% of the regional population reported experiencing food insecurity in the past 12 months. Of note, 14% of *My Health Story 2018* respondents reported they are always stressed about having enough money to afford healthy food. Map 4 shows the food insecurity rates by census tract in the eight county region. Higher rates of food insecurity are found in previously identified low income areas such as Geneva, Mount Morris and Elmira. In addition, Steuben County has the highest reported food insecurity rate with insecurity noted in communities throughout the county.

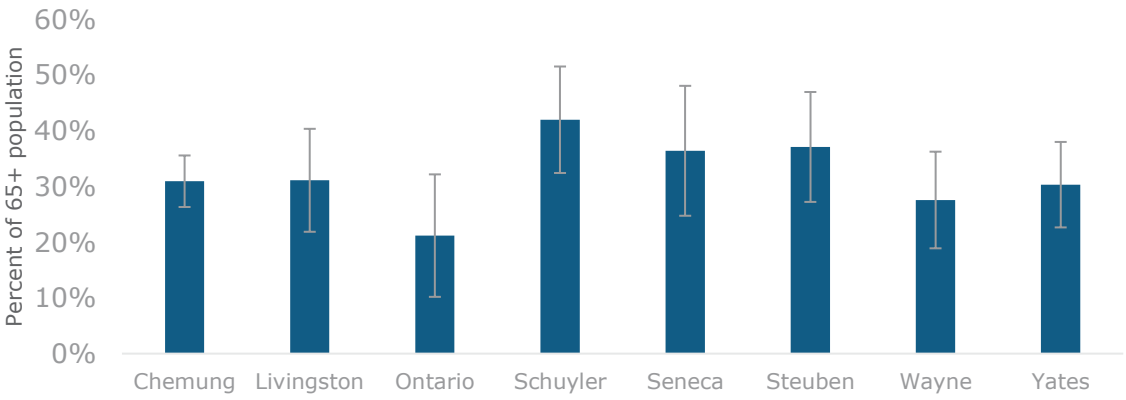
Map 4: Food insecurity rate by census tract



Source: Gunderson C. Dewey A, Crumbaugh AS, Kato M & Englehard E. Map the Meal Gap 2018: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States, 2016. Feeding American 2018.

Falls in the 65+ population are another indicator of environmental health and safety. In the eight county region, an average of 30% of residents aged 65+ have fallen in the past year though the rate varies by county (Figure 10). The results of falls in the elderly can be devastating. These may include death, decreased life expectancy, chronic pain, loss of mobility and resultant loss of independence. Several counties in the region have partnered with their Office for the Aging to offer evidence-based classes on fall prevention.

Figure 10: Reported falls in 65+ population



Source: Division of Chronic Disease and Injury Prevention, Bureau of Chronic Evaluation and Research, NYSDOH, Behavioral Risk Factor Surveillance System, Year 2016. Analysis Completed by Common Ground Health

Promote Healthy Women, Infants and Children

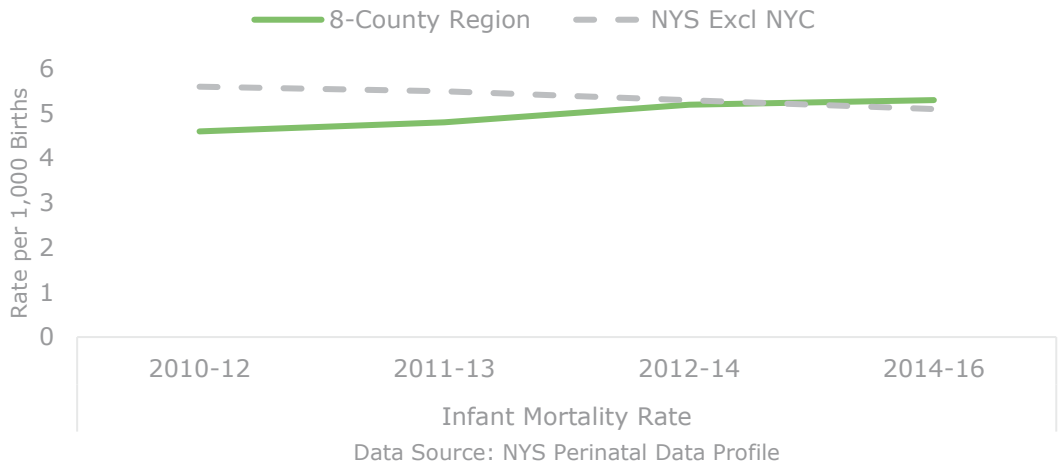
New York State collects several pieces of information on births including the number of premature and low birth weight babies. A baby born prematurely (<37 weeks gestation) is at risk for several health complications including jaundice, anemia, apnea, and more. The earlier a baby is born in pregnancy, the more likely it is that the baby will need to spend time in the neonatal intensive care unit (NICU). Long-term health complications associated with premature birth include intellectual and developmental delays, problems with communicating, getting along with others, and even taking care of him or herself. Neurological disorders, behavioral problems, and asthma may also occur.[9]

Premature birth is the primary cause of low birth weight. A child born at a low birth weight may suffer a range of health complications at birth. Some of the common issues for a low birth weight newborn include low oxygen levels, breathing complications due to immature lungs, difficulty feeding and gaining weight, neurological and gastrointestinal problems, infection, and more.[10] In the eight county region, rates of premature birth (9.5%) and low birth weight (6.8%) have remained below the NYS excluding NYC average (10.6% and 7.6%).

The rate of infant mortality (deaths that occurred less than 1 year after birth) has increased slightly over the past several years (Figure 11). Causes of infant mortality may be related to prematurity and related conditions, infections, obstetric conditions, sudden unexpected infant death and external causes such as unsafe sleep practices.

[9] March of Dimes, Premature Babies and Long-Term Health Effects of Premature Birth, www.marchofdimes.org.
[10] Stanford Children's Health, Low Birthweight

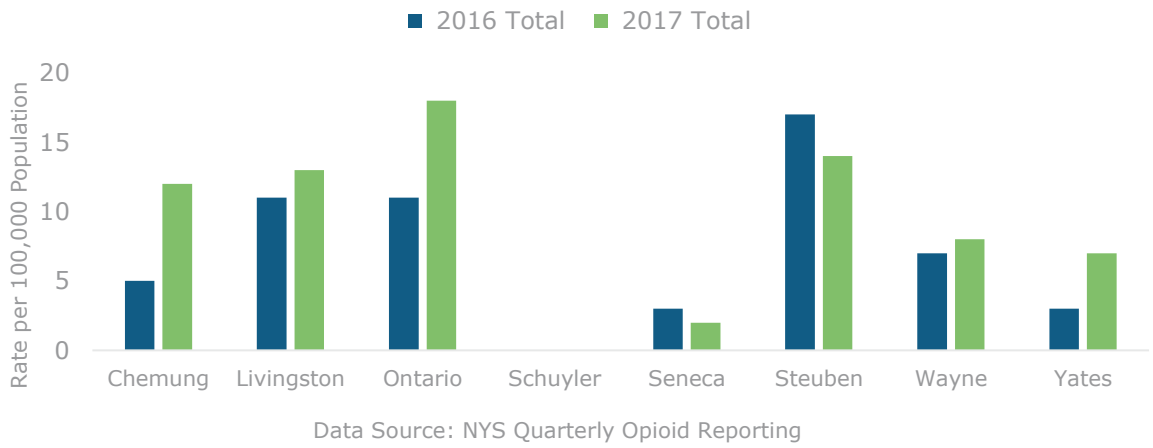
Figure 11: Rate of Infant Mortality



Promote Well-Being and Prevent Mental and Substance Use Disorders

Data from New York State Opioid Reporting indicate a 23% increase in overdose deaths from 2016 (N=57) to 2017 (N= 74) (Figure 12). Notably, Seneca and Steuben Counties were the only counties that saw a decrease in deaths from 2016. The largest increases in deaths were in Chemung and Ontario Counties. No data are available for Schuyler County.

Figure 12: All opioid overdose death rates per 100,000 population



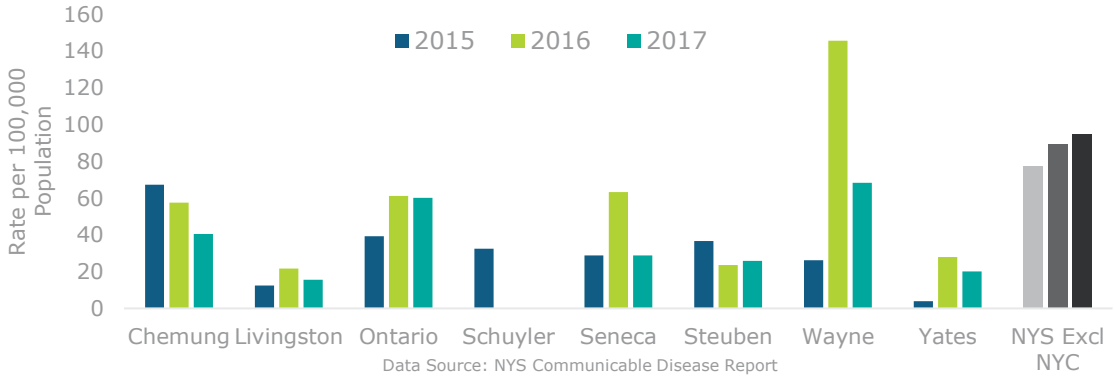
According to survey data from *My Health Story 2018*, half of the respondents indicated they have dealt with anxiety, fear, depression or sadness (Figure 13). For those who have dealt with mental or emotional health issues, 75% of survey respondents said they got the help they needed. The most commonly reported support was from doctors, counselors and other mental health professionals followed by support from friends and family.

Figure 13: Percent of adults who have personally dealt with each of the following mental or emotional health issues

Prevent Communicable Diseases

Sexually transmitted diseases are a prominent issue in New York State, including all eight counties in the region. Historical data are available on the incidence of chlamydia and gonorrhea. In comparison to NYS excluding NYC, all eight counties have lower rates of chlamydia in recent years. Typically, rates of gonorrhea in the region are lower than NYS excluding NYC. However, rates spiked in 2016 for several counties in the region including Ontario, Seneca and Wayne which could be due to an outbreak or increased testing and diagnosis. (Figure 14).

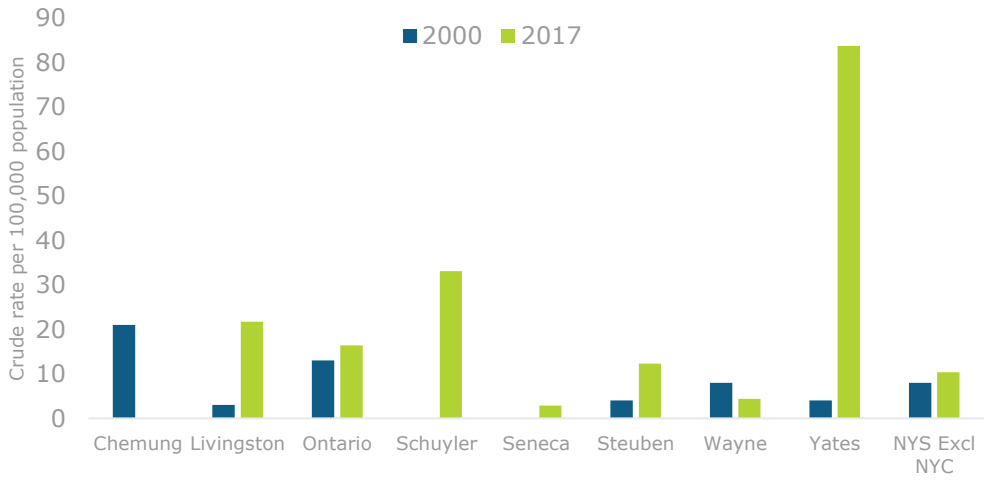
Figure 14: Rate of gonorrhea per 100,000



Vaccine preventable diseases are on the rise in the region. An average of 10 patients were diagnosed with vaccine preventable diseases in 2017 in the region with a range by county from 0 to 21 patients. In 2000, the average was 6 patients with a range of 0 to 18 by county. With the increased number of those who choose not to vaccinate, it is important now more than ever to increase education and awareness of the benefits of vaccinating children. Herd immunity occurs when the

majority of the population is immune to infection or disease. It helps to reduce risk of disease for those who are unable to be vaccinated due to age, health conditions or other factors. The rise of those who choose not to vaccinate negatively impacts the effectiveness of herd immunity. The majority of vaccine preventable diseases in the region are cases of pertussis (Figure 15).

Figure 15: Rate of vaccine preventable diseases

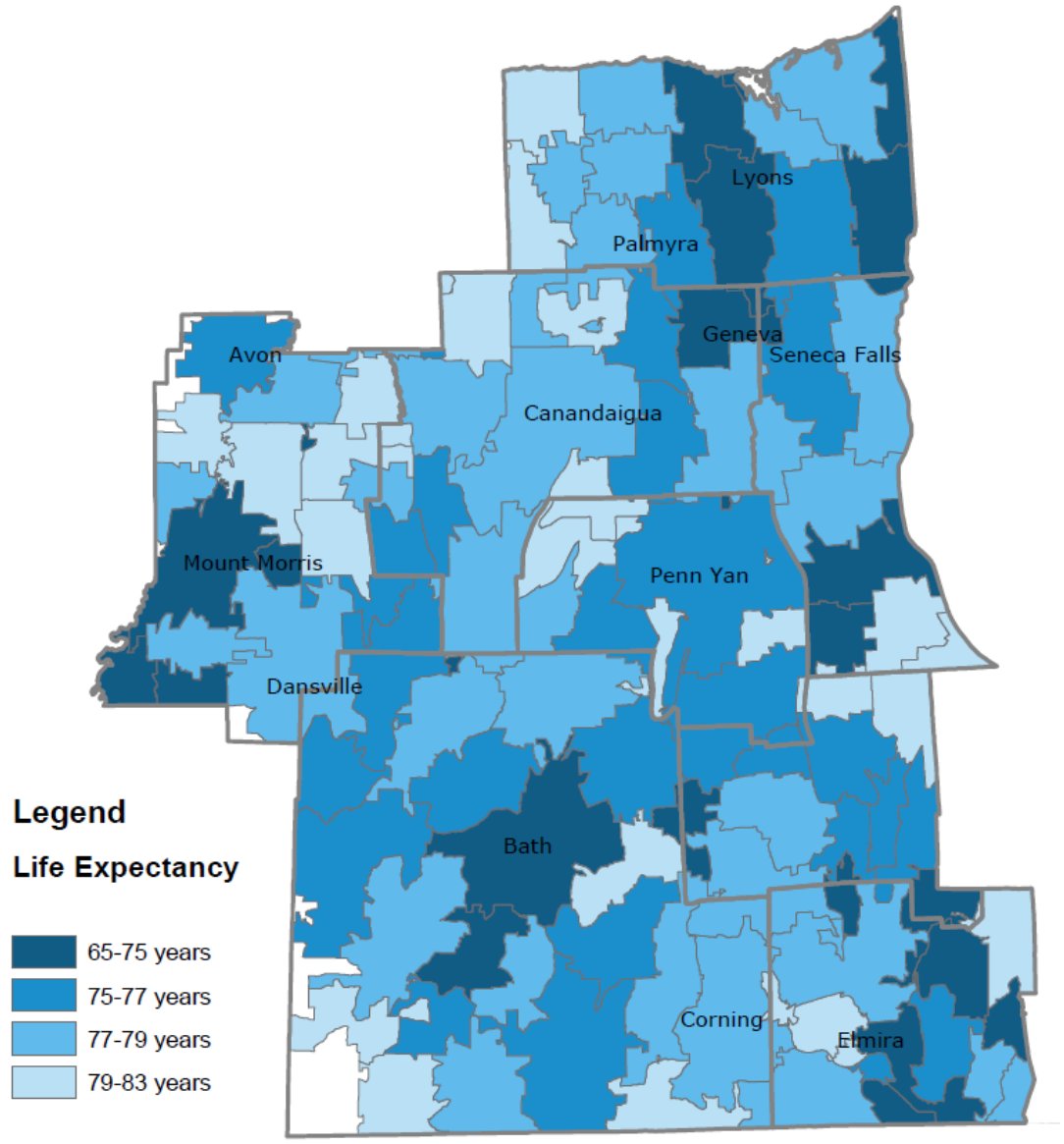


Source: NYS Communicable Disease Reporting, 2000 and 2017

Mortality

Each of the behavioral, environmental and socioeconomic factors previously discussed have a collective impact on one major health outcome: life expectancy. Community members who engage in risky health behaviors, are socioeconomically disadvantaged, and live in environments that negatively impact health have a greater risk of dying sooner than someone on the opposite spectrum. Within our region, we find pockets of lower life expectancy (under 75 years) in communities such Lyons, Geneva, Mount Morris, Bath and portions of Elmira (Map 5). Of note, a death which occurs before age 75 is considered premature. Therefore, communities with life expectancies under 75 years (highlighted in dark blue below) are considered as communities experiencing health inequities.

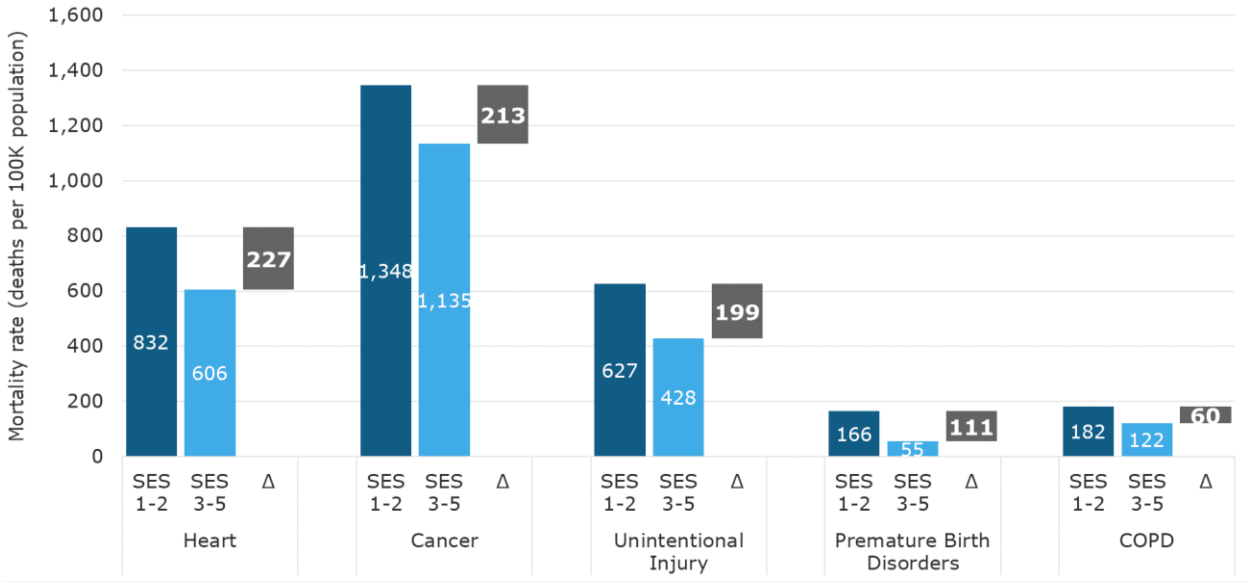
Map 5: Life expectancy by ZIP code



Source: NYSDOH Vital Statistics 2012-2014. Calculations performed by Common Ground Health.

The largest force behind health inequity relates to socioeconomic difference. Premature mortality is one measure that can be used to identify health inequities. Communities with low life expectancy also tend to be communities with higher rates of poverty. Disparities in premature mortality are the greatest in the top two causes of death – heart disease and cancer – and may be attributed back to risk factors (such as smoking, obesity, etc.) which are more commonly found in a low income population (Figure 16).

Figure 16: Rates of premature mortality disparities for eight county region



Source: NYSDOH Vital Statistics 2010-2015. Calculations performed by Common Ground Health.

In general, males have a lower life expectancy than females. This is partly attributed to biological differences, but perhaps more so behavioral tendencies differences in the two sexes. For instance, males may be more likely to drink excessively, smoke cigarettes, not follow-up with preventative care, etc. Many of these factors may play a role in development of heart disease and cancer later in life. According to New York State Department of Health Vital Statistics, males tend to have higher rates of death due to heart disease and cancer compared to their female counterparts (Table 9).

Table 9: Heart Disease and Cancer mortality by sex

	Heart Disease		Cancer	
	Male	**Female**	**Male**	**Female**
Chemung	221.9	162.4	185.2	145.9
Livingston	155.9	106.6	210.9	140.6
Ontario	217.9	93.5	213.7	156.6
Schuyler	268.5	104.9	216.4	214.8
Seneca	231.1	103.8	182.2	185.8
Steuben	188.7	165.1	187.1	138.2
Wayne	174.2	133.9	189	179.5
Yates	216.1	104.3	181.2	124.0

Source: NYSDOH Vital Statistics, 2016. Rates are per 100,000 population

Planning and Prioritization Process

Eight County Region

The MAPP (Mobilizing for Action through Planning and Partnerships) process was used by all eight health departments to develop their health assessments and improvement plans. This process includes four community assessments. The first assessment, which is the Community Health Status, began in the summer of 2018 when local health departments partnered with Common Ground Health to conduct a nine county regional health survey (*My Health Story 2018*).[11] This survey served as the vehicle for gathering primary qualitative and quantitative data from Finger Lakes region residents on health issues in each county. Health departments, hospitals, and other local partners were instrumental in distributing the survey to community members including disparate populations. Additional primary data reviewed in Livingston County included Healthy Communities That Care Prevention Needs Assessment and Regional High Blood Pressure Registry. Secondary data reviewed included the NYSDOH Prevention Agenda Dashboard, County Health Rankings, and the Behavioral Risk Factor Surveillance Survey.

The second assessment was of the local public health system completed by stakeholders in each respective county. The survey sought to determine how well the public health system works together to address the ten essential services and provides an effective work-flow that promotes, supports and maintains the health of the community. Per the MAPP user's handbook, additional questions were included to address health inequities. Results from the survey are available in county specific prioritization pre-read documents (available upon request) and, overall, were very positive.

For additional community engagement and feedback, and the third and fourth assessments (forces of change and community themes and strengths), health departments conducted focus groups with lesser represented survey populations between the months of November and February.[12] Results from the focus groups and a list of attendees are available upon request.

After conducting each of the four assessments above with assistance from the Genesee Valley Health Partnership and Common Ground Health, local health departments invited key stakeholders and focus group attendees to participate in a prioritization meeting to help inform and select the 2019-2021 priority and focus areas. Participants utilized the Hanlon (PEARL) method to rank a list of group identified and/or pre-populated health department identified priorities. The method

[11] Common Ground Health services nine counties in the Finger Lakes region. For the purposes of this Community Health Assessment, Monroe County was excluded from data analysis.
[12] The majority of survey respondents were middle aged white women. Common Ground Health staff performed weighting calibration to align with each county's actual demographics, though, results may be biased.

rates items based on size and seriousness of the problem as well as effectiveness of interventions. The result of each group scoring led to the selection of the priority areas and disparities and are summarized in greater detail in the county-specific chapter to follow.

As demonstrated in the health data section, each county's residents face their own unique and challenging issues when it comes to their community, yet commonalities remain. There are a number of demographic and socioeconomic indicators which may impact health and are consistent concerns across the region. For example:

***Age**: Variances in age can impact a community's health status. Older adults require more frequent medical check-ins, are more prone to illness, falls and unintentional injuries, and often experience more co-morbid conditions than younger adults and children. In addition, aging adults may not have access to a vehicle and rely on family, friends or public transportation for accessing basic needs and medical appointments. The strain of caring for an elderly adult may also negatively affect the caregiver. A community with higher rates of elderly adults may have worse reported health outcomes than a younger community.*

***Poverty**: Low income residents are more likely to experience a breadth of health issues not seen as often in wealthier residents. For example, lower socioeconomic status is linked to higher incidence of chronic disease, shorter life expectancy, and lower rates of good social, emotional and physical health. Low income may also force a person to choose between basic needs (such as housing, food, clothing, etc.) and preventative medical care. Often, and not surprisingly, the person will choose the basic need over preventative medical care. A community with higher rates of impoverished residents is likely to have worse health outcomes than wealthier communities.*

***Education**: Education levels have been known to be a predictor of life expectancy. The Centers for Disease Control and Prevention reports that adults aged 25 without a high school diploma can expect to die nine years sooner than college graduates. Persons who attain higher education levels are more likely to seek health care, preventative care services, and earn higher wages. A more educated community may, therefore, have better health outcomes than a low educated community.*

***Housing**: Access to quality and affordable housing is imperative to ensuring basic needs are met. Housing structures that are safe, clean, up to code and affordable help to improve community health. When incomes are consumed on rent or mortgages, residents may lack funds for preventative care services, medications, and healthy foods. Additionally, outdated, substandard housing puts tenants at risk for asthma and lead poisoning (especially children).*

Each of the above indicators impacts the health of the community. The next section takes a closer look at these demographic and socioeconomic indicators and also

includes a review of behavioral and political environments in Livingston County that impact the health of its residents. Finally, the section will highlight the community's assets and resources that may be leveraged to improve health through identified evidence-based interventions.

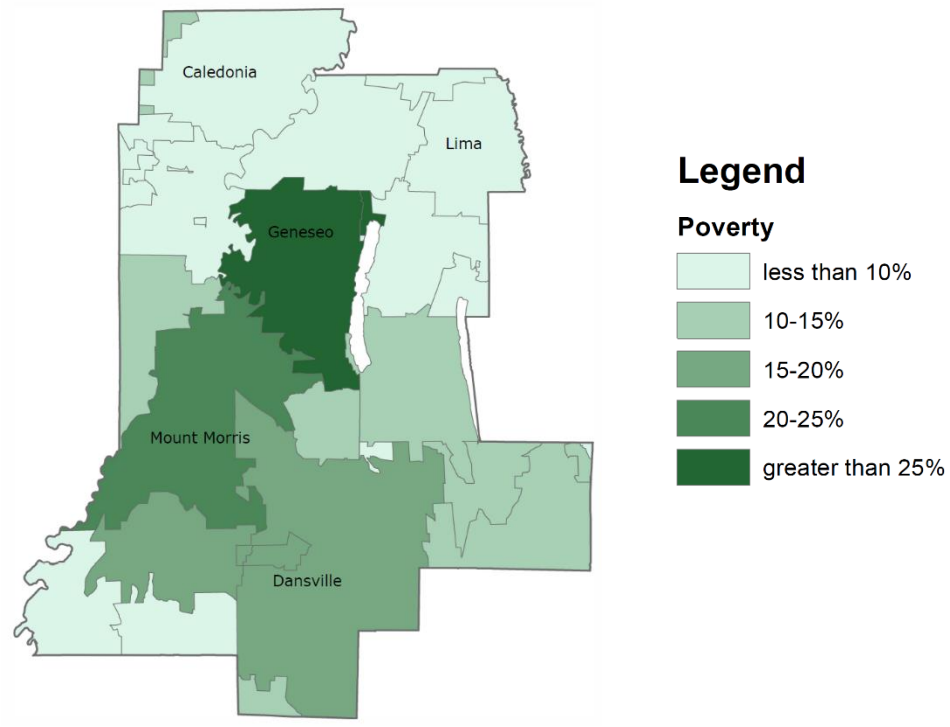
Livingston County

Demographic and Socioeconomic Health Indicators

Livingston County is home to Conesus and Hemlock Lakes and Letchworth State Park. It is located south of Monroe County and north of Steuben and Allegany Counties. The northern portion of the county's proximity to the City of Rochester makes it easily accessible for jobs for those able to commute. A total of 64,373 persons reside in the county, the majority of which (94%) are White Non-Hispanic. Women of childbearing age make up 18% of the population, and 25.3% of the 18+ population are living with a disability.[13] 2017 estimates reveal 31% of the 65+ population (N=3,188) is living alone. This rate is up 19% from 2012 when 26% of the 65+ population (N=2,397) was living alone.

A significant number - 14.6% - of Livingston County residents are living below the federal poverty level, and another 16% live near it. The rates are higher in communities such as Geneseo, Mount Morris and Dansville. The distribution of poverty in the county is shown below in Map 6.

Map 6: Poverty rates by ZIP code

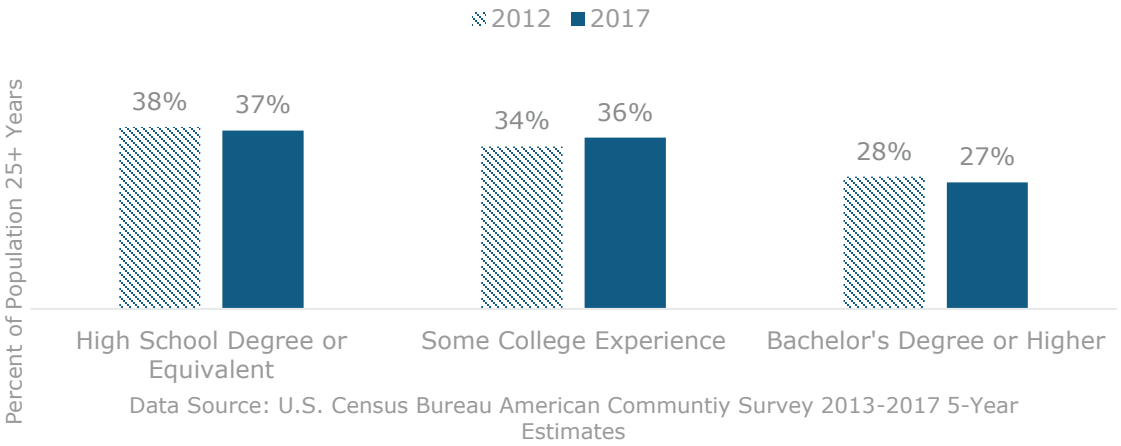


Source: U.S. Census Bureau American Community Survey 2013-2017 5-Year estimates

[13] Disability defined as impairment to body structure or mental functioning, activity limitation such as difficulty hearing, moving or problem-solving, and participation restrictions in daily activities such as working, engaging in social/recreational activities or obtaining healthcare or preventative services.

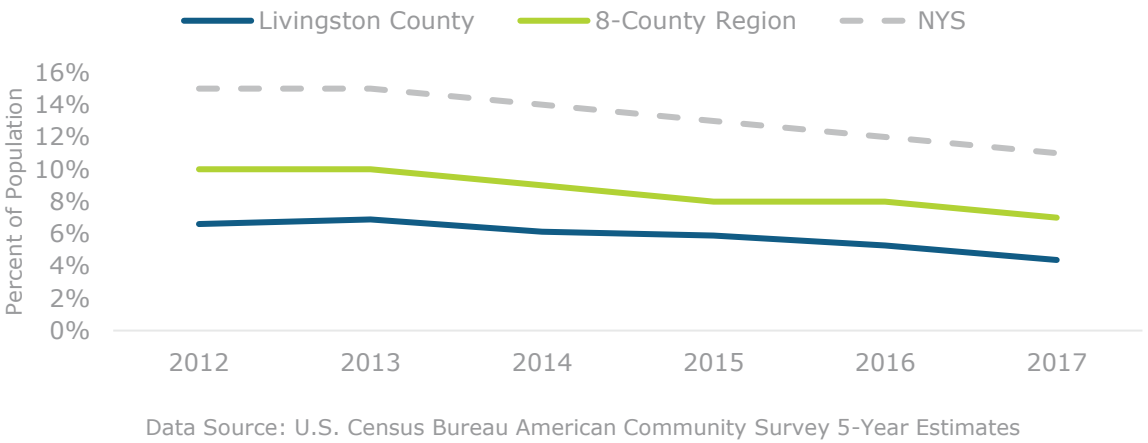
Over the past 5 years, there has been a slight shift in educational attainment where there are more residents aged 25+ with a Bachelor's degree or higher than in years past (Figure 17).

Figure 17: Educational attainment for Livingston County by year



Data below show the trend in uninsured rates over the past 5 years, which has decreased 33% since 2012 in Livingston County (Figure 18). Of note, uninsured rates in Livingston County are lower than both the eight county and NYS averages.

Figure 18: Percent of population that is uninsured



Finally, 27% of Livingston County residents rent vs. own their home. In addition, 8% of occupied housing units have no vehicles available. Another 32% have access to one vehicle. Of note, the average household size for occupied housing is greater than two people. Approximately 50% of residents are paying 35% or more of their household income in rent costs.[14]

[14] Source: US Census Bureau American Community Survey 2013-2017 5-Year Estimates

Main Health Challenges

On June 11, 2019, stakeholders and community members were invited to attend a priority setting meeting. At this meeting, participants reviewed the MAPP process, as well as relevant qualitative, quantitative, primary and secondary data. Lively group discussions took place regarding the potential priority areas. The meeting was very well attended with multiple agencies and a community member represented. Data were collected and reviewed from a variety of different sources including, but not limited to, the American Community Survey, the enhanced Behavioral Risk Factor Surveillance System, Vital Statistics, communicable disease and dental reports, primary data collected from the My Health Story 2018 Survey, and local data sources such as Livingston County's Prevention Needs Assessment. Ultimately, using the Hanlon and PEARL methods, the group selected the following as their priority areas and disparity for the 2019-2021 Community Health Improvement Plan:

Prevent Chronic Disease

1. Healthy eating and food security
2. Physical activity
3. Chronic disease preventative care and management

Promote Well-Being and Prevent Mental and Substance Use Disorders

4. Promote well-being
5. Mental and substance use disorders prevention

Disparity: low socioeconomic status and older adults

In addition to the group's thoughts, *My Health Story 2018* respondents were asked questions relating to their top concerns for the health of themselves, loved ones, adults and children in the community (and were reviewed at the prioritization meeting). Weight and mental/emotional health issues have risen to the top for each of the four categories (Figure 19). Of note, substance use, mental/emotional health and obesity related issues are concerns respondents had for children in the county. Cancer and cost of care rose to the top five for respondents' fears for themselves and for others.

Figure 19: Livingston County summary of health-related concerns for self, loved ones and county to prioritize

Biggest fear - for self	Biggest fear - for others
Mental / emotional health issues (17.3%)	Mental / emotional health issues (14.9%)
Weight (9.8%)	Cost (10.0%)
Cancer (7.0%)	Cancer (9.5%)
Heart conditions (6.2%)	Weight (6.7%)
Cost (5.8%)	Diet / nutrition (6.0%)

County priority - for adults	County priority - for children
Mental / emotional health issues (22.2%)	Diet / nutrition (21.5%)
Substance abuse (20.5%)	Mental / emotional health issues (17.1%)
Weight (16.4%)	Substance abuse (15.9%)
Cost (10.9%)	Weight (15.4%)
Diet / nutrition (9.7%)	Exercise (15.1%)

Source: *My Health Story* survey 2018. Analysis by Common Ground Health incorporates weighting to normalize survey participants to demographics of each county. Top 5 issues shown for each question. Data shown are the percent of participants with responses in each category.

Behavioral Risk Factors

The 2016 Behavioral Risk Factor Surveillance System estimates that 38% of Livingston County adults are obese with rates slightly higher in the low-income population (40%) and those living with a disability (39%)[15]. The chronic condition affects an estimated 17,890 adults and 490 children. Long-term health complications associated with obesity include increased risk for development of diabetes, hypertension and premature mortality due to related conditions. Respondents to *My Health Story 2018* indicated that better diet and nutrition and physical activity habits would help them to manage their weight better.

In terms of diet and nutrition, data demonstrate that 45% and 57% of the county's population reported eating fruits and vegetables, respectively, on a regular basis. Of note, 33% also report daily sugary drink consumption, which is higher than the eight county region (25%).[16] The majority of *My Health Story 2018* respondents (78%) reported that their primary source of healthy foods are from a supermarket or grocery store, though a substantial amount grow their own or utilize farm stands (38%) and local farmers markets (28%).

Challenges and barriers to accessing healthy foods in the county are similar to other nearby communities. *My Health Story 2018* respondents identified expense as a barrier to eating healthier (43%), particularly among the low income population (53%). Other issues which rose to the top were eating habits of other family

[15] Source: Behavioral Risk Factor Surveillance System, 2016. Low-income data are unreliable due to large standard error. Standard error between 26% and 54%.
[16] Source: Behavioral Risk Factor Surveillance System, 2016

members and not having enough time to shop and prepare healthy foods (Table 10).

Table 10: Barriers to healthy eating

	Livingston Income up to $50K	Livingston Overall	8 County Overall
Buying healthy food is too expensive	53%	43%	42%
The others in my household don't eat healthy, and we eat together	18%	16%	13%
I don't have the time to shop for, and prepare, healthy food	13%	17%	19%
I don't have any place nearby to buy healthy food	11%	6%	3%
I don't know how to cook and prepare healthy meals that taste good	11%	12%	13%
I don't have the supplies and equipment I'd need to cook healthy food	5%	2%	4%
I don't have the transportation to go shopping for healthy food	4%	2%	3%
I don't enjoy the taste of healthy food	1%	5%	7%
I really don't have any barriers keeping me from eating healthy food	20%	32%	36%
I don't want or need to eat healthier than I already do	4%	8%	8%

Source: My Health Story *survey 2018. Analysis by Common Ground Health incorporates weighting to reflect demographics of each county and the region.*

Physical activity is another contributing factor to obesity rates. Livingston County is home to an abundance of parks, trails and recreational opportunities which residents can take advantage of all year round. The most recent Behavioral Risk Factor Surveillance System (2016) estimated that 81% of residents engaged in physical activity in the past month, which is higher than the average for the region (75%). For those who did not partake in physical activity, *My Health Story 2018* alludes to inability to afford a gym membership (31%), lack of time (40%) and feeling too tired to exercise (26%) as reasons they did not engage. The low income population was more likely to report in the survey inability to afford a gym membership (43%).

During focus groups and leadership team meetings, mental well-being and substance use were noted as hot topics and areas of concern for Livingston County residents. Data from the quarterly New York State Opioid Reporting indicated a 15% increase in opioid overdose deaths in the county from 2016 (N=11) to 2017 (N=13). To date, data show an increase in deaths for the first two quarters of 2018. It is unknown at this time if this trend continued throughout the rest of the year. However, it should be noted that this is different from surrounding counties where many have seen a decrease in deaths in the first two quarters.

Two areas that may help to alleviate substance use disorders and deaths are chemical dependence treatment programs and Naloxone administrations. In terms of treatment centers, the New York State Department of Health tracks and reports the number of OASAS-certified chemical dependence treatment program admissions and reports this data through quarterly reports. In Livingston County, admissions increased from 288 in 2016 to 298 in 2017. The increase in support for residents may help to alleviate the number of deaths that occur in the future. In addition, documented Naloxone administrations have increased from 43 in 2016 to 57 in 2017. Important to note, however, is that these reports do not include undocumented administrations, which may be completed by family, friends or bystanders.

The Livingston County Health Department and its partners have worked diligently over the past several years to help reduce mental and substance use disorders. The Suicide Prevention Coalition of the Genesee Valley Health Partnership was formed in 2013 and continues to enhance capacity of the coalition, provide post-intervention services, conduct evidence-based trainings in the community, and enhance awareness of services to reduce suicides in the county. Their work, however, is not yet done as mental well-being remains a concern in the county. Rates of adults reporting poor mental health days in the past month have increased from 12% in 2013-2014 to 14% in 2016.[17] Almost half of county respondents to *My Health Story 2018* indicated they have personally dealt with depression or sadness. Many others also reported they have personally dealt with mental or emotional health issues, and 79% of them said they received the help they needed. The most commonly reported support was from doctors, counselors and other mental health professionals (80%) followed by support from friends (52%) and family (51%).

Policy and Environmental Factors

Livingston County health officials and partners have worked to promote healthy living through various systems. Be Well in Livingston, a workgroup comprised of community members and community partners, continues to focus on chronic disease prevention by working to decrease obesity rates among residents in high need areas of the county through policy, systems and environmental change. The slogan of the initiative is "Eat Better, Move More and Stress Less".

In 2016, the group started planning for community centered health improvement where they began to focus their health improvement efforts one municipality at a time. The Greater Nunda Area was chosen based on data review, community resources, and willingness to change efforts. This work is referred to as "Be Well in Nunda." 2017 was spent doing focus groups, and assessing. A community committee was then established and continues to be sustained.

[17] Source: Behavioral Risk Factor Surveillance System

The Be Well in Nunda initiative has worked to implement a strategic plan; develop and implement media and outreach plan including a Blog entitled Get Healthy with the Mayor; develop a nutrition initiative CHIP and community input to focus on CATCH training for schools which was conducted in September 2019 for Keshequa and Mount Morris School staff; work with Foodlink and Finger Lakes Easy Smart New York (FLESNY) to increase education and access regarding healthy foods through churches and the communities as a whole; and continued discussion on sustainability.

In addition, Nunda community members voiced a concern about a lack of physical activity opportunities and awareness of opportunities. Media and outreach titled Fun and Fitness include ads and flyers to increase awareness and utilization of local physical activity opportunities. In partnership with the Nunda Historical Society in 2018, group members created a historical walking tour, which was promoted by Fun and Fitness ad/flyers. Upon evaluation of the trail, 26 individuals completed a survey with 87% stating the trail increased their community led physical activity opportunities. The walking tour is open to the public and not only increases knowledge regarding the history of Nunda but promotes physical activity among its patrons.

In addition to the tour, a walking trail and three outdoor exercise stations were added to Kiwanis Park located within the town to help further engage and entice residents to participate in activity and utilize community resources. Evaluation of the trail and stations will occur in 2020. Those involved in Be Well in Nunda initiatives indicated the need for creating a sidewalk from the Town of Nunda to Kiwanis Park, however, this was later found to be a challenge to pursue as it is designated as a State Highway. The town recently applied for a grant to build a sidewalk to fulfill the need but unfortunately did not receive funding. Connecting the town to the park would help to increase physical activity, universal accessibility, and recreational use of the park. Funding will continue to be pursued through other avenues.

In the years to come, Be Well in Livingston partners plan to expand and enhance the reach of their initiatives. The workgroup has already begun connections to expand their work in the Town of Mount Morris and, eventually, the Village of Dansville. Both of these communities have been identified as areas with shorter life expectancies and high poverty rates.

In relation to cancer screenings, the Mobile Mammography Unit (Rochester Regional Health) and mammography screening days (provided by the Finger Lakes Cancer Services Program, UR Medicine|Noyes Health and Elizabeth Wende Breast Care) have increased access to breast cancer screenings among Livingston County residents. The availability and flexibility of screenings encourages use of preventative care and the potential of early diagnosis and treatment of breast

cancer. Doing so would result in less likelihood of long-term chemotherapy for the individual and the chance for a better quality of life.

Main Streets Go Blue is an annual NYSDOH initiative, which was implemented in Livingston County in 2011 to increase colon cancer screening rates. The County received a model practice award from the National Association of County and City Health Organizations as evaluation of the initiative showed an increase in colon cancer screenings among Livingston County residents. This initiative also led to the County being one of three in the State to achieve 80% colon cancer screening rates by 2018.

Livingston County's environment can be quite rural and for those without a vehicle, it can be challenging to get from place to place. As such, transportation is often a reported issue for residents. Livingston County respondents to *My Health Story 2018* indicated transportation is an issue in terms of accessing healthy and wholesome foods (14% report it is a barrier), medical services (14% report it as a barrier), picking up necessary prescriptions (11%), and more. To address these issues in the county, Ride Livingston was created and is coordinated by the Livingston County Planning Department in collaboration with community partners. The mobility management website provides information on transportation resources and options available to county residents. There is a specific emphasis on providing information to assist at-risk populations such as older adults, people with disabilities and individuals with lower incomes in need of specialized transportation services. Improving access to transportation for the higher risk populations may help to improve the health and well-being of the community.

As previously mentioned, mental health well-being remains a concern for residents based on data found in state reporting, *My Health Story 2018* survey results, and anecdotal stories. Several initiatives have taken place to combat this. First, the county's 25-bed inpatient residential facility was recently established, and it has operated at full capacity since its opening. The addition of the facility helps provide local access to necessary services for residents, though additional services may be required. Second, the Suicide and Overdose Grief Support Group provides support for family members and friends to those who have lost someone due to suicide or overdose. The group meets monthly and coordinates an annual Suicide Awareness Candlelight Vigil.

In addition, Noyes Mental Health and Wellness Services have responded to growing mental health needs of residents in its rural service area. They provided 16,500 visits in 2017, 20,000 visits in 2018 (a 23% increase), and are projecting 22,500 visits in 2019 (12.5% increase). In response to this growing need, they will be adding two psychiatric nurse practitioners to their current team of 25 full-time therapists with three current psychiatric providers. Walk-in crisis hours have been expanded to 8 a.m. to 4 p.m. five days/week resulting in a 50% increase of visits. The clinic has also expanded satellite locations by adding the May Center (BOCES)

in Mt Morris and Canaseraga School district. They have also purchased land in the northern part of Livingston County to open up a new Noyes Mental Health and Wellness Clinic in Avon. Building construction will start in 2020.

Livingston County Mental Health increased capacity to service the Livingston County community to 13 clinicians. There was an increase in the Nurse Psychiatric Practitioner by 7 hours per week with a 12% increase in the number of visits. Open Access, which provides services on a walk-in basis at the Mental Health clinic, continue to increase accessibility. In addition, Livingston County Mental Health continues to increase access and decrease stigma by integrating services at the Department of Social Services and the Livingston County Jail. Mental Health also partners with Public Health to provide media and outreach to the community regarding overall health which includes physical, mental and social well-being.

Community members and partners can take part in evidence-based trainings at CASA-Trinity, including Narcan administration, Shawna Has a Secret for parents/guardians, Peer Navigator programs, and community forums/town hall meetings.

A voluntary drug amnesty program also continues to be available for county residents. Community members can voluntarily drop off drugs and/or paraphernalia at the Sheriff's Office, Livingston County Mental Health Services, CASA-Trinity or Livingston County DSS. Residents will avoid arrest and be scheduled for an immediate appointment at CASA-Trinity in either Geneseo or Dansville. Only a few individuals have utilized the program to date.

Another systems change example is the creation of the Mobile Crisis Response, which strives to reduce mental health arrests and ED visits. Livingston County Mental Health Services, UR Medicine|Noyes Health Mental Health, and CASA-Trinity of Livingston County have collaborated since October 2018 to deploy behavioral health clinicians to attend crisis calls after hours with Law Enforcement Officers, to conduct on-site behavioral health and substance use evaluations, and potentially avoid unnecessary ED visits. Safety plans are developed during the crisis encounters, and follow-up appointments are scheduled at Noyes or Livingston County Mental Health Clinics, or at CASA Trinity's outpatient clinic. Transportation to and from follow-up appointments can be arranged through CASA-Trinity's Peer Advocate Program. The effort is funded through Behavioral Health Community Crisis Stabilization funds using Finger Lakes Performing Provider System monies. In 2019, first full year, they are on track to respond and assist with 160 municipal calls by years end.

Finally, Livingston County also has access to geographic information system (GIS) data mining regarding opioids, which provides a snapshot of arrests, overdoses and deaths in the county provided and compiled by the county police department. These data assist community partners in planning overdose prevention efforts. All of these

services help to increase local access to services, which may help to reduce the burden of mental health diseases and substance use disorder.

Other unique characteristics contributing to health status

Similar to other local communities in the Finger Lakes are the accessibility of wineries and breweries. Within Livingston County, the number of breweries has increased to eight (8) and has revived the local economy. While the presence of the businesses provides economic boosts and helps to generate tourism, it is important to consider that implications of access to alcohol has on things such as underage drinking and alcohol-related accidents. To assist with the challenge, a local community health coalition (Healthy Communities That Care (HCTC)) aims at bringing the community together to implement strategies to reduce youth alcohol and drug use. HCTC implements three strategies to prevent underage drinking in the county: Parents Who Host Lose the Most, Project Sticker Shock, and Reducing Underage Drinking Social Marketing Campaign.

In addition, Tobacco 21 was not passed locally in Livingston County, yet the law will go into effect in New York State in 2019. This law will raise the age to legally purchase cigarettes and electronic cigarette products to age 21, which will decrease access for minors and, hopefully, reduce initiation and continuation of all tobacco products.

Finally, Skybird Landing Apartments provide quality, affordable housing opportunities for severe and persistent mental health/low income individuals and families. The benefits of quality affordable housing profit the individual and/or family, as well as the community at large, by improving neighborhood and community appeal. In addition, lower rents potentially free up resources for medications, preventative care, healthy foods, recreational activities and childcare.

Community Assets and Resources to be Mobilized

During focus groups completed in late 2018 and early 2019, community members identified several assets and resources in Livingston County. For example, focus group attendees identified county programs (falls and chronic disease prevention), collaboration between agencies, sense of community and volunteerism as community strengths. In addition, access to healthcare and food (via farmers' markets and grocery stores) were noted as assets in the area that help a person live healthier. A comprehensive list of identified strengths and resources can be found in focus group summaries and are available upon request. In addition, the CHA Leadership Team implemented a community asset mapping process which included a list of individuals, groups, agencies and natural resources in the county. This was also utilized to identify gaps in the community such as lack of in patient mental health facilities and a community center (YMCA).

Through implementation of the Community Health Improvement Plan, staff will work to leverage these pre-existing agencies and services. A full description of

interventions and partner roles can be found in the Livingston County Community Health Improvement Plan document. Partnering and leveraging the assets and resources of local community agencies will be imperative to achieving success in the plan.

Community Health Improvement Plan/Community Service Plan

As previously discussed in the executive summary, the MAPP process was used to help create the Community Health Assessment and Community Health Improvement Plan. A variety of partners were engaged in each county's specific process including:

Livingston County Prioritization Agencies		
Livingston County Public Health	UR Medicine|Noyes Health	Common Ground Health
Excellus Blue Cross Blue Shield	Arc of Livingston and Wayne	LCCNR
Health and Wellness	Tri-County Family Medicine	Office for Aging
Vets	Genesee Valley Health Partnership	Noyes Mental Health and Wellness
Livingston County Mental Health	CASA/Trinity	Livingston County Planning Department
Cancer Services	UR Center for Community Health and Prevention	Livingston County Sherriff Department
Community member		

The community at large was engaged throughout the assessment period via a regional health survey and focus groups. Focus groups were conducted with diverse populations, which included law enforcement, seniors, veterans, disabled individuals, Hispanic families and community partners to ensure social determinants of health were considered. Discussions regarding public health priorities occurred with "Conversations around the County," which is facilitated by the County Administrator in various locations of the county throughout the year. Information regarding the results of the MAPP process and prioritization was posted on the Livingston County Department of Health and UR Medicine|Noyes Health websites and social media for the community's input.

Specific interventions to address the priority areas were selected at CHA Leadership meetings, GVHP committees (Trauma Informed Communities and Be Well in Livingston), and were a group effort. Each member highlighted what resources already existed and could be leveraged. Coordinated efforts to promote and engage community members in selected initiatives took place via public meetings including conversations with the County Administrator and the community was asked for input via a press release, social media posts and various postings on websites. A full description of objectives, interventions, process measures, partner roles and

resources are available in the Livingston County Community Health Improvement Plan (Appendix A). Root Cause Analysis were discussed while developing the CHIP. Interventions selected are evidence based. Special focus will be placed on increasing food security among older adults and residents with low socioeconomic status.

The Community Health Improvement Plan progress and implementation will be overseen by CHA Leadership and GVHP, a group that meets a minimum of twice per year and brings together diverse partners to improve the health of its residents. Progress and relevant data on each measure will be regularly reviewed at these meetings. Group members will identify and address any mid-course corrections in interventions and processes that need to take place during these meetings.

Dissemination

The executive summary of the 2019-2021 Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP) created in partnership between the Livingston County Department of Health and UR Medicine|Noyes Health) will be disseminated to the public in the following ways:

- Made publicly available on the Livingston County Public Health main website and social media sites
- Made publicly available on the UR Medicine|Noyes Health main website and social media sites
- Made publicly available on the Genesee Valley Health Partnership website
- Made publicly available on the S2AY Rural Health Network website
- Made publicly available on additional partners websites (Cornell Cooperative Extension, local community based organizations, etc.)
- Shared with all appropriate news outlets in the form of a press/media release
- All partners including CHA Leadership Team and GVHP members will share the document via their organizations' websites as well. The full Regional CHA will be shared on Common Ground Health's (www.commongroundhealth.org) website.

A list of websites that have the documents posted are included below.

Livingston County Public Health: http://www. livingstoncounty.us/doh.htm

UR Medicine|Noyes Health: https://www.urmc.rochester.edu/noyes.aspx

Genesee Valley Health Partnership: www.gvhp.org

S2AY Rural Health Network: http://www.s2aynetwork.org/community-health-assessments.html

Common Ground Health: www.commongroundhealth.org