



HEALTH EQUITY REPORT

Social Determinants of Health

Food, Housing, and Neighborhood Atlas

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Introduction

While improving access to quality health care and reducing risky health behaviors are important to improving population health and health equity, approaches are also needed that address the social, economic, and environmental factors that influence health.¹ Research has found that social factors accounted for over a third of the total deaths in the United States in a year.² Department of Health and Human Services (DHHS) defined health disparities as “differences in the health outcomes that are closely linked with social, economic, and environmental disadvantage”.³ Thus, achieving health equity will require addressing such social and environmental determinants, with a focus on those communities experiencing the greatest disparities.

Healthy People 2020 identified the importance of such Social Determinants of Health (SDOH) by including “create social and physical environments that promote good health for all” as one of its four overarching goals.⁴ The New York State Department of Health’s SDOH definition also adds “Social Determinants of Health include: poverty; environmental threats; inadequate health care; individual and behavior factors; and educational inequities”.⁵ The Kaiser Family Foundation framework groups SDOH factors under the categories: Economic Stability; Neighborhood and Physical Environment; Education; Food; Community and Social Context; and Health Care System.¹

Figure 2

Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social Integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education			
Support	Walkability				

Health Outcomes

Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations



Because most of the SDOH indicators utilized in this report are census-based, New York State (NYS), rather than NYC (Upstate) used in previous Equity Reports, will be used for State comparisons. NYC will have a large effect on the NYS data.

The report will focus on the neighborhood, presenting census-tract level information in table and map format by SDOH indicators, for each of the six Capital Region counties: Albany, Columbia, Greene, Rensselaer, Saratoga and Schenectady. Because of the breadth of factors that fall under the SDOH framework, this report will review indicators that relate to neighborhood and physical environment--housing, and food—food insecurity and healthy food access.

Food

Poor diets and unhealthy weight are associated poor health. A harmful diet increases the risk of many health conditions including overweight and obesity; malnutrition; iron-deficiency anemia; heart disease; high blood pressure; dyslipidemia; Type 2 diabetes; osteoporosis; diverticular disease; and some cancers.¹¹ One of the Healthy People 2020 goals is to promote health and reduce chronic disease through the consumption of healthy diets and achievement and maintenance of healthy body weights. This goal encompasses increasing household food security and eliminating hunger.¹¹ In a similar vein, the NYS Department of Health’s Prevention Agenda identified Reducing Obesity in Children and Adults as a Focus Area under Preventing Chronic Diseases. One of its goals is to “create community environments that promote and support healthy food and beverage choices and physical activity”.¹² High-risk neighborhoods can influence health by lack of access to nutritious food, coupled with concentrated exposure to fast food outlets. Supermarkets traditionally provide healthier options than convenience stores.

Food insecurity not only looks at access to health foods, but the individual’s or family’s ability to afford and secure such foods. About 47.4 million Americans, or 14.9% of the population, were food insecure during the past year. In NYS, approximately 2.7 million residents, or 13.5% of the population were food insecure, including 940,000 children.⁷

- While lower than the US and NYS rates, still approximately 110,000 (11.5%) Capital Region residents were “food insecure, including about 38,600 children (<18 years). Albany had the highest rate (13.1%) in the Capital Region.
- Almost half of the “food insecure” Capital Region residents were ineligible for food assistance (42%), including 15,400 “food insecure” children < 18 years of age (40%). All Capital Region counties had rates higher than NYS.

Approximately 20.2 million **low-income** Americans, or 18.9% of the population, had **limited healthy food access**. In NYS 462,000 low-income residents were considered to have limited healthy food access or 7.5% of the population. Limited healthy food access is estimated by the percentage of the low-income population (<200% FPL) who do not live close to a grocery store. Proximity is defined in rural (living < 10 miles from store) and non-rural (< 1 mile from store) areas.

- An estimated 44,700 Capital Region low-income residents had low healthy food access. The Capital Region rate of 19.5% was 2.5 times higher than the NYS rate of 7.5%. Schenectady (22.9%) and Saratoga (22.1%) had the highest rates in the Region.
- Low income, limited food access neighborhoods are often suburban/rural. Areas include: South Bethlehem, Guilderland, Altamont, and Colonie in Albany; Coxsackie in Greene; Wilton, Stillwater and Halfmoon in Saratoga; and Niskayuna and Rotterdam in Schenectady.

Populations with low access to healthy foods are often exposed to non-nutritious food choices. In 2014, NYS had over 16,700 **fast food restaurants** for a rate of 86.3 per 10,000 population, much higher than the comparable U.S. rate of 73.2 per 10,000. The NYS has seen a 16.6% increase in the rate since 2009.⁷

- The Capital Region had 788 fast food restaurants in 2014, for a rate of 82.9/100,000 population. Albany had the highest number (n=324) and rate (106.5) in the Region. Columbia had the lowest rate (58.6).
- The Capital Region's Fast Food Restaurant rate increased 9.1% from 2009 to 2014. Greene (34.5%) and Saratoga (18.4%) had the highest rates of increase, while Rensselaer had a 5.8% decrease during the same time period.

Poverty is a major factor in the ability to afford and access nutritious foods. Access to nutritional programs such as WIC (Supplemental Nutrition Program for Women, Infants and Children), Supplemental Nutrition Assistance Program (SNAP), or Free or Reduced Lunch at schools, is important in reducing food insecurity and improving proper nutrition.^{6,7,8,9}

Approximately 97.5 million, or 31.6% of US residents, were **at or below 185% Federal Poverty Level (FPL)**, a proxy of eligibility for some food subsidy programs such as Reduced-Cost Lunch and WIC. In New York State (NYS) 30.2% of its residents or 5.8 million were at or below 185% FPL.⁷ The percentage of the population **at or below 125% of the FPL** is a good approximation for Supplemental Nutrition Assistance Program (SNAP) and free lunch eligibility. NYS had 20.1% of its residents at or below 125% FPL.

- About 211,000 (23%) of Capital Region residents were at or below 185% FPL. Greene (27.5%) and Columbia (26.0%) had the highest percentages in the Capital Region.
- Approximately 135,300 (14.7%) of Capital Region residents were at or below 125% FPL. Albany (17.0%) and Greene (16.8%) had the highest percentages in the Capital Region.
- As expected, the low-income populations resided in the census tracts of Albany City, Hudson, Catskill, Troy, Rensselaer, and Schenectady City.

Free and Reduced Cost Lunch provides school children with nutritious meals during the school year. About 1.4 million NYS school children, or 52% of the population, received free or reduced-price lunch during the 2015-16 school year.¹⁰

- Approximately 38% of the Capital Region’s school children, or 47,000 students, were eligible for free or reduced-price lunch. Columbia (49%) and Schenectady (47%) had the highest rates in the Region.
- School Districts with higher rates than NYS include: Albany City, Cohoes, Green Island and Watervliet in Albany; Berkshire, Hudson City, and Taconic Hills in Columbia; Cairo-Durham, Catskill, and Hunter-Tannersville in Greene; Hoosick Falls, Lansingburgh, Rensselaer City, and Troy City in Rensselaer; Edinburgh and Hadley-Luzerne in Saratoga; and Schenectady City in Schenectady.

The **SNAP benefits** (food stamps) offers the low-income population access to healthy foods. About 15.4 million American households, or 13.2% of all households, were eligible and received SNAP benefits. In NYS, over 1.12 households, or 15.4% received SNAP benefits. NYS also had 16.7 **SNAP-authorized retailers** per 1,000 SNAP households.⁷

- About 40,000 Capital Region households (10.6%) received SNAP benefits. Schenectady (13.3%) and Rensselaer (12.0%) had the highest Regional rates.
- High SNAP household neighborhoods mimicked the high poverty neighborhoods.
- In 2016, there were 902 authorized SNAP retailers in the Capital Region, for a rate of 22.5/1,000 SNAP households; much higher than the NYS rate. Rensselaer (19.3) and Albany (20.9) had the lowest rates in the Region.
- Nearly 2,000 households that received SNAP benefits lived in a census tract with 0 SNAP-authorized retailers.

Housing

Most Americans spend about 90% of their time indoors, and about 2/3 of that time at home. Substandard housing conditions may expose residents to lead paint that can lead to lead poisoning, and indoor allergens, such as mold or dust, that can lead to or exacerbate asthma. Housing is also a major expense, the largest single monthly expense for many individuals. Cost-burdened households often need to make choices as how best to utilize limited resources (e.g. food, clothing, housing, medical care) which constrains their ability to address indoor health risks. Overcrowded housing often leads to stress and increased exposure to disease.^{6,7,8,9}

Approximately 40.6 million US housing units, or 34.7%, were considered substandard. In NYS, there were over 3 million **substandard housing units** or 41.9% of all housing units. To be considered substandard, the housing unit must have one of the following conditions: lacking complete plumbing facilities; lacking complete kitchen facilities; 1.01+ occupants per room; housing costs > 30% of household income.^{7,8}

- Over 115,000 (30%) of Capital Region occupied housing units were considered substandard. Greene had the largest percentage (35.8%, n=6,300), while Albany had the largest number (n=38,700, 31.3%) of substandard housing units in the Capital Region.
- Housing cost of >30% the household income was the driving condition in the determination of substandard housing.

About 3.9 million US occupied housing units (4.3%) were **overcrowded**, averaging 1.01+ persons per room. In NYS, approximately 365,000 occupied housing units were overcrowded, or 7.2% of all housing units.⁷

- Only 3,700 (1.12%) of Capital Region occupied housing units averaged >1.01 persons per room, much lower than NYS or the US. Schenectady (1.44%) and Rensselaer (1.38%) had the highest rates of overcrowding in the Region.

Housing is considered to be **cost-burdened** when an individual or family spends over 30% of its income to rent or buy a residence. About 36.9 million US households were considered cost-burdened, or 34% of all households. For NYS, almost 3 million, or 40.7% of households, were cost-burdened, and 1.5 million, or 20.6% of households, were **severely cost-burdened** (> 50% of income toward housing).⁷

- While the rates are lower than NYS, almost one-third of Capital Region households were “cost-burdened” (31.4%, n=118,200), while 13.9% (n=52,160) of households were considered “severely cost-burdened”.
- Greene had the highest rate of cost-burdened (36.7%) and severely cost-burdened (16.0%) households in the Capital Region.
- High-risk cost-burdened neighborhoods include census tracts in: Albany City, Cohoes, Watervliet, and Ravena in Albany; Hudson and Germantown in Columbia; Greenville, Athens, Catskill and Cairo in Greene; Troy, Rensselaer City, and Nassau in Rensselaer; Corinth, Hadley, Saratoga Springs and Mechanicville in Saratoga; and Schenectady City and Scotia in Schenectady.

Most lead exposures occur in the home, particularly in older homes that often contain lead-based paint and lead in plumbing systems. In NYS, approximately 4.6 million, or 56.1% of the **housing units were built before 1960**. This is almost twice the national rate of 29.2%. About 2.7 million of NYS housing units were built before 1940 (32.6%).^{7, 8}

- About 115,000 Capital Region housing units (26.1%) were built before 1960, similar to the National rate, but much lower than NYS. Schenectady (33.9%, n=23,100) had the highest percentage of pre-60 housing, while Albany (n=42,000, 30.4%) had the highest number of such housing units in the Region.
- Surprisingly, the neighborhoods with the highest percentage of pre-60 housing were not the urban census tracts, but in suburban/rural areas. High pre-60 housing areas include census tracts in: Delmar, Voorheesville, Menands, Colonie, Latham, Guilderland and Ravena in Albany; Copake in Columbia; Brunswick, N. Greenbush, Sand Lake and Schodack in Rensselaer; S. Glens Falls, Day, Charlton, Ballston, and Clifton Park in Saratoga; and Niskayuna, Rotterdam and Glenville in Schenectady.

Families who lack affordable housing are more likely to move frequently. Such instability has been associated with emotional, behavioral and academic problems in children, and higher risk for teen pregnancy, early drug use, and depression in adolescents. Lack of affordable housing

also affects the family's ability to meet other essential expenses such as food, heating or other basic needs. Government-subsidized housing provides more affordable and healthier home environments for such at-risk populations. In 2015, there were approximately 5 million **HUD-assisted housing units** nationally, for a rate of 37.8/1,000 housing units. NYS had 603,000 HUD-assisted housing units with a rate of 74.3/1,000 housing units.^{7, 8, 9}

- In 2015, the Capital Region had 20,000 HUD-assisted housing units for a rate of 45.6/1,000 housing units. Albany had the highest number (n=8,590) and rate (62.4/1,000) of HUD-assisted housing in the Capital Region.
- High rates of HUD-assisted housing units centered in the Capital Region's urban areas.

Data and Methods

See [attached](#) for more about the data sources and methods that went into this report.

Appendices

[Appendix I](#)- Indicator comparisons by Capital Region County, Capital Region, and New York State.

[Appendix II](#)- County-specific food and housing data.

[Census Tract Atlas](#)- Indicator data at a Census Tract level.

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