

Food and Health Connection

FINAL REPORT 2019

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Common Ground
Health 



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EXECUTIVE SUMMARY

A two-year exploration of
the food and health landscape
in the Finger Lakes

Since 2017, Common Ground Health's Food and Health Connection has undertaken an exploration of the food and health landscape of the Finger Lakes region to better understand the barriers to eating fruits and vegetables. Informed by a committee of local subject matter experts, this report is a compilation of public health surveillance data, quantitative and qualitative data from consumers, survey data from farmers and school food service directors, and examples of local efforts already underway to increase access to fruits and vegetables to residents across our region.

Our work has revealed important and, perhaps, under-appreciated realities about the region's varying access to the fruits and vegetables that can make a difference in the rates of diet-related illnesses.

- Too many Finger Lakes residents – including children – struggle with uncertain access to enough healthy foods to support an active and healthy lifestyle.
- Only one in seven adults in our region eat the recommended daily amount of fruits, and only one in ten eat the recommended amount of vegetables.
- One in five adults report that they do not eat any fruits or vegetables daily.
- While over half of respondents report that eating healthy is very important to them, there are racial and ethnic disparities in self-reported diet quality.
- The most common barriers to putting fruit and vegetables on the table are cost and the time it takes to shop for and prepare such foods. Having a place to shop and transportation – the issues addressed by existing food retail options – consistently fell at the bottom of the barriers list.
- People diagnosed with obesity, diabetes, hypertension or high cholesterol readily identify diet and exercise as the best options to managing their conditions better, but they also need access to health and nutrition education to help them make changes.
- Among farmers and food service directors, there is a high level of interest in increasing local produce options in school meals, but they need help making connections as well as contending with the logistical and financial hurdles involved.

This exploration has shown us that effectively reducing the rates of diet-related illness in the Finger Lakes by increasing access to fruits and vegetables will require solutions that balance personal priorities with systemic convenience. In order to promote healthy choices about what consumers and their families eat on a regular basis, it's incumbent upon the system – the community, the programs, the government agencies – to make it convenient for consumers to follow through on the choices we're asking them to make.

1 in 5 adults report that they do not eat any fruits or vegetables daily.

The most common barriers to putting fruit and vegetables on the table are cost and the time it takes to shop for and prepare such foods.

It's incumbent upon the system – the community, the programs, and the government agencies – to make it convenient for consumers to follow through on the choices we're asking them to make.



Convenience stores offer an array of highly processed snacks and sugary drinks linked to chronic illness, but few if any vegetables and fruit.

INTRODUCTION

Common Ground Health, in partnership with Foodlink and the S2AY Rural Health Network, convened the Food and Health Connection to undertake an exploration of the food and health landscape in the nine-county Finger Lakes region. Guided by a committee of local experts, the Food and Health Connection considered the complex factors affecting access to and consumption of fruits and vegetables for residents of the region. Using a variety of sources, including public health surveillance data, quantitative and qualitative data from consumers, and survey data from farmers and school food service providers, this report contributes to our understanding of daily habits, barriers and systems limitations that impact access to and consumption of fruits and vegetables in populations disproportionately affected by diet-related chronic disease.



With a strong commitment to equity, the data exploration in this report focuses on the experiences of various population groups, including age, income, race and ethnicity, urban, rural and suburban areas. Using these data and highlighting programs of promise, we aim to improve understanding of barriers experienced by specific populations and provide insights to promote increased consumption of fruits and vegetables.

NEW YORK STATE'S PREVENTION AGENDA

The Prevention Agenda¹ is a 5-year blueprint toward the vision that New York State is the healthiest state in the nation for people of all ages, across five priority areas:

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

Under the priority area to Prevent Chronic Diseases, Healthy Eating and Food Security has been identified as a focus, with the overarching goal of reducing obesity and the risk of chronic diseases by:

- Increasing access to healthy and affordable foods and beverages
- Increasing skills and knowledge to support healthy food and beverage choices
- Increasing food security.

Recognizing the vital link between healthy food access and health outcomes, the Food and Health Connection seeks to share information with partners prioritizing the health and well-being of their residents, including county health and mental health departments, health systems, municipalities, and community-based organizations to bolster service to their communities.

In this report you will find data and analysis from several sources, including Feeding America's Map the Meal Gap study, surveys of farmers and local food service providers, results from the My Health Story Survey, and community conversations around food access and consumption. The final section will provide actionable and evidence-based recommendations for communities in identifying gaps in access to fruits and vegetables.

VISION

The vision of the Food and Health Connection is to achieve equity among diverse populations in access to and consumption of fruits and vegetables. By convening diverse stakeholders and providing data, this report aims to lay the groundwork for how communities, including health systems, institutions, consumers and community based organizations can partner to expand existing efforts and create opportunities with new partners to address identified barriers to eating fruits and vegetables.



Where are we now?

In 2017-2018 Common Ground Health's Food and Health Connection undertook an exploration of the food and health landscape in the nine-county Finger Lakes region. Utilizing qualitative and quantitative data from farmers, school food service providers and consumers, we sought to identify and understand barriers to accessing fruits and vegetables in this region, specifically within populations disproportionately affected by diet-related chronic diseases.

REGIONAL FOOD INSECURITY

The United States Department of Agriculture defines food security as “access by all people at all times to enough food for an active, healthy lifestyle.” It defines food insecure households as those that are “uncertain of having, or unable to acquire, at some time during the year, enough food to meet the needs of all their members because they had insufficient money or other resources for food.”

Feeding America Data

Feeding America’s 2018 Map the Meal Gap report provides estimates of food insecurity for communities across the country using data from the Current Population Survey (CPS)². Food insecurity was estimated using CPS data by compiling county data for the following determinants of food insecurity: unemployment rates, poverty rates, median income, race/ethnicity and homeownership rates. Using these data, we can identify differences in food insecurity rates between the Finger Lakes counties, ranging from 9.2 percent in Livingston County to 12.8 percent in Chemung County. While no county’s overall food insecurity rate is greater than 13 percent, this rate masks the fact that the childhood food insecurity rate is greater than 16 percent for all counties, ranging from 16.2 percent in Ontario County to 20.9 percent in Steuben County (see Table 1).

Food insecurity is not just a problem associated with urban poverty. According to Feeding America “85 percent of counties with high child food insecurity are rural.”³ The Finger Lakes region is comprised of urban, suburban and rural areas, and all nine counties experience rates of childhood food insecurity that are higher than the overall food insecurity rates. Interventions to address barriers specific to urban, suburban and rural settings should be considered.

Using the Map the Meal Gap data, we mapped food insecurity estimates for the Finger Lakes region by census tract, enabling a clear identification of specific communities experiencing food insecurity (see regional map on the following page and county maps in the appendix on page 40). Leaders in each county can use these maps to target their interventions and food access programs to areas within their counties experiencing the highest rates of food insecurity.

TABLE 1: Population, overall and child food insecurity rates and population estimates, US, NY and Finger Lakes region counties, 2016 (source: Map the Meal Gap).

Area	Population	Est. Food Insecurity Rate	Est. Number of Food Insecure	Child Food Insecurity Rate	Est. Number of Food Insecure Children
US	325,700,000	12.90%	41,204,000	17.50%	12,938,000
New York	19,745,289	11.90%	2,352,940	17.90%	750,000
Chemung	87,742	12.80%	11,230	20.40%	3,190
Livingston	64,622	10.90%	7,080	18.70%	2,260
Monroe	749,236	12.50%	93,970	18.10%	29,190
Ontario	109,450	9.20%	10,090	16.20%	3,730
Schuyler	18,336	11.20%	2,050	19.60%	710
Seneca	35,036	10.70%	3,740	17.70%	1,250
Steuben	98,151	11.90%	11,700	20.90%	4,570
Wayne	91,874	9.80%	9,020	18.00%	3,670
Yates	25,106	10.10%	2,540	19.40%	1,120

New York State Behavioral Risk Factor Surveillance System Data

Whereas Feeding America compiled economic indicator data to estimate food insecurity, New York State Department of Health (NYSDOH) estimates food insecurity using the Behavioral Risk Factor Surveillance System (BRFSS). Perceived food insecurity was assessed in the 2013-2014 BRFSS by asking, “How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals?” Respondents who report they were always, usually, or

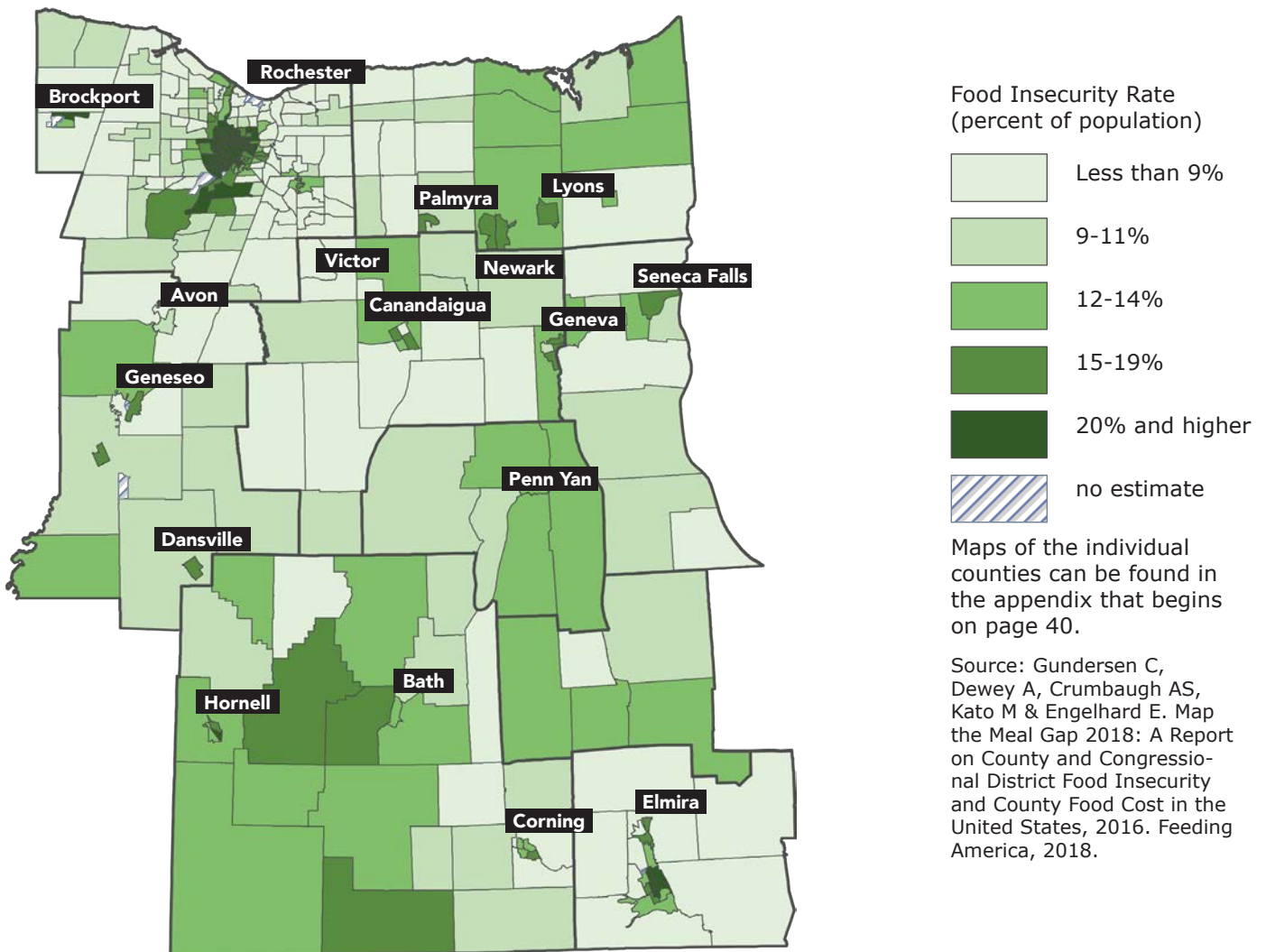
sometimes worried were classified as food insecure. Perceived food insecurity rates for the Finger Lakes counties from the BRFSS are provided.

TABLE 2: Age-adjusted rates of perceived food insecurity among adults, Finger Lakes Counties, 2013-2014. (Source: NYSDOH Behavioral Risk Factor Surveillance System)

The food insecurity rates in the self-reported BRFSS study represent the perception of survey participants that they lacked the money to buy nutritious food any time throughout the past 12 months, while the Feeding America data examined economic indicators, and did not directly assess individuals' resources. While the estimates for each county differ by the data source, both datasets have strengths in considering individual perceptions (BRFSS), and systematic factors down to the census tract level that can lead to food insecurity (Feeding America). For the purposes of this report, we wish to note that residents of the Finger Lakes counties, including children, are impacted by food insecurity, which has been linked to numerous health conditions, such as diabetes, hypertension, coronary heart disease and chronic obstructive pulmonary disorder.⁴ Addressing food insecurity and increasing access to fruits and vegetables should be considered in any strategy or policy to address and prevent chronic diseases.

	Age-Adjusted Food Insecurity Rate	95% Confidence Interval
Chemung	26.2	(20.7-32.5)
Livingston	26.2	(19.3-34.6)
Monroe	22.7	(19.1-26.9)
Ontario	17.2	(12.2-23.7)
Schuyler	28.1	(20.7-37)
Seneca	21.5	(14.8-30.1)
Steuben	31.1	(25-38)
Wayne	21.6	(15.9-28.7)
Yates	14.4	(10.6-19.3)

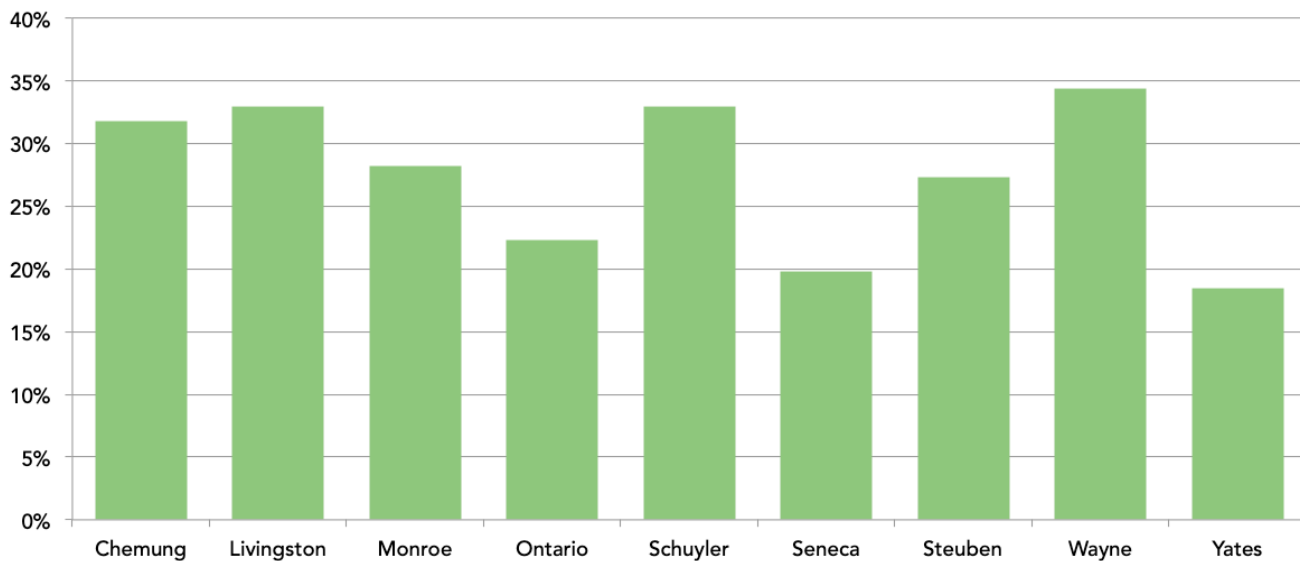
Food insecurity rate by census tract in the Finger Lakes



FRUIT AND VEGETABLE CONSUMPTION

According to the Centers for Disease Control and Prevention (CDC), in New York State, only 14 percent of adults consume the recommended daily amount of fruit, and only 9.6 percent consume the recommended amount of vegetables.⁵ The 2016 New York State Behavioral Risk Factor Surveillance System asked participants “How often do you eat fruits (excluding juice)?” and “How often do you eat vegetables or salad (excluding juices and potatoes)?” Across the region, rates of adults who report that they eat less than one fruit and less than one vegetable every day vary from 18.5 percent in Yates County, to 34.4 percent in Wayne County. In six of the nine Finger Lakes counties, over 25 percent of participants report eating less than one fruit and one vegetable per day.

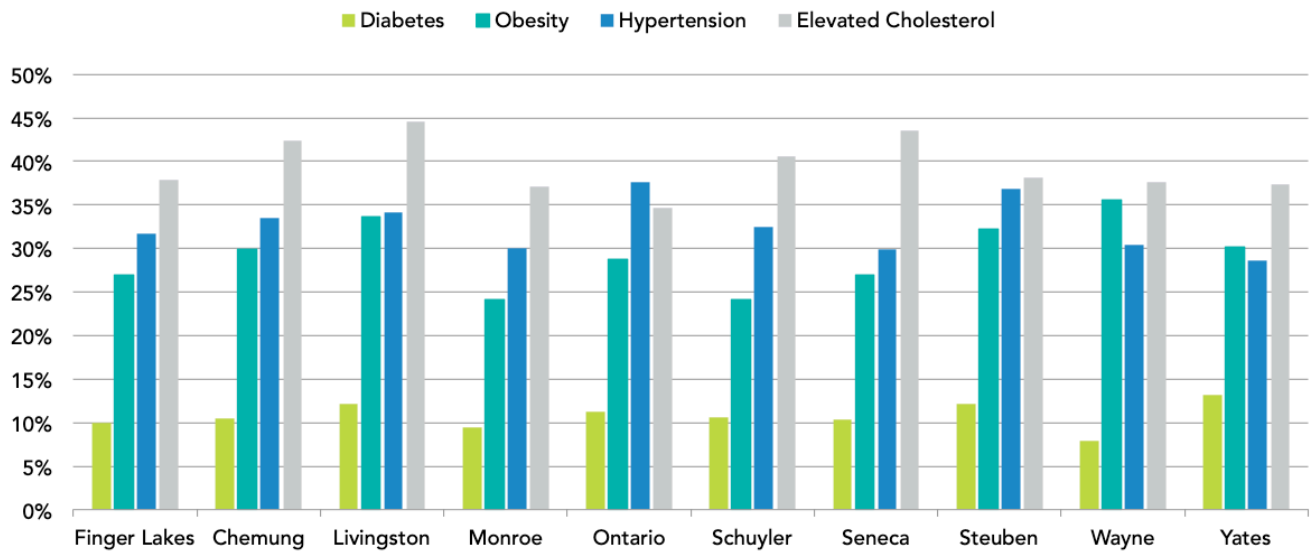
Figure 3: Age-adjusted rates of adults who report they eat less than one fruit and less than one vegetable every day, 2016 (Source: New York State Department of Health, Behavioral Risk Factor Surveillance System, 2016)



DIET-RELATED CHRONIC DISEASE

Like food insecurity, rates of diet-related chronic diseases differ by county. Figure 4 provides the county-specific rates of diabetes, adult obesity, hypertension and elevated cholesterol, from the New York State Behavioral Risk Factor Surveillance System, 2013-2014. The data indicate that Yates County has the highest rate of diabetes (13.2%, regional range (7.9%-13.2%)); Wayne County has the highest rate of adult obesity (35.5%, regional range (24.1%-35.5%)); Ontario County has the highest rate of hypertension (37.6%, regional range (28.6%-37.6%)); and Livingston County has the highest rate of elevated cholesterol (44.6%, regional range (34.6%-44.6%)).

Figure 4: Rates of physician-diagnosed diabetes, obesity, hypertension, and elevated cholesterol among adults, Finger Lakes Counties (source: New York State Department of Health, Behavioral Risk Factor Surveillance System, 2013-2014)⁶



MY HEALTH STORY

In partnership with the nine Finger Lakes counties, Common Ground Health conducted a novel health survey, one that sought to go beyond health outcomes to dig deeper into the social determinants of health. The survey asked residents about accessing fruits and vegetables, housing insecurity, stress, transportation, satisfaction at work and mental health. The goal was to better understand the barriers residents face to living healthy lives. The survey was available in both English and Spanish. To ensure broad representation, we conducted nearly 500 street intercept interviews, deployed kiosks, reached out to dozens of partners and promoted the survey through Facebook, email and media coverage. By the time the survey closed in early September 2018, 6,855 residents had completed the questionnaire, including 495 Latinos, 923 African Americans and, notably, 1,208 individuals who make less than \$25,000 a year.

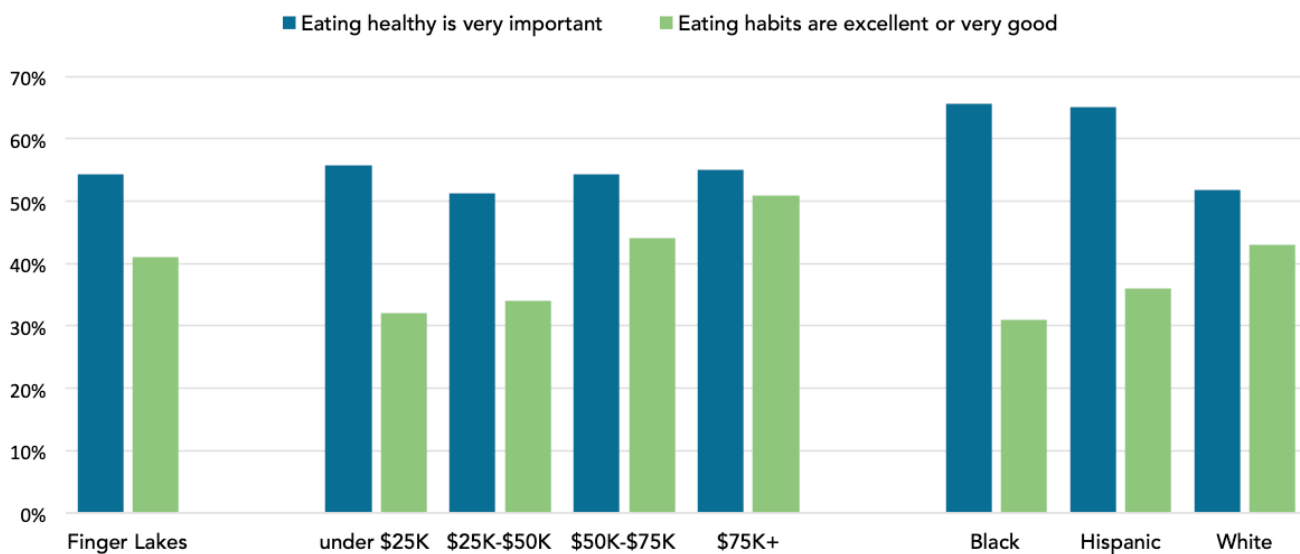
The My Health Story survey asked five questions related to food and diet-related chronic diseases. Results from the survey identified inequities in self-reported diet quality, and barriers to eating healthier by income, race/ethnicity and residential area (urban, suburban and rural). When asked, people with diet-related chronic diseases identified diet and nutrition as a top factor that would help them to better manage their diet-related chronic diseases. Survey respondents also identify weight as a top concern for residents about their own health and well-being.

Importance vs. Habits

Across income and racial/ethnic categories, over half of participants reported that eating healthy is very important to them, while the percentage of people who report that their diet is excellent or very good differs among income and racial/ethnic categories, see Figure 5.

- About half of the survey participants across all income categories report eating healthy is very important, yet people in the lower income categories are less likely to report excellent or very good eating habits.
- Black (66%) and Hispanic (65%) survey participants were more likely than White (52%) survey participants, and the region as a whole (54%), to report that eating healthy was very important, yet both groups were less likely to report that their eating habits were excellent or very good (Black 31%, Hispanic 36%, White 43%)

Figure 5: Percent of survey respondents reporting eating healthy is very important, and percent with self-reported excellent or very good eating habits.



Barriers to Eating Healthier

The BRFSS data above demonstrate that across the Finger Lakes counties more than 1 in 5 people report eating less than one fruit or vegetable per day. We also identified a tension between how people value eating healthy and their actual eating habits. To further understand the barriers Finger Lakes residents face in eating healthier, survey respondents were asked what “are the biggest challenges or barriers keeping you from eating healthier?”

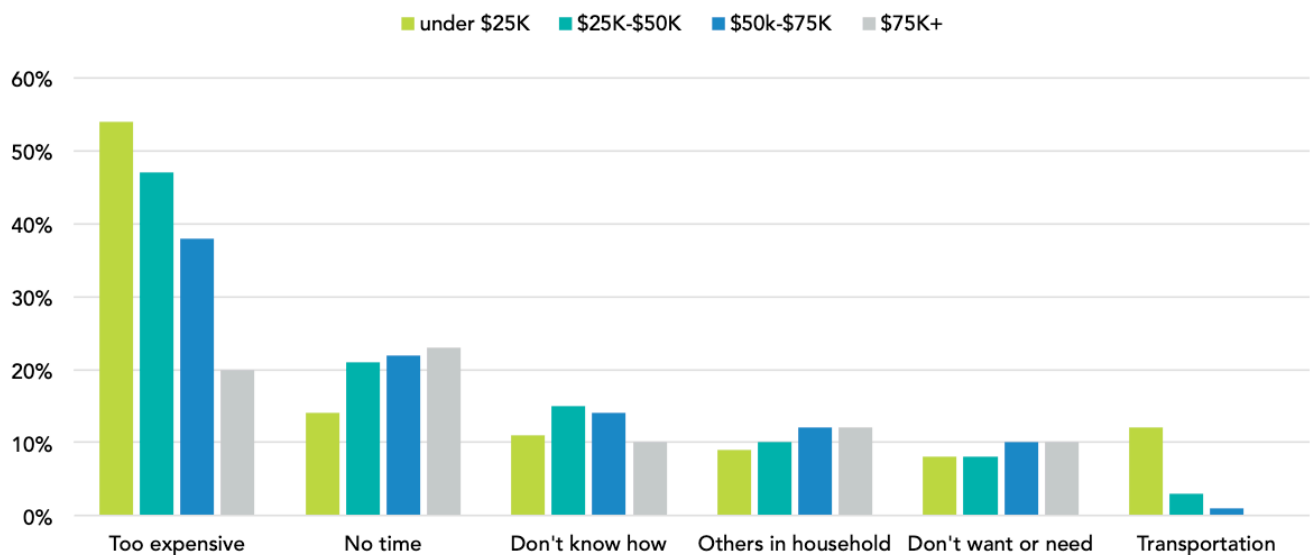
The top five reported barriers in the Finger Lakes:

- 1. Buying healthy food is too expensive. (38%)**
- 2. I really don't have any barriers keeping me from eating healthy food. (37%)**
- 3. I don't have the time to shop for and prepare healthy food. (20%)**
- 4. I don't know how to cook and prepare healthy meals that taste good (20%)**
- 5. The others in my household don't eat healthy, and we eat together (12%)**

Noticeably, the top barriers differed by income (see Figure 6):

- Cost of healthy food was cited more often by people in lower income groups, but it's worth noting that 20% of those in the highest income group also identified that healthy food is too expensive.
- People of higher incomes are more likely to identify lack of time to shop for and prepare healthy foods than those in the lowest income category.
- Transportation, while not identified as a top barrier for the region as a whole, impacted lower income respondents more than higher income respondents.

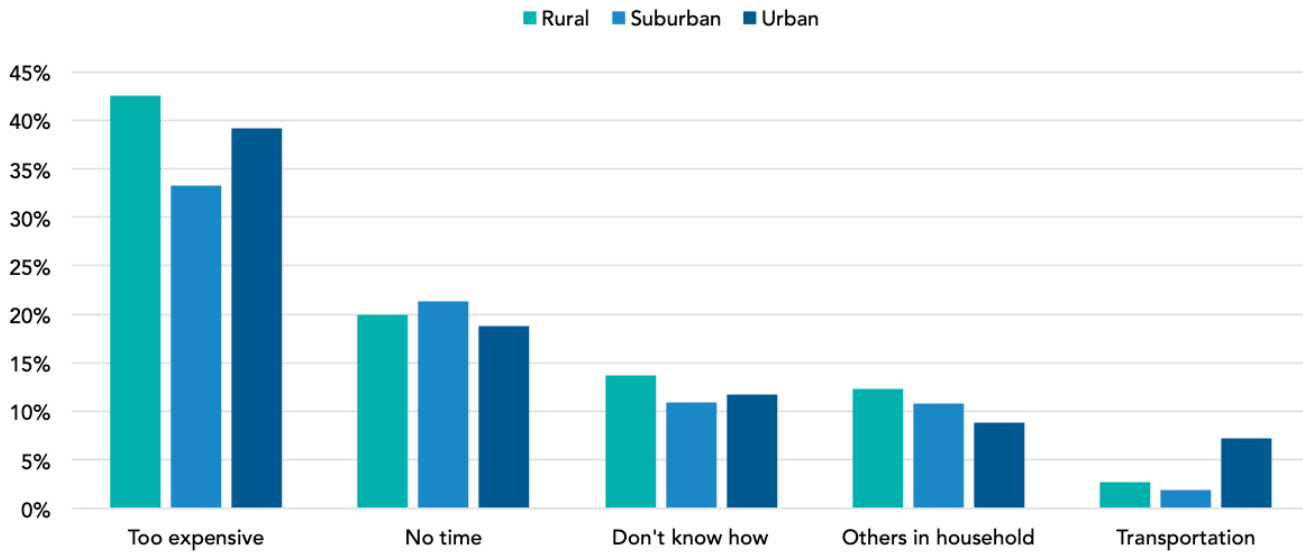
Figure 6: Top barriers to eating healthier by income, Fingers Lakes region.



Barriers also differed by residential area (see Figure 7):

- Participants in rural (43%) and urban (39%) areas are more likely than suburban (33%) participants to identify cost as a top barrier.
- Transportation was cited as a barrier more often for participants in urban (7%) areas compared to suburban (2%) or rural (3%) areas.

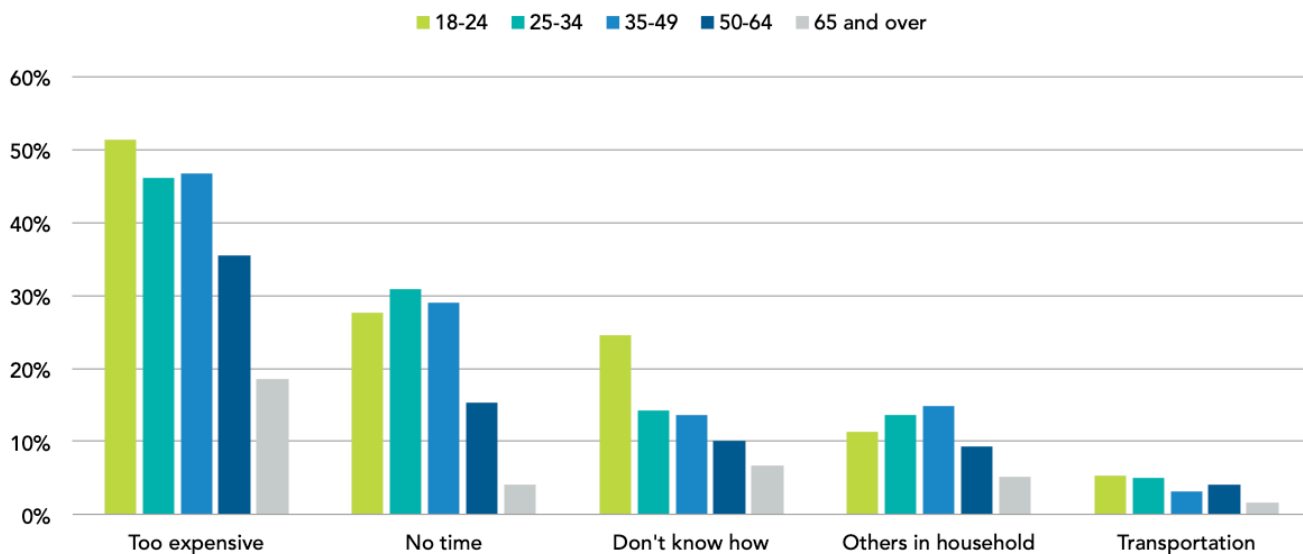
Figure 7: Top barriers to eating healthier by rural, urban and suburban.



Barriers to eating healthier also differed by age group (see Figure 8):

- Participants 65 and older were least likely to identify cost (18%) and time (4%) as barriers compared to younger people.
- People in the youngest age category, 18-24 were most likely to report that they “don’t know how to cook and prepare healthy meals that taste good” (25%, compared to 14% for both 25-24 and 35-29, and 10% for 50-64).

Figure 8: Top barriers to eating healthier by age group.





Michelle Weiler of Cornell Cooperative Extension of Monroe County discusses sodium levels in popular foods.

Fresh herbs at your fingertips can mean less salt in your diet

Michelle Weiler steps up in front of the class. She is a nutritionist with the Monroe County Cornell Cooperative Extension and an educator for the Finger Lakes Eat Smart NY Program. About 20 people are gathered in the simple, bare community room at Pinnacle Apartments in Rochester. Out behind Pinnacle's concrete tower is a large community garden.

"It really has been a good year for gardening," she says to get everyone's attention. "So, I want to do a class today because right now it's time for harvesting herbs. And I want to talk about a couple of things."

First is the amount of sodium in what the residents regularly eat. Second, however, is the challenge of reducing the sodium in a person's diet.

"The minute you take away salt, your food tastes bland, right?" There are nods of agreement all around the class. "So herbs are a great way to incorporate flavor into your food. And you can get them right from the garden. You just pick them and have them."

Weiler produces a bag and pulls out several leafy bunches. One by one, she passes them around the class to smell and discuss. Each time, she brings the bunch to her nose before passing it on.

Everyone takes a moment to crush the different herbs between their fingers and smell the lingering aromas. They try to guess the name of each herb and then discuss how to use it in the kitchen. There is cilantro for Mexican dishes. Basil for Italian cuisine and tomato-cucumber salad. Thyme for chicken or steak. Sage for Thanksgiving stuffing. Lemon balm for lemon-pepper chicken or tea. Even lavender, which makes a great tea as well.

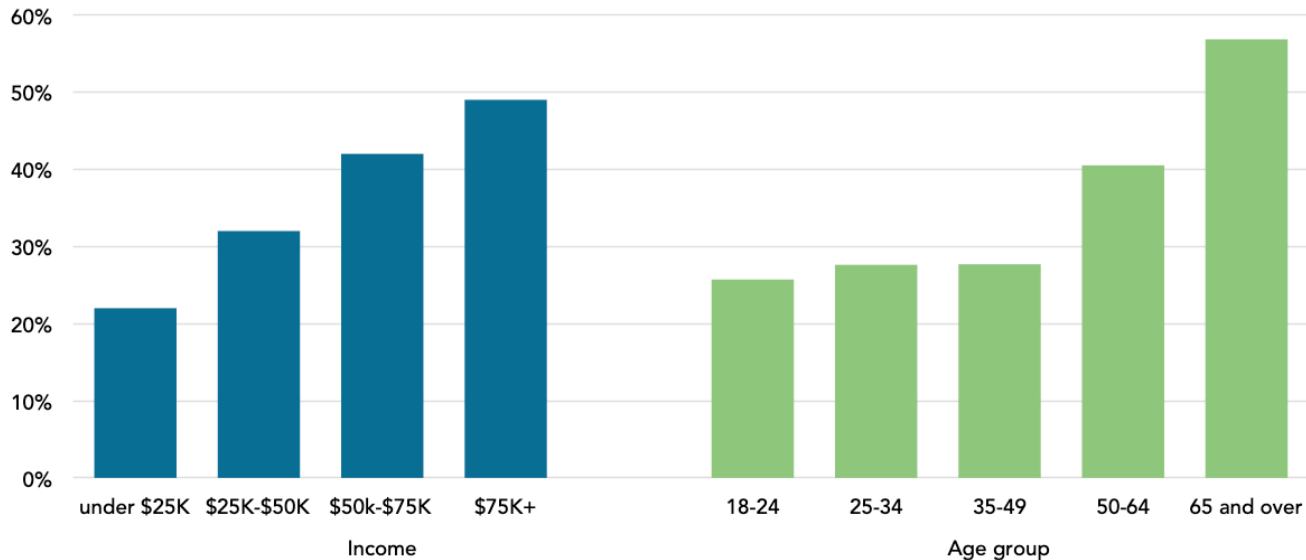
For people who might not know how to incorporate fresh, healthy foods into their regular diets, Weiler's classes are a great place to begin learning.

No Barriers

It is worth noting that 37 percent of participants reported that they do not have any barriers to eating healthier, making “no barriers” the second most common response. It is not known to what extent those respondents are actually consuming fruits and vegetables regularly, or if they choose not to eat fruits and vegetables, despite having no identifiable barriers. Like the barriers identified above, this response varied by income and age group, see Figure 9.

- Fifty seven percent of seniors 65 and older reported that they do not have any barriers compared to about 27 percent in the 18-24, 25-34 and 35-49 age groups.
- As incomes increase, so does the likelihood of reporting no barriers to eating healthier.

Figure 9: Respondents identifying “no barriers” to eating healthier, by age group and income.



Cost

Cost was the most commonly reported barrier identified across the region. In addition to identifying overall barriers, the My Health Story survey asked “How often are you stressed about having enough money to afford healthy food for nutritious meals?” (See Figure 10).

- Participants in the lower income categories (28.1% of under \$25,000; 15.4% of \$25,000-50,000, compared to 8.3% of \$50,000; and 3.1% of \$75,000+) were more likely to report being always stressed about having enough money to afford food.
- Hispanic participants (23.2%) and black participants (19.0%) were more likely than white participants (11.3%) to report being stressed about money for healthy food.

Figure 10: Percent of adults who are always stressed about having enough money to afford healthy food.





Sue Segelman of Legal Assistance of Western New York works to inform residents of assistance programs.

Affordability is always the focus

"If I had to choose one greatest challenge, based on the clients we deal with, I'd have to say it's not having enough money," says Sue Segelman, the nutrition outreach and education program coordinator at Legal Assistance of Western New York, Inc., talking about the barriers that people in the Finger Lakes face with regularly putting fruits and vegetables on the table.

Whether that means funding from the supplemental nutrition assistance programs WIC, for women, infants and children, and SNAP (also known as food stamps) or actual dollars, the problem is that financial resources are lacking for individuals and families. Segelman says she hears the same thing time and again: "I just don't have enough to buy what I want."

"Although most of my focus is SNAP, I'm always running down the list of every other resource we're aware of that seems to fit their situation," she says. "But affordability is always the focus, and always part of the conversation."

So what are the programs of promise available to people who struggle with the cost of healthy foods?

"I would definitely say Foodlink's Curbside Market is first and foremost a program of promise," says Segelman. "The food is very affordable, and SNAP is not just accepted but rewarded."

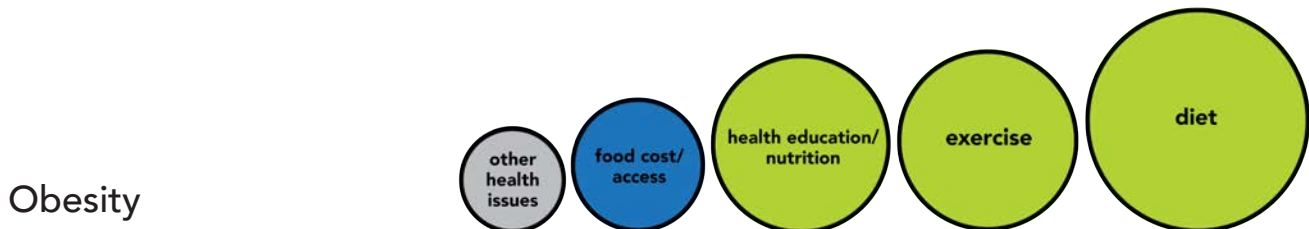
Curbside Market offers the Double Up Food Bucks program, which doubles the value of federal assistance dollars up to \$10 each and every time a person shops at the mobile market.

"The Rochester Public market also gives a 40 percent discount for using SNAP," she says. The discount is part of a wider effort by a coalition of farmers markets that includes those in Brighton, the South Wedge and on the west side on Rochester. "They're also providing education about how to shop affordably and how to cook and use the food that's sold there."

Chronic Disease Management

Participants reporting a diagnosis of one or more of the following diet-related chronic diseases: diabetes, extreme overweight or obesity, hypertension and high cholesterol were asked if they felt they were managing their condition well.

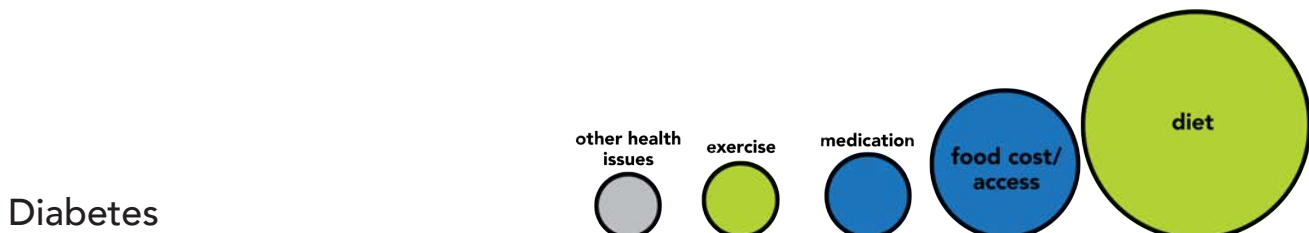
Participants who reported both a diagnosis and that they were not managing their condition well were prompted to identify what would help them to better manage their condition. Raw responses were coded and grouped into categories, and the top five categories are provided in evidence clusters for each condition, along with quotations from the responses.



Among respondents with obesity, 62% reported they are not managing their condition well. Respondents cited diet and exercise as options that would help them to better manage their condition.

Example responses:

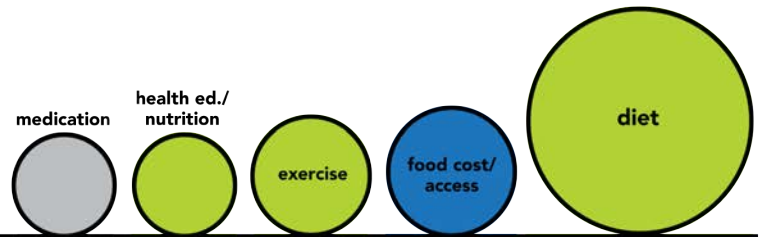
- Diet: "Stick to a diet, buy more salad, fruits and lean meat. But cost of all is substantially more expensive than buying less nutritious food, particularly lean meat"
- Exercise: "Suggestions for in home or close to home activities to become more fit."
- Health Education/Nutrition: "A person one on one to help with different aspects. Nutrition counseling and helping to meal plan."
- Food Cost/Access: "Ability to afford healthy food and still pay my mortgage."
- Other Health Issues: "A guided program that considers my physical limitations and chronic illness."



Twenty percent of people with diabetes reported that they are not managing their condition well. Diet and the cost of healthy food were cited most often, but notably several people cited health insurance limitations in accessing preventive services for people identified with pre-diabetes.

- Diet: "Learn how much of what foods I should eat and which I should avoid."
- Food Cost/Access: "Money to buy good food. My SNAP runs out before the end of the month is out."
- Health Education/Nutrition: "Better eating habits would help. We used to have a class run out of Woodward on Genesee Street and they would bring healthy foods and teach you how to prepare them."
- Medication: "Less expensive co pays on needed supplies and medication."
- Other Health Issues: "I am a PRE-diabetic. I requested a blood glucose testing supplies so I could better manage my pre-diabetic and NOT progress to diabetes. Insurance said NO, I had to be diabetic first. That makes no sense at all. Same with going to see a dietician to better understand how to prepare proper meals... again NO, not until I am diabetic."

High Cholesterol

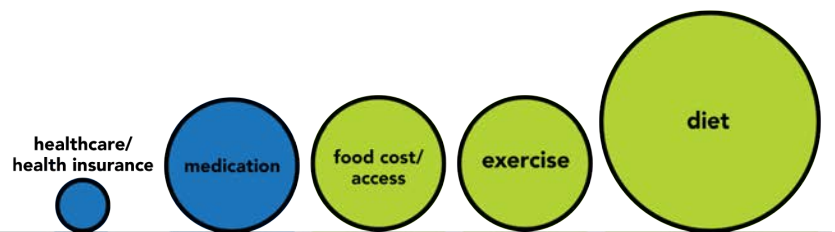


Thirteen percent of people with high cholesterol reported that they are not managing their condition well. People in this group identified diet changes as a way to avoid taking medications, but again a lack of health insurance reimbursement for nutrition services or education might prevent people from making changes that could effectively lower their cholesterol.

Example responses:

- Diet: "I don't want to take any medication... PUSH PUSH PUSH nutrition. All these health people should be talking about our food supply!"
- Food Cost/Access: "More inexpensive access to healthier food."
- Exercise: "Healthy diet and exercise but it should not cost!!!"
- Health Education/Nutrition: "Having any information whatsoever as far as what in my diet affects it."
- Health Care/ Health Insurance: "I can't see a nutritionist to help because insurance does not cover."

High Blood Pressure



Among respondents with high blood pressure, 10 percent reported that they are not managing their condition well. The relationship of diet, exercise and medications were most often cited.

Example responses:

- Diet: "Working on changing diet to lower Hypertension, as the medicines I've tried make me dizzy and feel like passing out."
- Exercise: "Be more active & better foods"
- Food Cost/Access: "Less stress and more affordable healthy food options."
- Medication: "Better medication with fewer side effects than Lisinipril[sic]."
- Health Care/ Health Insurance: "Doctor immediately prescribed medication. No mention whatsoever of dietary changes."

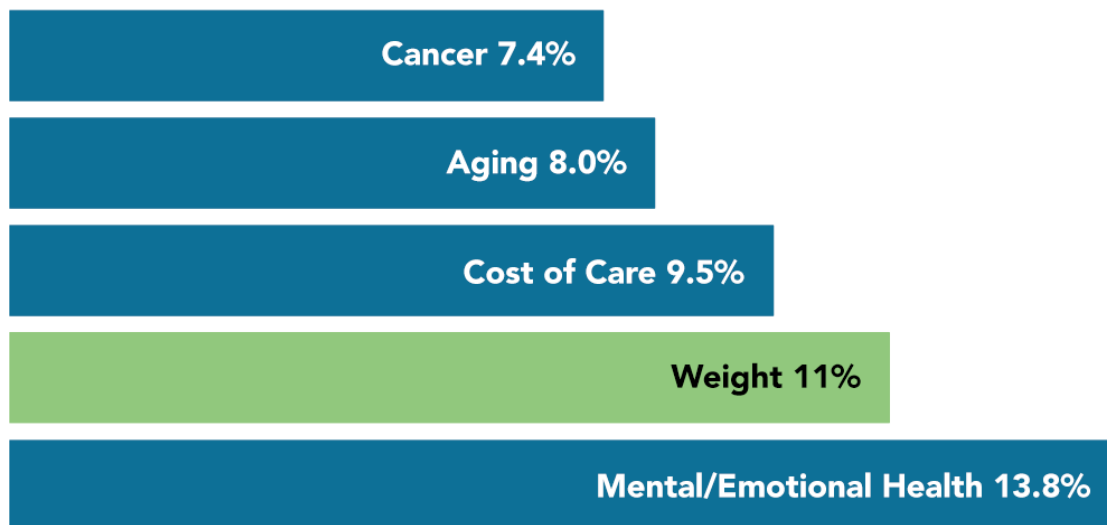
As the My Health Story qualitative data indicate, people with diet-related chronic diseases can readily identify diet and exercise as major factors that could help them manage their chronic conditions better. They also identified some of the resource, lifestyle and insurance barriers that prevent them from making changes. People with chronic conditions should have more opportunities to learn how to make changes.

Top Concerns

The My Health Story survey asked respondents to identify their top concerns for their own health and well-being, by asking the open-ended “All things considered, what would you say is your biggest concern or fear in terms of your own health and well-being?”

Notably, weight was the second most common concern, after mental/emotional health (see Figure 15). Weight was also among the top three concerns for people of all income groups. Respondents also identified cost of health care, aging and cancer as top concerns.

Figure 15: Top concerns for health and well-being, Finger Lakes region residents.

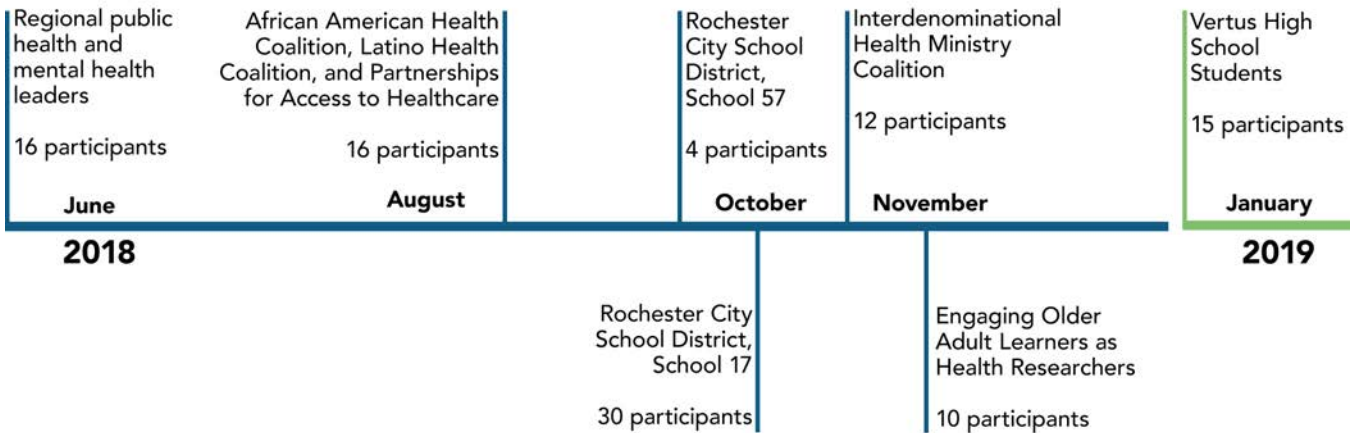


The data from the My Health Story survey demonstrates that people have a general understanding of the importance of eating fruits and vegetables, yet many people are not meeting the recommendations for daily fruit and vegetable consumption. Those with diet-related chronic disease identify their diets most often as a change they could make to help manage their conditions better. People across the region in all income categories have identified weight as a top health concern for themselves. Efforts to address the cost and time barriers identified by survey respondents could help people increase their daily consumption of fruits and vegetables.

COMMUNITY CAFÉS

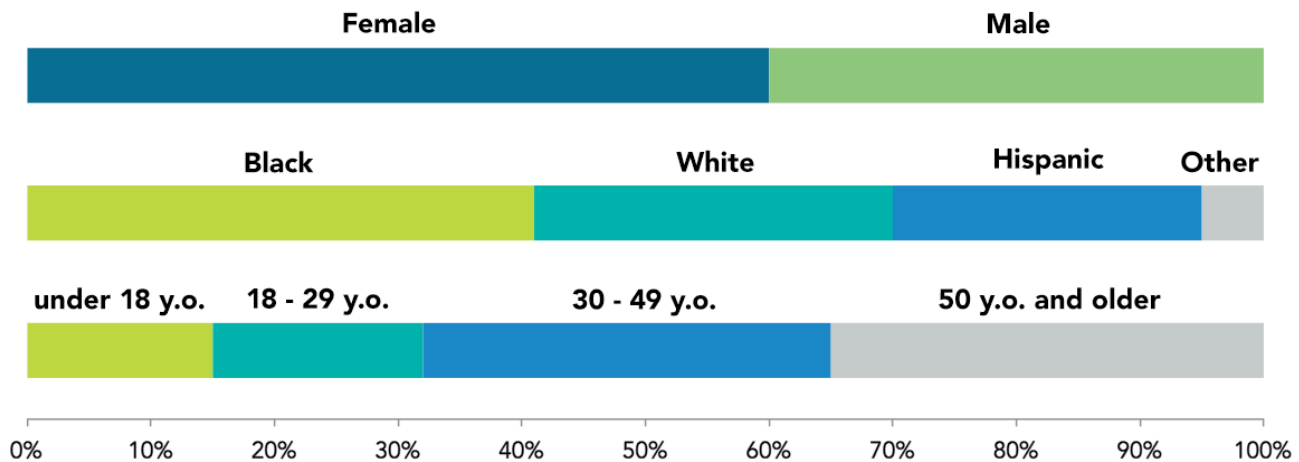
In addition to analyzing survey data related to food and health in our region, we also held conversations with over 100 community members through Community Cafés. Hosted in the World Café⁷ model, these informal group gatherings allow for deeper exploration of daily experiences related to food and health. Community Cafés provide a comfortable environment for exploring questions together. By answering questions in a group format, members of the café are able to learn from each other and problem solve together.

The timeline and participants of the Community Cafés are as follows:



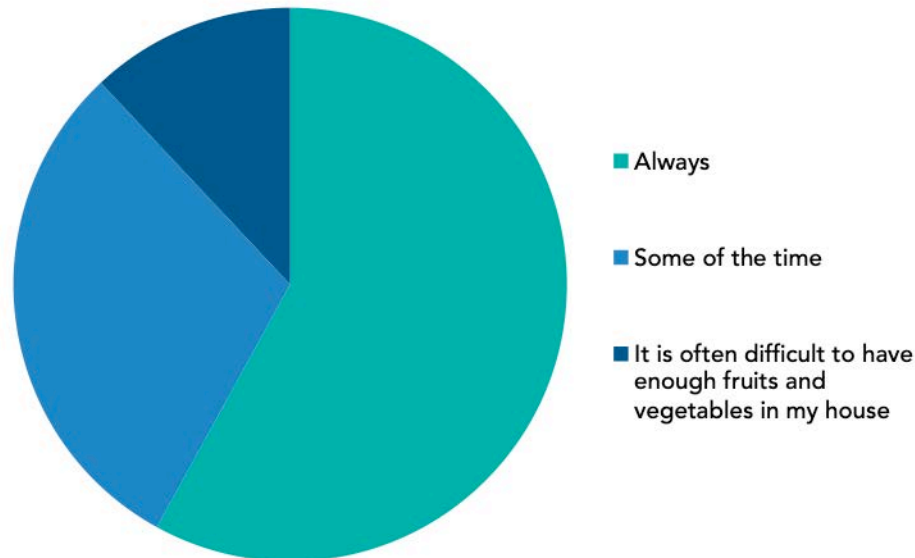
Methodology

Participants were residents of the Finger Lakes area, and were recruited through existing programs or professional relationships with Common Ground Health. Before the cafés, participants were also asked to complete a brief survey about their access to fruits and vegetables. Eighty eight participants completed the survey. Survey participant demographics are as follows:



Participants were asked to respond to the following statement: “My household has enough fruits and vegetables to eat”; responses are provided in Figure 16.

Figure 16: Café participants’ responses to the statement “My household has enough fruits and vegetables to eat.”



Café participants identified the following barriers to eating fruits and vegetables: cost (43%), lack of time (34%), storage of fresh foods (31%), personal preference (19%), and availability of fresh foods close to home (17%). Participants could select more than one barrier.

Led by Common Ground Health staff, the café conversations were semi-structured and guided with the following three questions:

1. If you could improve access to fruits and vegetables, what could work for you and your community?
2. What makes it difficult to eat fruits and vegetables? What discourages you from eating fruits and vegetables?
3. Think about your community, its culture and your social circle. Are there any parts (events, gathering, messages) that could support eating more fruits and vegetables?

The following themes emerged from the Community Cafés.

Resources – Cost and Time

The data obtained from the cafes support the findings from the My Health Survey around barriers to healthy eating. For example, both cost of produce and lack of time were identified by café participants as top barriers to eating more fruits and vegetables. The higher cost of fruits and vegetables compared to packaged foods and fast food was widely noted. For people with limited incomes, the concept of having limited money and hungry children sometimes leads them to a fast food establishment, rather than purchasing “a couple of apples.”

Participants across income levels and age groups described their busy daily lives and indicated a lack of time to both shop and prepare food at home using fruits and vegetables. Convenience was a major theme in these conversations as well. Café participants acknowledge that while precut and washed vegetables are more expensive, they make it easier for people to choose salads for meals, or vegetables as snacks, while also saving preparation time. For people with lower or limited incomes, increasing convenience without increasing cost could improve consumption of fruits and vegetables.

PROGRAM OF PROMISE



Curbside reliably provides the produce customers want

“There are some people who say they wouldn’t be eating healthy if it wasn’t for Curbside,” says Matt DeLaus, a driver for Foodlink’s Curbside Market.

In 2013, Foodlink started its mobile market as a way to give people living in communities without traditional grocery stores access to fresh, affordable fruits and vegetables. The program launched in Rochester but soon expanded to suburban and rural communities where the need can be just as great. Curbside now has three trucks serving 85 different locations in six different counties, many of them all year long.

The key to the mobile market’s success is providing access to fresh produce that is not only convenient but reliable as well. Like a brick-and-mortar grocery store, Curbside has set days and times, so customers know exactly when they can shop.

“It’s pretty important we be on time each week so that people can trust that we’re going to be there consistently,” says DeLaus.

“Curbside is intentional in its reliability,” says Carrie Hoey, the Curbside Market coordinator.

Logistically, this is no small feat given the number of sites the market serves throughout the region year-round.

Hoey says this dependability is the result of two essential elements. The first is having a procurement manager who builds solid relationships with farmers and distributors to find and stock the highest quality produce at the best prices week after week. The second element is having staff who are deeply committed to the mission of serving communities lacking regular grocery stores.

“It means we find a way to get there week after week to the very best of our abilities,” says Hoey.

Serving People Where They Are

Conversations in most of the cafés centered on the theme of utilizing currently existing community resources and infrastructure to increase access to fruits and vegetables and share preparation knowledge. Given the recent closings of grocery store chains across the region, and the lack of time and money for grocery shopping, participants explored the ideas of increasing food access via existing institutions and resources. Schools, recreation centers, after school programs, senior centers, worksites, hospitals and churches were all identified as places where people already spend their time and could be activated to provide opportunities for residents to learn more about their food choices and possibly access fruits and vegetables through farmers markets, CSAs or other distribution models. Especially in the health care field, participants expressed that food and nutrition should be better integrated into every aspect, including social work, home health, and maternity and pediatric programs.

Foodlink's Backpack programs and Curbside Market, small community-based farmers markets, Kids' Farmers Markets, and even small-scale entrepreneurs seen selling fruits and vegetables with small carts in different neighborhoods were all cited as positive options that should be supported.

Quality

Several urban participants noted that poor quality produce in city-based grocery stores prevents them from purchasing fruits and vegetables. One participant stated he feels "like a second-class citizen," when observing the produce department in a grocery store in the city.

While corner stores have been encouraged recently to offer fruits and vegetables to their customers, some café participants expressed hesitation to purchase them due to cost, quality, lack of trust and sometimes simple preference. Despite this hesitation of café participants, work conducted by Healthi Kids identified that people in neighborhoods would like to have healthier options in corner stores that demonstrate cleanliness and good customer service, and discourage loitering and criminal activity. Healthi Kids has supported small retail establishments with interest in stocking healthier options by purchasing displays, shelving, marketing material and technical assistance on storage of perishable foods. Cost is not just a barrier for the consumers; the cost of fresh fruits and vegetables is also a barrier for small retailers who lack the purchasing power to buy produce in bulk.

Café participants recognized that while there are many people in need in the community, options that provide fruits and vegetables to people for free or very low cost still need to offer high quality produce. Another participant stated that many people do not want charity, but that they might appreciate having a role in preparation or distribution of the food that they receive.

Community Champions

Participants at many of the cafés described how they were able to change their eating habits after receiving direct advice from members of their community. While medical professionals often advise people to lose weight and exercise more, many participants who had made significant changes said that it wasn't until someone in their community or cultural group could demonstrate the process and the effects of healthier lifestyles that they were able to make changes themselves. Feedback from medical providers at Highland Hospital also noted that people participating in nutrition classes are often able to learn better from their peers than from medical professionals alone.

These insights point to the need for culturally competent health messaging from leaders in communities. One of the cafés was comprised of women who participate in the Interdenominational Health Ministry Coalition, a group of church members working to bring health messaging to churches. The participants provided examples of small changes made within their church communities to improve health, such as serving healthier meals and goal setting activities. Another group shared this sentiment, by saying that people identify with someone from their own community, more than just hearing what the "research shows."

PROGRAM OF PROMISE



When you have kids, it's risky to buy new things

Jennifer Bertron is the Community Collaboration Coordinator at the Food Bank of the Southern Tier, and she's familiar with what it takes to improve access to fruits and vegetables for families in the Elmira area. When asked what she sees as the greatest challenge to equitable access, her answer is a familiar one: Families just don't have enough resources to purchase what they need.

"When I first started doing this work, I used to hear that people didn't know what to do with fresh fruits and vegetables," she says. "But I don't seem to hear that too much any more. I hear more about the cost."

And with cost comes another interesting concern: Families stick to buying the same food items and hesitate to buy anything new or different, even if those new items might be a far healthier choice.

"You have to realize that, when you have kids, it's risky to buy new things," says Bertron. Parents don't know if the new food is something their kids are going to like. This poses a unique and, perhaps, underappreciated challenge for families who have limited resources and need to

make every cent count. "Moms are not willing to risk spending money on something their kids might not like or eat," says Bertron.

That's why the Food Bank of the Southern Tier runs the Kids' Farmers Market program, which allows kids to "shop" for vegetables of their own choosing. They might pick items they absolutely love or items that they're simply curious to try; either way, the program exposes the children to a variety of produce without any risk to their families' grocery budgets. These farmers markets are held across the Southern Tier during the summer at free Summer Meal sites and during the school year at specific after-school programs.

"It's hard for the folks that we're serving to participate in a local or regional fresh food program unless we bring it to them," says Bertron. "That's why a connection between farms and a program like this is so great: It influences the kids and that in turn influences the parents."

Waste

Participants described hesitation to purchase fruits and vegetables due to the likelihood that they will go bad before they can be consumed. This concept was also described when identifying that quality of produce varies by location: some stores in particular are known for selling produce that goes bad within a few days. Experiences with low quality or rotting produce prevents people from purchasing more fruits and vegetables. Some participants describe a lack of knowledge about how to store fresh foods, or how to prepare and preserve them for later use.

Aside from individual household waste, participants identified potential programs to reduce food system waste. Some examples include programs like the Flower City Pickers in Rochester and the Gleaners in Ontario County, who collect excess food from markets and from farms at harvest time and provides it to communities in need. Participants suggested that transportation waste could also be reduced by making better use of local products. Some participants suggested, for example, that schools should serve only NY apples, instead of shipping them in from other states.

Experiential Learning and Exposure

Participants said that learning about fruits and vegetables, or dietary changes needed to address chronic disease, can be more impactful when combined with hands-on experiences purchasing and preparing food. Participants lauded programs offered through community organizations and medical offices that provide nutrition education accompanied by opportunities to cook and coupons to purchase fruits and vegetables on site or immediately after class at Curbside Markets. By pairing education with hands on exposure, participants felt better prepared to apply their new knowledge and to have questions answered by both the course instructors and peers. Medical professionals have also observed the power of learning from peers in classroom settings, compared to receiving messages in clinical visits. People feel more empowered to make day-to-day changes from people in their communities who have already made changes, despite experiencing similar challenges and barriers.



A student at Vertus High School participates in a Community Café.

For younger children, programs in preschools, schools and recreation centers can provide early exposure

to fruits and vegetables. The Carlson YMCA Pre-K program in the Rochester is committed to being “sugar free” and does not provide any snacks or celebration treats with added sugar. This program was previously funded to provide a bag of groceries to each family every week to supplement weekend meals when children are out of school. One of our café participants praised this program for exposing her grandson to healthy food choices early, and said she witnessed how this learning impacted his food choices. Through these two experiences the children in that program were receiving early education and exposure to making food choices that they could bring home and share with their families. The Kids’ Farmer’s Market program conducted by the Food Bank of the Southern Tier is another opportunity where children can sample and learn about fruits and vegetables and bring home produce that their families might have been reluctant to try on their own. The theme of early exposure for children was repeated in many of the cafés; by making healthy food fun and a part of everyday life, it will become the norm.

Multigenerational Approaches

“Sometimes change comes from the bottom, and sometimes it comes from the top,” one participant stated when describing that nutrition education and experiences should be focused on people across the lifespan, and that change can be promoted by any member of a family, from children to seniors. Programs should recognize that there are different needs and realities for people in differ-

ent age groups and each population should be served appropriately. The importance of tailoring approaches is echoed in the My Health Story data, which identified different barriers for working age adults and seniors.

For children, early exposure and education at schools or after school programs can increase familiarity and motivate parents to purchase more fruits and vegetables with confidence. School-based programs as described above in sections 2 and 6 help expose children to fruits and vegetables. Working adults might improve their consumption of fruits and vegetables through pre-prepared foods, markets at their workplaces, or by worksite wellness programs sponsored by employers. For elderly adults, difficulties with transportation might be the top barrier to access, or they might require additional assistance in food delivery, preparation, budget and planning.

Gardening: Barriers and Opportunities

Community and personal gardening was discussed in several cafés with mixed response. While some participants were experienced gardeners and strongly supported gardening efforts, others were hesitant due to time, storage or space constraints. Low home ownership in Rochester was identified as a barrier to gardening for many in the city, and some landlords are not supportive of residents building gardens on their properties. Community gardens were viewed as opportunities to build community and to make use of vacant lots, while others reported distrust in community gardening, from the quality and safety of the soil, to the prospect of produce being stolen. Crime, community violence and transportation of food from community gardens were cited as other barriers. Others indicated that lack of time, interest and ability to deal with pests were their main barriers to gardening. The region's climate was also identified as a major barrier to pursuing gardening, but participants with experience with gardens disputed some of the identified barriers. They described small container gardens in the home as an option for growing food and noted that produce from gardens can be preserved and accessed throughout the year.

Despite the barriers identified, many people reported a couple of generations ago, their families would not have eaten if they did not garden. Families with relatives in Puerto Rico described fresh food available everywhere through gardens and abundant fruit trees, and remarked that since moving to mainland United States the quality of their diets has declined.

Other immigrant groups in Rochester have successfully built gardens in the city. Established in 2012, Foodlink's Lexington Avenue Community Farm⁸ is an example of a partnership between a community based organization and the public that has directly increased access to fresh produce for a community. This farm serves over 60 families, many of them from the Nepalese, Bhutanese and Somali refugee populations. In addition to gardening, in 2017 the urban farm was expanded to include a play area for neighborhood children.

Participants with children identified school gardens as a chance for children to learn about gardening, fruits and vegetables, but students may miss out on harvesting food from school gardens, given that schools are on vacation during prime growing months. Support from community based organizations to maintain school gardens might help residents reap the benefits of gardens when they are the most abundant.

The Urban Agriculture Working Group in Rochester advocates for policy changes to promote urban gardening. As a result of this advocacy, the City of Rochester recently proposed lengthening permits for community gardens, from annual re-permitting to 5-year permits.⁹ This change will provide a sense of security and permanence for community gardens, and reduces the bureaucratic process of applying for permits each year.

Family Systems

Families were identified as both a barrier and a promoter to purchasing and consuming more fruits and vegetables. Some parents described an unwillingness to purchase foods that their children either don't know or don't like, while others in the group described early introduction and experiences with fruits and vegetables as critical for their children to learn to like them. Some parents also said that having children in the house makes it easier to eat fruits and vegetables; by wanting to demonstrate healthy food choices for their children, they are more likely to eat fruits and vegetables with their children than when they are without them.

Health Conditions and Insurance

We also learned about how health conditions can impact how people eat. One mother described when she was looking for a pediatric dentist to address her daughter's cavity. Given her untreated dental pain, her mother said her daughter was unlikely to choose a piece of fruit over a softer snack. For other participants, it was the diagnosis of a chronic disease that finally prompted them to enroll in chronic disease management programs, or to begin to understand how their diet impacted their health.

From a health systems perspective, we learned that patients with diabetes are encouraged to enroll in educational programs but their insurance is likely to stop reimbursing these classes once their A1C levels are under control. Some payment models encourage patients to make use of such resources, but then remove the resource just as it is demonstrating its impact on behaviors and health outcomes. Similarly, patients with pre-diabetes or borderline hypertension have experienced insurance barriers to receiving services or education that could help prevent their disease progression.

One of the strengths of the Community Café model is that participants can learn from each other. Each café allowed opportunities for members to share successes and creative ideas for increasing fruits and vegetables. Some ideas that were shared included:

- Weekly or monthly meal preparation and freezing to reduce the mental load of meal preparation throughout the week;
- Freezing grapes or strawberries to offer children instead of popsicles;
- Growing food in container gardens in a sunny spot in the home;
- Having a full fruit bowl in the kitchen for quick snacks;
- Increasing healthier options at holidays and celebrations;
- Using food and lifestyle as means to meeting personal or organizational goals.

Beyond the Data

Our experiences talking with community members allowed us to more deeply explore the experiences of consumers in balancing busy lives, personal preferences and cost considerations when making daily food choices. We have helped identify community interests, along with barriers and opportunities to improve access to and consumption of fruits and vegetables. The participants had diverse levels of understanding, experience and preferences, but all expressed the understanding that reducing barriers and integrating these concepts into our culture, institutions and daily lives could help people to consume more fruits and vegetables.



Residents participate in a Community Café.

ASSESSING FARM TO SCHOOL ACTIVITY

One approach to increasing access and consumption to fruits and vegetables is through the promotion of farm to school programs,¹⁰ which emphasize: procurement of local foods by schools, educational opportunities related to food, nutrition or agriculture, and school gardening programs. Proponents of farm to school programs identify that schools, as large institutional purchasers, can influence and support local farmers by committing to purchasing in volumes that allow farms to invest in their businesses to plant, grow, harvest, package, and transport their produce to scale. A Farm to Table Coalition has been formed in the Finger Lakes counties to explore these issues. On behalf of the Coalition, S2AY Rural Health Network administered surveys to farmers and school food service directors in 2017-2018 to assess the interest, barriers and opportunities to increase offerings of fresh, local produce in school meal programs.

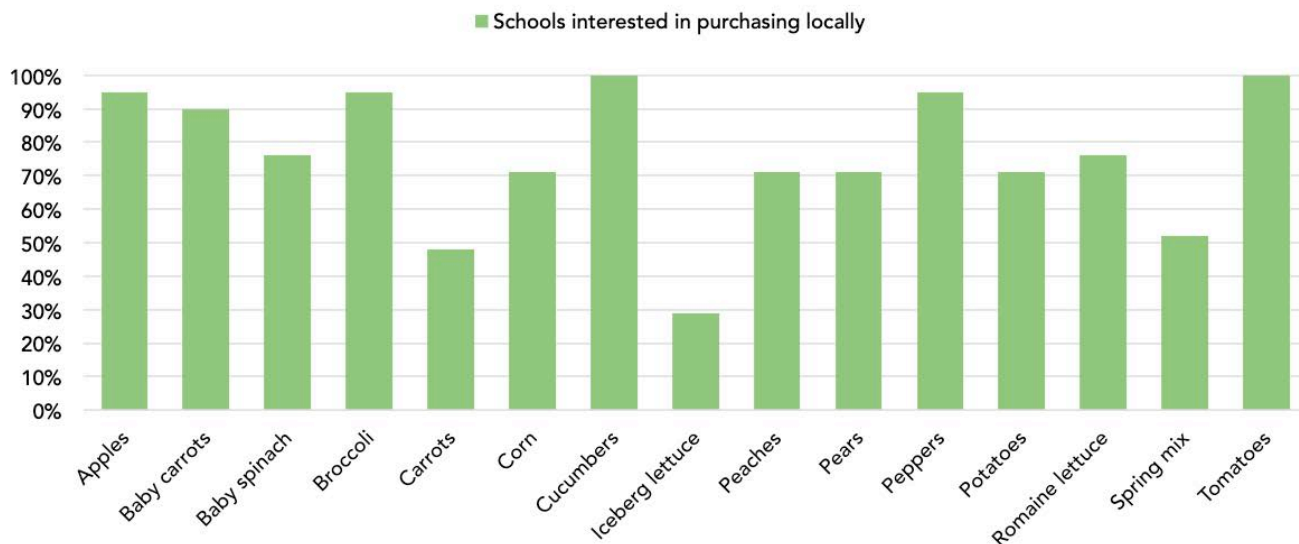
School Food Service Directors Survey

Twenty-one Food Service Directors representing schools in 8 counties (Chemung, Livingston, Ontario, Schuyler, Seneca, Steuben, Wayne and Yates) responded to the survey. Of those:

- 75 percent reported using local produce in cafeteria meals.
- 29 percent reported using local produce for their Summer Food Service Program sites. Summer Food Service programs provide free meals to children during summer vacation when some children lack access to food they otherwise eat at school.
- 19 percent highlighted local produce in "Harvest of the Month" events.

Food service directors were asked to "select all products you are interested in purchasing locally." As displayed in Figure 17, the food service directors reported a high level of interest (>60%) in purchasing a variety of local produce, including apples, baby carrots, baby spinach, broccoli, corn, cucumbers, peaches, pears, peppers, potatoes, romaine lettuce and tomatoes.

Figure 17: Interest among Food Service Directors in purchasing local produce, 2017.



Farmers Survey

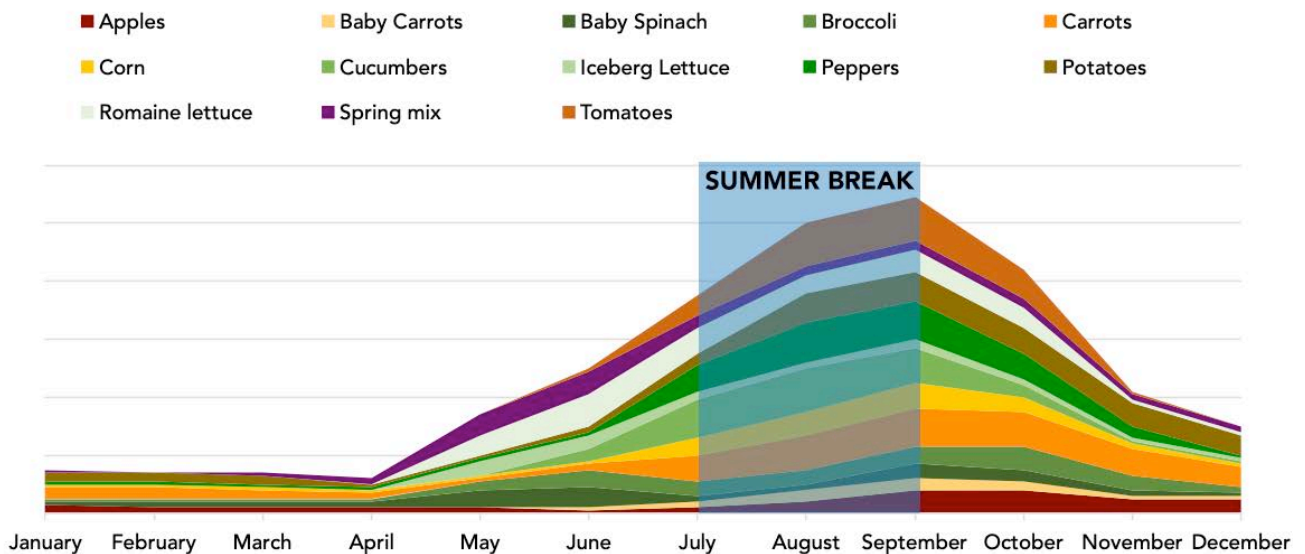
Thirty nine farmers responded to the survey. Of those:

- 65 percent expressed interest in selling their crops or products to local schools.
- 72 percent would make investments to grow more if schools were committed to purchasing from them.
- Only 13 percent of farmers reported that they are currently selling to schools.

Harvest Season

While food service directors are interested in purchasing produce locally, only one farmer indicated the ability to provide produce year-round. The timing of the harvest season and the school summer break might limit the availability of a variety of produce during several months of the school year, requiring schools to consider distributors that can consistently meet the demand throughout the year. To illustrate this, figure 18 shows the variety of fruits and vegetables produced by the farmers who responded to our survey by month, with the shaded area representing the typical school summer break. Expanding partnerships to local businesses that can process or freeze local produce might help increase availability of fresh foods harvested in the summer.

Figure 18: Number of farms in survey producing these items in a given month.



Seasonality of locally-grown produce and the school calendar has also been identified as a barrier in effectively building school gardens by members of Common Ground Health’s Healthi Kids team in the Rochester City Schools. While schools are supportive of school gardens as an educational opportunity, they are unable to provide staffing and support to continue working on the gardens in the summer months when school is not in session. The Healthi Kids team, along with other community organizations such as Finger Lakes Eat Smart NY, Cornell Cooperative Extension, and City of Rochester Recreation Centers (R-Centers) are working to pilot gardens at R-Centers and other community sites where people can access them during the summer months.

Food Processing and Delivery

Preparation of fresh produce in schools has been identified as a potential barrier to incorporating more fruits and vegetables in school meals. Of the farmers surveyed, 28 percent said they were unable to do any food processing. Other farmers reported that they can grade (26 percent), wash (33 percent), chop/cut (11 percent), and pack (41 percent) foods. Given these responses from farmers, schools and farms have an opportunity to explore whether the various food preparation that farms can do could meet the needs of school food service programs.

According to a 2016 report entitled “Transportation and Food Systems in the Genesee-Finger Lakes Region” by the Genesee Finger Lakes Regional Planning Council, “regional food transportation costs are challenging for small producers,”¹¹ and are likely a barrier to connecting local produce to schools. In our sample, 20 percent of farmers use a local food distributor to transport their products. 51 percent deliver using non-refrigerated trucks, and 13 percent deliver with refrigerated trucks; 15 percent of farmers surveyed indicated they are unable to distribute their products.

Although few farmers in our sample reported being unable to transport their products, it is important from a sustainability perspective that transportation costs are offset by sufficient volume of school food orders. As stated in the G/FLRPC report, “the low volume of invoice orders coupled with the cost of trucking from the farms to the schools” prevented the continuation of a Farm to School program with broad multi-sector support in Wyoming County. Building connections between schools, farms and local distributors to ease transportation barriers is an area where communities can work to address gaps in making local food available to schools.

Price and School Bid Process

Responses from both farmers and food service directors indicated that pricing is also a potential limitation to offering produce to schools, sourced locally or not. While school districts have some flexibility in choosing locally sourced food even if not the lowest cost, limited food service budget might still accept bids from larger distributors, and canned and frozen products. Schools identified several food products that they do not purchase specifically due to cost (local or non-local), including spring mix (29.4 percent), baby spinach (23.5 percent), and beef (76.5 percent), chicken (71 percent), and pork (71 percent). Farmers also identified pricing (42 percent), and the school bid process as barriers to selling locally, with over 60 percent of our sample reporting that they would like help with understanding the school bid process.

In 2018, New York State passed legislation to expand the Farm to School Program, increasing the reimbursement rate (from 6 cents per meal to 25 cents per meal) for school food programs that spend 30 percent or more of their school food budgets on local food.¹² This legislation was aimed at increasing availability of local foods in schools and bolstering the economy by supporting farmers in New York State.

Making Connections to Foster Opportunities

Both farmers and school food service directors were asked how the region’s Farm to Table Coalition can help get local foods into local schools. A lack of a network for mutual understanding of availability and procurement processes has been identified by both farmers and food service directors as a barrier. Creative approaches to building networks and identifying brokers between schools and local farms could help bridge the gaps identified. As described in the Genesee Finger Lakes Regional Planning Council report, the Attica Central School District was able to work with a retired farmer who acted as a broker between the food service program and local farms to allow for local purchasing when possible; Cornell Cooperative Extension programs in some counties are also building capacity for farm to school programs.

The need for connections and a network to connect schools, farms and food distributors was identified by both farmers and schools:

- 89 percent of farmers would like help being connected to school districts interested in farm to school.
- 61 percent would like to be connected to distributors who deliver to local schools.
- 61 percent need help understanding school bids.

Among school food service directors:

- 68 percent would like help with connecting farmers to food distributors they are currently using
- 42 percent would like help letting farmers know what items they want to purchase locally
- 32 percent need assistance with personally brokered relationships between schools and farmers



Where do we go from here?

This report has provided an exploration of food and health issues in the Finger Lakes Region and provided examples of a few existing efforts to increase access to fruits and vegetables in our region. As we focus on our stated vision of equity among population groups in access to and consumption of fruits and vegetables, and the prevention and alleviation of diet-related chronic disease in our communities, we hope that this report will support current efforts and promote new partnerships to address issues of food access and chronic disease.

COST

The top barrier identified by My Health Story respondents to eating healthy was cost. Healthy food is expensive -- too expensive for many family budgets. And this barrier is the result of the systems we create in our communities, at all levels, national, state and local. No matter how much a person or family might prioritize putting vegetables and fruits on the table every day, the cost of doing so can make it difficult -- if not impossible. On the systems level, our exploration identified cost of fruits and vegetables as a barrier not only for residents, but also for farmers and schools, and for smaller retail establishments who wish to increase their healthy food offerings.

While ensuring that all of our diverse communities can easily access a grocery store with vegetables and fruit is certainly part of the answer, it is clearly not the only one or even the most essential in many cases. The trick, it seems, is to implement solutions that strike the just the right balance between informing and encouraging people to prioritize a healthy diet, and creating system change that makes it as convenient and affordable as possible for people to follow through on these priorities in their everyday lives.

With cost as a top barrier, and food insecurity impacting thousands of people across the region, it is important to support government food security programs, such as WIC and SNAP as important components to supporting fruit and vegetable consumption. Other nutrition incentive programs like Double Up Food Bucks have been successful in increasing consumption of fruits and vegetables for people receiving assistance. Limiting these programs makes people even more sensitive to cost as a barrier.

OTHER BARRIERS

While over half of My Health Story survey respondents across the region, income groups, and racial/ethnic groups identified that eating healthy was important, residents must contend with various barriers to incorporating fruits and vegetables into their daily lives. One of the most important things we came to realize as a result of this exploration is the essential balance between personal priorities and systemic convenience when it comes to different communities' access to, and consumption of, fruits and vegetables. Having a place to shop for vegetables and fruits, and having transportation to get back and forth to a grocery store, ranked at the bottom of the list of identified barriers to eating healthy. While transportation did not rank as a top barrier overall, it did factor in more frequently for low income and urban residents, and this need is reflected in the community work conducted by Healthi Kids, Foodlink and other community partners.

Other identified barriers focused on issues relating to people's daily lives, and these barriers varied by population groups:

- As income levels increase, so does the percent of people reporting they do not have the time to shop or prepare healthy food.
- People in the youngest age group (18-24) were most likely to identify their lack of knowledge about how to prepare healthy meals that taste good.
- "The others in my household don't eat healthy and we eat together" was consistently cited by 10-15 percent of the various population groups.

The Socio-Ecological model¹³ helps us understand these barriers – people do not make choices in a vacuum. Local systems, culture, and messaging received in day-to-day life can help people overcome barriers like time, knowledge and family systems.

The second most common response was "I don't have any barriers keeping me from eating healthy food", with almost 60 percent of seniors (age 65 and older) reporting that they do not have any barriers to eating healthier. Those reporting no barriers includes a mix of people who do consume recommended amounts of fruits and vegetables, as well as those who do not, despite not having any clear barriers. Time, knowledge, habits of others in the household, and improvements among those without any specifically identified barriers could reasonably be addressed through the choices people make in their daily lives, if the culture and systems surrounding them support and promote the healthy choice as the easy choice.

FARM TO SCHOOL

As identified in Section VI, farmers and schools in our region have identified interest in building farm to school programs to use more local fruits and vegetables in school meals. This interest, combined with the recent legislative changes to increase reimbursement to New York school food programs using local foods provide a ripe opportunity for organizations and coalitions to broker relationships between schools, farmers, food processors and distributors. Education for farmers in understanding the school procurement process is another area of opportunity. The New York State Education Department recently released guidance for school food service directors to take advantage of increased reimbursement rates for local foods.

While much focus has been placed on farm to school approaches, other institutions with cafeterias, such as hospitals, colleges and large worksites can also explore the farm to cafeteria concept. These efforts have the potential to expand access to local fruits and vegetables in people in congregate settings and bolster the local food economy.

CHILDREN AND YOUTH

Efforts that expose children to healthy eating habits and a variety of produce have promise to help develop habits early. Examples provided in this report identify potential in efforts like the Elmira Kids' Farmers Market, summer meals programs and community gardens supported by residents and organizations during the summer months. Sugar-free policies in early childcare settings, such as the Carlson YMCA, set an early expectation that food served in the preschool setting should be healthy.

Existing efforts are underway to connect people with food resources through schools. Common Ground Health's Healthi Kids program has worked to improve the quality of school meals as a way to increase children's consumption of fruits and vegetables and has led systems building efforts in Rochester to expand the reach of the Summer Meals program. Healthi Kids has also collaborated with Cornell Cooperative Extension and Foodlink through the Finger Lakes Eat Smart NY program to improve healthy food access and educational opportunities in Rochester City Schools. Examples include:

- Hosting Curbside Market visits to schools.
- Offering Foodlink's Backpack program which distributes backpacks of nutritious foods to students in need to provide food when school is closed.
- Increasing food education in the classroom, at family nights and parent group meetings.
- Providing tower gardens and gardening supplies to schools and coordinating the technical assistance to start and maintain school gardens.
- Improving the options available on Celebration Carts to include healthier snacks and opportunities for physical activity.
- Partnering with Foodlink, food pantries are available in some schools.

DISTRIBUTION

In addition to Farm to School programs, food assistance programs should continue to think creatively about ways to bring food to people in places where they already congregate. As retail grocery stores have closed in communities across our region, and people have identified time as a barrier to eating healthier food, models which bring food to people at schools, recreation centers, senior centers, or worksites have potential to increase access for different populations. Even seniors, who largely report having no barriers to eating healthier, tend to congregate in community centers or senior centers where pop up markets or other nutrition assistance could be available.

Foodlink's Curbside Market¹⁴ has explored partnerships with different types of locations, including low income housing, school events, health programs and municipalities. For example, the City of Geneva purchases Curbside vouchers for its residents to use at the Curbside Market. Our café participants repeatedly mentioned Curbside as a convenient and reliable option, and the Double Up Food Bucks¹⁵ program just increases its accessibility among SNAP recipients. This is a model of a creative partnership that could be replicated in other areas in the region.

Worksite wellness programs are another area where creative approaches to food distribution and availability should be considered. Employers are invested in the health of their employees and often their families. While many employers don't have cafeterias or catered meals, making healthy food accessible at the workplace can be accomplished in relatively simple ways, such as contracting as a Community Supported Agriculture (CSA) site, healthy vending options, and developing healthy meals policies for employer-sponsored events.

CONVENIENCE

While the food retail landscape has shifted to offering more convenient approaches to healthy, home-cooked meals through home delivery, subscription box models delivered directly to people's homes, and pre-cut vegetables in supermarkets, these models are typically marketed to higher income customers. Especially in urban areas and among people with lower incomes who've identified transportation as a barrier, approaches to increase the convenience and availability of fresh food have the potential to increase consumption of fruits and vegetables. Foodlink's Curbside Market piloted a project to offer some pre-cut and cleaned vegetables on the trucks, with mixed success due to spoilage and refrigeration on the trucks. They continue to test innovative ideas, such as recipe boxes to bring convenience to a wider population.

HEALTH CARE

As health care continues to move toward value-based payment, there is an increased emphasis on the social determinants of health. Lack of access to food has been linked to chronic disease,¹⁶ and also poor mental health.¹⁷ Health care programs should consider how their patients' diets affect their health and dedicate resources to address the barriers they might experience based on socio-economic status or age.

Making educational programs available to patients has the potential to not only teach people about making different choices but provides opportunity for people to learn from their peers. Foodlink has been embedding the Cooking Matters program in health care settings. Participants at a recent class at Highland Family Medicine found the link between their primary health care and preventative education refreshing and helpful, remarking "this class has made me healthier and better able to manage my health -- even my doctor noticed."

Referrals to food assistance resources are one option for health care providers when responding to patients' social determinants of health, which requires office staff to know about community food assistance resources and provide information in an accessible and understandable way. Fruit and Vegetable Prescription (FVRx) Programs¹⁸ are another promising intervention, especially when combined with a financial incentive to address the cost barrier to purchasing fruits and vegetables. These programs can help address barriers for people diagnosed with diet-related chronic conditions. A FVRx pilot program conducted by the Food and Health Network of South Central New York¹⁹ demonstrated high patient satisfaction, better management of cholesterol, diabetes and weight loss, and economic benefits by encouraging purchases of local produce. Foodlink is also piloting a FVRx program with health care providers identifying patients at-risk. The Foodlink pilot will provide participants a \$30 monthly stipend for Curbside Market.

CONCLUSION

Our work over the past two years has revealed important and, perhaps, under-appreciated realities about peoples' ability to access the fruits and vegetables that could make a critical difference in the rates of diet-related illnesses. Diabetes, obesity, hypertension and elevated cholesterol are pervasive problems in our region. At the same time, in our region only 1 in 7 adults eats the recommended daily amount of fruits, and only 1 in 10 eats the recommended amount of vegetables. This is not simply a matter of making better snack choices. Food insecurity – the uncertainty of having enough food on a regular basis – is a real problem in our counties, particularly among children.

For the diverse range of community members that we assessed through survey data and interviews, the most common barriers to putting fruit and vegetables on the table are cost and the time it takes to shop for and prepare such foods. Having a place to shop and transportation – the issues addressed by the traditional retail approach – consistently fell at the bottom of the barriers list. The food retail landscape as we know it serves some people well, but many still experience barriers for which creative solutions are warranted.

There are numerous programs of promise in the Finger Lakes that are addressing these more common barriers, such as Foodlink's Curbside Market and the Kids' Farmers Markets in Chemung County. But more programs and initiatives with a diverse cross section of partners are needed to broaden the impact. For example, local farmers would love to sell more produce to schools, and school food service directors would love to buy more. But cost (again) is a barrier on both sides. Timing is also an issue – fresh, local produce is most abundant for only a short slice of the school year – which raises issues of preparation and storage. These are all subsequent barriers to making fruits and vegetables readily available that we have yet to overcome.

Effectively reducing the rates of diet-related illness in the Finger Lakes by increasing access to healthy foods will require solutions that balance personal priorities with systemic convenience. Yes, consumers should be expected to make good, healthy choices about what they and their families eat on a regular basis. But it's incumbent upon the system – the community, the programs, the government agencies – to make it convenient for consumers to follow through on the choices we're asking them to make.

Yes, consumers should be expected to make good, healthy choices about what they eat. But it's incumbent upon the system to make it convenient for consumers to follow through on the choices we're asking them to make.

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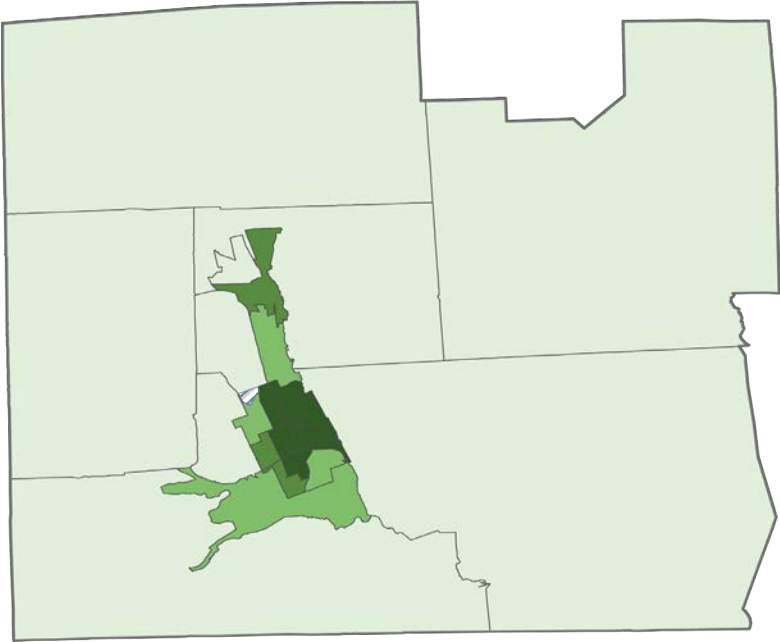
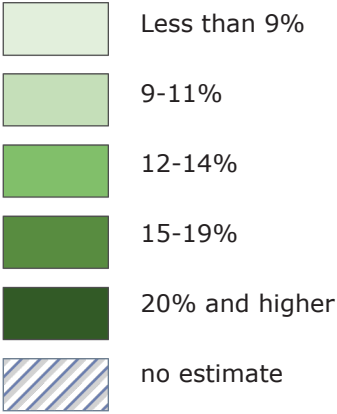
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Appendix

County Maps - Food Insecurity by Census Tract

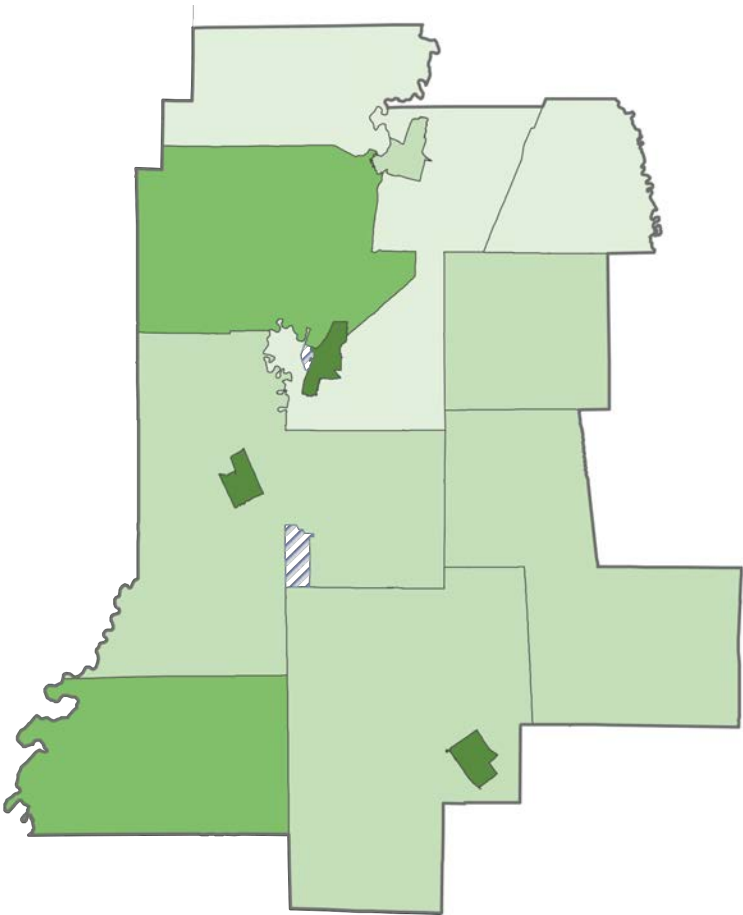
Chemung

Food Insecurity Rate
(percent of population)

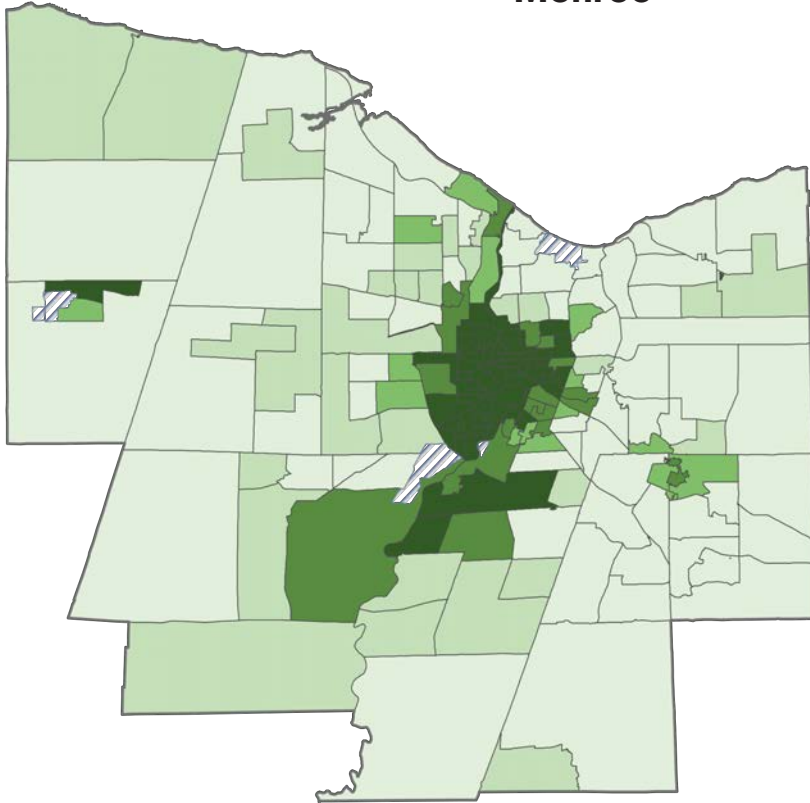


Source: Gundersen C, Dewey A, Crumbaugh AS, Kato M & Engelhard E. Map the Meal Gap 2018: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States, 2016. Feeding America, 2018.

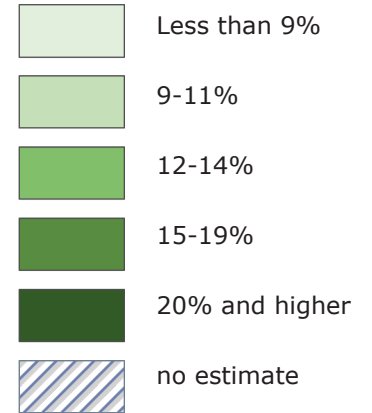
Livingston



Monroe

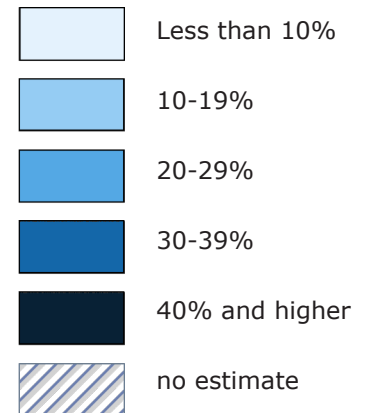
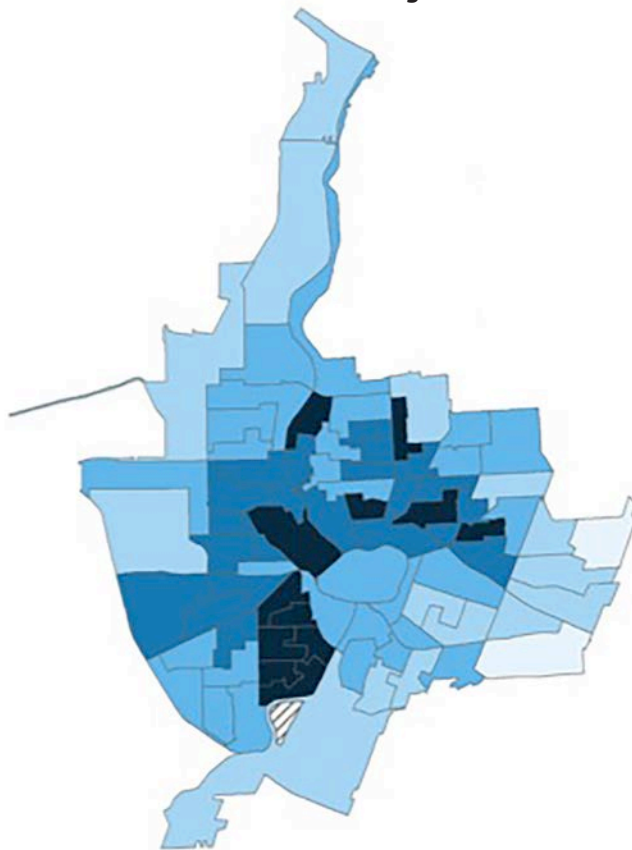


Food Insecurity Rate
(percent of population)



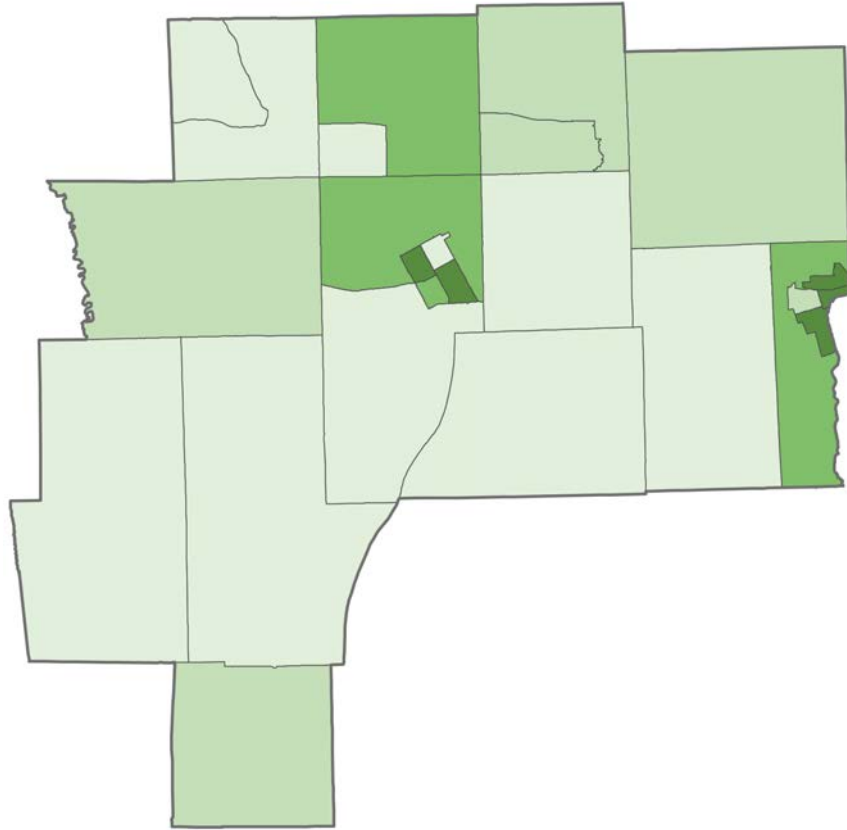
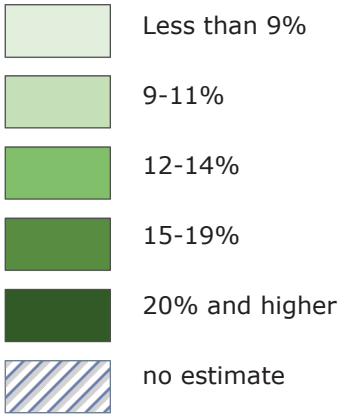
Source: Gundersen C, Dewey A, Crumbaugh AS, Kato M & Engelhard E. Map the Meal Gap 2018: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States, 2016. Feeding America, 2018.

City of Rochester



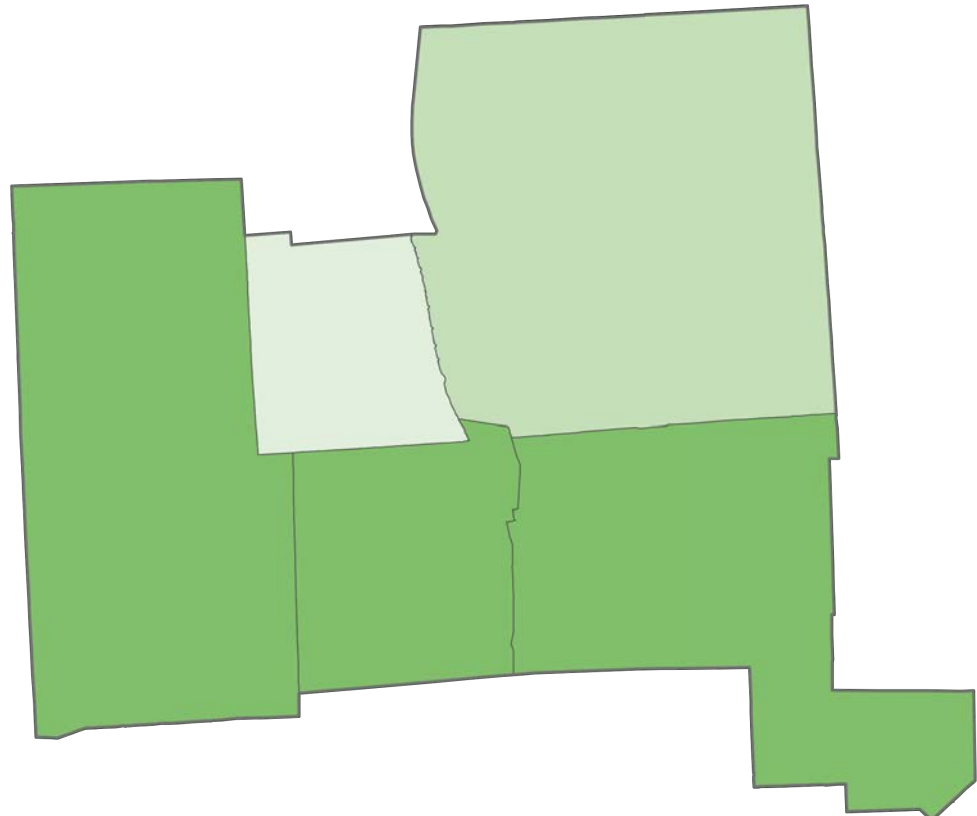
Ontario

Food Insecurity Rate
(percent of population)

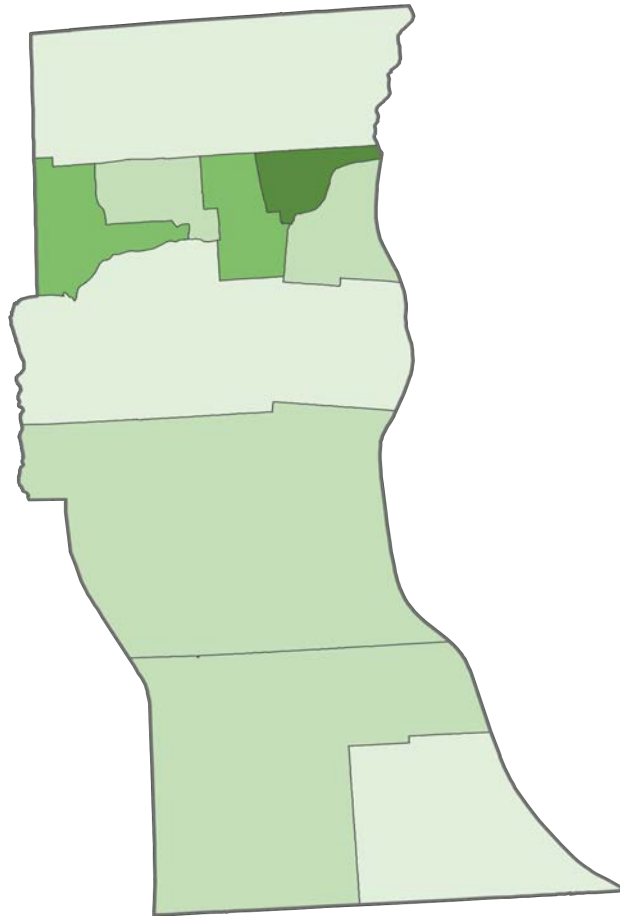


Source: Gundersen C, Dewey A, Crumbaugh AS, Kato M & Engelhard E. Map the Meal Gap 2018: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States, 2016. Feeding America, 2018.

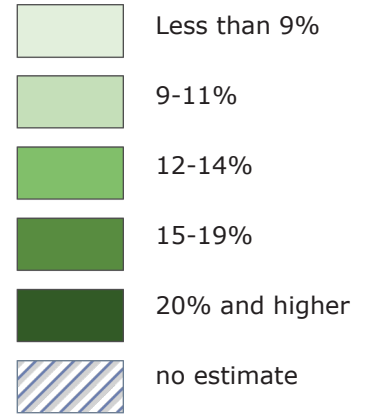
Schuyler



Seneca

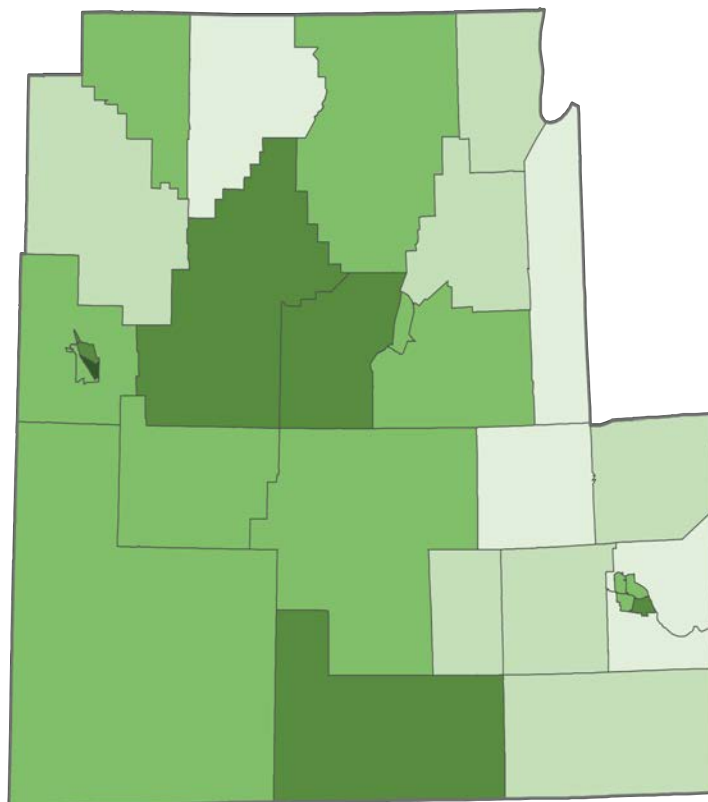


Food Insecurity Rate
(percent of population)



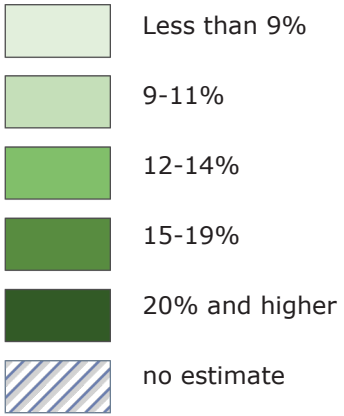
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Steuben

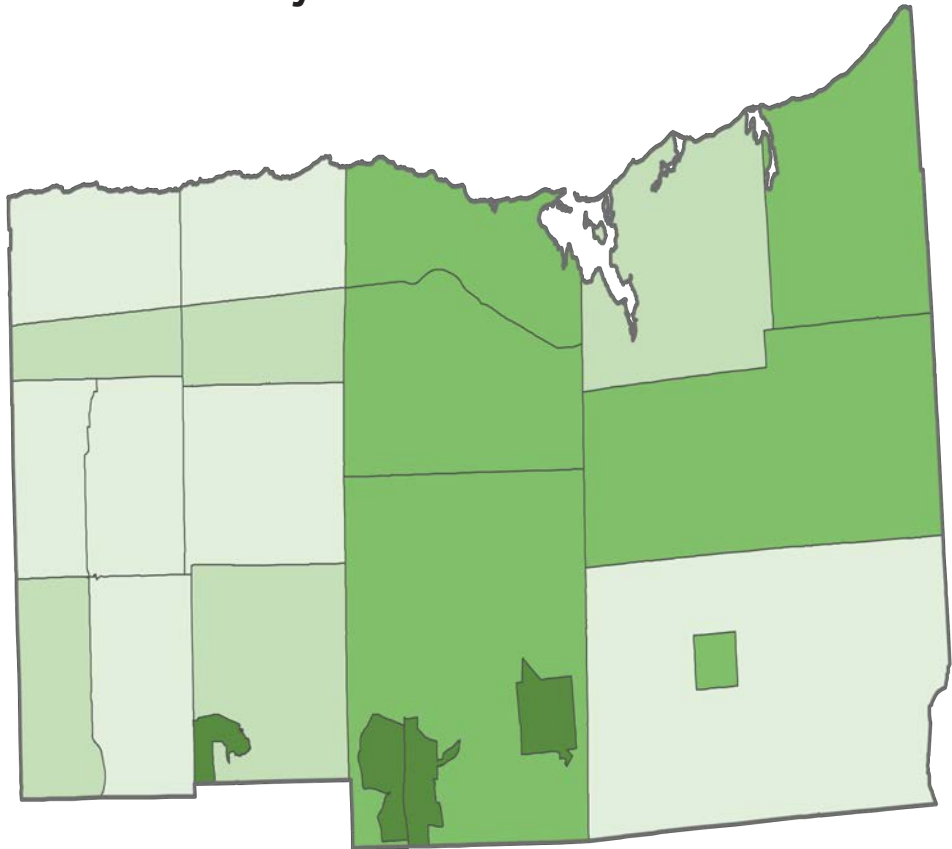


Wayne

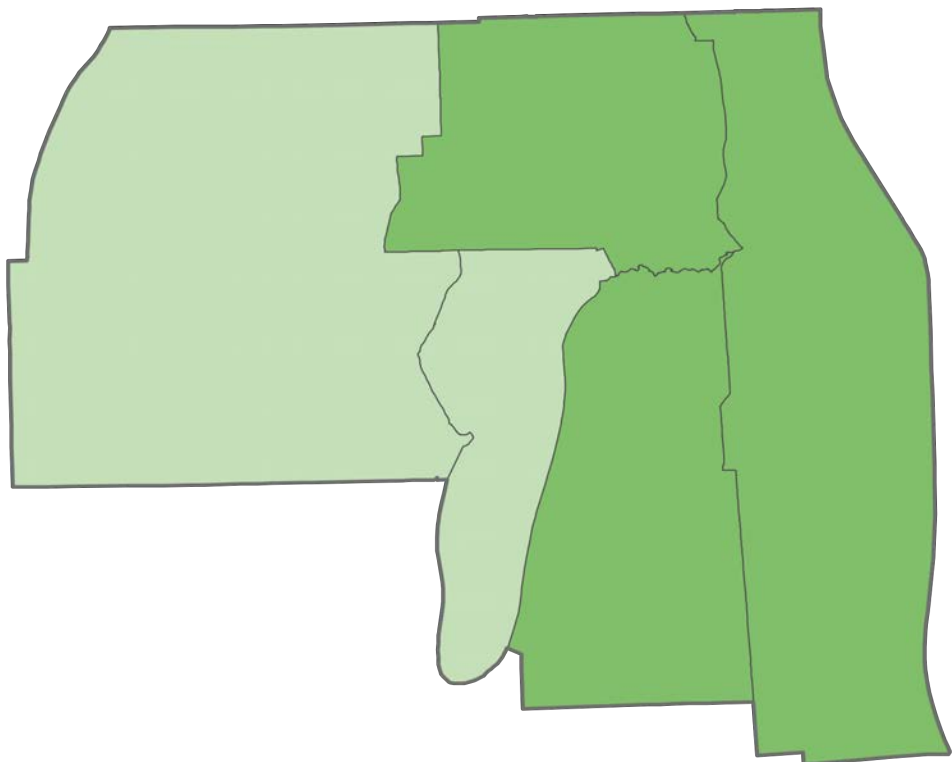
Food Insecurity Rate
(percent of population)



Source: Gundersen C, Dewey A, Crumbaugh AS, Kato M & Engelhard 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 America, 2018.



Yates



THANK YOU

Common Ground Health would like to thank our Food and Health Connection Steering Committee for dedicating their time, insights and expertise through the assessment process.

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ABOUT COMMON GROUND HEALTH

Founded in 1974, Common Ground Health is the health planning organization for the nine-county Finger Lakes region. We bring together health care, education, business, government and other sectors to find common ground on health issues. Learn more about our community tables, our data resources and our work improving population health at www.CommonGroundHealth.org.