

ALBANY COUNTY DEPARTMENT OF HEALTH: FOOD ACCESS AND FOOD SECURITY

Prepared July 16, 2019

UNDERSTANDING FOOD DESERTS and FOOD INSECURITY

Feeding America's 2017 Overall County Food Insecurity report for Albany County, New York identifies 36,970 residents, representing 12% of the population, who are food insecure. Of these individuals, 42% (n=15,527) are above the threshold for qualifying for subsidized nutrition programs; 58% (n=21,443) are at or below the 200% poverty level. In order to fully understand environmental factors that affect nutritional intake, it is important to understand how food deserts and food insecurity influence healthy food access.

Food Desert: "Food deserts are defined by the United States Department of Agriculture (USDA) as parts of the country void of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers' markets, and healthy food providers."¹ Urban food deserts are defined as areas without a grocery store within a 1 mile radius. Rural food deserts are defined as areas without a grocery store within a 10 mile radius.

Food Insecurity: Food insecurity is defined by the USDA "as a lack of consistent access to enough food for an active, healthy life"² or alternatively as "the disruption of food intake or eating patterns because of lack of money and other resources."³

Determining the level of food security related to adequate nutrition intake requires assessing households' geographic proximity to healthy food resources (i.e. food desert status) and the effect of social determinants of health that impact food budgets. Social determinants of health, as defined by the New York State Department of Health, include economic stability (employment, income, expenses, debt, medical bills, support), neighborhood and physical environment (housing, transportation, safety, walkability), level of education (literacy, language, vocational training, higher education), food (hunger, access to healthy options), community and social context (social integration, support systems, community engagement, discrimination), and health care accessibility (health coverage, provider availability, provider linguistic and cultural competency, quality of care). Indicators for comprehensively assessing food insecurity include the analysis of multiple community data points such as poverty levels, percentage of households qualifying for and utilizing federal food assistance programs (i.e. Supplemental Nutrition Assistance Program - SNAP, Special Supplemental Nutrition Program for Women, Infants, and Children - WIC, and Free & Reduced School Breakfasts/Lunches), percentage of residents experiencing food insecurity who do not qualify for assistance, and proximity of residents to a large grocery store.

Individuals experiencing food insecurity tend to have limited access to affordable and healthy food; limited access to health care; and experience high levels of stress, anxiety and depression.⁵ These factors promote a cyclic eating pattern of food deprivation and overeating that contributes to the development of chronic disease. Evidence shows that strategically addressing food insecurity can have a positive impact on health outcomes as noted by the affect of federal nutrition programs on the nutrition, health, and well-being of recipients.⁵

Resources:

1. USDA Defines Food Deserts. (n.d.). Retrieved May 21, 2019, from <http://americannutritionassociation.org/newsletter/usda-defines-food-deserts>

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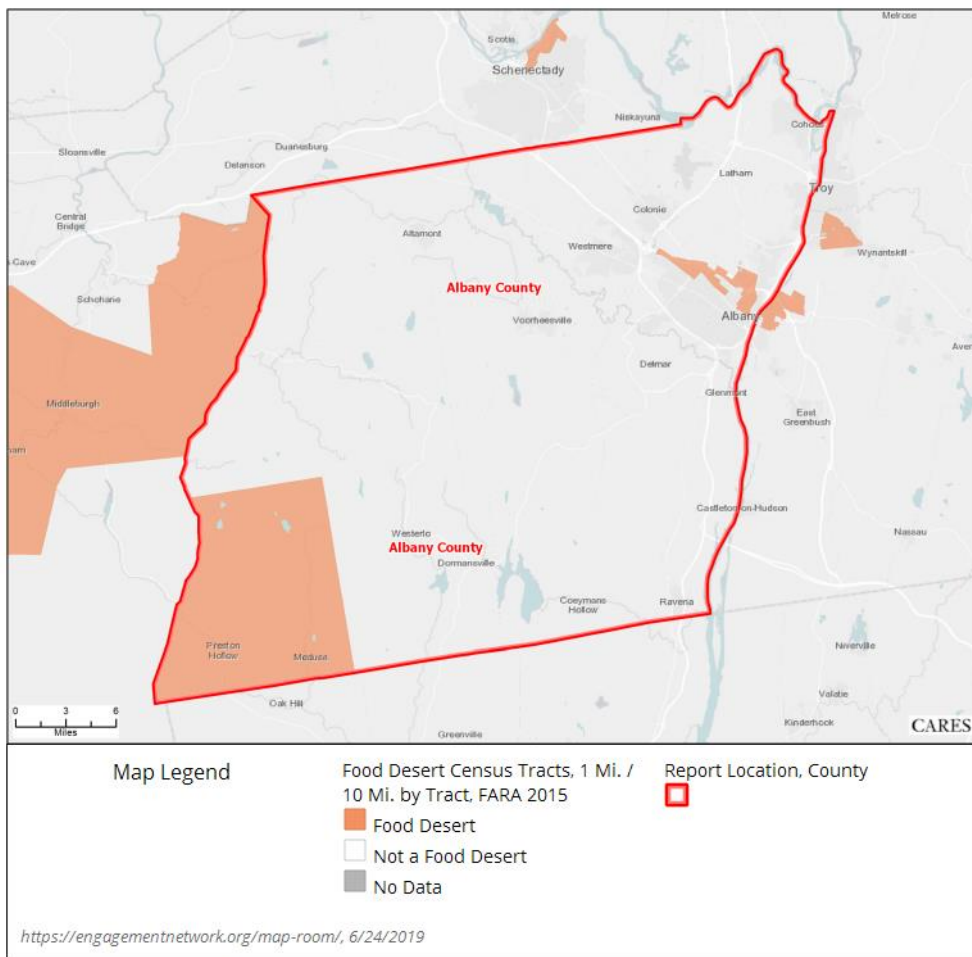
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2. What Is Food Insecurity in America? (n.d.). Retrieved May 21, 2019, from <https://hungerandhealth.feedingamerica.org/understand-food-insecurity/>
3. Food Insecurity. (n.d.). Retrieved May 21, 2019, from <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/food-insecurity>
4. Definitions of Food Security. (n.d.). Retrieved May 21, 2019, from <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>
5. Hunger & Health. (n.d.). Retrieved May 22, 2019, from <http://www.frac.org/hunger-health>

FOOD DESERTS IN ALBANY COUNTY

Exhibit 1 Albany County Food Deserts map is generated through the [Cares Engagement Network](#) utilizing census tract data from the Food Access Research Atlas (FARA) 2015 Food Desert Report. Food deserts are defined by the aforementioned USDA criteria. Limitations with the data include changing retail food resources in these locations since 2015 (i.e. the most recent data is four years old and may not accurately represent current food desert status.)

Exhibit 1. Albany County Food Deserts (2015)



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The following Albany County census tracts are identified as food deserts (Resource: Food Access Research Atlas (FARA), 2015). Zip codes, neighborhoods defined by Albany County and neighborhoods defined by Healthy Capital District Initiative (HCDI) are shared to show areas with potential overlap with reports referenced later in the report that are driven by data collected by zip codes and neighborhoods. The census tract data reflects a smaller geographic area than the other geographic zones listed.

Census Tract	Zip Code(s) Present in CT	Neighborhoods/Regions (defined by Albany County) Present in CT	Neighborhoods/Regions (defined by HCDI) Present in CT
36001000200	12204 12207 12210	N. Albany/Menands, Center Square, Downtown Albany/Warehouse District	N. Albany/Menands, South End/Downtown Albany, Center Square
36001000300	12204 12205 12206 12211	N. Albany/Menands, Village of Colonie/Maywood/Roessleville/Sand Creek Rd., West End/WestHill, Loudonville	N. Albany/Menands, Colonie, West End Loudonville
36001014802	12023 12083 12120 12122 12147 12460 12469	Berne/Knox Greenville Medusa Middleburgh Rensselaerville Preston Hollow/Medusa/Durham Preston Hollow	Hill Towns

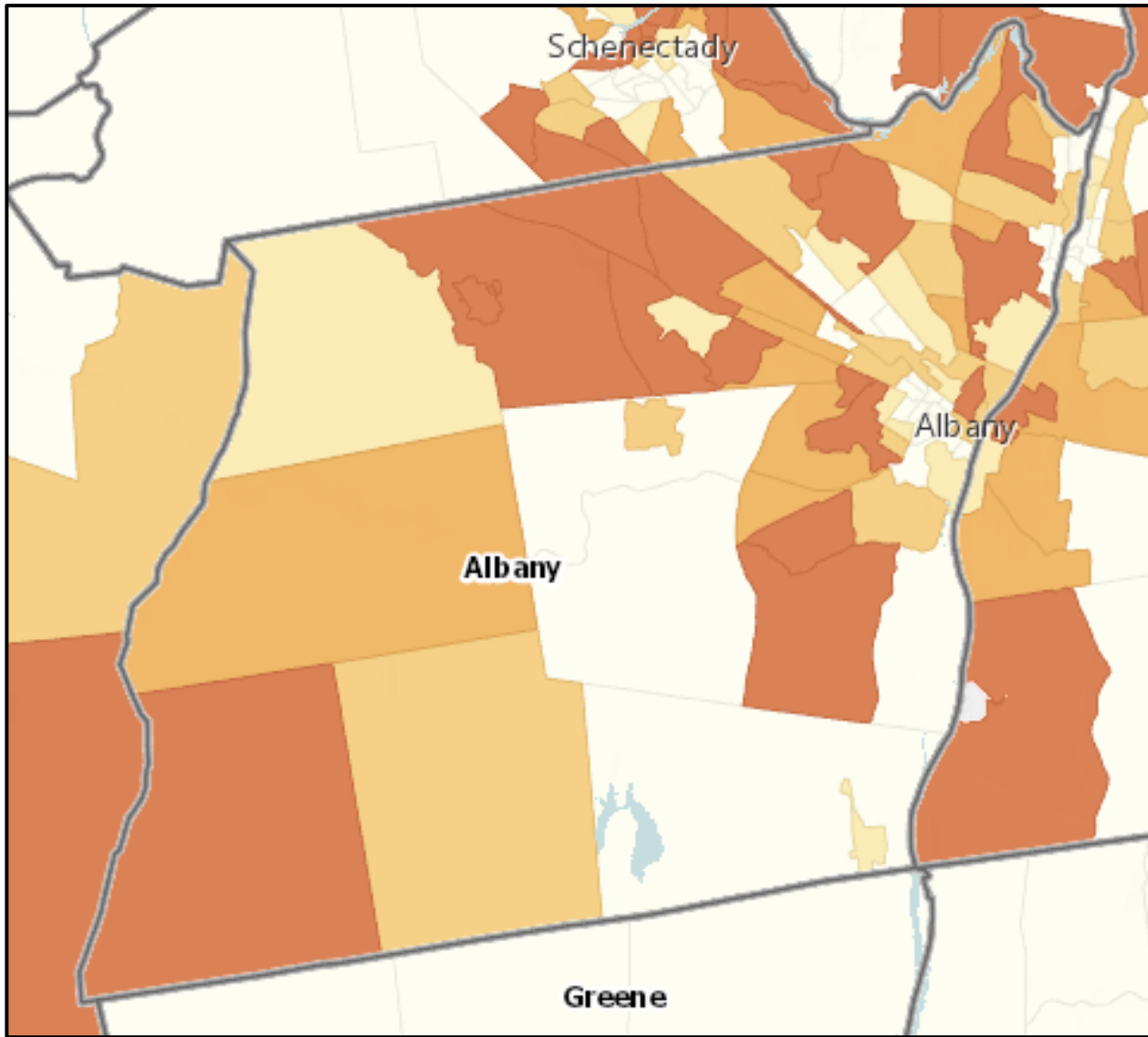
FOOD INSECURITY (LIMITED FOOD ACCESS AND LOW INCOME) IN ALBANY COUNTY

Exhibit 2 Albany County Food Insecurity map utilizes census tract data from the Food Access Research Atlas (FARA) 2015 Population with Limited Food Access, Low Income Report. Low income is defined as < 200% federal poverty level and limited access by lack of proximity to a grocery store (i.e. > 1 mile in urban areas, >10 miles in rural areas). “Stores met the definition of a supermarket or large grocery store if they reported at least \$2 million in annual sales and contained all the major food departments found in a traditional supermarket, including fresh meat and poultry, dairy, dry and packaged foods, and frozen foods.” Limitations with the data include changing retail food resources in these locations since 2015 (i.e. the most recent data is four years old and may not accurately represent current food desert status).

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Exhibit 2. Albany County Food Insecurity (2015)



Map Legend

Population with Limited Food Access, Low Income, Percent by Tract, FARA 2015

- Over 50.0%
- 20.1 - 50.0%
- 5.1 - 20.0%
- Under 5.1%
- No Low Food Access

<https://engagementnetwork.org/map-room/>, 7/19/2019

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The following census tracts are identified as having a high prevalence (i.e. over 50% of the population affected) of limited food access and low income (Resource: FARA, 2015). Zip codes, neighborhoods defined by Albany County and neighborhoods defined by Healthy Capital District Initiative (HCDI) are shared to show areas with potential overlap with reports referenced later in the report that are driven by data collected by zip codes and neighborhoods. In most cases, the census tract data reflects a smaller geographic area.

Census Tract (CT)	Zip Code(s) Present in CT	Neighborhoods/Regions (defined by Albany County) Present in CT	Neighborhoods/Regions (defined by HCDI) Present in CT
36001000200	12204 12207 12210	N. Albany/Menands, Center Square/Arbor Hill, Downtown Albany /Warehouse District	N. Albany/Menands, South End/Downtown Albany, Center Square/Arbor Hill
36001001801	12203 12208 12209	Westmere/Melrose/Pine Hills, New Scotland /Normanskill/Buckingham, Delaware 2nd Ave/Whitehall	State Campus (Melrose/Manning), New Scotland Ave, Delaware/2nd Ave.
36001001802	12203 12208 12159	Westmere/Melrose/Pine Hills, New Scotland /Normanskill/Buckingham, Slingerlands	State Campus (Melrose/Manning), New Scotland Ave, New Scotland
36001013503	12047 12110 12189	City of Cohoes/N. Colonie/Boght Corners, Latham, Watervliet/E. Colonie/Haswell Rd.	City of Cohoes/N. Colonie Latham Watervliet/Green Island
36001013601	12204 12110 12189 12211	N. Albany/Menands, Latham, Watervliet/E. Colonie/Haswell Rd., Loudonville	N. Albany/Menands, Latham, Watervliet/Green Island Loudonville
36001013703	12110 12205 12211 12235 12309	Latham, Village of Colonie/ Maywood/Roessleville/Sand Creek Rd., Loudonville, Airport Area, Niskayuna	Latham, Colonie Loudonville
36001013802	12205 12304 12309	Village of Colonie/ Maywood/Roessleville/Sand Creek Rd., Schenectady, Niskayuna	Colonie
36001014203	12054 12158	Delmar, Selkirk	Bethlehem Ravena/Coeymans/Selkirk

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Census Tract (CT)	Zip Code(s) Present in CT	Neighborhoods/Regions (defined by Albany County) Present in CT	Neighborhoods/Regions (defined by HCDI) Present in CT
36001014606	12009 12303 12306	Altamont/Knox/Guilderland Ctr, Carman/Lydius/Old State/Hungerkill/Fort Hunter	Guilderland Pine Bush
36001014607	12009 12084 12203 12205 12303	Altamont/Knox/Guilderland Ctr, Guilderland, Westmere/Melrose/Pine Hills, Village of Colonie/Maywood/Roessleville/Sand Creek Rd., Carman/Lydius/Old State/Hungerkill/Fort Hunter	Guilderland State Campus Colonie Pine Bush
36001014611	12009 12159 12186	Altamont/Knox/Guilderland Ctr, Slingerlands, Voorheesville	Guilderland New Scotland
36001014612	12009	Altamont/Knox/Guilderland Ctr	Guilderland
36001014613	12009 12085 12186	Altamont/Knox/Guilderland Ctr, Guilderland Center, Voorheesville	Guilderland New Scotland
36001014614	12084 12159 12203	Guilderland Slingerlands Westmere/Melrose/Pine Hills	Guilderland New Scotland State Campus
36001014802	12023 12083 12120 12122 12147 12460 12469	Berne/Knox Greenville Medusa Middleburgh Rensselaerville Preston Hollow/Medusa/Durham Preston Hollow	Hill Towns

HEALTH ISSUES RELATED TO POOR NUTRITIONAL INTAKE

Poor nutritional intake is a contributing factor in the development of the following chronic diseases: obesity, type 2 diabetes, and cardiovascular disease.

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HEALTH OUTCOMES DATA IN ALBANY COUNTY FOR FOOD DESERT AREAS

1. Overweight / Obesity – comparable census tract data is not available as data is collected by school district. A large section of the “hill towns” is located in the Greenville School District i.e. the data for this school district will include both Albany County and Greene County residents.

“Because school district boundaries do not align with county boundaries, the county estimates reflect data from students attending school within schools assigned a county-code by NYS Education. County assignment is not based on student county of residence. These data should not be considered to represent all school aged-children attending school in that county because of: restrictions in reporting due to FERPA (Family Educational Rights and Privacy Acts), parents’/guardians’ ability to request that their child’s weight status data be excluded from reporting, and other sources of missing data.

Because of restrictions in reporting due to the FERPA, there can be wide variation in how much of the student population is represented in the data that school districts submit. This can limit researchers’ ability to draw absolute conclusions about observed differences in student weight status among counties. Starting with the 2010-11 school year, the reporting system was changed to require reporting of aggregate data for grade categories (as opposed to grades) from schools to aggregate data by school districts. Changes made to the SWSCR effective 2010-11 enable more data from smaller school districts to now be represented.”

The rate for New York State excluding New York City from 2016-2018 is as follows²:

- 16.5% Percent Overweight
- 17.2% Percent Obese
- 33.7% Percent Overweight or Obese

Exhibit 3. Albany County Student Weight: Percent Overweight or Obese (2016-2018)

Student Weight: Percent Overweight or Obese by Albany County, NY School District* 2016-2018

*Including Albany County Residents attending Greenville Central School District

SCHOOL DISTRICT NAME	SCHOOL YEARS	NUMBER OVERWEIGHT	PERCENT OVERWEIGHT	NUMBER OBESE	PERCENT OBESE	NUMBER OVERWEIGHT OR OBESE	PERCENT OVERWEIGHT OR OBESE	GRADE LEVEL	ZIP CODE
ALBANY CITY SCHOOL DISTRICT	2016-2018	339	17.1	382	19.2	721	36.3	DISTRICT TOTAL	12207
BERNE-KNOX WESTERLO CENTRAL SCHOOL DISTRICT	2016-2018	55	20	45	16.4	100	36.4	DISTRICT TOTAL	12023
BETHLEHEM CENTRAL SCHOOL DISTRICT	2016-2018	198	13	160	10.5	358	23.5	DISTRICT TOTAL	12054
RAVENA-COEYMANS SELKIRK CENTRAL SCHOOL DISTRICT	2016-2018	127	19.7	105	16.3	232	36	DISTRICT TOTAL	12158
COHOES CITY SCHOOL DISTRICT	2016-2018	105	19.7	74	13.9	179	33.6	DISTRICT TOTAL	12047
SOUTH COLONIE CENTRAL SCHOOL DISTRICT	2016-2018	286	14.9	353	18.4	639	33.4	DISTRICT TOTAL	12205
MENANDS UNION FREE SCHOOL DISTRICT	2016-2018	8	9.9	22	27.2	30	37	DISTRICT TOTAL	12204
NORTH COLONIE CENTRAL SCHOOL DISTRICT	2016-2018	318	16.7	294	15.5	612	32.2	DISTRICT TOTAL	12110
GREEN ISLAND UNION FREE SCHOOL DISTRICT	2016-2018	17	17.2	25	25.3	42	42.4	DISTRICT TOTAL	12183
GUILDERLAND CENTRAL SCHOOL DISTRICT	2016-2018	252	15.9	220	13.9	472	29.8	DISTRICT TOTAL	12084
VOORHEESVILLE CENTRAL SCHOOL DISTRICT	2016-2018	63	15	41	9.8	104	24.8	DISTRICT TOTAL	12186
WATERVLIET CITY SCHOOL DISTRICT	2016-2018	63	22.5	80	28.6	143	51.1	DISTRICT TOTAL	12189
GREENVILLE CENTRAL SCHOOL DISTRICT	2016-2018		17.2		21.9		39.2	DISTRICT TOTAL	12083

Resource: Student Weight: Percent Obese by School District Map: 2016-2018 / Health Data NY. (n.d.) Retrieved June 6, 2019 from <https://health.data.ny.gov/Health/Student-Weight-Percent-Obese-by-School-District-Ma/9hu-ki7z>. Blue indicates rate above NY, excluding NYC, rates. Red indicates rate over 150% above NY, excluding NYC, rates.

Resources:

1. New York State Student Weight Data Explorer Overview. Retrieved July 9, 2019, from https://nysdc.health.ny.gov/documents/39436/76040/overview_student_weight_explorer.pdf

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2. New Your State Student Weight Percent Obese by Grade Level. Retrieved June 15, 2019, from <https://health.data.ny.gov/Health/Student-Weight-Percent-Obese-by-Grade-Level-Statew/xjsc-2jcc>.

Overweight or Obese (BMI 25.0 – 30+), Adults Age 18+, Percent by County, BRFSS 2011-12

Sub-county data is not available.

2. Type 2 Diabetes and Cardiovascular Disease – comparable census tract data is not available as data is collected by zip codes and further grouped into neighborhoods by the Healthy Capital District Initiative (HCDI) that do not align with neighborhood boundaries defined by Albany County.

Prevention Quality Indicators (PQI) are a set of measures developed by the federal Agency for Healthcare Research and Quality (AHQR) for use in assessing preventable hospitalizations. PQI for Type 2 Diabetes represents the rate per 10,000 population of type 2 diabetes related hospitalizations that were preventable for 2012-2015.

Exhibit 4. Diabetes and Cardiovascular Disease Prevention Quality Rates by Neighborhood New York State Department of Health, SPARCS, 2012-2016, Age-Adjusted Rate per 10,000

	Diabetes		Cardiovascular Disease	
	N*	Rate	N*	Rate
New York State, excl. NYC	15,114	11.9	34,035	23.9
Capital Region	1,098	10.3	2,507	20.8
Albany County	386	11.6	818	21.6
State Campus	34	11.1	82	18.9
N. Albany/ Menands	16	19.1	34	42.4
West End	64	37.8	75	54.4
South End	33	42.4	43	85.8
South End/Downtown	10	48.7	9	44.7
New Scotland Avenue	36	19.3	69	28.4
Delaware/2 nd Avenue	16	16.3	35	39.9
Center Square	24	24.9	25	33.7
Colonie	37	11.2	90	20.7
Latham	15	6.3	53	17.6
Loudonville	10	6.5	32	12.3
Pine Bush	39	13.2	96	25.3
City of Cohoes/ N.Colonie	29	13.3	74	28.8
Watervliet/G.I.	29	13.9	63	26.3
Bethlehem	20	7.3	64	17.2
RCS	14	10.6	31	25.5
Hill Towns	5	5.0	13	14.9
Guilderland	14	9.2	31	19.5
New Scotland	9	5.9	43	18.9

*N is calculated as the average number of cases per year.

** Due to confidentiality concerns, counts and rates are not shown when counts are fewer than 5.

Blue indicates rate above NY, excluding NYC, rates. Red indicates rate over 150% above NY, excluding NYC, rates.

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SUMMARY

The granularity of data used to analyze food desert and security (i.e. census tracts) does not align with the level of data used for understanding public health outcomes (i.e. neighborhoods, zip codes, school districts, etc.). This makes it challenging to identify areas experiencing more than one identified condition without additional data analyses i.e. maps created with overlays of data and validity of the data to draw conclusive correlations or cause and effect are limited. Additionally, the food access data is four years old and may not accurately reflect current food desert/low food access areas. Lastly, the data collection timeframes do not align among all the sub-reports cited. The most recent available data has been referenced for this report.

No direct correlation can be established between food deserts and/or food insecurity in Albany County and specific health conditions (i.e. overweight/obesity, cardiovascular disease, diabetes); however, general observations for consideration are as follows:

- **Identified areas of overlap between food deserts and poor health indicators:**

- Census Tract 2 intersects the following neighborhoods: North Albany/Menands, Center Square, and Downtown Albany/Warehouse District. This area presents as both a food desert with a higher prevalence of food insecurity defined as having more than 50% of the population experiencing low income and low access to food. Additionally, it is within neighborhood(s) with higher indices for overweight or obesity, diabetes, and cardiovascular disease.
- Census Tract 3 intersects the following neighborhoods: North Albany/Menands, Village of Colonie/Maywood/Roessleville/Sand Creek Rd., West End/West Hill, and Loudonville. This area presents as a food desert and has higher indices for overweight or obesity, diabetes and cardiovascular disease.

- **Identified areas of overlap between areas with food insecurity and poor health indicators:**

- Census Tract 2 intersects the following neighborhoods: North Albany/Menands, Center Square, and Downtown Albany/Warehouse District. This area presents as both a food desert with a higher prevalence of food insecurity defined as having more than 50% of the population experiencing low income and low access to food. Additionally, it is within neighborhood(s) with higher indices for overweight or obesity, diabetes, and cardiovascular disease.
- Census Tract 18.01 intersects the following neighborhoods: Westmere/Melrose/Pine Hills, Normanskill/Buckingham, and Delaware 2nd Ave/Whitehall. This area has a high prevalence of food insecurity defined as having more than 50% of the population experiencing low income and low access to food. Additionally, it has higher indices for overweight or obesity, diabetes, and cardiovascular disease.
- Census Tract 135.03 intersects the following neighborhoods: City of Cohoes/North Colonie/Boght Corners, Latha, and Watervliet/East Colonie/Haswell Road. This area has a high prevalence of food insecurity defined as having more than 50% of the population experiencing low income and

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low access to food. Additionally, it has higher indices for overweight or obesity, diabetes, and cardiovascular disease.

- Census Tract 136.01 intersected the following neighborhoods: North Albany/Menands, Latham, Watervliet/E. Colonie/Haswell Road, and Loudonville. This area has a high prevalence of food insecurity defined as having more than 50% of the population experiencing low income and low access to food. Additionally, it has higher indices for overweight or obesity, diabetes, and cardiovascular disease.

Understandably, future analysis of Albany County data identifying food deserts and areas with low food access and low income is dependent upon updated information by USDA.