

Mid-Hudson Regional Community Health Assessment 2025

Hudson Valley Public Health Collaborative

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Chapter 1

Mid-Hudson Regional Community Health Assessment 2025

A living, data-driven assessment of the Mid-Hudson Regional Community Health Assessment's health status, priorities, and community conditions.

1.1 Population Focus for The Mid-Hudson Regional Community Health Assessment

- Dutchess County
- Orange County
- Putnam County
- Rockland County
- Sullivan County
- Ulster County
- Westchester County

1.2 Questions or Comments About the Assessment

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Chapter 2

Acknowledgments

This Regional Community Health Assessment covers the seven-county Mid-Hudson Region consisting of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester Counties.

This document was created to support our partners in health across the Region through a collaborative partnership between the following organizations:

2.1 Local Health Departments

- Dutchess County Department of Health
- Orange County Department of Health
- Putnam County Department of Health
- Rockland County Department of Health
- Sullivan County Department of Public Health
- Ulster County Department of Health
- Westchester County Department of Health

2.2 Local and Regional Hospitals

- Blythedale Children's Hospital
- Bon Secours Charity Health System, a member of the Westchester Medical Center Health Network:
 - Bon Secours Community Hospital
 - Good Samaritan Hospital
 - St. Anthony Community Hospital
- Burke Rehabilitation Center, Montefiore Health System
- Ellenville Regional Hospital
- Garnet Health – Mid-Hudson Healthcare System:
 - Garnet Health Medical Center

- Garnet Health Medical Center – Catskills
- Garnet Health Medical Center – Catskills, Grover M. Hermann Hospital
- HealthAlliance Hospital, a member of the Westchester Medical Center Health Network
- Montefiore Mount Vernon Hospital
- Montefiore New Rochelle Hospital
- Montefiore Nyack Hospital
- Montefiore St. Luke’s Cornwall
- New York-Presbyterian Hudson Valley Hospital
- New York-Presbyterian Westchester Hospital
- Northern Dutchess Hospital, part of Northwell Health
- Northern Westchester Hospital, Northwell Health
- Phelps Hospital, Northwell Health
- Putnam Hospital, part of Northwell Health
- Saint Joseph’s Medical Center
- St. John’s Riverside Hospital
- Westchester Medical Center
- White Plains Hospital
- Vassar Brothers Medical Center, part of Northwell Health

Chapter 3

Executive Summary

The 2025 Mid-Hudson Regional Community Health Assessment (CHA) provides a comprehensive overview of the health status, needs, and priorities across the seven Mid-Hudson counties—Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester. This systematic process was a joint effort across the seven counties to collect, analyze, and interpret data on health outcomes, behaviors, and social determinants of health. It serves as a foundation for coordinated public health action by identifying key challenges and guiding local health departments (LHDs), hospitals, and community partners in planning evidence-based strategies.

The assessment reveals that despite the Mid-Hudson Region’s geographic, economic, and demographic diversity, the seven counties share several core health challenges that have been identified as joint regional priorities. Mental health and substance use consistently emerged as the top concerns across every county. Rates of anxiety, depression, and suicide have continued to rise, particularly among youth and working-age adults, while substance use, especially related to opioids, alcohol, and emerging synthetic drugs, remains a major public health threat. Limited access to behavioral health services, provider shortages, and stigma around seeking care further exacerbate these issues.

Chronic disease prevention and management represent another shared regional priority. Conditions such as cardiovascular disease, obesity, diabetes, and cancer contribute significantly to morbidity and mortality in all seven counties. Contributing factors include limited access to affordable, healthy foods, physical inactivity, and poor nutrition. Preventive care and early screening rates vary across the region, with rural areas and low-income populations facing additional barriers to care.

Access to healthcare and social services remains a foundational concern throughout the Mid-Hudson Region. Residents report difficulty obtaining timely appointments, navigating complex insurance systems, or affording medical care.

Shortages of primary care, dental, and mental health providers, especially in rural counties such as Sullivan and Ulster, limit the availability of preventive and specialty services. Transportation barriers and limited health literacy also contribute to disparities in access and outcomes.

The CHA also highlights the widespread influence of social determinants of health, including housing instability, economic insecurity, food access, and transportation. These factors directly affect residents' ability to maintain good health. High housing costs and limited affordable options are major challenges in Dutchess, Orange, and Westchester counties, while poverty and underemployment are more prevalent in Sullivan and Ulster counties. Across the region, food insecurity remains a persistent concern, especially for families with children and older adults.

Collectively, these findings illustrate that the seven Mid-Hudson counties face interrelated challenges rooted in both medical and social factors. By focusing on shared priorities such as mental health and substance use, chronic disease prevention, access to healthcare, and the social determinants of health, the region can align efforts, share resources, and strengthen partnerships to create sustainable improvements. The 2025 CHA provides the evidence base for coordinated regional action through the Community Health Improvement Plan (CHIP), ensuring that public health interventions are data-driven, equitable, and responsive to the needs of all Mid-Hudson residents.

Chapter 4

Introduction

4.1 Prevention Agenda

The Prevention Agenda 2025–2030 is New York State’s Health Improvement Plan, a six-year strategic initiative designed to improve public health and serve as a blueprint for state and local health departments to enhance the health of all residents (1). The main strategy of the Prevention Agenda is to promote health equity for populations who experience health disparities through prevention of chronic disease and barriers to health care access. Achieving well-being and good quality of life requires a strong focus on prevention, with health behaviors, access to care, and social determinants of health playing key roles in promoting long-term health outcomes.

The Prevention Agenda has five domains with specific action plans developed for each area. The five domains, based on Healthy People 2030’s Social Determinants of Health (2), are Economic Stability, Social and Community Context, Neighborhood and Built Environment, Health Care Access and Quality, and Education Access and Quality.

Since 2012, the New York State Department of Health (NYSDOH) has required LHDs to collaboratively work with their local hospitals and community partners in the development of the Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP).

4.2 Community Health Assessment

The CHA serves as the foundation of essential services provided by local public health departments, enabling the assessment and monitoring of population health status, influencing factors, and community needs and assets. CHAs are a comprehensive assessment of a community’s health status, challenges,

and strengths. Data are compiled from a collection of local, state, and federal resources to ensure a complete picture is captured. With a comprehensive review of the community's health, this data aids in identifying populations at higher risk of poor health outcomes.

This document guides public health planning, program development, policy changes, resource coordination, funding applications, and innovative ways to collaboratively leverage community assets. Once completed, the information is shared with community members and stakeholders to initiate health improvement planning and development.

4.3 Community Health Needs Assessment and Community Service Plan

For hospitals classified as charitable organizations, they must meet general requirements for tax exemption under Section 501(c)(3) (3) and Revenue Ruling 69-545 (4). They must also meet the requirements imposed by Section 501(r) (5) on a facility-by-facility basis in order to be treated as an organization described in Section 501(c)(3). This involves completing a Community Health Needs Assessment (CHNA) and a Community Service Plan (CSP) every three years.

The CHNA must define the community that it serves including the geographic area, target populations, and any focus on specialty areas or targeted diseases. It must also assess the health needs of the defined community including social determinants of health. As part of this process, they should include input from partners, stakeholders, and those with knowledge of the community's health needs. As with the CHA, the CHNA should be shared widely.

Through the CHNA, CHA, and partnership with the LHDs, the hospitals develop a CSP. The CSP, like the CHIP, develops and implements effective approaches to health promotion and disease prevention at the community level. The plan involves the use of evidence-based programs that target health areas identified in the CHNA that are of particular concern to their hospital service areas. For those hospitals that partner with LHDs, these areas are of concern to the greater county or regional efforts.

4.4 Community Health Improvement Plan

The CHIP is a strategic plan for developing targeted interventions for issues identified in the CHA. The purpose of a CHIP is to describe how the local public health system, led by the LHDs and hospitals, will work together to improve the health of their community. The document sets priorities, identifies programs and policies for implementation, outlines partner responsibilities, directs use of assets, and sets measurable strategic goals, all within a community driven process.

4.5 Partnership

The seven Mid-Hudson (M-H) Region LHDs have vast experience with assessing health and developing partnerships to advance the health of their communities. The LHDs lead the CHA and CHIP process via partnerships and follow the requirements of the NYSDOH.

The CHA and CHIP process allows health departments to work with a network of partners and stakeholders focused on health improvement. Collaboration ensures that this process is dynamic and evolves with what is happening to residents. Engaging the community is key to understanding, supporting, and implementing strategies and ensuring successful outcomes.

4.6 Data Sources and Indicator Selection

To create this document, the following data sources were utilized. In certain instances, data were obtained by request and are not readily available to the public.

American Community Survey (ACS): A nationwide survey conducted by the US Census Bureau to gather information about the social and economic need of communities, reaching over 3.5 million addresses each year. *Secondary source*

American Medical Association (AMA) Online Data Collection Center: The AMA allows licensed physicians to update their AMA listing and credentialing. *Secondary source*

Area Health Resource Files: A database maintained by the Health Resources and Services Administration of the Department of Health and Human Services which provides data from over 50 sources on health care professions, health facilities, population characteristics, economics, health professions training, hospital utilization, hospital expenditures, and environment at the county, state, and national levels. *Secondary source*

Behavioral Risk Factor Surveillance System (BRFSS): An annual national phone survey coordinated and funded by the Centers for Disease Control and Prevention (CDC) and conducted by each State's health department. Data includes health related behaviors, health conditions, and use of health services. *Secondary source*

National Provider Identifier (NPI) Standard: Overseen by the Centers for Medicare & Medicaid Services, the NPI is a Health Insurance Portability and Accountability Act (HIPAA) Administrative Simplification Standard. The NPI is a unique identification number for covered health care providers. Covered health care providers and all health plans and health care clearinghouses must use the NPIs in the administrative and financial transactions adopted under HIPAA. *Secondary source*

Comprehensive Housing Affordability Strategy (CHAS): Custom tabulations of ACS data about housing problems and housing needs from the US Census Bureau sent to the U.S. Department of Housing and Urban Development (HUD). HUD and local governments use this data to plan how to distribute their funds. *Secondary source*

County Health Rankings & Roadmaps: A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. County Health Rankings and Roadmaps pulls from multiple sources to measure key health factors across counties in the US. *Secondary source*

Feeding America: Feeding America is the nation's largest domestic hunger-relief organization, a network of food banks in every county in the world. Programs help provide meals to children, seniors, families, and survivors of natural disasters. Using sources such as the ACS, the Bureau of Labor Statistics, and the US Department of Agriculture, Feeding America conducts Map the Meal Gap, a county level analysis of food insecurity. *Secondary source*

Health Resources and Services Administration (HRSA) Data Warehouse: A database maintained by the Department of Health and Human Services which provides maps, data, reports, and dashboards about HRSA's health care programs, including Health Professional Shortage Areas, Health Resource Files, and Medically Underserved Populations. *Secondary source*

Healthy People 2030: A collaborative process, guided by the Office of Disease Prevention and Health Promotion within HHS, that reflects input from a diverse group of individuals and organizations. Healthy People 2030 includes 10-year national objectives for improving the health of all Americans. Healthy People 2030 has established measurable objectives and monitors benchmark progress over time. *Secondary source*

Local Health Department Surveys: Surveys conducted by the counties to poll their residents on various aspects of health. *Primary source*

Mid-Hudson Community Partner Survey: An online survey distributed by the Hudson Valley Public Health Collaborative to those who provide services in the region. *Primary source*

Mid-Hudson Region Community Health Survey: A random digit dial and online survey conducted by Siena Research Institute (SRI). Created in collaboration with the HVPHC, local hospital partners, and SRI. *Primary source*

National Environmental Public Health Tracking Network: A data hub provided by the CDC which brings together health and environmental data. *Secondary source*

New York City Poison Center: A call center and research organization which provides poison emergency telephone management, poison information resources, public education, professional education, research and data collection,

and toxico-surveillance in real time. Its coverage area includes all New York City (NYC) counties, Nassau, Suffolk, and Westchester counties. *Secondary source*

New York Citywide Immunization Registry: The NY Citywide Immunization Registry (CIR) keeps immunization records for all children and adults who live in NYC. CIR consolidates immunization information and shares it with health care providers, families and agencies concerned with public health. *Secondary source*

New York County/NYC Neighborhood Cancer Statistics Dashboards: The Cancer Statistics Dashboards provide easy access to a wide range of cancer statistics in the New York State, including cancer incidence, mortality, trends, stage at cancer diagnosis, survival, and prevalence information. The dashboards are organized according to the geography at which the statistics are available. *Secondary source*

New York State Cancer Registry: A registry which collects, processes, and reports information about New Yorkers diagnosed with cancer from all physicians, dentists, laboratories, and other health care providers who are required to report all cancers to the NYS Department of Health (DOH). *Secondary source*

New York State Childhood Lead Poisoning Prevention Program (CLPPP): The CLPPP is the largest in the country working to make homes safe from lead. It funds NYS local health departments (LHD) to approach high-risk housing to educate, inspect and control lead hazards. It looks for properties with lead paint hazards, then it takes action to make them lead safe, protecting children from lead poisoning. Blood lead testing data and blood lead levels are monitored through CLPPP. *Secondary source*

New York State Communicable Disease Annual Reports: Documents are released annually from NYSDOH containing mandated reports of suspected or confirmed communicable diseases. *Secondary source*

New York State Communicable Disease Electronic Surveillance System (CDESS): Reporting of suspected or confirmed communicable diseases is mandated under the NYS Sanitary Code (10NYCRR 2.10). Although physicians have primary responsibility for reporting, school nurses, laboratory directors, infection control practitioners, daycare center directors, health care facilities, state institutions, and any other individuals/locations providing health care services are also required to report communicable diseases. All reportable communicable disease data coming through the Electronic Clinical Laboratory Reporting System Introduction are reported to CDESS in a timely and complete manner. LHDs review each lab report for proper initiation of a case investigation. Once the investigation is created, the LHD may create a reportable case or may dismiss it if evidence does not support the case definition. *Primary source*

New York State Department of Health Bureau of Communicable Disease Control: This Bureau is responsible for preventing and controlling

the spread of disease by conducting disease surveillance, epidemiological investigations, and disseminating public health information. *Secondary source*

New York State Department of Health Community Health Indicator Reports (CHIRS): The CHIRS Dashboard tracks about 350 indicators organized by 15 health topics and is updated regularly to include the most recent year of data available for these indicators. Each NYS County has their own dashboard allowing for comparison of each county's data to regional and NYS totals. Visualizations include tables, maps, charts, and graphs at state and county levels. *Secondary source*

New York State Department of Health County Health Indicators by Race/Ethnicity (CHIRE): The CHIRE is a map-based tool that allows users to view health indicators by race and ethnicity in NYS and by county. It includes a variety of health indicators by race and ethnicity including mortality, vital statistics, injuries, chronic diseases, and substance abuse. *Secondary source*

New York State Department of Health Electronic Clinical Laboratory Reporting System (ECLRS): ECLRS provides laboratories that serve NYS with a single electronic system for secure and rapid transmission of reportable disease information to the NYSDOH, county health departments, and the NYC Department of Health and Mental Hygiene. ECLRS provides timely reporting, improving completeness and accuracy of reports, and generally facilitating the identification of emergent public health problems by monitoring communicable diseases, lead poisoning, HIV/AIDS, and cancer. *Secondary source*

New York State Department of Health Office of Sexual Health and Epidemiology: A special projects unit responsible for conducting Sexually Transmitted Infection (STI) surveillance activities related to screening, disease morbidity, and HIV/STI Partner Services disease intervention activities. Oversees surveillance activities for chlamydia, gonorrhea, and syphilis for NYS (excluding NYC). *Secondary source*

New York State Department of Health Rabies Laboratory: Located at Wadsworth Center's Griffin Laboratory, provides monthly reports of the number of animals tested for rabies, as well as the number that tested positive for rabies in every NYS county. *Secondary source*

New York State Department of Health Wadsworth Center: Wadsworth Center is a science-based community committed to protecting and improving the health of New Yorkers through laboratory analysis, investigations, and research, as well as laboratory certification and educational programs. As the state's public health reference laboratory, Wadsworth responds to urgent public health threats as they arise, develops advanced methods to detect microbial agents and genetic disorders, and measures and analyzes environmental chemicals. *Secondary source*

New York State Division of Criminal Justice: A criminal justice support agency which provides resources and services that inform decision-making and improve the quality of the criminal justice system. It maintains, analyzes, and

publishes criminal and youth justice system data, including incidents of crimes and arrests and dispositions, as reported by police departments, sheriffs' offices, probation departments, and the state Office of Court Administration. *Secondary source*

New York State Education Department: Website publicly reports educational data submitted by educational institutions. *Secondary source*

New York State HIV Surveillance System: An HIV surveillance system conducted by the AIDS Institute Bureau of HIV/AIDS Epidemiology that facilitates and monitors HIV-related laboratories and clinician reporting in NYS. *Secondary source*

New York State Immunization Information System: A web-based registry that provides immunization records that are easily accessible and promotes public health by documenting all individuals of appropriate age and risk. All health care providers are required to report all immunizations administered to persons less than 19 years of age, along with the person's immunization histories, to the NYS Department of Health. *Secondary source*

New York State Medicaid Program: NYS's Medicaid program provides comprehensive health coverage to more than 7.5 million lower-income New Yorkers (as of December 2023). Medicaid pays for a wide range of services, depending on a resident's age, financial circumstances, family situation, or living arrangements. These services are provided through a large network of health care providers that can be accessed directly using Medicaid or through a managed care plan. *Secondary source*

New York State Office of Addiction Services and Supports (OASAS): The OASAS Office of Data Management, Research and Planning closely monitors substance use disorder data and trends to better anticipate and meet the needs of New Yorkers living with addiction. Data is made available to partners, providers, and localities to inform the collective efforts to understand and address addiction in NYS. *Secondary source*

New York State Opioid Data Dashboard: This is an interactive visual presentation of indicators tracking opioid data at state and county levels. It is a key resource for monitoring fatal and nonfatal opioid overdoses, opioid prescribing, opioid use disorder treatment, and the overall opioid overdose burden. It displays a view of current and historical data for 98 opioid-related indicators. *Secondary source*

New York State Prescription Monitoring Program Registry: This resource provides practitioners with direct, secure access to view dispensed controlled substance prescription histories for their patients. Patient reports include all controlled substances that were dispensed in NYS and reported by the pharmacy/dispenser for the past year. This information will allow practitioners to better evaluate their patients' treatment with controlled substances and determine whether there may be abuse or non-medical use. *Secondary source*

New York State Prevention Agenda Tracking Dashboard: This is an interactive visual presentation of the most current tracking indicator data to track progress of the New York State’s Health Improvement Plan at state and county levels. It serves as a key source for monitoring progress that communities around the state have made regarding meeting the Prevention Agenda objectives. *Secondary source*

New York State Student Weight Status Category Reporting System: A system that collects weight status category data on children and adolescents attending public schools in NYS outside of NYC. *Secondary source*

New York Statewide Planning and Research Cooperative System (SPARCS): SPARCS is a comprehensive all-payer data reporting system established from cooperation between the health care industry and government. The system currently collects patient level data on characteristics, diagnoses and treatments, services, and charges for each hospital inpatient and outpatient visit. *Secondary source*

Data Small Area Health Insurance Estimates (SAHIE): SAHIE is a program of the US Census Bureau which estimates health insurance coverage for all states and counties nationally. *Secondary source*

United for ALICE: ALICE is an acronym that stands for Asset, Limited, Income Constrained, Employed. ALICE reports use a standardized methodology that assesses cost of living and financial hardship on a county level calculated by United Way of Northern New Jersey. *Secondary source*

Upstate New York Poison Center: A call center and research organization which provides poison emergency telephone management, poison information resources, public education, professional education, research and data collection, and toxicosurveillance in real time. Its coverage area includes all NYS counties except Westchester, NYC, and Long Island. *Secondary source*

US Census Bureau: The Census Bureau publishes population estimates and demographic components of change, such as births, deaths, and migration. This data can be sorted by characteristics such as age, sex, and race, as well as by national, state, and county location. *Secondary source*

US Department of Agriculture (USDA) Food Environment Atlas: An atlas from the USDA which assembles data regarding food environment factors, such as food choices, health and well-being, and community characteristics. *Secondary source*

US Department of Housing and Urban Development (HUD): HUD provides reports on programs provided by HUD or predecessor agencies that provide subsidized housing. These reports provide information to get a picture of subsidized households in the US. *Secondary source*

Vital Statistics of New York State: A registry of all births, marriages, divorces/dissolutions of marriage, deaths, induced termination of pregnancy/abor-

tions, and fetal deaths that have occurred in NYS outside of NYC. It is maintained by the NYS Bureau of Vital Records, a branch of the NYSDOH. *Secondary source*

4.7 Data Notes

The following data notes provide the essential definitions of methodical standards used to ensure the accuracy and comparability of health indicators across the Mid-Hudson region. These guidelines establish a consistent framework for interpreting regional statistics, age-adjusted rates, and coding transitions, while maintaining high standards for data transparency and confidentiality.

Crude Rate versus Age-Adjusted Rate: A crude rate is defined as the total number of cases or disease events divided by the total population. The age-adjusted rates are rates that would have existed if the population under study had the same age distribution as the “standard” population. Therefore, they are summary measures adjusted for differences in age distributions. Age-adjusted rates are used when available and are calculated using the US 2000 standard population.

International Classification of Diseases: In 2015 the Department of Health and Human Services mandated those entities using ICD-9 codes transition to ICD-10 codes. Comparisons between data before and after 2015 cannot be made due to the many differences in the updated ICD-10-CM code set.

New York State excluding New York City (NYS excl NYC): The population of NYC is not similar to that of the Mid-Hudson Region. Therefore, comparing rates/percentages of counties to NYS excluding NYC, rather than to the whole of NYS, provides a more accurate comparison. When possible, measures for both NYS and NYS excluding NYC are provided. When NYS excluding NYC data are not available comparisons should be made with caution.

Rate: A rate is a measure of the frequency with which an event occurs in a defined population over a specified period of time.

Rate Denominators: Population estimates used to calculate rates sourced from data requests are from the U.S. Census Bureau’s 2023 American Community Survey (ACS) 5-Year Estimate, Table B01003. For all other rates, information on the denominator can be found at the original data source.

Suppressed and Unstable Data: Some rates/percentages based on small numbers are suppressed because they do not meet the criteria for confidentiality (notated by “s”). Other rates/percentages based on small numbers are presented but are not considered reliable since they can fluctuate greatly over time. These measures are indicated as unstable due to a small numerator (notated by “*”).

Three-Year Rate versus Single-Year Rate: When possible, rates are based on a three-year average rather than a single-year estimate to provide a

more reliable comparison. Using a three-year average smooths out the data over multiple years to recognize that rates fluctuate from year to year and is particularly useful when small amounts of data are an issue.

Chapter 5

Area Being Assessed

5.1 The Mid-Hudson Region

The Mid-Hudson (M-H) Region is comprised of seven-counties in New York State (NYS) that is a mix of urban, suburban, and rural communities. Located north of New York City (NYC), it comprises 12.1% of the NYS population Table 6.1. The seven counties are Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester counties. The population is becoming more ethnically diverse, with particular growth in Hispanic communities Table 6.4. The M-H Region, like the nation, is aging with the fastest growing demographic, those being over 60 years old.

The M-H Region borders NYC and New Jersey to the south; New Jersey and Pennsylvania to the west; Greene and Columbia counties to the north; and Massachusetts and Connecticut to the east. See map in [Appendix A](#). The Region is a topically diverse landscape with the rural Catskill Mountains, the Shawangunk Ridge, parts of the NYC watershed, and the Hudson River flowing through it.

The Region benefits from its close proximity to NYC. Commuter rail lines and many highways make travel easy for commuters. Major industries include healthcare, education, retail, and government. Tourism is a major economic driver with extensive parklands, historic landmarks, arts, culture, shopping, and recreational activities. There are over 40 colleges and universities leading to a highly educated workforce Table 7.16.

5.1.1 Dutchess County

Dutchess County is in the center of the M-H Region, midway between NYC and NYS' capital, Albany. The western border includes 30 miles of Hudson River shoreline with Connecticut forming the eastern border. Dutchess County is 825

square miles, made up of 30 municipalities, consisting of two cities, 20 towns, and eight villages. Dutchess County has 13 public school districts and is also home to five colleges and universities. The southwestern region of Dutchess County is the most densely populated part of the county and includes the cities of Beacon and the county seat, Poughkeepsie. The rest of the county is predominantly suburban and rural. See map in [Appendix B](#).

5.1.2 Orange County

Orange County is located approximately 40 miles north of NYC. The county is positioned between the Hudson River in the east and the Delaware River in the west, the only county in NYS to border both rivers. Ulster and Sullivan Counties border Orange County on the north, and Rockland County is located to the south. The states of New Jersey and Pennsylvania are located on the southwest borders of the county. Orange County is 812 square miles and is a diverse mix of rural, farmland, suburban, and urban areas. Orange County communities include three cities, 21 towns, and 19 villages. Nearly 17% of the county's total population resides in its three cities of Middletown, Newburgh, and Port Jervis.⁷ Orange County has 19 public school districts and is also home to four colleges, universities, and medical schools. See map in [Appendix C](#).

5.1.3 Putnam County

Approximately 60 miles north of New York City, Putnam County blends suburban neighborhoods, lake front communities, rural areas, farmlands, parklands, and reservoirs. It is bordered by Connecticut to the east, the Hudson River to the west, Dutchess County to the north and Westchester County to the south. Six towns and three villages comprise the 230-square-mile county. There are six public school districts and no colleges or universities. Open space dominates its landscape, highlighted by Clarence Fahnestock State Park, a preserve covering nearly 10% of the county's total area. See map in [Appendix D](#).

5.1.4 Rockland County

Rockland County is located approximately 30 miles north and west of NYC on the west side of the Hudson River. The county is a popular residence for people who commute to jobs in nearby Westchester and Bergen Counties, as well as NYC. Rockland County is bordered by Orange County to the north and New Jersey to the south and west. Home to eight public school districts and four colleges and universities, the 199-square mile area of Rockland County includes five towns and 18 villages. This county of 120,000 acres is designated a Preserve America Community, containing more than 35,000 acres of preserved open space and parkland, just under one third of the county by area. See map in [Appendix E](#).

5.1.5 Sullivan County

Sullivan County is a rural community in the northwestern part of the M-H Region. It is located approximately 75 miles northwest of NYC in the Catskill Mountains. The county is bordered by Delaware County to the north, Ulster County to the east, Orange County to the south, and Pennsylvania to the west. Home to seven public school districts and one two-year college, the 997-square mile area includes 15 towns and seven villages. See map in [Appendix F](#).

5.1.6 Ulster County

Ulster County is located in the southeast part of NYS, south of Albany and immediately west of the Hudson River. Bordered by Greene County to the north, Delaware County to the northwest, Sullivan County to the southwest, Orange County to the south, and Dutchess County across the Hudson River to the east, much of Ulster County can be characterized as suburban and semi-rural. The county has only one major urban area, the city of Kingston, located in the eastern central portion of the county, and encompassing just 7.4 square miles of the county's total area. The rest of the county is comprised of 20 towns and three villages. Ulster County is home to nine school districts and two colleges and universities within its 1,161-square mile area. See map in [Appendix G](#).

5.1.7 Westchester County

Westchester County is located just north of NYC, with an area of about 450 square miles. It is bordered on the west by the Hudson River, on the north by Putnam County, and on the east by the Long Island Sound and Connecticut's Fairfield County. Within its 48 municipalities, Westchester County can be described as predominately a mix of urban and suburban communities. Comprised of six cities, 19 towns, and 23 villages, the county is home to 43 public school districts and 24 colleges and universities. See map in [Appendix H](#).

Chapter 6

Demographic Summary

6.1 Demographic Characteristics

6.1.1 Population

In 2023, New York State’s (NYS) population was nearly 20 million. When excluding New York City (NYC), the population was 11,356,117. The Mid-Hudson (M-H) Region made up 12.1% of NYS’ population and includes the seven counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester. Westchester County comprised the largest portion of the M-H Region’s population at 41.6%, while Sullivan County made up only 3.3% of the M-H Region’s population Table 6.1.

The population of the M-H Region grew 4.7% from 2010 to 2020. In those 10 years, growth increased most rapidly in Rockland (7.9%) and Orange (7.1%). Putnam (-2.1%), and Ulster (-0.4%) had negative growth (6).

Table 6.1: Population Demographic Characteristics, 2023

Table 6.1			
County	Total Population	Percent of Mid-Hudson Region	Percent of NYS
Dutchess	297,144	12.4	1.5
Orange	403,840	16.9	2.0
Putnam	97,988	4.1	0.5
Rockland	338,936	14.1	1.7
Sullivan	79,147	3.3	0.4
Ulster	182,109	7.6	0.9
Westchester	996,888	41.6	5.0
Mid-Hudson	2,396,052	100.0	12.1

County	Total Population	Percent of Mid-Hudson Region	Percent of NYS
NYS excl NYC	11,356,117	N/A	57.1
NYS	19,872,318	N/A	100.0

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, [Table S0101](#), April 2025

6.1.2 Sex

When stratifying the population by sex in 2023, the M-H Region had a near-even distribution between males and females [Table 6.2](#). Apart from Putnam and Sullivan Counties, the M-H Region had a slightly higher percentage of females than males. The same is true for NYS, as well as NYS excluding NYC.

Table 6.2: Population by Sex, 2023

Table 6.2				
Area	Male Total Population	%	Female Total Population	%
Dutchess	147,902	49.8	149,242	50.2
Orange	201,512	49.9	202,328	50.1
Putnam	49,503	50.5	48,485	49.5
Rockland	167,624	49.5	171,312	50.5
Sullivan	40,993	51.8	38,154	48.2
Ulster	90,719	49.8	91,390	50.2
Westchester	485,985	48.8	510,903	51.2
Mid-Hudson	1,184,238	49.4	1,211,814	50.6
NYS excl NYC	5,614,391	49.4	5,741,726	50.6
NYS	9,702,417	48.8	10,169,902	51.2

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, [Table B03002](#), April 2025

i Note

The American Community Survey includes a question that intends to capture current sex; there are no questions about gender, sexual orientation, or sex at birth. Respondents should respond either “male” or “female” based on how they currently identify their sex.

6.1.3 Age

Throughout the M-H Region, adults aged 50 to 59 years made up the largest portion of the population (13.8%) Table 6.3. Children aged less than five years and five to nine years, as well as adults aged 40 to 49 years and 60 to 69 years, were similarly distributed throughout the M-H Region, with Ulster County having the greatest difference between adults aged 60 to 69 years and children less than five years old (14.4% vs 4.4%).

	<5 years		5-9 years		10-19 years		20-29 years
	Total Population	%	Total Population	%	Total Population	%	Total Population
Dutchess	13,613	4.6	14,448	4.9	37,031	12.5	38,178
Orange	27,143	6.7	27,679	6.9	61,718	15.3	52,658
Putnam	4,521	4.6	4,320	4.4	12,426	12.7	10,922
Rockland	28,957	8.5	27,051	8.0	52,692	15.5	41,742
Sullivan	4,656	5.9	4,969	6.3	9,343	11.8	9,032
Ulster	7,926	4.4	8,802	4.8	19,831	10.9	22,175
Westchester	53,282	5.3	57,324	5.8	129,780	13.0	115,269
Mid-Hudson	140,098	5.8	144,593	6.0	322,821	13.5	289,976
NYS excl NYC	604,728	5.3	640,751	5.6	1,454,784	12.8	1,442,397
NYS	1,102,961	5.6	1,102,946	5.6	2,413,200	12.1	2,658,703

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, [Table S0101](#), April 2025

6.1.4 Ethnicity and Race

In 2023, the majority of the population in the M-H Region and NYS were non-Hispanic White (58.5% and 53.4%, respectively). The Hispanic population was the second most predominant racial and ethnic group, followed by the

non-Hispanic Black population. Within the M-H Region, Westchester County had the highest Hispanic population (27.0%), the highest non-Hispanic Black population (12.9%), and the highest non-Hispanic Asian population (6.0%). Westchester County’s racial and ethnic profile is most like that of NYS’; however, the percentage of non-Hispanic Whites significantly increases when looking at NYS excluding NYC Table 6.4 and Table 6.5.

Table 6.4: Population by Ethnicity, 2023

Table 6.4				
Area	Hispanic Total Population	%	Non-Hispanic Total Population	%
Dutchess	44,153	14.9	252,991	85.1
Orange	93,608	23.2	310,232	76.8
Putnam	18,676	19.1	79,312	80.9
Rockland	67,951	20.0	270,985	80.0
Sullivan	14,544	18.4	64,603	81.6
Ulster	21,562	11.8	160,547	88.2
Westchester	269,085	27.0	727,803	73.0
Mid-Hudson	529,579	22.1	1,866,473	77.9
NYS excl NYC	1,478,113	13.0	9,878,004	87.0
NYS	3,898,652	19.6	15,973,667	80.4

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, [Table B03002](#), April 2025

i Note

The Census Bureau collects ethnic data in accordance with guidelines provided by the US Office of Management and Budget (OMB) and these data are based on self-identification. For ethnicity, the OMB standards classify individuals in one of two categories: “Hispanic or Latino” or “Not Hispanic or Latino.” The Census Bureau uses the term “Hispanic or Latino” interchangeably with the term “Hispanic,” and also refer to this concept as “ethnicity.”

Area	Non-Hispanic White Total Population	%	Non-Hispanic Black or African American Total Population	%	Non-Hispanic American Indian or Alaska Native Total Population	%
Dutchess	199,670	67.2	28,024	9.4	222	0.1
Orange	239,186	59.2	42,478	10.5	438	0.1
Putnam	70,948	72.4	2,894	3.0	81	0.1
Rockland	205,539	60.6	35,626	10.5	181	0.1
Sullivan	53,145	67.1	6,263	7.9	120	0.1
Ulster	133,874	73.5	10,347	5.7	66	0.1
Westchester	498,855	50.0	128,199	12.9	1,197	0.1
Mid-Hudson	1,401,217	58.5	253,831	10.6	2,305	0.1
NYS excl NYC	7,942,876	69.9	934,322	8.2	21,069	0.1
NYS	10,608,842	53.4	2,708,094	13.6	37,212	0.1

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, [Table B03002](#), April 2025

i Note

The Census Bureau collects racial data in accordance with guidelines provided by the US Office of Management and Budget, and these data are based on self-identification. People who identify with more than one race may choose to provide multiple races in response to the race question.

6.1.5 Spoken Language

According to the *American Community Survey*, the base population for the spoken language demographic category was people aged five years and older. Of this population, English was the most common spoken language in the M-H Region and NYS. A significant portion of the population spoke a language other than English at home, specifically in Rockland and Westchester Counties (43.6% and 34.3%, respectively). The Spanish speaking population was highest in Westchester County (21.0%) compared to the other counties in the M-H Region [Table 6.6](#).

Table 6.6: Population by Spoken L

Table 6.6

Area	Only English Total Population	%	Language other than English Total Population	%	Spanish Total Population	%	Other L Total P
Dutchess	238,585	84.1	44,946	15.9	26,003	9.2	10,769
Orange	266,545	70.8	110,152	29.2	55,418	15.0	45,346
Putnam	73,860	79.0	19,607	21.0	11,733	13.0	5,687
Rockland	174,907	56.4	135,072	43.6	46,360	15.0	69,600
Sullivan	59,484	79.9	15,007	20.1	8,639	12.0	4,877
Ulster	152,966	87.8	21,217	12.2	11,924	6.8	5,602
Westchester	619,503	65.7	324,103	34.3	196,271	21.0	78,915
Mid-Hudson	1,585,850	54.2	670,104	22.9	356,348	12.2	220,796
NYS excl NYC	8,808,643	69.4	1,942,746	15.3	940,527	12.2	632,717
NYS	13,017,480	69.4	5,751,878	30.6	2,762,664	15.0	1,679,5

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, [Table S1601](#), April 2025

i Note

The American Community Survey asks respondents to report whether they sometimes or always spoke a language other than English at home. People who spoke languages other than English but did not use them at home, who only used them elsewhere, or whose usage was limited to a few expressions or slang were excluded.

6.1.6 Educational Attainment

According to the *American Community Survey*, the base population for the educational attainment demographic category were people aged 25 years and older Table 6.7. Of this population, when looking at the M-H Region, NYS, and NYS excluding NYC, the largest portion of residents had a high school degree (22.4%, 24.6%, and 25.8%, respectively) Table 6.7.

Table 6.7: Population by Education

Table 6.7

Area	Less than 9th grade		9th to 12th grade, no diploma		High school graduate or equivalent	
	N	%	N	%	N	%
Dutchess	6,262	3.0	11,055	5.2	52,992	25.1
Orange	10,091	3.9	16,609	6.4	72,466	28.0
Putnam	2,255	3.2	2,536	3.6	17,647	24.8
Rockland	11,800	5.7	13,858	6.6	45,118	21.6
Sullivan	2,755	4.9	4,129	7.4	16,623	29.8
Ulster	3,463	2.6	7,622	5.7	37,570	28.0
Westchester	37,761	5.4	36,459	5.2	124,954	17.9
Mid-Hudson	74,387	4.5	92,268	5.6	367,370	22.4
NYS excl NYC	300,738	3.8	403,754	5.1	2,039,454	25.8
NYS	836,124	6.0	862,413	6.2	3,437,438	24.6

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, [Table S1501](#), April 2025

i Note

The Census Bureau defines educational attainment as the highest level of education that an individual has completed. This is distinct from the level of schooling that an individual is attending.

Within the seven counties of the M-H Region, Westchester, Putnam, and Rockland Counties had the highest percentage of people with bachelor's degrees (26.0%, 24.2%, and 23.2%, respectively), while Sullivan had the lowest percentage (17.0 %). Sullivan, Orange, and Dutchess Counties had the highest percentage of people with associate degrees (10.3%, 10.3%, and 10.1%, respectively). A significant portion of the population in the M-H Region were high school graduates or held a bachelor's degree [Table 6.7](#).

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, [Table S1501](#), April 2025

i Note

The Census Bureau defines educational attainment as the highest level of education that an individual has completed. This is distinct from the level of schooling that an individual is attending.

6.1.7 Income

Income can affect many aspects of life. This includes where people are able to live, the food and health care coverage available, and almost every other social determinant of health (7).

According to the *American Community Survey*, the base population for the income demographic category were households (all the persons who occupy a housing unit as their usual place of residence) Table 6.8.

Table 6.8: Total Households, 2023

Table 6.8	
	Households
Dutchess	115,184
Orange	137,311
Putnam	35,054
Rockland	103,284
Sullivan	30,215
Ulster	73,105
Westchester	370,256
Mid-Hudson	864,409
NYS excl NYC	4,355,640
NYS	7,668,956

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, [Table S1901](#), April 2025

i Note

The American Community Survey defines a household as all the people who occupy a housing unit, such as a house or apartment, as their usual place of residence (the place where they live most of the time). This includes both related family members and any unrelated people living in

the same unit.

Of this population, the largest portion of households in the M-H Region had an income greater than \$100,000 in 2023. More than one fifth of the households in Putnam County were making between \$100,000 and \$149,999 in 2023 (20.9%). There were many households with an income between \$50,000 and \$74,999 in the M-H Region and NYS; 17.0% of households in Sullivan County had an income within this bracket Table 6.9.

Area	<\$10,000		\$10,000-\$14,999		\$15,000-\$24,999		\$25,000-\$34,999	
	Total Population	%	Total Population	%	Total Population	%	Total Population	%
Dutchess	4,723	4.1	2,649	2.3	5,298	4.6	6,105	5.3
Orange	5,492	4.0	4,119	3.0	8,651	6.3	7,003	5.1
Putnam	841	2.4	631	1.8	1,472	4.2	1,402	4.0
Rockland	3,822	3.7	2,169	2.1	5,784	5.6	5,474	5.3
Sullivan	1,420	4.7	1,481	4.9	2,327	7.7	2,447	8.0
Ulster	4,021	5.5	2,778	3.8	4,606	6.3	4,752	6.6
Westchester	17,402	4.7	9,997	2.7	17,032	4.6	15,180	4.1
Mid-Hudson	37,721	4.4	23,824	2.8	45,169	5.2	42,364	4.9
NYS excl NYC	201,885	4.6	142,135	3.3	266,550	6.1	266,736	6.1
NYS	437,130	5.7	314,427	4.1	498,482	6.5	475,475	6.3

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, Table S1901, April 2025

i Note

The American Community Survey asks respondents their income in the past 12 months. Data are provided as a percentage of total households in Table S1901. Calculations were made to provide data as a number in Table 6.8.

6.1.8 Veteran Status

Veteran status includes men and women who served, but are not currently serving, on active duty in the United States (US) Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served in the US Merchant Marines during World War

II. Some issues that veterans experience following their service include finding a new career path, reestablishing themselves in society and families, and seeking treatment for mental health issues (8). In the M-H Region, Sullivan County had the highest percentage of civilian veterans (6.0%), double the percentage of civilian veterans in Rockland and Westchester Counties (3.0% in each) Table 6.10. Overall, there is a smaller percentage of civilian veterans in the M-H Region compared to NYS excluding NYC (3.9% vs 5.3%, respectively).

Table 6.10: Population by Veteran Status, 2023

Table 6.10

Area	Civilian Population 18 Years and Older Total Population	Civilian Veterans Total Population	%
Dutchess	241,517	11,694	4.8
Orange	296,319	16,695	5.6
Putnam	78,712	3,320	4.2
Rockland	239,088	7,130	3.0
Sullivan	62,181	3,713	6.0
Ulster	150,409	6,711	4.5
Westchester	781,837	23,744	3.0
Mid-Hudson	1,850,063	73,007	3.9
NYS excl NYC	8,964,773	478,417	5.3
NYS	15,737,168	607,728	3.9

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, [Table S2101](#), April 2025

i Note

The American Community Survey asks respondents if they have ever served on active duty in the US Armed Forces.

6.1.9 Disability

According to the World Health Organization (WHO), disability bears three dimensions: impairment to body structure or mental function; activity limitation, such as difficulty hearing, moving, or problem-solving; and participation restrictions in daily activities, such as working, engaging in social or recreational activities, or accessing health care and preventive services (9). Adults with a disability typically have higher rates of chronic disease, such as obesity, heart

disease, and diabetes (10). Structural and societal barriers can limit the ability to participate in work, recreation, and programs aimed at promoting healthy living for those living with a disability.

Various types of disabilities can affect an individual’s quality of life. Types of disability include:

- Independent living disability – difficulty performing tasks or errands alone, such as visiting a doctor’s office or shopping due to a physical, mental, or emotional condition
- Cognitive disability – serious difficulty concentrating, remembering, or making decisions due to a physical, mental, or emotional condition
- Self-care disability – difficulty handling tasks, such as dressing or bathing on one’s own
- Ambulatory disability – difficulty moving around physically, such as walking or climbing stairs
- Hearing disability – deafness or serious difficulty hearing
- Vision disability – blindness or serious difficulty seeing, even when wearing glasses

In the M-H Region, Sullivan County had the highest percentage of adults living with a disability (15.9%), as well as the highest percentage of adults living with each of the six types of disabilities; Rockland County had the lowest percentage of adults living with a disability (8.7%) Table 6.11.

Table 6.11: Percentage of Population by Type of Disability

	Table 6.11				
	Total with Any Disability	Hearing Difficulty	Vision Difficulty	Cognitive Difficulty	Ambulatory Difficulty
Dutchess	12.2	3.5	2.0	4.7	6.3
Orange	11.7	3.2	2.1	5.4	6.3
Putnam	9.6	2.8	1.4	3.5	5.4
Rockland	8.7	2.7	1.4	3.4	4.4
Sullivan	15.9	4.4	3.0	6.4	9.1
Ulster	14.4	4.2	2.3	5.1	7.4
Westchester	9.5	2.5	1.6	3.7	5.3
Mid-Hudson	10.2	2.8	1.7	3.8	5.2
NYS	11.6	2.8	2.1	4.5	6.6

i Source

US Census Bureau; American Community Survey, 2020 American Community Survey 5-year estimates, [Table S1810](#), April 2025

i Note

Respondents who report any one of the six disability types are considered to have a disability in the American Community Survey.

Chapter 7

Social and Physical Determinants of Health

7.1 Economic Stability

7.1.1 Employment

Occupation and employment affect individual health in various aspects. Those with steady employment tend to have better health outcomes in both mental and physical health conditions than those who are unemployed. Even within employed populations, there are disparities between those with high-paying and low-paying jobs (7).

Putnam and Westchester Counties had the highest percentage of individuals in the labor force (64.7% and 65.4%, respectively) in 2023. Ulster County had the lowest percentage of individuals in the labor force (58.7%), which is lower than both the New York State (NYS) and United States (US) rate Figure 7.1 and Table 7.1. Putnam County continues to have the lowest unemployment rate (4.8% in 2021 and 4.1% in 2023) in the Mid-Hudson (M-H) Region. All of the counties in the M-H Region have a lower unemployment rate than NYS' rate of 6.2%. Sullivan County has the highest unemployment rate in the region at 6.1% Figure 7.2 and Table 7.2.

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(a) Percentage in Labor Force, Population 16 Years and Older, 2021–2023

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(b)

Figure 7.1

Table 7.1: Percentage in Labor Force, Population 16 Years and Older, 2021–2023

Table 7.1

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	US
2021	63.0	63.9	65.2	63.9	56.1	60.1	65.5	63.1	63.6
2022	62.8	63.4	64.7	63.2	58.1	58.9	65.2	62.9	63.5
2023	63.3	63.5	64.7	63.2	59.1	58.7	65.4	63.0	63.5

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, Table DP03, April 2025 https://data.census.gov/table/ACSDP5Y2023.DP03?q=dp03&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US

i Note

Y-axis does not begin at zero in order to clearly display trend lines. The American Community Survey asks respondents if they have worked in the past week. If the answer is no, they are asked why they are not working. For those who are not working, they are asked whether they plan to return to work, and when they last worked. Labor Force refers to the total number of people who are either employed or unemployed and actively seeking work, plus members of the US Armed Forces.

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Figure 7.2: Percentage of Population Unemployed, 16 Years and Older, 2021–2023

Table 7.2: Percentage of Population Unemployed, 16 Years and Older, 2021–2023

Table 7.2

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	US
2021	5.2	5.4	4.8	6.0	8.0	5.1	6.1	6.2	5.5
2022	5.0	5.3	4.4	6.2	7.2	5.1	6.0	6.2	5.3
2023	4.8	5.4	4.1	5.9	6.1	5.1	6.0	6.2	5.2

i Source

Source: US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, Table DP03, April 2025 https://data.census.gov/tables/ACSDP5Y2023.DP03?q=dp03&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US

i Note

The American Community Survey asks respondents if they have worked in the past week. If the answer is no, they are asked why they are not working. For those who are not working, they are asked whether they plan to return to work, and when they last worked.

7.1.2 Food Insecurity

Food insecurity can be defined as the disruption of food intake or eating patterns due to lack of money and other resources (11). Access to food plays an essential role in living a healthy lifestyle; those who face food insecurity are often forced to choose between food and other essentials, such as housing, utilities, and medical care.

Children are affected by food insecurity at a higher rate than the general population. Healthy food plays a key role in a child's development. Children who face hunger are more likely to struggle in school, face developmental impairments, and have more social and behavioral problems than children who do not face hunger (11).

Other populations more vulnerable to food insecurity than the overall population include (11):

- Senior Populations
- Those living in rural communities
- Black Populations
- Hispanic Populations
- Those living in poverty

Feeding America used data from the US Census Bureau Current Population Survey (CPS) to generate food insecurity rates. The CPS included two questions relevant for this determination. First, a question asks if a household needed more, less, or the same amount of money to meet their basic food needs. Second, those that respond "more" are asked an additional question about how much more money they need to meet their basic food needs (12).

Putnam County had the lowest food insecurity rate in the M-H Region at 8.9% (2023), as they have for all data listed dating back to 2020. The county with the highest rate of food insecurity was Sullivan County at 14.0%, but this was

still lower than NYS' rate of 14.5% Figure 7.3 and Table 7.3. Childhood food insecurity in the region sees the same trends across counties with Sullivan having the highest rate at 19.9% and Putnam having the lowest at 6.6% Figure 7.4 and Table 7.4.

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Figure 7.3: Percentage of Overall Food Insecurity, 2020–2023

Table 7.3: Percentage of Overall Food Insecurity, 2020–2023

Table 7.3								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2020	8.7	9.4	6.3	9.7	11.5	11.3	7.9	9.6
2021	7.2	7.8	5.3	8.2	9.9	9.5	6.6	11.4
2022	10.0	11.3	8.4	11.0	13.1	12.8	9.4	13.4
2023	10.8	12.1	8.9	12.0	14.0	13.2	10.7	14.5

i Source

Feeding America, June 2025 <https://map.feedingamerica.org/district/2023/overall/new-york>

i Note

Feeding America takes the Current Population Survey (a monthly household survey conducted by the US Census Bureau) data and analyzes the relationships between food insecurity and its determinants (i.e., unemployment, poverty, disability, homeownership, and median income), as well as the percentage of the population that is Black and the percentage of the population that is Hispanic. Coefficient estimates from this analysis, combined with information on the same variables defined at the county and congressional district levels, are generated to estimate food insecurity.

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Figure 7.4: Percentage of Food Insecurity, Children 18 Years and Younger, 2020–2023

Table 7.4: Percentage of Food Insecurity, Children 18 Years and Younger, 2020–2023

Table 7.4								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2020	12.0	14.8	7.3	15.8	18.3	15.1	11.4	14.6
2021	8.2	10.4	3.6	11.3	15.0	10.6	7.2	15.4
2022	12.0	15.4	6.7	15.5	19.9	14.5	10.5	18.8
2023	11.9	15.6	6.6	16.3	19.9	14.6	10.6	19.0

i Source

Feeding America, June 2025 <https://map.feedingamerica.org/district/2023/overall/new-york>

i Note

Feeding America takes the CPS data and analyzes the relationships between food insecurity and its determinants (i.e., unemployment, poverty, disability, homeownership, and median income), as well as the percentage of the population that is Black and the percentage of the population that is Hispanic. Coefficient estimates from this analysis, combined with information on the same variables defined at the county and congressional district levels, are generated to estimate food insecurity.

7.1.3 Housing Instability

A study published in the *Journal of the American Public Health Association* found that homeless individuals utilized the emergency room almost four times more than other low-income residents (13). Housing and health are closely related. Poor health is often both the cause and effect of unstable, poor, or non-existent housing. Mental health also plays a large role in the causes and effects of homelessness.

Housing alone does not guarantee better health outcomes in all areas; quality of housing is also important. For example, children who live in public housing are two times more likely to have asthma than other children due to a higher prevalence of mold in public housing (14).

The median percentage of household income spent on housing in the M-H Region is estimated to be 28.0% by United States Department of Housing and Urban Development (HUD) (15). Households that spend greater than 30.0% of their income on housing are considered cost burdened. Households that are severely

cost burdened (spending greater than 50.0% of income on housing) are shown to spend 75.0% less on health care compared to similar households that are living in affordable housing (16).

Rockland County had both the highest percentage of cost burdened renter occupied units and the highest percentage of severely cost burdened households in the region at 59.6% and 22.0%, respectively. Sullivan County had the lowest percentage of cost burdened renter occupied units (48.7%) and lowest percentage of severely cost burdened households (15.0%) Figure 7.5 and Figure 7.6. All counties exceeded the New York State average for cost-burdened renter-occupied units, with the exception of Sullivan County. However, when examining the percentage of severely cost-burdened households, only Orange and Rockland counties exceeded the state average.

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Figure 7.5: Percentage of Cost Burdened Renter Occupied Units, 2021–2023

Table 7.5: Percentage of Cost Burdened Renter Occupied Units, 2021–2023

Table 7.5								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	52.3	56.5	52.7	58.3	48.0	55.3	53.2	51.6
2022	52.4	56.1	53.2	58.9	48.4	55.3	53.5	51.7
2023	52.0	56.2	56.5	59.6	48.7	56.6	53.0	51.5

i Source

Source: US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, Table DP04, April 2025 [https://data.census.gov/ta-](https://data.census.gov/table/ACSDP5Y2023.DP04?q=dp04&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US)

i Note

The American Community Survey asks respondents if they own or rent the house, apartment, or mobile home they live in. If rented, they ask for the monthly rent. Cost burdened is defined as the percentage of renter occupied units in which gross rent is 30% or more of household income.

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Figure 7.6: Percentage of Severely Cost Burdened Households, 2016–2023

Table 7.6: Percentage of Severely Cost Burdened Households, 2016–2023

Table 7.6								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2016–2020	16.0	19.0	16.0	22.0	14.0	18.0	20.0	19.0
2017–2021	16.0	19.0	16.0	22.0	15.0	18.0	19.0	19.0
2018–2022	16.0	20.0	16.0	22.0	15.0	18.0	20.0	19.0
2019–2023	16.0	20.0	17.0	22.0	15.0	18.0	19.0	19.0

i Source

University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, June 2025 sourced from US Census Bureau, American Community Survey, five-year estimates https://www.countyhealthrankings.org/health-data/new-york?year=2025&measure=Severe+Housing+Cost+Burden*

i Note

Severely cost burdened is defined as the percentage of households that spend 50% or more of their household income on housing.

The number of individuals living in HUD-subsidized housing in the Mid-Hudson Region remained relatively stable from 2021 to 2024. Rockland and Orange counties reported the highest totals, with Rockland increasing from 21,732 to 23,735 residents and Orange from 18,258 to 19,129. Putnam County consistently had the lowest number of HUD-subsidized residents but experienced a gradual increase each year. Sullivan County was the only county in the region to see a steady decline, dropping from 5,018 in 2021 to 4,445 in 2024 Table 7.7.

Table 7.7: Number of people living in HUD-Subsidized Housing in the Past 12 Months, 2021–2024

Table 7.7								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	7,442	18,258	945	21,732	5,018	5,484	40,230	1,025,652
2022	7,641	18,745	929	22,170	5,228	5,479	40,412	985,104

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2023	7,630	19,000	992	23,411	4,846	5,418	40,415	987,957
2024	7,484	19,129	1,012	23,735	4,445	4,980	40,137	1,000,730

i Source

US Department of Housing and Urban Development, July 2025
https://www.huduser.gov/portal/datasets/assthsg.html#codebook_2009-2024

i Note

Includes all federal housing assistance programs administered by the US Department of HUD, including: Public Housing, Housing Choice Vouchers, Moderate Rehabilitation, Project-Based Section 8, Rent Supplement/Rent Assistance Program, S236/Below Market Interest Rate, 202/Project Rental Assistance Contract, and 811/Project Rental Assistance Contract.

7.1.4 Poverty

The *U.S. Census Bureau* defines a family, and every individual in it, as being in poverty when their income is less than the family’s threshold (17). For 2024, a single adult under age 65 falls below poverty at an income of less than \$16,320, while a one-person family unit aged 65 and older has a slightly lower threshold of \$15,045. Thresholds rise with each additional family member and child; for example, a family of three, close to the average family size in New York State (3.18 average family size), faces a poverty threshold of approximately \$25,273 (18). For larger families, the threshold increases substantially, reaching \$60,645 for families of nine or more Table 7.8. These benchmarks serve as the federal standard for identifying individuals and families whose earnings are insufficient to meet basic needs (17).

Table 7.8: Poverty Threshold for 2024 by Size of Family and Number of Related Children 18 Years and Younger

Table 7.8

Size of family unit	Related children under 18 years						
	None	One	Two	Three	Four	Five	Six
One person (unrelated individual):							
Under age 65	\$16,320						
Aged 65 and older	\$15,045						
Two people:							

Size of family unit	Related children under 18 years						Six
	None	One	Two	Three	Four	Five	
Householder under age 65	\$21,006	\$21,621					
Aged Householder aged 65 and older	\$18,961	\$21,540					
Three people	\$24,537	\$25,249	\$25,273				
Four people	\$32,355	\$32,884	\$31,812	\$31,922			
Five people	\$39,019	\$39,586	\$38,374	\$37,436	\$36,863		
Six people	\$44,879	\$45,057	\$44,128	\$43,238	\$41,915	\$41,131	
Seven people	\$51,638	\$51,961	\$50,849	\$50,075	\$48,631	\$46,948	\$45,100
Eight people	\$57,753	\$58,263	\$57,215	\$56,296	\$54,992	\$53,337	\$51,614
Nine people or more	\$69,473	\$69,810	\$68,882	\$68,102	\$66,822	\$65,062	\$63,469

i Source

US Census Bureau, Poverty Thresholds by Size of Family and Number of Children, 2021, April 2025 <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>

Poverty and health are closely linked. People experiencing poverty often have an increased risk of chronic and mental health conditions, mortality, and lower life expectancies (19).

The New York State Community Action Association’s Annual Poverty Report (2024) offers an in-depth breakdown of poverty rates, demographics, and economic conditions at the county level across New York State (20).

“*Poverty is both a cause and consequence of poor health*” (21)

Counties in the M-H Region continue to show wide variation in poverty rates, ranging from a low of 6.5% in Putnam County to a high of 15.6% in Rockland County. As of 2023, Rockland, Sullivan, and Ulster counties all reported poverty rates above the New York State average of 13.7%. In contrast, Putnam, Dutchess, Westchester, and Orange counties remained below the state average Figure 7.7 and Table 7.9.

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Figure 7.7: Percentage of Population in Poverty, 2021–2023

Table 7.9: Percentage of Population in Poverty, 2021–2023

Table 7.9

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	8.8	11.7	6.0	14.9	14.1	13.2	8.2	13.5

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2022	8.6	13.0	6.3	15.1	14.8	14.7	8.5	13.6
2023	8.3	13.0	6.5	15.6	15.2	14.3	8.9	13.7

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey 5-year estimates, Table S1701, April 2025 https://data.census.gov/table/AC-SST5Y2023.S1701?q=s1701&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US36

i Note

The American Community Survey asks respondents their income in the past 12 months including joint income. This is for income that is received on a regular basis before payments for taxes, social security, etc. If a family’s total income is less than the official poverty threshold for a family of that size and composition, they are considered to be in poverty.

Poverty continues to vary significantly across racial and ethnic groups in the Mid-Hudson Region. Hispanic families had the highest poverty rates in Orange, Putnam, Rockland, Ulster, and Westchester counties, with Ulster County reaching 24.4%. In Sullivan County, non-Hispanic Black families experienced the highest poverty rate at 30.5%, the highest across all counties and groups. In Dutchess County, non-Hispanic Black and Hispanic families also had elevated poverty rates at 14.2% and 11.2%, respectively Figure 7.8 and Table 7.10.

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Figure 7.8: Percentage of Families below Poverty by Race and Ethnicity, 2018–2022

Table 7.10: Percentage of Families below Poverty by Race and Ethnicity, 2018–2022

Table 7.10

Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan
White (non-Hispanic)	3.3	7.9	2.8	11.1	8.2
Black (including Hispanic)	14.2	12.5	0.0	8.6	30.5
Asian (including Hispanic, excluding Pacific Islander)	7.5*	10.3*	23.4*	1.8*	13.3*
Hispanic (any race)	11.2	11.3	6.6	12.8	14.3
Total	5.3	9.2	3.8	10.3	10.5

i Source

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from US Census Bureau, Small Area Income and Poverty Estimates https://www.health.ny.gov/community/health_equity/reports/county/

i Note

The Census Bureau collects racial and ethnic data in accordance with guidelines provided by the US Office of Management and Budget (OMB) and these data are based on self-identification. For ethnicity, the OMB standards classify individuals in one of two categories: “Hispanic or Latino” or “Not Hispanic or Latino.” The Census Bureau uses the term “Hispanic or Latino” interchangeably with the term “Hispanic,” and also refer to this concept as “ethnicity.” People who identify with more than one race may choose to provide multiple races in response to the race question.

7.1.5 Economically Disadvantaged

Children from economically disadvantaged families can face numerous challenges that influence their development, academic achievement, and overall health. Poverty can affect their cognitive development and educational attainment. The lack of access to resources and opportunities can impact their long-term social and economic mobility (22).

In 2023–2024, Sullivan County had the region’s highest share of economically disadvantaged students (61.4%), while Putnam had the lowest (32.5%) Figure 7.9 and Table 7.11. All counties rose since 2021–2022; the largest gains occurred in Rockland (43.9% to 51.0%), Dutchess (39.2% to 43.3%), and Putnam (28.5% to 32.5%). Compared with NYS (59.2%), Sullivan is above the state average; all other Mid-Hudson counties remain below it. Ulster was higher than Orange and Rockland through 2022–2023 (52.5% vs. 49.0% and 48.1%) but dropped below both in 2023–2024 (48.8% vs. 49.5% and 51.0%).

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Figure 7.9: Enrollment Rate of Economically Disadvantaged Students, 2021–2023

Table 7.11: Enrollment Rate of Economically Disadvantaged Students, 2021–2023

Table 7.11

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021-2022	39.2	47.0	28.5	43.9	60.4	48.6	38.9	56.2
2022-2023	43.1	49.0	32.1	48.1	62.7	52.5	39.6	59.1
2023-2024	43.3	49.5	32.5	51.0	61.4	48.8	39.7	59.2

i Source

Source: NYS Education Department, June 2025 <https://data.nysed.gov/enrollment.php?year=2024&county=13>

i Note

Students who participate in, or whose family participates in, economic assistance programs, such as the Free or Reduced-Price Lunch Programs; Social Security Insurance; Supplemental Nutrition Assistance Program; Foster Care; Refugee Assistance (cash or medical assistance); Earned Income Tax Credit; Home Energy Assistance Program; Safety Net Assistance; Bureau of Indian Affairs; or Family Assistance: Temporary Assistance for Needy Families. If one student in a family is identified as low income, all students from that household (economic unit) may be identified as low income.

7.1.6 Asset Limited, Income Constrained, Employed (ALICE)

Asset Limited, Income Constrained, Employed (ALICE) households are those earning above the Federal Poverty Level but below the ALICE Threshold, the income needed to afford the basics where they live, as calculated in the Household Survival Budget (23). The ALICE measure is location and household-specific and covers six essentials: housing, childcare, food, transportation, health care, and technology. These constraints force households to make difficult trade-offs across these necessities, see Table 15 for a sample budget.

The 2023 ALICE Household Survival Budget for New York State shows that the income needed to cover basic necessities ranges from \$35,652 per year for a single adult (\$17.80/hour) to \$104,472 for two adults with two children in childcare (\$52.20/hour). A two-adult, two-child household without paid childcare requires \$83,664 annually. Housing and childcare are the largest drivers for families with two children in care, those two items total \$3,782 per month. These amounts

define the ALICE Threshold; county-level percentages below this threshold.
Table 7.12

Table 7.12: ALICE Household Survival Budget

	Single Adult	One Adult, One Child	One Adult, One in Child Care	Two Adults	Three Adults
Housing	\$1,103.00	\$1,189.00	\$1,189.00	\$1,189.00	\$1,189.00
Child Care	\$0.00	\$423.00	\$1,126.00	\$0.00	\$0.00
Food	\$516.00	\$873.00	\$783.00	\$946.00	\$946.00
Transportation	\$401.00	\$535.00	\$506.00	\$617.00	\$617.00
Health Care	\$196.00	\$452.00	\$452.00	\$452.00	\$452.00
Technology	\$86.00	\$86.00	\$86.00	\$116.00	\$116.00
Miscellaneous	\$230.00	\$356.00	\$414.00	\$332.00	\$332.00
Taxes	\$439.00	\$461.00	\$625.00	\$529.00	\$529.00
Monthly Total	\$2,971.00	\$4,375.00	\$5,181.00	\$4,181.00	\$4,181.00
ANNUAL TOTAL	\$35,652.00	\$52,500.00	\$62,172.00	\$50,172.00	\$50,172.00
Hourly Wage	\$17.83	\$26.25	\$31.09	\$25.09	\$25.09

i Source

United for ALICE, June 2025 <https://www.unitedforalice.org/the-cost-of-basics/new-york>

i Note

The ALICE (Asset Limited, Income Constrained, Employed) household survival budget estimates the minimum cost of household necessities (housing, childcare, food, transportation, health care, and technology) plus taxes, and a contingency fund (miscellaneous) equal to 10% of the budget.

Across the M-H Region, the share of households below the ALICE Threshold ranges from 37% in Dutchess (lowest) to 50% in Rockland (highest). Rockland is the only county above the New York State average of 47%; Orange (43%), Sullivan (45%), Ulster (42%), Putnam (38%), Westchester (38%), and Dutchess (37%) all fall below the state average. Sullivan has the region's highest poverty rate (15%), while Rockland has the highest ALICE share (38%), which drives its overall total. In every county, ALICE households outnumber those in poverty, often by two to five times, showing that many financially constrained households earn above the Federal Poverty Level but still cannot afford basic needs Figure 7.10 and Table 7.13.

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Figure 7.10: ALICE Threshold Percentage, 2023

Table 7.13: ALICE Threshold Percentage, 2023

Table 7.13								
Category	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NY
ALICE	31.0	33.0	32.0	38.0	30.0	32.0	28.0	33.0
Poverty	6.0	10.0	6.0	12.0	15.0	10.0	10.0	14.0
Above ALICE Threshold	62.0	57.0	63.0	50.0	54.0	58.0	61.0	52.0

i Source

United for ALICE, June 2025 <https://www.unitedforalice.org/county-reports/new-york#10/41.1237/-73.7330>

i Note

The ALICE (Asset Limited, Income Constrained, Employed) threshold represents the percentage of households in the United States that are struggling financially, falling below a threshold that includes those in poverty and those who are asset limited, income constrained, and employed. ALICE households earn above the Federal Poverty Level, but not enough to afford the basic necessities in their communities. Nationally, over 40% of households fall below the ALICE threshold.

7.2 Education

7.2.1 High School Graduation

High school completion is strongly linked to better health and longevity (24). People who don't complete high school face limited employment prospects, lower wages, and a higher risk of poverty factors that contribute to worse health outcomes and a higher risk of death later in life (24). Graduation likelihood is shaped by individual, family, school, and community conditions; school climate and safety, access to supportive adults, and disciplinary practices are all associated with on-time graduation (25).

In 2023, graduation rates in the M-H Region ranged from 76% in Sullivan (lowest) to 91% in Putnam and Westchester (highest). Most counties exceeded the NYS average of 86%, Dutchess (87%), Orange (89%), Putnam (91%), Ulster

(87%), and Westchester (91%), while Rockland matched the state rate (86%) and Sullivan fell below. From 2021–2023, rates were generally stable or edged down slightly, with the largest declines in Sullivan (82% to 76%), Rockland (90% to 86%), and Putnam (94% to 91%). Figure 7.11 and Table 7.14.

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Figure 7.11: High School Graduation Rate, 2021–2023

Table 7.14: High School Graduation Rate, 2021–2023

Table 7.14								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	87.0	89.0	94.0	90.0	82.0	87.0	91.0	86.0
2022	86.0	89.0	94.0	88.0	78.0	87.0	92.0	87.0
2023	87.0	89.0	91.0	86.0	76.0	87.0	91.0	86.0

i Source

NYS Education Department, June 2025
<https://data.nysed.gov/lists.php?type=county>

i Note

Graduation rate data are reported for a 9th grade cohort, as of the 4th year of high school - August. Graduates include students who received a local diploma or a local diploma with Regents endorsement (Regents diploma).

In accordance with federal regulation, there is a two-part requirement regarding racial and ethnic designation. First, all students must be reported as Hispanic/Latino or not Hispanic/Latino. Second, all students must be reported with at least one race. Students who are reported as Hispanic/Latino, regardless of their race, will be counted as Hispanic/Latino for reporting purposes. Students who are reported as not Hispanic/Latino will be counted in the race category in which they are reported. Non-Hispanic students who are reported with more than one race category will be reported as Multiracial.

Racial and ethnic disparities in graduation rates persist across the M-H Region. In six of seven counties, White students graduate at higher rates than both Black and Hispanic students; the exception is Putnam, where Black students post the region’s highest rate (97%), exceeding White (95%) and Hispanic (80%) peers. The largest gaps occur between White and Hispanic students, 21 points

in Sullivan (84% vs. 63%) and then 15 points in Putnam (95% vs 80%) and Rockland (96% vs. 81%). Disparities between White and Black students are greatest in Sullivan (18 points; 84% vs. 66%) and Dutchess (14 points; 92% vs. 78%), while Rockland (96% vs 90%) and Ulster (90% vs 84%) show one of the smallest White and Black gaps at 6 points. Figure 7.12 and Table 7.15.

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Figure 7.12: High School Graduation Rate, by Race and Ethnicity, 2023

Table 7.15: High School Graduation Rate, by Race and Ethnicity, 2023

Table 7.15						
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster
Asian or Native Hawaiian/Other Pacific Islander	91.0	96.0	100.0	97.0	s	s
Black or African American	78.0	85.0	97.0	86.0	66.0	84.0
White	92.0	93.0	95.0	94.0	84.0	90.0
Multiracial	80.0	88.0	s	s	68.0	74.0
Hispanic	79.0	83.0	80.0	74.0	63.0	80.0

i Source

Source: NYS Education Department, June 2025
<https://data.nysed.gov/gradrate.php?year=2023&state=yes>

i Note

s: Data are suppressed due to not meeting reporting criteria. Race or races with which the student primarily identifies are indicated by the student or the parent/guardian.

7.2.2 Early Childhood Education and Development

The early years of a child’s life are very important for their health and development (26). WHO’s 2024 handbook operationalizes Nurturing Care—what to deliver (parenting content), where to deliver it (health/social/education platforms), and how to deliver it well (training, quality assurance, M&E, and scaling) (27). *WHO* characterizes nurturing care as a stable environment that promotes health and optimal nutrition, protects children from threats, and gives them opportunities for early learning, through affectionate interactions and relationships (28). Components of nurturing care include adequate nutrition, responsive caregiving, security and safety, opportunities for early learning, and good health (28).

Early-life stress and adverse events are linked to lasting mental and physical health impacts. Stressors, including poverty, physical abuse, family instability, and unsafe neighborhoods are associated with inadequate coping skills, difficulty regulating emotions, and reduced social functioning (29).

7.2.3 Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) are potentially traumatic events that occur during childhood such as “experiencing violence, abuse, or neglect; having a family member attempt or die by suicide; and witnessing violence in the home” (30). Elements of a child’s environment that weaken their sense of safety, stability, and bonding such as substance misuse, mental health complications, or family instability (including divorce or incarceration of parents and relatives) contribute to ACEs (30). ACEs can have lasting effects on health, behavior, and life potential, including obesity, diabetes, depression, suicide attempts, sexually transmitted infections (STIs), heart disease, cancer, stroke, Chronic Obstructive Pulmonary Disease (COPD), broken bones, smoking, alcoholism, drug use, graduation rates, academic achievement, lost time from work, etc. Growing research shows that toxic stress as a result of ACEs can damage “the most basic levels of the nervous, endocrine, and immune system,” and can modify the physical structure of DNA (30).

The ACE items are a surveillance tool, not a diagnosis. They estimate how common early-life adversities are among adults. The questionnaire includes questions about: physical, emotional and sexual abuse; physical and emotional neglect; and household dysfunction (substance use, mental illness, mother treated violence, parental separation or divorce, and incarcerated household member). Each item screens for a *type* of adversity before age 18. When combined, they produce an ACE count (how many types a person reports), which is summarized as a threshold associated with measurably higher risk for poor health, mental health, and social outcomes across the life span.

7.2.4 Attainment of Higher Education

Continuing education after high school, especially enrolling in and completing college, improves employment prospects and job quality, reduces the risk of unemployment or underemployment, and raises lifetime earnings (31). A Social Security Administration analysis linking survey and administrative earnings records estimates that men with a bachelor’s degree earn about \$900,000 more in median lifetime earnings than high school graduates and women about \$630,000 more; for graduate degrees, the gaps rise to \$1.5 million (men) and \$1.1 million (women). Even after adjusting for key socio-demographic factors, differences remain substantial (about \$655,000 for men and \$450,000 for women with a bachelor’s degree) (32). These gains translate into better-paying jobs with fewer safety hazards and greater access to material and psychosocial resources (e.g., higher-quality housing, higher social status) and are associated with improved

health and a lower risk of premature death (31).

Westchester leads the region in degree completion, with the highest shares of residents holding a bachelor's (26.0%) and a graduate/professional degree (26.5%), both above NYS (22.0% and 17.5%). Putnam (24.2%) and Rockland (23.2%) also exceed the state for bachelor's attainment, while Dutchess (21.0%), Ulster (20.2%), Orange (18.2%), and Sullivan (17.0%) fall below. Figure 7.13 and Table 7.16.

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Figure 7.13: Rate of Higher Education Attainment, 2023

Table 7.16: Rate of Higher Education Attainment, 2023

Table 7.16							
Education Level	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester
Some college, no degree	16.9	19.1	16.5	16.2	17.9	17.1	12.6
Associate's degree	10.1	10.3	8.4	7.8	10.3	9.6	6.4
Bachelor's degree	21.0	18.2	24.2	23.2	17.0	20.2	26.0
Graduate or professional degree	18.7	14.1	19.3	18.9	12.7	16.9	26.5

i Source

Source: US Census Bureau; American Community Survey, 2020 American Community Survey 5-Year Estimates, Table S1501, April 2025 https://data.census.gov/table/AC-SST5Y2023.S1501?q=s1501&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US36

i Note

The American Community Survey asks respondents what the highest degree or level of school the person has completed.

7.2.5 Language and Literacy

Literacy includes listening, speaking, reading, and writing skills, along with the ability to understand and work with numbers. Low literacy and language skills are associated with poorer outcomes in educational attainment, employment, and health. While limited English proficiency and low literacy differ from health literacy, both are barriers to accessing health care, resulting in lower utilization of health services (33).

Rockland County had the highest percentage of people aged five years and over who spoke English “less than very well” at 20.0% in 2023. Ulster County had the lowest percentage at 3.4% Figure 7.14 and Table 7.17. Except for Rockland County, all other counties were lower than the NYS rate (13.3%).

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Figure 7.14: Percentage of Population that Speaks English “Less Than Very Well”, 5 Years and Older, 2021–2023

Table 7.17: Percentage of Population that Speaks English “Less Than Very Well”, 5 Years and Older, 2021–2023

Table 7.17								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	4.7	10.6	5.3	18.6	5.9	2.9	12.7	13.1
2022	4.8	11.3	5.6	18.8	7.3	3.0	12.2	13.1
2023	5.4	12.2	6.0	20.0	8.0	3.4	12.4	13.3

i Source

Source: US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, Table S1601, April 2025 https://data.census.gov/table/AC-SST5Y2020.S1601?q=s1601&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US36&tid=SST5Y2020.S1601

i Note

The American Community Survey asks respondents how well the person speaks English. If the response is “well,” “not well,” or “not at all,” the person is categorized as speaking English “less than very well.”

7.3 Social and Community Context

7.3.1 Civic Participation

Civic participation includes activities in which groups or individuals interact with their community, such as voting, volunteering, and community gardening. Activities can be formal or informal and often benefit society or other group members. Civic participation has been shown to improve health by expanding

social networks and social trust, which can increase physical activity and improve mental health (34).

Disconnected youth are teenagers and young adults between the ages of 16 and 19 who are neither working nor attending school (35). This metric is an indicator for how young people are faring while transitioning into adulthood. This vulnerable population is cut off from resources, people, and experiences that help them gain knowledge, skills (36), capital (37), and a sense of purpose (34).

Sullivan County had the highest percentage of disconnected youth ages 16–19 (24.0% in 2019–2023), while Westchester County had the lowest (5.0%); the NYS rate was 7.0% Figure 7.15 and Table 7.18. Since 2016–2020, Sullivan rose from 17.0% to 24.0% (peaking at 25.0% in 2018–2022). Ulster moved from 6.0% to 9.0%. Orange remained near 8–10% (8.0% most recent), Rockland ranged 4–6% (6.0% most recent), and Westchester stayed low at 4.0–5.0%.

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Figure 7.15: Percentage of Disconnected Youth, 16–19 Years Old, 2014–2023

Table 7.18: Percentage of Disconnected Youth, 16–19 Years Old, 2014–2023

Table 7.18								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2014–2018	4.0	8.0	4.0	5.0	12.0	6.0	6.0	6.0
2015–2019	5.0	8.0	s	5.0	12.0	6.0	6.0	6.0
2016–2020	5.0	10.0	s	5.0	17.0	6.0	4.0	6.0
2017–2021	6.0	8.0	s	4.0	17.0	6.0	4.0	6.0
2018–2022	7.0	8.0	s	6.0	25.0	9.0	5.0	7.0
2019–2023	6.0	8.0	s	6.0	24.0	9.0	5.0	7.0

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, June 2025 sourced from US Census Bureau, American Community Survey, five-year estimates https://www.county-healthrankings.org/health-data/new-york?year=2025&measure=Disconnected+Youth*

i Note

s: Data are suppressed due to unreliable or missing data.

7.3.2 Discrimination

National Institutes of Health (NIH) defines discrimination as a socially structured action that is unjustified or unfair and harms individuals or groups, often protecting more powerful and privileged groups to the detriment of others (38). CDC notes that discrimination and racism harm health via barriers to resources and by triggering physiological stress pathways linked to worse outcomes (39).

Discrimination can be assessed through both everyday experiences and major life events (40). Residential segregation is a prominent example of structural discrimination, shaped by policies and practices that limit housing opportunities for certain racial and ethnic groups (41). Such discrimination can occur when individuals are refused rental housing or denied credit unfairly (42). The consequences of residential segregation extend far beyond housing itself, influencing access to quality education, nutritious food, safe environments for physical activity, reliable transportation, and health care (41). These inequities contribute to persistent disparities in health status across population groups (43).

In the US, residential segregation between non-Hispanic Black and non-Hispanic White populations is a key determinant of health disparity, leading to poor health outcomes including mortality and reproductive and chronic diseases (43).

Data produced by *County Health Rankings & Roadmaps* around residential segregation uses the *American Community Survey* to measure the distribution of non-Hispanic Black and non-Hispanic White residents across census tracts. The index is used to measure residential segregation; zero represents complete integration, while 100 is complete segregation. The index score can also represent the percentage of either non-Hispanic Black or non-Hispanic White residents who would have to move to a different geographic area in order to produce a distribution that matches that of the larger area (43).

Across the Mid-Hudson Region, residential segregation between Black and White residents remains lower than the statewide level but continues to vary by county. For the most recent period (2019–2023), Westchester County had the highest index score at 63.0, though it was still below the New York State average of 75.0. Sullivan County recorded the lowest score in the region at 43.0, indicating greater levels of residential integration. Putnam County and Orange County showed steady increases in segregation in recent years. In contrast, Ulster County declined to 43.0 (2018–2022), tying with Sullivan for the lowest score. Overall, the Mid-Hudson Region continues to show lower segregation levels compared with the state as a whole, though disparities remain across counties. Figure 7.16 and Table 7.19.

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Figure 7.16: Index Score of Residential Segregation, 2013–2023

Table 7.19: Index Score of Residential Segregation, 2013–2023

Table 7.19

Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2013–2017	52.0	44.0	39.0	58.0	46.0	49.0	62.0	74.0
2016–2020	50.0	45.0	44.0	55.0	50.0	50.0	59.0	74.0
2017–2021	47.0	47.0	38.0	58.0	55.0	46.0	59.0	74.0
2018–2022	46.0	49.0	45.0	56.0	51.0	43.0	60.0	74.0
2019–2023	49.0	48.0	49.0	58.0	43.0	s	63.0	74.0

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, June 2025 sourced from US Census Bureau, American Community Survey, five-year estimates https://www.county-healthrankings.org/health-data/new-york?year=2025&measure=Residential+Segregation+-+Black%2FWhite*&tab=1

i Note

s: Data are suppressed due to unreliable or missing data. Index of dissimilarity where higher values indicate greater residential segregation between Black and White County residents.

7.4 Health Care Access and Usage

“The National Academies of Sciences, Engineering, and Medicine define access to health care as the ‘timely use of personal health services to achieve the best possible health outcomes.’ (44) Barriers to health care include lack of access to transportation, lack of health insurance coverage, and inadequate providers per capita.

Cost is a prominent barrier to receiving health services and can deter people from seeking preventative care. The Survey of Income and Program Participation in 2023 showed that 16.4% of US households carried medical debt, meaning that people were unable to pay medical costs up front or when they received care (45).

Within the M-H Region, the highest percentage of adults who did not receive medical care due to cost was reported in Putnam County at 9.9%. Sullivan County had the lowest percentage (4.9%) of adults who did not receive medical care due to cost. The M-H Region (7.4%), Rockland County (8.4%), Sullivan County (4.9%), Ulster County (5.3%), and Westchester County (8.3%) all had

a similar or lower percentage than NYS (8.4%). Sullivan County (-76.6%) and Ulster County (-52.7%) had a significant percentage change observed between 2016 and 2021, indicating potential gains in both access to care and utilization. Figure 7.17 and Table 7.20.

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Figure 7.17: Percentage of Adults Who Did Not Receive Medical Care Due to Cost, 2016, 2018, and 2021

Table 7.20: Percentage of Adults Who Did Not Receive Medical Care Due to Cost, 2016, 2018, and 2021

Table 7.20								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2016	8.6	11.1	13.5	11.8	20.9	11.2	12.4	11.5
2018	7.7	8.5	11.4	11.8	11.3	12.7	7.5	11.3
2021	8.7	5.0*	9.9	8.4	4.9	5.3	8.3	8.4

Source

Source: NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NYSDOH Behavioral Risk Factor Surveillance System
https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/#sdh

Note

*: The percentage is unstable. Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Was there a time in the past 12 months when you needed to see a doctor but could not because you could not afford it?”

7.4.1 Health Insurance Coverage

Health insurance coverage is one of the largest factors affecting health care access. Uninsured people are less likely to receive preventative services and treatments than those who are insured, including care for chronic conditions, dental care, immunizations, and well-child visits (46). Several government programs, such as Medicaid and the Children’s Health Insurance Program, help provide low and no-cost health insurance to eligible individuals.

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than those who are insured, including care for chronic conditions, dental care, immunizations, and well-child visits (44). Several government programs, such as Medicaid and the Children’s Health Insurance Program, help provide low- and no-cost health insurance to eligible children. The US Census Bureau’s Small Area Health Insurance Estimates (SAHIE) program produces annual estimates of health insurance coverage for children under age 19 and adults ages 18 to 64. According to these estimates, adults are more likely than children to be without health insurance in the M-H Region.

Sullivan County has the highest rate of children without health insurance (3.5%), and Putnam County has the lowest rate (2.4%). Dutchess (2.6%), Orange (2.7%), and Putnam Counties all have rates lower than NYS (2.8%). Rockland County (2.8%) and Westchester County (2.8%) have the same rate as NYS. Sullivan County has shown the greatest gains in coverage between 2020 and 2023, with a 14.6% decrease over the past four years Figure 7.18 and Table 7.21.

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Figure 7.18: Percentage of Children Without Health Insurance, 2020–2023

Table 7.21: Percentage of Children Without Health Insurance, 2020–2023

Table 7.21								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2020	2.4	2.3	2.5	2.4	4.1	2.5	2.7	2.5
2021	2.7	2.8	2.5	2.3	3.2	2.8	3.2	2.6
2022	2.3	2.8	2.5	3.0	3.4	2.7	2.3	2.5
2023	2.6	2.7	2.4	2.8	3.5	3.0	2.8	2.8

Source

Source: US Census Bureau, Small Area Health Insurance Estimates, July 2025 https://www.census.gov/datatools/demo/sahie/#/?AGE-CAT=1&state_county=36000,36027,36071,36079,36087,36105,36111,36119&searchtype=sc&tableYears=2020-2023&elector=2022

Note

Note: This indicator includes children under 19 years old.

Dutchess County (94.4%) and Putnam County (94.9%) have the highest rate of adults with health insurance, and Ulster County has the lowest rate (92.0%). Adults in Dutchess County, Putnam County, and Westchester County (93.6%)

all have a greater percentage of residents with insurance than NYS (93.2%).
Figure 7.19 and Table 7.22.

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Figure 7.19: Percentage of Adults with Health Insurance, 2020–2023

Table 7.22: Percentage of Adults with Health Insurance, 2020–2023

Table 7.22								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2020	94.5	93.2	95.1	93.3	92.6	92.6	93.2	92.7
2021	94.2	93.5	94.6	93.3	92.4	92.7	93.0	92.6
2022	94.6	93.3	95.0	93.6	92.9	91.8	93.6	93.2
2023	94.4	93.0	94.9	92.3	92.5	92.0	93.6	93.2

i Source

Source: US Census Bureau; Small Area Health Insurance Estimates, 2023, August 2025 https://www.census.gov/data-tools/demo/sahie/#/?state_county=36000,36027,36071,36079,36087,36105,36111,36119&s_searchtype=sc&s_sures=ic_snc&RACECAT=0&AGECAT=1&map_yearSelector=2018&tableYears=2018

i Note

Note: This indicator includes adults aged 18–64 years old. Y-axis does not begin at zero in order to clearly display trend lines.

7.4.2 Health Professional Shortage Areas

Medically Underserved Area (MUA) and Medically Underserved Population (MUP) designations identify geographic areas and populations with a lack of access to primary care services (47).

MUAs have a shortage of primary care health services for residents within a geographic area. Some examples include a whole county, urban census tracts, or civil divisions. MUPs have a shortage of primary care health services for a specific population subset within an established geographic area. These groups may face economic, cultural, or linguistic barriers to health care (47).

An Index of Medical Underservice (IMU) score is calculated. An IMU score ranges between 0 (highest need) and 100 (lowest need). In order to qualify as an MUA or MUP, the score must be less than or equal to 62.0. Areas with lower

scores often have limited access to health care professionals, experience hindered health care access, and face longer wait times and delayed care and diagnosis (47).

In special circumstances, a State Governor or designee can identify a specific population group within a state facing unusual local conditions that hinder access to primary care services, even if the group doesn't meet the standard criteria for MUP designation, and they can be designated as a shortage area. After conducting a needs assessment and determining what areas are eligible for designation, the State would then submit an application for review by the Secretary of Health and Human Services. These MUPs do not have an IMU score as they follow a separate application process (47). Westchester and Orange Counties have the highest number of MUAs and MUPs. Putnam County had no designations. Table 7.23.

Table 7.23: Medically Underserved Areas and Populations

Table 7.23		
	Area Name	Designation Type
Dutchess	Low Income - Poughkeepsie	MUP Low Income
Dutchess	Migrant & Seasonal Farm Worker - East Dutchess	MUP Low Income
Dutchess	Medicaid Eligible and Medically Indigent - Beacon Service Area	MUP Other Populations
Orange	Orange County Service Area	Medically Underserved
Orange	Village of Walden Service Area	Medically Underserved
Orange	Village of Kiryas Joel Service Area	Medically Underserved
Orange	Low Income - Middletown Service Area	MUP Low Income
Rockland	Village of New Square Service Area	Medically Underserved
Rockland	Low Income - Haverstraw	MUP Low Income
Sullivan	Low Income - Western Sullivan Service Area	MUP Low Income
Sullivan	Low Income - Monticello	MUP Low Income
Sullivan and Ulster	Low Income - Wawarsing/Fallsburg Service Area	MUP Low Income
Ulster	Plattekill Town - County	Medically Underserved
Westchester	Westchester Service Area - Elmsford	Medically Underserved
Westchester	Westchester Service Area - Mount Vernon	Medically Underserved
Westchester	Low Income - Mount Kisco	MUP Other Populations
Westchester	Westchester Service Area - Peekskill	Medically Underserved
Westchester	Medicaid Eligible and Medically Indigent - Port Chester	MUP Other Populations
Westchester	Westchester Service Area - Yonkers	Medically Underserved

Source

Source: Health Resources and Services Administration Data Warehouse, June 2025 <https://data.hrsa.gov/tools/shortage-area/mua-find>

i Note

Note: An area or population can receive an Index of Medical Underservice (IMU) score between 0–100. An area or population with an IMU of 62.0 or below qualifies for designation as a Medically Underserved Area and Medically Underserved Population (MUP).

Primary care is effective for preventative care, early detection and treatment of disease, and chronic disease management (48). Dental care and mental health care are other disciplines that provide preventative care, as well as diagnosis, management, and treatment of diseases and disorders.

When measuring the ratio of population to provider, a higher ratio means less providers per capita, implying less access.

Sullivan County (3,070:1) had the highest ratio of residents to primary care providers. and the number of providers continues to decrease since 2019. Westchester County had the best resident to provider ratio (760:1). Westchester and Rockland (1,880:1) had better ratios than NYS (1,240:1). Figure 7.20 and Table 7.24.

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Figure 7.20: Ratio of Residents to Primary Care Providers, 2019–2022

Table 7.24: Ratio of Residents to Primary Care Providers, 2019–2022

Table 7.24								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2019	1,500:1	1,450:1	2,090:1	1,100:1	2,900:1	1,480:1	720:1	1,180:1
2020	1,440:1	1,440:1	1,970:1	1,130:1	2,710:1	840:1	720:1	1,170:1
2021	1,410:1	1,500:1	1,880:1	1,180:1	3,070:1	1,680:1	760:1	1,240:1

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, June 2025 sourced from Area Health Resources Files 2022–2023, and the American Medical Association <https://www.countyhealthrankings.org/health-data/new-york?year=2024&measure=Primary+Care+Physicians&tab=1>

i Note

Note: To interpret this indicator, the value provided is the number of residents to 1 primary care provider. This measure from the County Health Rankings are released each year but data are used from prior years where available.

Sullivan County had the highest ration of residents to dentists (2,410:1). Westchester County had the best resident to dentist ratio (910:1). Westchester and Rockland (1,060:1) had better ratios than NYS (1,200:1). Putnam County, Sullivan County, and Ulster County have seen improvements in the ratio between 2019 and 2022, with more dentists being available to residents. Figure 7.21 and Table 7.25.

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Figure 7.21: Ratio of Residents to Dentists, 2019–2022

Table 7.25: Ratio of Residents to Dentists, 2019–2022

Table 7.25								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2019	1,370:1	1,420:1	1,670:1	980:1	2,430:1	1,570:1	890:1	1,170:1
2020	1,380:1	1,460:1	1,700:1	1,020:1	2,370:1	1,480:1	900:1	1,190:1
2021	1,410:1	1,490:1	1,660:1	1,060:1	2,490:1	1,490:1	930:1	1,220:1
2022	1,400:1	1,500:1	1,610:1	1,060:1	2,410:1	1,470:1	910:1	1,200:1

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, June 2025 sourced from Area Health Resources Files 2022–2023, and the National Provider Identifier Downloadable File <https://www.countyhealthrankings.org/health-data/new-york?year=2022&measure=Dentists&tab=1>

i Note

Note: To interpret this indicator, the value provided is the number of residents to 1 dentist. This measure from the County Health Rankings are released each year but data are used from prior years where available.

Sullivan County had the highest ration of residents to mental health providers (510:1). Westchester County had the best resident to mental health provider ratio

(230:1). Westchester, Putnam (260:1), and Ulster (270:1) Counties had better ratios than NYS (310:1). All M-H Region Counties have seen improvements in the ratio between 2019 and 2022, with more mental health providers being available to residents. Figure 7.22 and Table 7.26.

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Figure 7.22: Ratio of Residents to Mental Health Providers, 2021–2024

Table 7.26: Ratio of Residents to Mental Health Providers, 2021–2024

Table 7.26								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	320:1	390:1	260:1	340:1	510:1	270:1	230:1	310:1
2022	310:1	390:1	240:1	330:1	490:1	260:1	230:1	300:1
2023	300:1	370:1	230:1	300:1	450:1	250:1	220:1	280:1
2024	290:1	350:1	210:1	290:1	450:1	240:1	200:1	260:1

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, June 2025 sourced from National Provider Identification Registry, Centers for Medicaid and Medicare Services <https://www.countyhealthrankings.org/health-data/new-york?year=2022&measure=Mental+Health+Providers&tab=1>

i Note

Note: To interpret this indicator, the value provided is the number of residents to 1 mental health provider. This measure from the County Health Rankings are released each year but data are used from prior years where available.

7.4.3 Access to Primary Care

Receiving regular primary care services is essential for chronic disease management and for the early detection and treatment of disease (48). Having a usual source of care allows for the development of a continuous patient–provider relationship, which can lead to receipt of more preventive care and services as recommended. Lack of insurance, low numbers of providers per capita, limited access to transportation, inability to take time off from work, language-related barriers, and a lack of culturally competent physicians can all hinder access to regular primary care services (48).

Putnam County had the highest percentage of adults who reported having a regular primary care provider (90.5%), while Sullivan County had the lowest percentage (76.9%) Figure 7.23 and Table 7.27. Orange County (88.9%), Putnam, Ulster County (89.5%), and Westchester County (84.9%) exceeded or were similar to the NYS rate (85.0%).

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Figure 7.23: Percentage of Adults Who Have a Regular Health Care Provider, 2016, 2018, and 2021

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey , Table, 2025

Table 7.27: Percentage of Adults Who Have a Regular Health Care Provider, 2016, 2018, and 2021

Table 7.27									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2016	82.8	81.8	86.7	84.1	84.6	82.5	79.2	N/A	82.6
2018	85.7	80.7	89.0	83.8	75.0	78.3	81.4	N/A	79.1
2021	81.6	88.9	90.5	84.1	76.9	89.5	84.9	86.5	85.0

i Source

Source: NYS Community Health Indicator Reports Dashboard, July 2025 sourced from NYSDOH Behavioral Health Risk Factor Surveillance Survey https://webbi1.health.ny.gov/SASStored-Process/guest?__program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=it&ind_id=pa4_0

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Do you have one person or a group of doctors that you think of as your personal health care provider?” Data unavailable for the Mid-Hudson Region in 2016 and 2018.

7.4.4 Health Care Usage

The American College of Emergency Physicians defines an urgent care center as “a walk-in clinic focused on the delivery of medical care for minor illnesses and injuries in an ambulatory medical facility outside of a traditional hospital-based or freestanding emergency department” (49). Urgent care centers provide quality health care for non-life-threatening illnesses and injuries and are frequently used when primary care physician offices are closed (50).

Emergency departments (ED) are available 24 hours a day, 7 days a week and are intended for the treatment of life-threatening illnesses and injuries requiring immediate attention, including heart attack symptoms, poisoning, pregnancy-related complications, and uncontrollable bleeding (50). ED visits are increasingly being used for nonemergent outpatient care due to lack of health insurance, the absence of a current primary care practitioner, and limited timely alternatives for care (51).

For those admitted to the hospital, many inpatient visits could be avoided if there were access to timely primary and preventive care. Potentially preventable hospitalizations (PPH) are inpatient stays for ambulatory care-sensitive conditions that might have been avoided with high-quality primary and preventive care. Other factors, such as overall access to care, socioeconomic status, and chronic disease prevalence and management, can also contribute to PPH admissions. By identifying avoidable conditions with high admission rates, the health care system can assess where changes can be made to improve efficiency and quality of care (52).

In the M-H Region there is a significant variation among PPH rates. Putnam County had the lowest rate (60.2) and Orange County had the highest rate (106.3). Orange and Sullivan County had rates exceeding NYS excluding NYC (92.7) and NYS (97.3). Figure 7.24 and Table 7.28.

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Figure 7.24: Potentially Preventable Hospitalizations, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 7.28: Potentially Preventable Hospitalizations, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 7.28								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2020–2022	86.4	106.3	60.2	76.7	100.9	95.7	77.1	92.7

i Source

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, July 2025 sourced from NY Statewide Planning and Research Cooperative System https://www.health.ny.gov/community/health_equity/reports/county/

i Note

Note: The number of potentially preventable hospitalizations includes residents aged 18 years and older. The Prevention Quality Indicators (PQI) are a set of measures developed by the federal Agency for Healthcare Research and Quality to assess the quality of outpatient care for “ambulatory care-sensitive conditions.” This indicator is defined as the combination of the 10 PQIs that pertain to adults: Short-term Complication of Diabetes, Long-term Complication of Diabetes, Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults, Hypertension, Heart Failure, Community-Acquired Pneumonia, Urinary Tract Infection, Uncontrolled Diabetes, Asthma in Younger Adults, and Lower-Extremity Amputation Among Patients with Diabetes. Because the PQIs estimate the number of potentially avoidable hospital admissions, a lower rate is desirable.

Looking at potentially preventable hospitalizations (PPH) by race is an important step in identifying health disparities and targeting interventions to improve access to health care and, ultimately, outcomes.

In the M-H Region, Black non-Hispanic residents tend to experience significantly higher rates of PPH than White non-Hispanic residents. Dutchess County is the only county where White non-Hispanic residents consistently experience higher PPH rates. Otherwise, there are no consistent trends across the region. Orange County and Westchester County show a general decrease in the rate difference over time, while Sullivan County shows an increase between 2019 and 2022 Figure 7.25 and Table 7.29. When interpreting Figure 7.25, a negative rate difference indicates that White non-Hispanic residents have a higher PPH rate than Black non-Hispanic residents, which suggests that Black non-Hispanic residents have fewer admissions that would be considered preventable.

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Figure 7.25: Potentially Preventable Hospitalizations, Rate Difference Between Black Non-Hispanics and White Non-Hispanics, 2016–2022

Table 7.29: Potentially Preventable Hospitalizations, Rate Difference Between Black Non-Hispanics and White Non-Hispanics, 2016–2022

Table 7.29

Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS e
2019	-37.5	115.9	-42.1*	58.5	111.0	51.5	145.3	95.3	20.2
2020	-20.1	108.9	-21.2*	62.4	75.9	31.5	115.1	78.7	19.7
2021	-15.4	77.6	s	49.7	41.9	46.7	106.9	71.4	22.2
2022	-21.9	69.1	-12.3	53.9	154.3	82.3	102.7	71.1	21.7

i Source

Source: NYS Prevention Agenda Tracking Dashboard, August 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/reports/#county

i Note

*: The rate is unstable. s: Data are suppressed due to not meeting reporting criteria. Note: Rates are age-adjusted, per 10,000 adults aged 18+. The rate of potentially preventable hospitalization is calculated for both Black and White non-Hispanics. Then, the difference is the Black non-Hispanic rate minus the White non-Hispanic rate.

Non-Hispanic White residents tend to experience higher rates of PPH compared to Hispanic residents in the M-H Region. The only County to consistently have a trend with White Non-Hispanic residents experiencing more PPH was Rockland County. Putnam and Dutchess Counties consistently had lower PPH rates among Hispanic residents. In 2022, all M-H Region Counties had lower rates than NYS. When compared to NYS without NYC (7.1), Westchester County (8.2) and Rockland County (12.2) had higher rates [see Figure 26]. When interpreting Figure 26 a negative rate means that White non-Hispanic residents have a higher rate of PPH compared to the Hispanic residents which suggests that Hispanic residents are not having as many admissions that would be considered preventable

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Figure 7.26: Potentially Preventable Hospitalizations, Rate Difference Between Hispanics and White Non-Hispanics, 2016–2022

Table 7.30: Potentially Preventable Hospitalizations, Rate Difference Between Hispanics and White Non-Hispanics, 2016–2022

Table 7.30									
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS e
2019	-18.0	-6.4	-22.3	29.6	2.4	-8.5	-8.9	-10.8	0.8
2020	-12.6	10.9	-22.7	28.1	-21.3	5.6	7.0	1.2	8.1
2021	-18.3	-8.7	-25.5	18.1	-12.0	8.1	7.5	-1.6	4.1
2022	-1.0	-7.7	-20.8	12.2	0.8	-3.0	8.2	-0.8	7.1

i Source

Source: NYS Prevention Agenda Tracking Dashboard, July 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/reports/#county

i Note

Note: Rates are age-adjusted, per 10,000 adults aged 18+. The rate of potentially preventable hospitalization is calculated for both Hispanics and White non-Hispanics. Then, the difference is the Hispanic rate minus the White non-Hispanic rate.

7.4.5 Health Literacy

Healthy People 2030 addresses both personal and organizational health literacy. Personal health literacy is defined as “the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.” Organizational health literacy is defined as “the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.” (53)

Limited health literacy negatively affects health and is associated with “less participation in health-promotion and disease-detection activities, riskier health choices, more work accidents, diminished management of chronic diseases, poor adherence to medication, increased hospitalization and rehospitalization, increased morbidity, and premature death.” (54) It is important to note that the responsibility of health literacy does not fall solely on the patient. It is also the responsibility of the service provider and their institution to ensure that resources and information being shared are communicated in an appropriate,

understandable way. Improving provider-patient communication can lead to shared decision-making and improved health outcomes.

Increasing health literacy in populations has positive effects on society, including the notion that “health literate individuals participate more actively in economic prosperity, have higher earnings and rates of employment, are more educated and informed, contribute more to community activities, and enjoy better health and well-being.” (54)

7.5 Neighborhood and Built Environment

7.5.1 Access to Foods that Support Healthy Eating Patterns

Healthy dietary patterns are essential to living a healthy lifestyle. According to the Dietary Guidelines for Americans 2020–2025, the core elements of a healthy dietary pattern include vegetables, fruits, whole grains, low-fat dairy or fortified dairy alternatives, protein foods, and plant-based oils (55). A healthy diet lowers the risk of chronic diseases such as obesity, type 2 diabetes, and heart disease (56). It is also essential for managing chronic conditions and preventing complications for people with chronic diagnoses (57).

When measuring food access, travel time to supermarkets, availability of healthy foods, and food prices all play a role (58). For people without a personal vehicle, convenient public transportation, or a supermarket within walking distance, finding fresh, healthy options can be a challenge. High grocery prices can deter people with lower socioeconomic status from purchasing healthy options, which can minimize food access. Low-income communities tend to have more difficulty accessing food, and a study in Detroit found that people living in predominantly Black low-income neighborhoods travel an average of 1.1 miles farther to the closest supermarket than people living in predominantly White low-income neighborhoods (59).

The County Health Rankings and Roadmaps measure of the food environment accounts for proximity to healthy foods and income. The index is a scale that ranges from zero (worst) to 10 (best). Limited access to healthy foods estimates the percentage of the population that is low income and does not live close to a grocery store, and food insecurity estimates the percentage of the population that did not have access to a reliable source of food during the past year (60). Ulster County had the lowest food environment index (8.1), while Westchester (9.3) and Putnam (9.0) counties had the highest. The majority of counties fell below NYS’ score of 8.7 except for Westchester and Putnam counties Figure [7.27](#) and Table [7.31](#).

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Figure 7.27: Index of Factors that Contribute to a Healthy Food Environment, 2018, 2019, and 2022

Table 7.31: Index of Factors that Contribute to a Healthy Food Environment, 2018, 2019, and 2022

Table 7.31								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2018	8.6	8.6	8.2	8.7	8.2	8.0	9.2	9.0
2019	8.6	8.5	9.0	8.7	8.3	8.1	9.3	9.0
2022	8.7	8.4	9.0	8.6	8.3	8.1	9.3	8.7

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, July 2025 sourced from US Department of Agriculture - Food Environment Atlas and Feeding America - Map the Meal Gap <https://www.countyhealthrankings.org/health-data/new-york?year=2025&measure=Food+Environment+Index&tab=1>

i Note

The County Health Rankings measure of the food environment accounts for proximity to healthy foods and income. The index is a scale that ranges from 0 (worst) to 10 (best). Limited access to healthy foods estimates the percentage of the population that is low income and does not live close to a grocery store. Food insecurity estimates the percentage of the population that did not have access to a reliable source of food during the past year.

Limited access to healthy foods and food insecurity are indicators which are both equally weighted in the Food Environment Index. To see a county comparison of food insecurity, see Figure 7.3 and Table 7.3 from above.

The “limited access to healthy foods” indicator measures the percentage of the population that is low-income and does not live close to a grocery store. “Low income” is defined as census tracts where the poverty rate is 20% or greater, or the median family income is at or below 80% of the state’s median income. “Low access” areas are defined as census tracts where at least 500 people, or 33% of the population, live more than 1 mile (urban area) or 10 miles (rural area) from a supermarket or large grocery store (59).

Many M-H Counties experienced a decrease in the percentage of the population with low income and low access to food, which is a positive trend. Putnam County had the highest percentage of residents with limited access to healthy food (6.7%) and was almost five times that of Westchester County (1.4%). Most of the counties in the M-H Region fall above NYS (2.0%) excluding Westchester County. Figure 7.28 and Table 7.32.

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Figure 7.28: Percentage of Population with Limited Access to Healthy Foods, 2015 and 2019

Table 7.32: Percentage of Population with Limited Access to Healthy Foods, 2015 and 2019

Table 7.32								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2015	6.1	6.4	7.5	3.7	2.2	7.5	1.4	3.7
2019	5.7	6.0	6.7	4.4	2.9	6.1	1.4	2.0

i Source

Source: US Department of Agriculture - Food Environment Atlas, July 2025 <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?page=Full-FEA-Map>

i Note

Percentage of population who are low-income and do not live close to a grocery store.

7.5.2 Crime and Violence

Crime and violence are major public health issues at multiple levels. Violent crime can affect the quality of life for those it reaches, including victims of violent crimes, witnesses of violent crimes, and residents who hear about violent crimes in their communities. Studies have shown that people who fear crime in their communities engage in less physical activity and, as a result, may have higher Body Mass Indexes (BMIs) and higher levels of obesity (61).

Exposure to violence can also have negative impacts on mental health, with consequences that particularly affect children and adolescents. Violence exposure

can increase behavioral problems, depression, anxiety, Post-Traumatic Stress Disorder (PTSD), and risky behavior, such as substance use, risky sexual behavior, and unsafe driving (46).

The NYS Division of Criminal Justice Services collects crime reports from police and sheriffs' departments and submits them to the Federal Bureau of Investigation (FBI) as New York's official crime statistics. Violent crime totals include reports of murder, rape, robbery, and aggravated assault.

The M-H Region saw fluctuations in violent crime rates between 2018 and 2021. In 2021 all M-H Counties remained below the NYS without NYC rate and the NYS rate. Putnam County consistently had the lowest violent crime rate in the M-H Region from 2018 through 2021. Orange County has the highest rate (192.4 per 100,000). Sullivan County had the highest rates in 2018 and 2019 but has shown a consistent decrease over the four years. Figure 7.29 and Table 7.33.

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Figure 7.29: Violent Crimes, Rate per 100,000 Population, 2018–2021

Table 7.33: Violent Crimes, Rate per 100,000 Population, 2018–2021

Table 7.33									
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	186.4	210.7	55.4	113.5	264.2	161.1	173.6	204.0	351.1
2019	194.8	190.9	49.9	115.5	249.9	145.6	169.3	199.4	359.1
2020	198.0	174.6	37.9	104.9	196.7	128.5	164.4	206.2	365.1
2021	180.7	192.4	48.5	97.9	168.8	130.9	151.5	201.3	384.1

i Source

Source: NYS Division of Criminal Justice Services, Uniform Crime and Incident-Based Reporting System, July 2025 <https://www.criminaljustice.ny.gov/crimnet/ojsa/countycrimestats.htm>

i Note

Murder, rape, robbery, and aggravated assault are classified as violent crimes.

7.5.3 Environmental Conditions

Three environmental conditions that negatively impact population health include air pollution, poor water quality, and extreme heat (62). A study reported by the

United States Environmental Protection Agency shows socially vulnerable populations, including racial and ethnic minorities, are disproportionately affected by environmental hazards (63).

7.5.3.1 Air Pollution

Air pollution has been linked to several poor health outcomes, particularly those related to the respiratory system. Negative consequences resulting from exposure to fine particulate matter in the air include, but are not limited to, decreased lung function, chronic bronchitis, and premature death (64). Air particulate matter can come from a variety of sources, such as automobiles, industry, and forest fires.

Across all M-H Region Counties and New York State, the average daily density of fine particulate matter generally declined between 2014 and 2020. Westchester County consistently has the highest levels, it also experienced a decline since 2014. Sullivan County and Orange County fluctuate between having the lowest levels. Only Sullivan County and Orange County have periodically had levels lower than NYS. Figure 7.30 and Table 7.34.

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Figure 7.30: Average Daily Density of Fine Particulate Matter, 2014, 2016, 2018, and 2020

Table 7.34: Average Daily Density of Fine Particulate Matter, 2014, 2016, 2018, and 2020

Table 7.34								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2014	9.3	9.0	9.3	9.7	8.4	8.9	10.4	8.5
2016	7.9	6.2	8.0	8.5	7.3	7.5	9.0	6.6
2018	7.7	6.4	7.9	8.8	7.2	7.4	9.3	6.9
2020	8.3	8.1	8.2	8.4	6.9	8.0	8.8	6.9

i Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, July 2025 sourced from US Environmental Protection Agency’s Air Quality System - Environmental Public Health Tracking Network <https://www.countyhealthrankings.org/health-data/new-york?year=2025&measure=Air+Pollution%3A+Particulate+Matter&tab=1>

i Note

This is a measure of the average daily density of fine particulate matter. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers.

7.5.4 Water Quality

Maintaining water quality can be challenging. Sources of water contamination include:

- Sewage releases.
- Naturally occurring chemicals and minerals, such as arsenic, radon, and uranium.
- Local land use practices, such as fertilizers, pesticides, livestock, and concentrated feeding operations.
- Manufacturing processes, such as heavy metals and cyanide.
- Malfunctioning on-site wastewater treatment systems, such as septic systems (65).

Runoff can pose a risk to water quality and the health of people exposed to it. When it rains, water flows over impervious surfaces, such as pavement, and can pick up contaminants. Pollution can originate across large land areas or from a single point, such as an industrial pipe. Runoff can pick up sediment, nutrients, bacteria, pesticides, or petroleum byproducts from sources such as farms, waste, and roadways (66). “The presence of certain contaminants in our water can lead to health issues, including gastrointestinal illness, reproductive problems, and neurological disorders. Infants, young children, pregnant women, the elderly, and people with weakened immune systems may be especially at risk for illness.” (67)

7.5.4.1 Lead Poisoning

Lead affects every system of the body, and there is no safe blood lead level. Children are especially vulnerable to the negative impacts of lead exposure, which can lead to slowed growth and development, damage to the brain and nervous system, behavioral problems, and hearing and speech problems (68).

Lead exposure can occur from ingesting, coming in contact with, or breathing in lead dust or lead fumes (69).

Sources of lead can include lead-based paints in homes built before 1978, consumer products such as certain jewelry or toys, aviation gas, working with stained glass, and water pipes that contain lead (70). For children, lead-based paint is the most common source of lead exposure (71). Populations at higher risk for lead exposure include children from low-income households, children less

than six years old, immigrant and refugee children from less developed countries, pregnant people, and adults working in industries that expose them to lead (72).

New York State (NYS) requires health care providers to obtain a blood lead level for all children at age one and again at age two (73). Westchester County had the highest testing rate in the M-H Region, with 60.2% of children born in 2019 tested. Sullivan County had the lowest testing rate at 36.6%. Only Westchester County exceeded NYS' testing rate in all four years Figure 7.31 and Table 7.35.

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Figure 7.31: Percentage of Children Tested for Lead Before 36 Months of Age, 2013, 2016, 2017, and 2019

Table 7.35: Percentage of Children Tested for Lead Before 36 Months of Age, 2013, 2016, 2017, and 2019

Table 7.35									
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2013	57.2	53.4	61.3	71.3	36.4	51.7	65.5	61.6	62.8
2016	58.8	52.3	62.4	60.3	46.1	53.5	64.3	59.4	63.3
2017	60.7	51.0	60.8	57.0	44.4	55.3	63.6	58.4	62.4
2019	53.3	41.4	58.0	43.8	36.6	49.5	60.2	50.9	59.3

i Source

Source: NYS Community Health Indicator Reports Dashboard, July 2025 sourced from NYS Child Health Lead Poisoning Prevention Program https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

This is a measure of the percentage of children in a single birth cohort tested at least twice for lead before 36 months of age.

7.5.5 Quality of Housing

According to Healthy People 2030, housing quality refers to the physical condition of a person's home as well as the quality of the social and physical environment in which the home is located, including aspects of air quality, home safety, space per individual, and the presence of mold, asbestos, or lead. Poor housing quality is associated with negative health outcomes, including poor mental health,

chronic disease, and injury (74). Housing continues to face a prolonged crisis in which both affordability and quality remain pressing concerns (74). Beyond inflated rents and high mortgage payments, many households live in poor-quality housing that can cost more to heat, lack air conditioning, have inadequate plumbing, or have insufficient kitchen facilities. Fluctuating temperatures make it difficult to maintain safe indoor environments, contributing to adverse health outcomes. For individuals striving to maintain healthy lifestyles, the absence of a stove or refrigerator can hinder the ability to store and prepare fresh foods while also complicating the safe storage of temperature-sensitive medications. Inadequate plumbing further restricts personal and environmental hygiene. Low-income families are disproportionately affected by these conditions, underscoring persistent social and economic disparities in housing access and quality (74).

For this measure, severe housing problems are the percentage of households with one or more of the following housing problems: lack of complete kitchen facilities, lack of complete plumbing facilities, overcrowding, and severely cost-burdened households.

Rockland County had the highest percentage (26.0%) of households with severe housing problems, three percent higher than that of NYS (23.0%). Putnam and Sullivan Counties had the lowest percentage (17.0% and 16.0%, respectively) of households with severe housing problems. Figure 7.32 and Table 7.36.

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Figure 7.32: Percentage of Households with Severe Housing Problems, 2017–2021

Table 7.36: Percentage of Households with Severe Housing Problems, 2017–2021

Table 7.36									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	US
2017–2021	17.0	21.0	17.0	26.0	16.0	18.0	22.0	23.0	17.0

Source

Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, July 2025 sourced from US Census Bureau, Comprehensive Housing Affordability Strategy data https://www.countyhealthrankings.org/health-data/newyork?year=2025&measure=Severe+Housing+Problems&tab=1https%3A%2F%2Fwebbi1.health.ny.gov%2FSASStoredProcess%2Fguest%3F_program%3D%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=it&ind_id=Cg27

i Note

Severe housing problems is the percentage of households with one or more housing problems: lack of complete kitchen facilities; lack of complete plumbing facilities; overcrowding; or the household is severely cost burdened.

7.5.6 Transportation

Transportation can include walking, driving, biking, or utilizing public transportation, such as subways and buses (75). Access to transportation can affect all aspects of life including the ability to find or keep employment, the quantity and quality of food that can be accessed, and access to health care. Studies have shown that those with access to a car are less likely to miss appointments or delay care when compared to those relying on other forms of transportation (76).

Westchester County had the highest percentage of households with no available vehicles at 14.2%. Putnam County had the lowest percentage of households with no available vehicles at 4.2%. All counties within the M-H Region were below the NYS rate with residents having more access to vehicles. Figure 7.33 and Table 7.37.

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Figure 7.33: Percentage of Households with No Vehicles Available, 2021–2023

Table 7.37: Percentage of Households with No Vehicles Available, 2021–2023

Table 7.37								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	7.2	8.9	4.7	10.4	10.4	6.8	14.3	28.9
2022	7.2	8.6	4.1	9.9	9.9	7.2	14.2	29.0
2023	7.0	8.6	4.2	9.7	8.8	7.5	14.2	29.0

i Source

Source: US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, Table DP04, April 2025 [https://data.census.gov/](https://data.census.gov/table/ACSDP5Y2022.DP04?q=dp04&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US)table/ACSDP5Y2022.DP04?q=dp04&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US

i Note

The American Community Survey asks respondents how many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of the household.

7.5.7 Modes of Transportation

In addition to privately owned vehicles, modes of transportation can include walking, mass public transportation, and biking. Benefits of choosing mass public transportation, walking, and biking include protecting the environment by producing far less air pollution than cars and engaging in physical activity (75). However, these modes require individuals to rely more heavily on proper infrastructure, investment, and city planning to make travel safe and effective. Car-dependent cities and communities make it more difficult to use alternative modes of transportation to complete necessary daily tasks, such as going to the grocery store or getting to school, due to a lack of safe sidewalks and public transportation options (76). The transportation method people most often use to get to work can be an indicator of how car dependent an area is and how conducive it is to alternative modes of transportation.

The majority of residents in the M-H Region report driving alone to work as their most common means of commuting. Sullivan County had the highest percentage of commuters driving alone to work (74.1%). Westchester County had a significantly larger share of commuters using public transportation than the rest of the M-H Region (17.8%), as well as the lowest percentage of commuters driving alone to work (51.9%). M-H Region residents were less likely to use public transportation or walk to work compared to NYS. An emerging trend of working from home was noted, with Putnam County (13.7)m Ulster County (15.3%) and Westchester County (17.3%) have the highest percentages in the M-H Region and exceeding NYS. Figure 7.34 and Table 7.38.

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Figure 7.34: Percentage of Workers by Mode of Transportation to Work, 2023

Table 7.38: Percentage of Workers by Mode of Transportation to Work, 2023

Table 7.38					
Category	Drove Alone	Carpooled	Public transportation	Walked	Taxicab, motorcycle, bicycle, or
Dutchess	71.4	7.5	3.7	2.3	1.7
Orange	69.8	9.6	4.4	3.1	2.0
Putnam	70.6	7.6	5.6	1.5	1.0
Rockland	66.6	8.5	6.2	3.1	2.8

Category	Drove Alone	Carpooled	Public transportation	Walked	Taxicab, motorcycle, bicycle, or
Sullivan	74.1	8.8	1.2	2.4	1.9
Ulster	71.7	6.7	2.1	2.4	1.8
Westchester	51.9	7.2	17.8	3.7	2.1
NYS	50.0	6.3	22.4	5.3	2.6

i Source

Source: US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, Table B08141, April 2025 https://data.census.gov/tables/ACSDT5Y2023.B08141?q=b08141&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US36&tid=B08141

i Note

The American Community Survey asks respondents how they usually got to work last week. For respondents who use multiple transportation modes they are restricted to the single method of transportation used for the longest distance.

7.5.8 Average Commute Time

Average commute time, whether long or short, can be attributed to several factors. Long commute times can indicate a lack of job opportunities in an area, slow transit options, and a higher transportation cost burden on households and individuals. It can also negatively impact the community as it contributes to pollution (77).

Putnam County consistently has the longest mean travel time to work (39 minutes) among the M-H Region and exceeds NYS. Westchester County (35 minutes) and Orange County (34 minutes) also exceeded NYS (33 minutes). The remaining counties in the M-H Region had commute times lower than NYS. Figure 7.35 and Table 7.39.

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Figure 7.35: Mean Travel Time to Work, 2021–2023

Table 7.39: Mean Travel Time to Work, 2021–2023

Table 7.39								
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2021	32.0	34.1	39.2	31.2	28.6	28.6	34.8	33.3
2022	32.3	34.1	39.9	31.0	28.1	28.1	34.8	33.2
2023	31.4	34.2	39.5	30.3	27.8	27.8	34.7	32.8

i Source

Source: US Census Bureau; American Community Survey, 2023 American Community Survey 5-Year Estimates, Table DP03, April 2025 https://data.census.gov/table/ACSDP5Y2023.DP03?q=DP03&g=050XX00US36105,36027,36071,36119,36087,36079,36111_040XX00US

i Note

The American Community Survey asks respondents in the workforce how many minutes it usually takes them to get from home to work. The travel time refers to a one-way trip on a typical day. This includes time spent waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to getting to work. Sullivan County and Ulster County do have the same data according to the Census.

Chapter 8

Mid-Hudson Community Partner Survey

8.1 Background

In order to ensure that the needs of underrepresented populations were accounted for in the Mid-Hudson (M-H) Region CHA, a survey was administered to community partners that serve these populations. Underrepresented populations include those who have a low-income, veterans, seniors, people experiencing homelessness, LGBTQIA+ members, and people with a mental health diagnosis. The term “partners” refers to those who offer services such as mental health support, vocational programs, and programs for underserved populations. Surveying partners was completed to gain a better understanding of the obstacles and barriers these populations are facing when trying to access services.

Dutchess, Orange, Rockland, Sullivan, Ulster, and Westchester Counties created a survey tool based on the survey utilized in 2018 and 2022. Each participating LHD shared a survey link with partners to supply additional insight around local factors influencing community health. The survey covered several topics including the populations the partners serve, the issues that affect health in the communities they serve, barriers to people achieving better health, and interventions that are used to address social determinants of health (see [Appendix I](#)). Throughout the M-H Region, 328 surveys were completed by partners between May 2 and July 1, 2025. The answers to the survey varied throughout each county. Some counties chose to further investigate these differences by conducting focus groups.

When looking at data from the M-H Region, the top three issues partners felt affected health in their communities included: access to mental health providers, access to affordable, decent, and safe housing, and access to affordable, nutritious food. The top three barriers partners felt prevented people from achieving

better health in their communities were: knowledge of existing resources, health literacy, and geographic location (living in a rural area). Chronic disease, mental health and substance use issues, and health disparities were thought to highly impact these specific populations in the M-H Region. When considering the social determinants of health and the domains and priorities of the Prevention Agenda, partners said that economic wellbeing, mental wellbeing and substance use, and health insurance coverage and access to care impacted the populations they serve the most.

In the following sections, the data was broken down by each county with two primary sections: Major Findings and Specific Recommendations. These data points can help guide work to address the needs of underserved populations. Putnam County elected to participate in an alternative survey of community partners done in collaboration with Nuvance Health. The findings of this survey are summarized in the Putnam County section below.

8.2 Dutchess County

In Dutchess County, 109 responses were collected from providers that serve a variety of populations ([see Appendix J](#)). The Dutchess County Department of Health distributed the regional partner survey through various organizations and initiatives including the Eastern Dutchess Rural Health Network, Dutchess County Bringing Agencies Together, the Poughkeepsie Healthy Black and Latinx Coalition, Fit Dutchess, and the Community Health Committees at both Vassar Brothers Medical Center and Northern Dutchess Hospital.

8.2.1 Major Findings

The survey showed that the top three issues that affected health in Dutchess County were [Figure 8.1](#):

- 1) Access to affordable, nutritious food
- 2) Access to mental health providers
- 3) Access to affordable, decent and safe housing

The survey also showed that the top three barriers to people achieving better health in Dutchess County were [Figure 8.2](#):

- 1) Knowledge of existing resources
- 2) Health literacy
- 3) Geographic location – living in a rural area

According to survey responses, issues highly impacting health in Dutchess communities include mental health and substance use issues, chronic disease, and health disparities [Figure 8.3](#).

When considering the social determinants of health, issues highly impacting Dutchess communities include economic wellbeing, mental wellbeing and substance use, and health insurance coverage and access to care Figure 8.4. Within these social determinants of health categories, highly rated issues include poverty, anxiety and stress, and preventive services for chronic disease prevention and control see Figure 8.5 through Figure 8.7.

Included in the survey was the opportunity for community partners to share what they thought were the underlying factors and barriers to solving the issues that they highlighted. Lack of money was excluded from the question. Common responses included:

- Resources exist, but the community does not know that they exist or how to access them.
- There is a lack of healthcare providers in the county, and it is difficult to schedule timely appointments with those that do exist. This included both primary care, specialists, and mental health providers.
- Transportation was a commonly cited barrier and was discussed in relation to both healthcare access and accessing everyday essentials, like healthy foods.
- More support for those without English as a first language or for those who recently moved to the county is needed.
- Inadequate health insurance coverage or navigation prevents residents from accessing healthcare.

8.2.2 Specific Recommendations

- Improve coordination across county agencies and specialty services
- Educate providers and patients on available resources and insurance benefits
- Expand primary and specialized medical services, especially for Medicaid/Medicare, English as a second language, and IDD populations
- Improve access to transportation
- Increase care management capacity, especially for those with mental health and cognitive disabilities

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(a) Top Rated Issues That Affect Health in Dutchess County (n = 109)

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(b)

Figure 8.1

Access to affordable, nutritious food	Access to mental health providers	Access to affordable, decent and safe housing
48.6	47.7	46.8

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Figure 8.2: Top Rated Barriers to Achieving Better Health in Dutchess County (n = 109)

Knowledge of existing resources	Health literacy	Geographic location living in a rural area	Having someone to help with daily activities
77.1	51.4	34.9	32.1

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Figure 8.3: The Impact of Health Issues in Dutchess County (n = 106)

Table 8.3: The Impact of Health Issues in Dutchess County

Table 8.3				
Likert Scale	Chronic Disease	Health Disparities	Mental Health and Substance Use Issues	Maternal and Child Health
1	6.7	3.9	4.9	22.3
2	3.8	8.7	6.9	12.6
3	21.0	18.5	13.7	26.2
4	16.2	25.2	22.6	14.6
5	52.4	43.7	52.0	24.3

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.4: The Impact of the Social Determinants of Health in Dutchess County (n = 103)

Table 8.4: The Impact of the Social Determinants of Health in Dutchess County (n = 103)

Table 8.4			
Economic	Mental Wellbeing & Substance Use	Health Insurance Coverage & Access to Care	Safe & Healthy Housing
77.7	73.8	50.0	48.5

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Figure 8.5: The Impact of Economic Wellbeing in Dutchess County (n = 103)

Table 8.5: The Impact of Economic Wellbeing in Dutchess County (n = 103)

Table 8.5				
Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
1	3.9	7.0	5.0	3.6
2	5.8	10.2	7.0	8.8
3	24.3	26.3	28.0	19.5
4	12.6	29.0	23.0	21.1
5	53.4	27.6	37.0	47.1

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.6: The Impact of Mental Wellbeing & Substance Use in Dutchess County (n = 101)

Table 8.6: The Impact of Mental Wellbeing & Substance Use in Dutchess County (n = 101)

Table 8.6					
Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
1	0.0	20.4	2.0	11.1	4.0
2	2.6	17.4	12.0	11.1	10.1

Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
3	12.4	27.6	17.0	23.2	24.2
4	23.8	19.4	28.0	15.2	28.3
5	60.9	15.3	41.0	39.4	33.3

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

Table 8.7: The Impact of Health Insurance Coverage & Dutchess County (n = 100)

Table 8.7

Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
1	27.5	29.6	3.0
2	14.3	14.3	11.1
3	24.5	26.5	18.2
4	13.3	11.2	22.2
5	20.4	18.4	45.5

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

8.3 Orange County

In Orange County, 170 survey responses were collected from community service providers ([see Appendix J](#)) that are engaged with a wide array of at-risk populations. The Orange County Department of Health distributed the regional partner survey through healthcare provider listservs and collaborative coalitions including the Changing the Ecosystem Task Force, the Orange County Infection Control Committee, and Orange County Community Health Assessment Hospital partnerships. Respondents included members of government agencies, health care organizations, advocacy groups, and others who serve a wide variety of populations in the county.

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Figure 8.7: The Impact of Health Insurance Coverage & Access to Care in Dutchess County (n = 100)

8.3.1 Major Findings

The survey showed that the top three issues that affected health in Orange County were Figure 8.8:

- 1) Access to mental health providers
- 2) Access to affordable, decent and safe housing
- 3) Access to specialty services/providers

The survey also showed that the top three barriers to people achieving better health in Orange County were Figure 8.9:

- 1) Knowledge of existing resources
- 2) Health literacy
- 3) Geographic location – living in a rural area

According to survey responses, issues highly impacting health in Orange County include chronic disease, mental health and substance use issues communities include, and health disparities Figure 8.10. When asked to consider the social determinants of health, respondents reported mental wellbeing and substance use (77.5%), economic wellbeing (76.9%), and access to care including health insurance (61.9%) were the most impacted areas Figure 8.11. Within the category of Economic Wellbeing, poverty (50.3%) and housing stability & affordability (49.7%) were identified as the most significant concerns, with each rated as highly impactful by approximately half of all respondents Figure 8.12. Within the mental wellbeing and substance use category, anxiety and stress and depression were rated as major concerns that affect the health of the communities they serve Figure 8.13. Within health insurance coverage and access to care, preventative services for chronic disease prevention (40%) and control and oral health care (30.7%) were identified as the top concerns. Figure 8.14

Included in the survey was the opportunity for community partners to share what they thought were the underlying factors and barriers to solving the issues that they highlighted. Lack of money/funding was excluded from the question. Common responses included:

- Lack of medical providers, particularly in primary care, mental health, and specialists, including loss of workforce without incoming practitioners to replace them
- Lack of services outside regular workweek hours

- Lack of affordable and reliable transportation and public transit routes, particularly for uninsured individuals and non-Medicaid patients
- Lack of affordable, safe, and stable housing
- Language and cultural barriers
- Lack of affordable childcare and unstable caregiver support for aging population
- Health literacy, education, and communication
- Lack of awareness of available resources and limited internet access and digit skills
- Fragmented and uncoordinated services, no centralized referral system

8.3.2 Specific Recommendations

- Improve coordination across county agencies and specialty services
- Create plain-language, multilingual health education materials and campaigns, and train healthcare providers to deliver culturally competent care
- Expand, recruit, and train healthcare providers to expand both physical and mental healthcare services
- Expand public transit options
- Advocate for affordable housing and childcare

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Figure 8.8: Top Rated Issues That Affect Health in Orange County (n = 170)

Access to mental health providers	Access to affordable, decent and safe housing	Access to specialty services
58.2	42.4	40.6

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Figure 8.9: Top Rated Barriers to Achieving Better Health in Orange County (n = 170)

Knowledge of existing resources	Health literacy	Geographic location living in a rural area	Having someo
67.1	50.6	32.4	31.2

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Figure 8.10: The Impact of Health Issues in Orange County (n = 163)

Table 8.10: The Impact of Health Issues in Orange C

Table 8.10				
Likert Scale	Chronic Disease	Health Disparities	Mental Health and Substance Use Issues	Maternal an
1	3.1	4.4	3.7	16.9
2	5.6	5.0	5.0	10.0
3	12.4	18.9	15.5	31.3
4	15.5	28.3	19.9	18.8
5	63.4	43.4	55.9	23.1

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.11: The Impact of the Social Determinants of Health in Orange County (n = 160)

Table 8.11: The Impact of the Social Determ
(n = 160)

Table 8.1			
Mental Wellbeing & Substance Use	Economic	Health Insurance Coverage & Access to Care	Safe & Heal
77.5	76.9	61.9	48.8

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Figure 8.12: The Impact of Economic Wellbeing in Orange County (n = 159)

Table 8.12: The Impact of Economic Wellbeing in Orange County (n = 159)

Table 8.12				
Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
1	1.9	5.7	3.9	2.5
2	5.7	8.9	8.3	5.7
3	20.8	28.5	25.6	23.3
4	21.4	31.0	27.6	18.9
5	50.3	26.0	34.6	50.0

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.13: The Impact of Mental Wellbeing & Substance Use in Orange County (n = 157)

Table 8.13: The Impact of Mental Wellbeing & Substance Use in Orange County (n = 157)

Table 8.13					
Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
1	0.0	14.3	1.3	7.7	9.7
2	1.9	20.8	5.7	8.4	11.6
3	8.3	26.0	13.4	21.3	22.6
4	26.1	23.4	31.2	24.5	28.4
5	63.7	15.6	48.4	38.1	27.7

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.14: The Impact of Health Insurance Coverage & Access to Care in Orange County (n = 156)

Table 8.14: The Impact of Health Insurance Coverage & Orange County (n = 156)

Table 8.14			
Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
1	18.8	21.4	3.2
2	14.3	18.8	8.4
3	30.0	28.6	20.7
4	16.9	15.6	27.7
5	20.1	15.6	40.0

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

8.4 Putnam County

To foster collaboration with our local hospital system, Putnam County elected to participate in an alternative survey of community partners. During the summer of 2024 [Nuvance Health](#) and Local Health Departments (LHDs) within the Nuvance service area worked collaboratively with the healthcare data analytics and consulting company, [DataGen®, Inc.](#) to promote and administer the [Community-based Organization \(CBO\) Survey](#) (see [Appendix K](#)) to employees of partner organizations located in the Nuvance service area. Like the M-H Community Partner Survey, the CBO Survey aims to enrich CHA data from secondary sources and population-based surveys with insight into the needs of the populations served by responding organizations.

The survey instrument was based on a standardized template provided by DataGen and modified by Nuvance and the Putnam County Department of Health (PCDOH) to meet local needs. The instrument was designed to collect information from CBO employees regarding the observed needs of the clients and communities they serve. Survey topics included questions to explore health status, access to healthcare, main health problems, ways to improve health in the populations served by respondents, and trusted sources of health information. The survey was hosted by SurveyMonkey between May 21st, 2024, and September

16th, 2024, and disseminated in person to attendees of the Public Health Summit hosted by PCDOH on June 6th, 2024, and via email to PCDOH and Nuvance partner distribution lists.

One hundred and twenty-eight responses were collected from individuals working for CBOs serving residents of Putnam County. Nearly half of the responses were collected at the Putnam County Public Health Summit. The other half of respondents received invitations to participate via email distribution lists, their employers, or at coalition meetings. The respondents represented a total of 49 different organizations across 15 sectors. Healthcare was the most highly represented sector (33%), and Nuvance Health was the most highly represented organization, accounting for 26% of all respondents and 71% of healthcare sector respondents. Mental Health/Substance Misuse was the second most represented sector, accounting for 16% of all respondents from ten different organizations. PCDOH was the second most represented organization, accounting for 13% of all respondents and 87% of health department sector respondents.

Survey respondents considered the biggest health problems in populations served in Putnam County Figure 8.15 to be:

- Mental Health
- Access to healthcare providers
- Substance Misuse

Survey respondents thought the following would be most helpful to improve health of populations served in Putnam County Figure 8.16:

- Mental Health Services
- Transportation
- Affordable Housing

According to survey respondents, health screenings or education topics that would be most valuable to those they serve include mental health, chronic disease management, and drug and alcohol misuse Figure 8.17.

When considering access to healthcare, most respondents (77%) think that the people/communities they serve have problems getting needed healthcare. The most common barriers were cost (52%), lack of transportation (44%), and lack of available appointments (40%) Figure 8.18. Lack of insurance and inability to pay copays or deductibles were both specified by about ¾ of respondents as cost associated barriers. The most common reasons specified for lack of appointment availability were long wait times (93%), providers not accepting new patients (78%), and lack of appointments at times when patients are available (65%).

8.4.1 Major Findings

- CBO Survey respondents generally gave lower health ratings to those they serve (57% fair or poor health, physical or mental health not specified) than the self-reported ratings of Putnam residents found in the population-based [Mid-Hudson Region Community Health Survey](#) (see [Appendix L](#)) (18% fair or poor physical health, 23% fair or poor mental health). This may be indicative of poorer overall health in populations seeking services with respondents than that of the general population.
- Opinions varied by sector on the top three health problems faced, services most helpful to improve health, and most beneficial health screenings or education topics; however mental health/mental health services were consistently the first or second top choice of respondents for all three of these questions, regardless of sector.
- Access to healthcare providers was the second most common choice for the biggest health problem faced, and more than three quarters of respondents think the populations they serve have trouble accessing needed healthcare. Multiple factors attributable to patients (e.g. lack of insurance or transportation) and providers (e.g. appointment availability) are contributing to difficulties accessing healthcare.
- Affordable housing and access to transportation were among the top three things selected as most helpful to improve health in 44% and 45% of respondents respectively.
- Respondents in all sectors most frequently selected healthcare providers as trusted sources of health information for the populations they serve. Friends and family members were selected second most commonly in all sectors but healthcare, where more traditional sources of health information (health departments, hospitals, and schools/colleges) were more commonly selected [Figure 8.19](#).

8.4.2 Specific Recommendations

- Responses to this survey were obtained through convenience sampling, and as such results should be considered representative of respondents rather than all Putnam County residents served by community-based organizations. Results are most appropriately viewed through the lens of respondent distribution by sector and organization, with the understanding that results are skewed toward the experiences and opinions of respondents working in more highly represented sectors (i.e.: healthcare,

mental health and substance misuse, health departments) and organizations (i.e.: Nuvance Health, PCDOH).

- Findings of this survey should be considered alongside other components of the CHA when setting priorities for community health improvement planning, with particular attention paid to indicators related to mental health and healthcare access.
- Local leaders should consider downstream health benefits of policies which address social determinants of health such as affordable housing and access to transportation.

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Figure 8.15: Biggest Health Problems in Populations Served, Putnam County (n = 128)

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Figure 8.16: Most Helpful to Improve Health in Populations Served, Putnam County (n = 128)

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Figure 8.17: Most Beneficial Health Screenings or Health Education Topics for Populations Served, Putnam County (n=128)

8.5 Rockland County

In Rockland County, 135 survey responses were collected from community service providers that are engaged with various at-risk populations such as persons experiencing homelessness, persons with disabilities, persons with a mental health diagnosis, persons with substance use disorders, veterans, seniors, non-English speakers, and low-income individuals ([see Appendix J](#)). The Rockland County Department of Health distributed the regional partner survey via internal listservs of medical providers, the listservs of the Haverstraw, Spring Valley, and Western Ramapo Collaboratives, the Rockland County Dept. of Mental Health, as well as the United Way of Rockland, and our Hospital Partners at WMC Health and Montefiore Nyack. Respondents included members of government agencies, health care organizations, primary and secondary schools, advocacy groups, non-profits and others.

The results showed that the top three issues that affect health in Rockland County were see [Figure 8.20](#):

- 1) Access to mental health providers
- 2) Access to affordable, decent, and safe housing

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Figure 8.18: Reasons Populations Served Can't Get Needed Healthcare, Putnam County (n = 99)

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Figure 8.19: Trusted Sources of Health Information for Populations Served, Putnam County (n = 128)

3) Access to affordable specialty services/providers

The survey also showed that the top three barriers to people achieving better health in Rockland County were see Figure 8.21.

- 1) Knowledge of existing resources
- 2) Health Literacy
- 3) Having someone to help them understand their medical condition

Issues highly impacting health in the communities as listed by the providers include see Figure 8.22:

- Chronic disease
- Health Disparities
- Mental health and substance use issues

The top three areas of impact of the Social Determinants of Health in Rockland County were see Figure 8.23.

- 1) Economic Wellbeing
- 2) Mental Wellbeing & Substance Use
- 3) Health Insurance Coverage & Access to Care

Survey respondents indicated that Poverty and Housing Stability & Affordable were particularly impactful for the category of Economic Wellbeing see Figure 8.24.

For the category of Mental Wellbeing & Substance Use, survey respondents found Anxiety & Stress to be most impactful, followed by Depression see Figure 8.25.

For the category of Health Insurance Coverage & Access to Care, survey respondents indicated that the most impactful areas were Preventive Services for Chronic Disease Prevention & Control, as well as Oral Health Care see Figure 8.26.

The survey provided an opportunity for agency providers to expand upon these issues and barriers in an open answer form via Question 8, which asked: "Besides

lack of money, what are the underlying factors and barriers to solving the top 3 issues you identified in the communities you serve?”

Some answers to question 8 are paraphrased in the *Major Findings* section. The criteria for selection did not fit a strict definition; the primary determining factor was when one or more answers were in agreement (about an issue or series of issues), those answers were synthesized and paraphrased. The following section, *Recommendations*, are based both on the Major Findings and the results from Figure 8.20 through Figure 8.26 (mentioned above).

8.5.1 Major Findings

- Language barriers, cultural/religious norms, lack of health literacy, and lack of education were frequently listed as significant barriers to health in Rockland. Examples include:
 - Individuals may have difficulty understanding the nature of their medical condition(s) and how to properly treat/manage them
 - Individuals may have fears that medical interventions (such as medications or immunizations) will cause harm instead of helping their condition(s) or preventing disease.
 - Individuals may lack awareness of resources that are available to them and/or they may lack the skills or practical ability to access resources once they become aware of such resources.
- Limited access to affordable housing and poor living conditions cited as significant barriers to health in communities served.
- Limited access to transportation (to medical appointments, grocery stores, etc.), the cost of transportation that is available (car, taxi).
- Problems with health insurance, from the difficulty navigating the insurance-healthcare interface, to a limited acceptance of Medicaid by providers.
- Inadequate community outreach by medical providers, professionals and community groups to assist with health care literacy, navigating insurance. Despite their presence and intent, some community support institutions are not easily accessible by community.
- Stigma surrounding some health conditions/issues, fear of discrimination (related frequently to immigration status), distrust in institutions.

- Mental health, substance abuse problems, and unstable/poor living conditions are frequently cited as barriers. This is made worse by a lack of available Mental Health providers for timely appointments, and mental health providers lacking cultural competency.
- Despite the constraints of the question, several answers included mention of financial constraints as having a significant negative effect on health.

8.5.2 Specific Recommendations

- Increase availability of educational services to needy communities, especially for English language education, health literacy, and awareness of services throughout the county, as well as assistance accessing those services.
- There is a need to a more efficient public transportation system in Rockland that is easier to navigate, links disparate parts of the county together, and facilitates access of public services by needy communities.
- Lack access to affordable housing, and poor living conditions in the county remains a serious barrier to a stable, healthy life for many Rockland residents. This is a long-standing problem that requires special attention by local authorities in order to be addressed.

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Figure 8.20: Top Rated Issues That Affect Health in Rockland County (n = 135)

Access to mental health providers	Access to affordable, decent and safe housing	Access to specialty services
50.4	46.7	43.0

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Figure 8.21: Top Rated Barriers to Achieving Better Health in Rockland County (n = 135)

Knowledge of existing resources	Health literacy	Having someone to help them understand their medical c
66.0	59.3	34.1

i Note

Other (please specify): Some additional responses from participants include finding childcare, access to health care providers who are trained in LGBTQIA+ health care needs, mental health services, immigration issues, language and cultural barriers, and financial issues.

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Figure 8.22: The Impact of Health Issues in Rockland County (n = 132)

Table 8.17: The Impact of Health Issues in Rockland C

Table 8.17				
Likert Scale	Chronic Disease	Health Disparities	Mental Health and Substance Use Issues	Maternal an
1	5.4	4.7	3.1	14.6
2	2.3	6.2	6.3	16.2
3	16.3	22.5	18.0	28.5
4	21.7	27.1	24.2	20.0
5	54.3	40.0	48.4	20.8

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.23: The Impact of the Social Determinants of Health in Rockland County (n = 128)

Table 8.18: The Impact of the Social Determinants of Health in Rockland County (n = 128)

Economic	Mental Wellbeing & Substance Use	Health Insurance Coverage & Access to Care	Safe & Healthy Housing
79.7	70.3	68.8	46.9

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Figure 8.24: The Impact of Economic Wellbeing in Rockland County (n = 127)

Table 8.19: The Impact of Economic Wellbeing in Rockland County (n = 127)

Table 8.19
Table 'tbl-rc-impact-eco-wellbeing' not found in workbook.

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.25: The Impact of Mental Wellbeing & Substance Use in Rockland County (n = 125)

Table 8.20: The Impact of Mental Wellbeing & Substance Use in Rockland County (n = 125)

Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
1	0.8	18.7	1.6	11.4	12.2
2	2.4	17.9	5.7	11.4	10.6
3	15.2	30.9	24.4	24.4	23.6
4	20.0	19.5	28.5	22.0	28.5
5	61.6	13.0	39.8	30.9	25.2

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.26: The Impact of Health Insurance Coverage & Access to Care in Rockland County (n = 124)

Table 8.21: The Impact of Health Insurance Coverage & Rockland County (n = 124)

Table 8.21			
Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
1	23.6	27.6	8.1
2	15.5	17.9	7.3
3	26.8	28.5	23.6
4	16.3	11.4	25.2
5	17.9	14.6	35.8

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

8.6 Sullivan County

In Sullivan County, 102 responses were collected via the M-H Community Partner Survey from service providers that serve various populations. The 102 responses represented 46 organizations which contain Sullivan County in their service area, including Garnet Health and SUNY Sullivan (see [Appendix J](#)).

These providers identified the following as the top three issues that affect the health of the populations they serve see [Figure 8.27](#):

- 1) Access to mental health providers (n=50)
- 2) Access to affordable, decent, and safe housing (n=49)
- 3) Access to affordable, reliable transportation (n=46)

The survey also identified that the top three barriers to people achieving better health in Sullivan County were see [Figure 8.28](#):

- 1) Knowledge of existing resources (n=64)
- 2) Geographic location living in a rural area (n=49)
- 3) Health literacy (n=45)

When asked about the impact of health issues in Sullivan County, the providers identified the following as having the biggest impact on the health of the community see Figure 8.29:

- Chronic Disease
- Mental Health and Substance Use Issues
- Health Disparities

Providers also identified the most impactful topics among the social determinants of health see Figure 8.30:

- Mental Wellbeing and Substance Use (anxiety & stress, suicide, depression, substance use, adverse childhood experiences, healthy eating) (n=80)
- Economic Wellbeing (poverty, unemployment, nutrition security, housing stability & affordability) (n=77)
- Health Insurance Coverage & Access to Care (access to & use of prenatal care, prevention of infant maternal mortality, preventive services for chronic disease prevention & control, oral health care) (n=54)

Within the broader social determinants of health, the specific topics rated as having the highest impact on health were anxiety & stress, poverty, and housing stability & affordability see Figure 8.32 through Figure 8.33.

8.6.1 Major Findings

Included in the survey was an open-ended question asking providers to identify the underlying factors and barriers, besides lack of money, to solving the top 3 issues they identified. The most common responses were:

- Lack of reliable transportation
- Lack of knowledge and access to resources, including due to language barriers
- Lack of providers, particularly specialists and mental health providers
- Lack of affordable housing
- Lack of education and health literacy, along with insufficient resources and staff to help patients navigate the healthcare system, insurance, and other services

Generally,

- Mental health was identified as a major issue in the county, as well as a lack of mental health providers.
- Despite the growth of transportation options such as “Move Sullivan,” gaps remain, especially in more rural areas of the county.
- Health literacy, knowledge of resources, and difficulty navigating the healthcare system and accessing providers were frequently identified as barriers to improving health.

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Figure 8.27: Top Rated Issues That Affect Health in Sullivan County (n = 102)

Access to mental health providers	Access to affordable, decent and safe housing	Access to affordable, reliable transportation
49.0	48.0	45.1

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Figure 8.28: Top Rated Barriers to Achieving Better Health in Sullivan County (n = 102)

Knowledge of existing resources	Geographic location/living in a rural area	Health literacy	Substance Use
62.8	48.0	44.1	36.3

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Figure 8.29: The Impact of Health Issues in Sullivan County (n = 98)

Table 8.24: The Impact of Health Issues in Sullivan County

Table 8.24				
Likert Scale	Chronic Disease	Health Disparities	Mental Health and Substance Use Issues	Maternal and Child Health
1	5.2	3.1	4.1	9.3
2	4.1	5.2	6.2	10.3
3	14.4	19.8	13.4	35.1
4	19.6	27.1	19.6	16.5
5	56.7	44.8	56.7	28.9

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.30: The Impact of the Social Determinants of Health in Sullivan County (n = 96)

Table 8.25: The Impact of the Social Determinants of Health in Sullivan County (n = 96)

Table 8.25			
Mental Wellbeing & Substance Use	Economic Stability	Health Insurance Coverage & Access to Care	Safe & Healthy Housing
83.3	80.2	56.3	44.8

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Figure 8.31: The Impact of Economic Wellbeing in Sullivan County (n = 95)

Table 8.26: The Impact of Economic Wellbeing in Sullivan County (n = 95)

Table 8.26				
Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
1	1.1	4.2	2.1	2.1
2	5.3	7.4	5.3	6.3
3	20.0	24.2	31.9	24.2

Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
4	16.8	34.7	24.5	16.8
5	56.8	29.5	36.2	50.5

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.32: The Impact of Mental Wellbeing & Substance Use in Sullivan County (n = 93)

Table 8.27: The Impact of Mental Wellbeing & Substance Use in Sullivan County (n = 93)

Table 8.27					
Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
1	0.0	10.9	0.0	5.5	7.6
2	1.1	14.1	6.5	8.8	13.0
3	10.8	32.6	17.2	22.0	21.7
4	20.4	27.2	31.2	24.2	24.0
5	67.7	15.2	45.2	39.6	33.7

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

Table 8.28: The Impact of Health Insurance Coverage & Sullivan County (n = 92)

Table 8.28			
Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
1	9.8	12.0	1.1
2	13.0	19.6	8.7
3	35.9	31.5	20.7
4	25.0	22.8	31.5

Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
5	16.3	14.1	38.0

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

8.7 Ulster County

In Ulster County, 73 responses were collected from providers that serve various populations. Many agencies were represented as respondents to the survey, the questions for which can be found in [see Appendix J](#).

The survey results showed that the top three issues that affect health in Ulster County were see [Figure 8.34](#):

- 1) Access to affordable, decent, and safe housing
- 2) Access to mental health providers
- 3) Access to specialty services/providers

The survey also showed that the top three barriers to people achieving better health in Ulster County were see [Figure 8.35](#):

- 1) Knowledge of existing resources
- 2) Health literacy
- 3) Substance use disorder or alcohol use disorder

Issues highly impacting health in the communities, as listed by the providers include chronic disease, mental health and substance use issues, and health disparities see [Figure 8.36](#). The survey provided an opportunity for agency providers to expand upon these issues and barriers.

8.7.1 Major Findings

- Providers noted affordable housing is limited, and one respondent noted that accessible housing is severely limited.
- Low availability of mental health services and providers was frequently cited, as well as lack of health literacy surrounding mental health and substance use, and clients' own mental health and substance use conditions preventing them from either knowing what resources are available or seeking help at all.

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Figure 8.33: The Impact of Health Insurance Coverage & Access to Care in Sullivan County (n = 92)

- Lack of adequate means of transportation in Ulster County. Living in a large county geographically isolates some people from getting the care that they need and the transportation to get to these services.
- Poverty, stigma, and culture were all noted as factors that affect likelihood of seeking treatment.

8.7.2 Specific Recommendations

- Continue to strengthen inter-agency and community relationships to improve awareness of the resources available in the county

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Figure 8.34: Top Rated Issues That Affect Health in Ulster County (n = 73)

Access to affordable, decent and safe housing	Access to mental health providers	Access to specialty services
52.1	50.7	43.8

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Figure 8.35: Top Rated Barriers to Achieving Better Health in Ulster County (n = 73)

Knowledge of existing resources	Health literacy	Substance Use Disorder (SUD) or Alcohol Use Disorder (AUD)
65.8	46.6	38.4

i Note

Other: Some additional responses from participants include lack of transportation, poverty, safe and affordable housing, availability of health insurance, and having access to healthy foods.

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Figure 8.36: The Impact of Health Issues in Ulster County (n = 73)

Table 8.31: The Impact of Health Issues in Ulster County

Table 8.31				
Likert Scale	Chronic Disease	Health Disparities	Mental Health and Substance Use Issues	Maternal and Child Health
1	2.9	2.9	2.9	13.0
2	4.3	5.7	5.7	8.7
3	14.3	10.0	14.3	34.8
4	18.6	31.4	20.0	14.5
5	60.0	50.0	57.1	29.0

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.37: The Impact of the Social Determinants of Health in Ulster County (n = 70)

Table 8.32: The Impact of the Social Determinants of Health in Ulster County (n = 70)

Table 8.32			
Economic Stability	Mental Wellbeing & Substance Use	Health Insurance Coverage & Access to Care	Safe & Healthy Housing
84.3	78.6	60.0	47.1

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Figure 8.38: The Impact of Economic Wellbeing in Ulster County (n = 69)

Table 8.33: The Impact of Economic Wellbeing in Ulster County (n = 69)

Table 8.33				
Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
1	1.5	1.5	3.0	2.9
2	1.5	7.4	110 6.0	2.9
3	20.3	22.1	23.9	20.3

Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
4	20.3	38.2	29.9	20.3
5	56.5	30.9	37.3	53.6

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

Table 8.34: The Impact of Mental Wellbeing & Substance Use in Ulster County
(n = 67)

Table 8.34

Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
1	0.0	12.3	0.0	3.1	4.6
2	1.5	13.9	4.5	6.2	9.2
3	6.0	29.2	14.9	26.2	27.7
4	31.3	30.8	32.8	23.1	27.7
5	61.2	13.9	47.8	41.6	30.8

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

Table 8.35: The Impact of Health Insurance Coverage & Access to Health Care in Ulster County
(n = 66)

Table 8.35

Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive Services
1	16.9	20.0	3.0
2	13.9	13.9	12.1
3	30.8	30.8	13.6
4	20.0	20.0	31.8
5	18.5	15.4	39.4

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Figure 8.39: The Impact of Mental Wellbeing & Substance Use in Ulster County (n = 67)

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Figure 8.40: The Impact of Health Insurance Coverage & Access to Care in Ulster County (n = 66)

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

8.8 Westchester County

From the Hudson Valley Regional Community Partner Surveys, responses were collected from 40 providers (see [Appendix J](#)) located in Westchester County. Those providers identified several issues that affect health in Westchester, including see [Figure 8.41](#):

- Access to mental health providers
- Access to specialty services/providers
- Access to affordable, decent, and safe housing
- Access to affordable, reliable public transportation
- Access to affordable, nutritious food

The respondents also acknowledged barriers to people achieving better health in Westchester County, among them, the top four includes see [Figure 8.42](#):

- 1) Knowledge of existing resources
- 2) Health literacy
- 3) Having someone help them understand insurance (Health Navigators)
- 4) Geographic Location – living in rural area

When asked about the issues highly impacting the health status of residents in Westchester communities, these respondents suggested that Mental Wellbeing & Substance Use, Economic Wellbeing, and Health Insurance Coverage and Access to Care are the top three issues currently affecting the communities see [Figure 8.43](#).

8.8.1 Major Findings

Although an affluent county in general, there are pockets of neighborhoods in Westchester County where residents struggle to access affordable, decent, and safe housing, and face issues related to poverty. These major socioeconomic disadvantages are major root causes factors affecting people's health status.

The partner survey of 40 community care providers identified significant challenges affecting the health and well-being of their clients, which include low-income individuals, adults, persons with disabilities, those experiencing homelessness, and seniors as well as individuals with limited English proficiency. The findings highlighted critical needs, pervasive systemic barriers, and the key issues impacting the populations served.

Ultimately, the survey findings underscore a powerful interrelationship between the socioeconomic and health challenges experienced by clients. Economic instability, characterized by poverty, unemployment, and housing insecurity, directly impacts individuals' mental well-being and their ability to access both health insurance and quality healthcare.

8.8.2 Specific Recommendations

Based on data collected from the 40 community care providers, three major areas need to be addressed in health care and community services:

- 1) Mental health and substance use issues – listed it as one of the major issues impacting and/or highly impacting the health status of Westchester residents (with 60.52% listed it as highly impacting and 21.05% listed it as impacting)
- 2) Health disparities – listed it as one of the major issues impacting and/or highly impacting the health status of Westchester residents (with 55.26% listed it as highly impacting and 21.0% listed it as impacting)
- 3) Chronic disease (heart disease, diabetes, asthma, obesity, etc.) – listed it as one of the major issues impacting and/or highly impacting the health status of Westchester residents (with 55.26% listed it as highly impacting and 18.42% listed it as impacting)

Given the complexity of Westchester County's geographic, demographic, and socioeconomic compositions, a collection of 40 respondents (previous Mid-Hudson Community Partner Survey 18 respondents) from the large pool of health care and community service providers existing in the county can by no means present a thorough picture of current health status and service needs of people residing in Westchester. Therefore, the findings and recommendations presented in this section are suggestive and only shed some light on the possibly more complicated issues to be addressed.

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Figure 8.41: Top Rated Issues That Affect Health in Westchester County (n = 40)

Access to mental health providers	Access to specialty services/providers	Access to affordable, decent and
57.5	50.0	42.5

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Figure 8.42: Top Rated Barriers to Achieving Better Health in Westchester County (n = 40)

Knowledge of existing resources	Health literacy	Having someone help them understand insurance	Havin
62.5	50.0	35.0	32.5

i Note

Other: Some additional responses from participants include lack of transportation, poverty, safe and affordable housing, availability of health insurance, and having access to healthy foods.

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Figure 8.43: The Impact of Health Issues in Westchester County (n = 39)

Table 8.38: The Impact of Health Issues in Westchester

Table 8.38				
Likert Scale	Chronic Disease	Health Disparities	Mental Health and Substance Use Issues	Maternal an
1	5.3	2.6	2.6	10.3
2	2.6	2.6	7.9	10.3
3	18.4	18.4	7.9	38.5
4	18.4	21.1	21.1	12.8
5	55.3	55.3	60.5	28.2

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.44: The Impact of the Social Determinants of Health in Westchester County (n = 38)

Table 8.39: The Impact of the Social Determinants of Health in Westchester County (n = 38)

Table 8.39: The Impact of the Social Determinants of Health in Westchester County (n = 38)			
Mental Wellbeing & Substance Use	Economic	Health Insurance Coverage & Access to Care	Safe & Healthy Housing
81.6	79.0	68.4	36.8

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.45: The Impact of Economic Wellbeing in Westchester County (n = 37)

Table 8.40: The Impact of Economic Wellbeing in Westchester County (n = 37)

Table 8.40				
Likert Scale	Poverty	Unemployment	Nutrition Security	Housing Stability & Affordability
1	0.0	2.8	0.0	0.0
2	5.4	2.8	11.1	2.7
3	21.6	22.2	27.8	24.3
4	16.2	50.0	36.1	13.5
5	56.8	22.2	25.0	59.5

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.46: The Impact of Mental Wellbeing & Substance Use in Westchester County (n = 35)

Table 8.41: The Impact of Mental Wellbeing & Substance Use in Westchester County (n = 35)

Table 8.41					
Likert Scale	Anxiety & Stress	Suicide	Depression	Substance Use	Adverse Childhood Experiences
1	0.0	14.3	0.0	11.8	8.6
2	2.9	20.0	5.7	5.9	11.4
3	2.9	25.7	11.4	17.7	17.1
4	28.6	22.9	37.1	32.4	31.4
5	65.7	17.1	45.7	32.4	31.4

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

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Figure 8.47: The Impact of Health Insurance Coverage & Access to Care in Westchester County (n = 35)

Table 8.42: The Impact of Health Insurance Coverage & Westchester County (n = 35)

Table 8.42			
Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
1	11.4	17.1	5.9
2	20.0	20.0	8.8
3	28.6	28.6	14.7
4	17.1	14.3	29.4

Likert Scale	Access To & Use of Prenatal Care	Prevention of Infant & Maternal Mortality	Preventive S
5	22.9	20.0	41.2

i Note

Scores are based on a 1 to 5 scale, where 1 = very little impact and 5 = highly impacted. Higher scores indicate greater perceived impact.

Chapter 9

Health Behaviors Indicators

9.1 Physical Activity

The Physical Activity Guidelines for Americans state that, to attain the most health benefits from physical activity, adults need at least 150 to 300 minutes each week of moderate-intensity aerobic activity, such as brisk walking or fast dancing. Adults also need muscle-strengthening activities on at least two days each week, such as lifting weights or doing push-ups (78).

Regular physical activity can improve both health and quality of life for people of all ages and abilities. Among adults and older adults, physical activity can lower the risk of early death, cardiovascular disease, high blood pressure, type 2 diabetes, falls, serious outcomes from infectious diseases, some cancers, and depression (79).

Healthy People 2030 includes an objective to reduce the proportion of adults who engage in no leisure-time physical activity to 21.8% (80). New York State excluding New York City did not reach this target in 2021: 23.7% of adults reported no leisure-time physical activity in the past 30 days. Ulster County had the highest percentage of adults who participated in leisure-time physical activity in the past 30 days (82.6%), while Rockland County had the lowest (70.6%). The percentage of adults participating in leisure-time physical activity has increased since 2013 for most counties, for NYS excluding NYC, and for NYS overall, with the exception of Dutchess and Putnam Counties, which saw slight decreases see Figure [9.1](#).

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(a) Percentage of Adults Who Participated in Leisure Time Physical Activity in the Past 30 Days, 2016, 2018, and 2021

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(b)

Figure 9.1

Table 9.1: Percentage of Adults Who Participated in Leisure Time Physical Activity in the Past 30 Days, 2016, 2018, and 2021

Table 9.1									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	74.7	70.7	75.0	73.5	72.4	81.9	77.1	75.0	74.0
2018	80.2	70.5	83.4	76.9	67.9	79.9	81.6	78.3	76.4
2021	76.8	75.5	78.7	70.6	75.7	82.6	78.4	76.3	74.6

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?”

9.2 Nutrition

9.2.1 Fruit and Vegetable Consumption

Nutrition has a significant impact on health, and diet is one of the most powerful tools utilized to prevent and reduce the burden of diseases, such as high blood pressure, heart disease, and type 2 diabetes.

The Dietary Guidelines for Americans recommends following a healthy eating pattern across the lifespan, focusing on variety, nutrient density, and amount of

food; limiting foods higher in added sugars, saturated fats, and sodium; shifting to healthier food and beverage choices; and supporting healthy eating patterns for all (55). To meet these guidelines, it is important that fruits and vegetables are accessible and affordable.

From 2016 to 2021, all counties in the Mid-Hudson (M-H) Region, as well as NYS excluding NYC and NYS, saw an increase in the percentage of adults who reported eating less than one fruit or vegetable a day. Dutchess County and Rockland County had the highest percentages of adults who reported consuming less than one fruit and less than one vegetable a day (39.2% and 35.1%, respectively) see Figure 9.2.

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Figure 9.2: Percentage of Adults Who Report Consuming Less Than One Fruit and Less Than One Vegetable Daily, 2016, 2018, and 2021

Table 9.2: Percentage of Adults Who Report Consuming Less Than One Fruit and Less Than One Vegetable Daily, 2016, 2018, and 2021

Table 9.2									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	24.2	24.5	27.0	25.9	28.7	22.9	28.6	29.0	31.5
2018	25.4	23.3	22.9	28.5	23.5	25.5	25.0	26.1	28.1
2021	39.2*	31.9	30.1	35.1	30.5	30.4	30.5	32.6	34.2

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

*: Percentage is unreliable due to large standard error. Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “How often do you eat fruits, excluding juice?” and “How often do you eat vegetables or salad (excluding juices and potatoes)?”

9.2.2 Sugary Beverages

Sugar-sweetened beverages are one of the main sources of added sugars in U.S. diets. Frequent consumption is linked to weight gain, cavities, type 2 diabetes, and heart disease in adults (81). Intake of sugar-sweetened beverages should be limited within a varied, healthy diet.

The Dietary Guidelines for Americans recommend reducing added sugars by cutting back on sugar-sweetened beverages—for example, by choosing beverages with no added sugars, drinking smaller portions, drinking them less often, and selecting options lower in added sugars. Low-fat or fat-free milk or 100% fruit or vegetable juice can be consumed in place of sugar-sweetened beverages, within recommended amounts (55).

In New York State excluding New York City, about one in five adults (20.2%) drank at least one sugar-sweetened beverage daily in 2021. In the M-H Region, Dutchess County had the highest percentage of adults who consumed one or more sugar-sweetened beverages daily (24.9%), while Westchester County had the lowest (11.4%). From 2013 to 2021, Dutchess and Rockland Counties saw slight increases in the percentage of adults who consumed one or more sugar-sweetened beverages daily, while Orange, Putnam, Sullivan, Ulster, and Westchester Counties saw decreases see Figure 9.3.

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Figure 9.3: Percentage of Adults Who Consume One or More Sugary Beverages Daily, 2016, 2018, and 2021

Table 9.3: Percentage of Adults Who Consume One or More Sugary Beverages Daily, 2016, 2018, and 2021

Table 9.3									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	21.9	25.5	22.9	23.1	27.0	23.6	18.5	24.6	24.2
2018	23.5	22.5	25.6	18.1	31.5	23.5	20.3	25.5	24.7
2021	24.9	21.3	17.8	21.7	19.9	19.4	11.4	20.2	19.6

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “During the past 30 days, how often did you drink regular soda or pop that contains sugar? Do not include diet soda or diet pop.” and “During the past 30 days, how often did you drink sugar-sweetened fruit drinks (such as Kool-aid™ and lemonade), sweet tea, and sports or energy drinks (such as Gatorade™ and Red Bull™)? Do not include 100% fruit juice, diet drinks, or artificially sweetened drinks.”

Chapter 10

Health Indicators

Health indicators are specific and measurable data points used to describe the health of a community, its major health concerns, and the factors that can influence health outcomes. The indicators included in this assessment cover several broad categories that reflect the health of the M-H Region. By looking at health status and outcomes, social determinants of health, and health care access, the assessment provides a more complete picture of health. These data can be used to create actionable and effective strategies to improve the health and well-being of the entire Mid-Hudson (M-H) Region.

The following subsections under Health Indicators provide more specific details about diseases affecting the population in the M-H Region. For some county-level indicators, three-year averages were used for greater stability. If a single year is posted for a three-year average, the years averaged include the year preceding and the year following. For example, if the single year shown is 2020, the three-year average is from 2019–2022.

10.1 Mortality

Before discussing health indicators in the Mid-Hudson (M-H) Region, it is useful to understand the overall burden of disease facing residents in these seven counties. Morbidity measures illness and is defined in terms of incidence or prevalence. Incidence is the number of new cases of a disease divided by the number of people at risk over a particular period. Prevalence is the total number of cases of disease in a population during a specific period or at a particular point in time. Mortality is another term for death. A mortality rate is the number of deaths due to a disease during a particular period divided by the total population.

Table [10.1](#) lists the top five causes of mortality in the M-H Region counties, as well as NYS and NYS excluding New York City (NYC).

In 2022, Sullivan County had the highest total mortality rate out of all seven counties in the M-H Region, as well as NYS, at 908.5 per 100,000 population. In 2022, the leading cause of death in all M-H Region counties and in NYS was heart disease. The causes of death across the counties included heart disease, cancer, unintentional injury, chronic lower respiratory diseases (CLRD), cerebrovascular disease (stroke), and COVID-19.

Table 10.1: Top Five Leading Causes of Death, by Count and Age-Adjusted Rate per 100,000 Population, 2022

Table 10.1					
Dutchess	All Deaths	#1 Cause of Death Heart Disease	#2 Cause of Death Cancer	#3 Cause of Death Unintentional Injury	#4 Cause of Death COVID-19
Count:	2912.0	771.0	554.0	204.0	183.0
Rate:	718.7	183.8	131.6	65.0	42.8
Orange		Heart Disease	Cancer	Unintentional Injury	COVID-19
Count:	3220.0	650.0	609.0	251.0	230.0
Rate:	744.8	150.0	132.5	61.7	53.2
Putnam		Heart Disease	Cancer	Unintentional Injury	COVID-19
Count:	846.0	194.0	169.0	49.0	37.0
Rate:	637.1	144.7	118.6	46.2	28.9
Rockland		Heart Disease	Cancer	COVID-19	Unintentional Injury
Count:	2347.0	542.0	456.0	194.0	123.0
Rate:	562.4	125.1	110.9	45.5	35.1
Sullivan		Heart Disease	Cancer	Unintentional Injury	COVID-19
Count:	888.0	195.0	165.0	75.0	62.0
Rate:	908.5	199.1	153.2	94.6	60.0
Ulster		Heart Disease	Cancer	Unintentional Injury	COVID-19
Count:	1977.0	512.0	396.0	128.0	93.0
Rate:	745.0	187.6	140.5	61.6	34.0
Westchester		Heart Disease	Cancer	COVID-19	Cerebrovascular Disease
Count:	7666.0	1915.0	1402.0	511.0	340.0
Rate:	548.0	130.3	100.2	35.5	23.6
NYS excl NYC		Heart Disease	Cancer	COVID-19	Unintentional Injury
Count:	113504.0	26138.0	21715.0	6607.0	6596.0
Rate:	744.2	165.9	137.0	42.3	54.1
NYS		Heart Disease	Cancer	COVID-19	Unintentional Injury
Count:	173958.0	43029.0	32517.0	11167.0	10811.0
Rate:	679.5	163.1	123.4	42.6	50.0

i Source

Vital Statistics of NYS, April 2025 https://apps.health.ny.gov/public/tabs/vis/PHIG_Public/lcd/

10.2 Premature Death

Premature death, or deaths occurring before age 65, is a measure of early mortality and a key indicator of population health, because it can be reduced through public health interventions and quality health care. Key factors contributing to premature death include behavioral risks such as poor diet, tobacco use, and physical inactivity; unintentional injuries such as drug overdoses and motor vehicle accidents; and health system and socioeconomic factors.

In 2022, the percentage of deaths that were premature in the M-H Region (21%) was lower than in NYS (22%) and NYS excluding NYC (23.6%). Sullivan County had the highest percentage of premature deaths (28.8%), and Westchester County and Rockland County had the lowest (18.4% and 18.5%, respectively). Four counties in the region (Putnam, Rockland, Ulster, and Westchester) met the objective in the Prevention Agenda 2025–2030 of falling below 22.4% by 2030 Figure 10.1.

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(a) Percentage of Deaths That are Premature, 2019–2022

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(b)

Figure 10.1

Table 10.2: Percentage of Deaths That are Premature, 2019–2022

Table 10.2									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	21.1	25.3	18.9	19.4	26.8	20.5	18.0	20.4	21.0
2020	23.5	24.5	19.7	21.4	27.3	23.0	19.2	21.5	21.5
2021	22.3	27.3	17.4	21.1	29.7	22.8	19.7	22.1	22.7
2022	22.7	25.1	20.6	18.5	28.8	21.9	18.4	21.0	22.0

i Source

NYS Prevention Agenda Tracking Dashboard, March 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/

Note

Note: Y-axis does not begin at zero in order to clearly display trend lines. Premature death includes deaths occurring before the age of 65

There are significant disparities in premature death rates, with Black and Hispanic populations experiencing higher rates than other racial and ethnic groups. Figure 10.2 and Table 10.3 show premature death as a percent difference between Black non-Hispanic and White non-Hispanic residents. Across the M-H Region, Black non-Hispanic residents experience premature death at a higher rate than White non-Hispanic residents. In 2022, the largest difference was in Ulster County (25.3%) and the smallest was in Sullivan County (8.0%). The Prevention Agenda 2025–2030 sets an objective of 18.4% for this measure.

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Figure 10.2: Premature Deaths, Percentage Difference Between Black Non-Hispanics and White Non-Hispanics, 2019–2022

Table 10.3: Premature Deaths, Percentage Difference Between Black Non-Hispanics and White Non-Hispanics, 2019–2022

Table 10.3									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	13.7	19.3	32.4*	10.1	4.2	19.8	19.3	15.9	20.2
2020	19.8	23.3	22.3*	9.3	10.1	25.7	18.9	16.8	19.7
2021	21.9	15.8	1.9*	16.6	15.4	23.4	21.0	18.5	22.2
2022	18.5	20.6	16.7*	16.2	8.0	25.3	20.5	18.2	21.7

i Source

NYS Prevention Agenda Tracking Dashboard, March 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/

i Note

*: The rate is unstable. Note: Premature death includes deaths occurring before the age of 65. The percentage of premature deaths is calculated for both Black non-Hispanics and White non-Hispanics. Then, the difference is the Black non-Hispanic rate minus the White non-Hispanic rate.

Figure 10.3 and Table 10.4 show premature death as a percent difference between Hispanic and White non-Hispanic residents. Across the M-H Region, Hispanic residents experience premature death at a higher rate than White non-Hispanic residents. In 2022, the largest differences were in Sullivan and Putnam Counties (29.6% and 28.9%, respectively), and the smallest difference was in Orange County (17.2%). The Prevention Agenda 2025–2030 sets an objective of 17% for this measure.

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Figure 10.3: Premature Deaths, Percentage Difference Between Hispanics and White Non-Hispanics, 2019–2022

Table 10.4: Premature Deaths, Percentage Difference Between Hispanics and White Non-Hispanics, 2019–2022

Table 10.4									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	18.0	16.6	9.7	22.8	14.0	8.9	23.4	19.3	21.1
2020	22.0	15.5	19.1	28.4	14.9	14.7	25.5	21.9	23.9
2021	18.9	16.2	11.2	24.4	19.6	18.3	25.7	21.4	23.7
2022	23.6	17.2	28.9	26.3	29.6	23.7	25.8	23.1	24.6

i Source

NYS Prevention Agenda Tracking Dashboard, March 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/

i Note

Note: Premature death includes deaths occurring before the age of 65. The percentage of premature deaths is calculated for Hispanics and White non-Hispanics. Then, the difference is the Hispanic rate minus the White non-Hispanic rate

10.3 Physical Health

10.3.1 Chronic Diseases

10.3.1.1 Chronic Lower Respiratory Diseases

Chronic Lower Respiratory Disease (CLRD) is a classification of diseases that affect the lungs and respiratory tract. These diseases include asthma, emphysema, chronic bronchitis, and chronic obstructive pulmonary disease (COPD) (82). CLRD was the fifth leading cause of death in the U.S. in 2023 (83). In 2020–2022, the CLRD hospitalization rate in the M-H Region was lower than that of NYS and NYS excluding NYC. Orange County had the highest rate of CLRD hospitalizations (13.8 per 10,000), followed by Dutchess and Sullivan Counties (12.0 and 11.8 per 10,000, respectively). Putnam County had the lowest CLRD hospitalization rate (8.1 per 10,000) Figure 10.4 and Table 10.5.

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Figure 10.4: Chronic Lower Respiratory Disease Hospitalization, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 10.5: Chronic Lower Respiratory Disease Hospitalization, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 10.5									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NY
2020–2022	12.0	13.8	8.1	8.9	11.8	11.6	11.1	11.2	12.0

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

Note: The 2018 population estimates are also used to calculate 2019 and 2020 rates. The ICD-10 codes for CLRD are: J40-J47.

In 2020–2022, CLRD mortality rates varied across the region’s seven counties. Of the seven counties, Sullivan County had the highest CLRD mortality rate at 43.5 per 100,000 population, and Westchester County had the lowest rate at

17.3 per 100,000 population. The rate in the M-H Region was similar to the rate in NYS (22.8 vs 23.7 per 100,000 population, respectively) Figure 10.5.

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Figure 10.5: Chronic Lower Respiratory Disease Mortality, Age-Adjusted Rate per 100,000 Population, 2020–2022

Table 10.6: Chronic Lower Respiratory Disease Mortality, Age-Adjusted Rate per 100,000 Population, 2020–2022

Table 10.6									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2020-2022	23.7	32.1	20.7	20.1	43.5	32.1	17.3	22.8	29.3

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from Vital Statistics of NYS https://webbi1.health.ny.gov/SASStored-Process/guest?__program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The 2018 population estimates are also used to calculate 2019 and 2020 rates. This indicator includes deaths with chronic lower respiratory disease as the primary cause of death. The ICD-10 codes for CLRD are: J40-J47.

When stratifying CLRD by race and ethnicity, disparities were not consistent between hospitalization and mortality rates. According to Figure 91, non-Hispanic Black adults had higher CLRD hospitalization rates across NYS and NYS excluding NYC. This pattern was also true for most counties in the M-H Region, with the exception of Dutchess County. However, non-Hispanic White adults had the highest CLRD mortality rates in most M-H Region counties, with the exception of Ulster County and Westchester County, which was also consistent with both NYS and NYS excluding NYC rates Figure 10.7. Rates were unstable or suppressed for non-Hispanic Asian/Pacific Islander adults for both CLRD hospitalizations and mortality across much of the region, but they were overall lower than other racial/ethnic groups.

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Figure 10.6: Chronic Lower Respiratory Disease Hospitalization, Age-Adjusted Rate per 10,000 by Race and Ethnicity, 2020–2022

Table 10.7: Chronic Lower Respiratory Disease Hospitalization, Age-Adjusted Rate per 10,000 by Race and Ethnicity, 2020–2022

Table 10.7							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	10.4	11.7	7.4	7.4	10.8	11.0	6.1
Non-Hispanic Black	9.0	22.5	10.8	13.0	25.7	17.3	19.0
Non-Hispanic Asian/Pacific Islander	s	2.9	s	3.4	s	s	2.6
Hispanic	6.2	10.8	7.2	8.4	6.8	10.6	8.3

i Source

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System <https://www.health.ny.gov/statistics/community/minority/county/orange.htm>

i Note

s: Data are suppressed due to not meeting confidentiality criteria. Note: The ICD-10 codes for CLRD are: J40-J47.

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Figure 10.7: Chronic Lower Respiratory Disease Mortality, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.8: Chronic Lower Respiratory Disease Mortality, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.8							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	25.3	36.3	22.2	23.3	45.3	32.9	18.3
Non-Hispanic Black	17.8	21.4	0*	12.4	37.9*	40.7	18.9
Non-Hispanic Asian/Pacific Islander	3.2*	6.8*	0*	6.9*	0*	0*	5.3
Hispanic	14.8	12.5	8.8*	8.4*	23.7*	20.2*	10.2

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from Vital Statistics of NYS <https://www.health.ny.gov/statistics/community/minority/county/orange.htm>

i Note

*: The rate is unstable. s: Data are suppressed due to not meeting confidentiality criteria. Note: This indicator includes deaths with chronic lower respiratory disease as the primary cause of death. The ICD-10-CM codes for CLRD are: J40-J47.

10.3.2 Asthma

Asthma is caused by airway restriction in the lungs resulting in difficulty breathing, wheezing, chest tightness, and coughing. While the causes of asthma are not fully known, it is linked to a variety of factors that may be genetic, environmental, or viral. Other factors associated with higher asthma risk include allergies, obesity, occupation, and race. African Americans and Puerto Ricans are at a higher risk of developing asthma than other races and ethnicities (84).

There is no way to cure asthma, but it can be managed with medication and by avoiding triggers (85). Triggers can include environmental factors such as secondhand smoke, air pollution, and mold; infections; physical activity; and emotional stress (86). Asthma is a serious burden on the health care system, accounting for over 900,000 emergency department visits and 94,000 inpatient hospital stays nationally (87).

In the U.S., 8.0% of adults have asthma (87). In 2021, this percentage varied across the seven counties in the M-H Region. According to Figure 10.8 and Table 10.9, Sullivan County had the highest percentage of adults with asthma (12.3%), while Rockland County had the lowest percentage (7.4%). Since 2016, Dutchess, Orange, Rockland, and Ulster Counties have had overall increases in the percentage of adults with asthma, while Putnam and Westchester Counties have had overall decreases. The percentages in Sullivan County, NYS, and NYS excluding NYC have stayed relatively stable.

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Figure 10.8: Percentage of Adults with Current Asthma, 2016, 2018, and 2021

Table 10.9: Percentage of Adults with Current Asthma, 2016, 2018, and 2021

Table 10.9									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	10.6	9.0	13.2	4.6	12.3	5.7	9.6	8.8	10.4
2018	9.9	8.9	8.9	7.3	12.7	12.3	11.5	9.7	10.8
2021	11.3	9.6	10.1	7.4	12.3	11.8	7.9	8.9	10.8

i Source

NYSDOH Behavioral Risk Factor Surveillance System, June 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Has a doctor, nurse, or other health professional ever told you had asthma?” and “Do you still have asthma?”

The rates of asthma hospitalization vary across the M-H Region and NYS. When looking at the recent three-year average from 2020–2022 in Figure 10.9 and Table 10.10, Westchester County had the highest asthma hospitalization rate at 5.9 per 10,000 population, while Rockland County had the lowest rate at 3.2 per 10,000 population. The rate across the whole M-H Region was similar to the rate across NYS excluding NYC (4.9 vs 4.2 per 10,000, respectively).

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Figure 10.9: Asthma Hospitalization, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 10.10: Asthma Hospitalization, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 10.10									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2020–2022	4.7	5.1	3.5	3.2	4.3	3.8	5.9	4.9	4.2

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The 2018 population estimates are also used to calculate 2019 and 2020 rates. The ICD-10 code for asthma is: J45.

When stratifying the data by race and ethnicity, as shown in Figure 10.10 and Table 10.11, non-Hispanic Black adults had higher rates of asthma hospitalization than non-Hispanic White and Hispanic adults. This pattern was consistent throughout the M-H Region counties, as well as in NYS and NYS excluding NYC. Lowest rates were generally seen among non-Hispanic White adults. Rates for non-Hispanic Asian/Pacific Islander adults were unstable or suppressed across most of the M-H Region counties.

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Figure 10.10: Asthma Hospitalization, Age-Adjusted Rate per 10,000 Population by Race and Ethnicity, 2020–2022

Table 10.11: Asthma Hospitalization, Age-Adjusted Rate per 10,000 Population by Race and Ethnicity, 2020–2022

Table 10.11							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	3.0	3.4	2.9	2.3	3.0	3.4	2.6
Non-Hispanic Black	5.4	10.8	10.8	6.9	17.1	7.3	11.4
Non-Hispanic Asian/Pacific Islander	s	1.8*	s	1.3	0.0*	s	1.8
Hispanic	3.9	5.1	3.5	3.3	3.0	3.2	4.4

i Source

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System <https://www.health.ny.gov/statistics/community/minority/county/orange.htm>

i Note

*: The rate is unstable. s: Data are suppressed due to not meeting confidentiality criteria. Note: The ICD-10-CM code used for asthma is: J45.

The Emergency Department (ED) is commonly used to treat asthma-related complications. When looking at those aged 0–17 years in the M-H Region Figure 10.11 and Table 10.12, in 2022 Sullivan County had the highest ED visit rate (104.1 per 10,000), while Rockland County and Putnam County had the lowest rates in the region (32.0 and 39.9 per 10,000, respectively). According to Figure 10.8 and Table 10.9, rates across all M-H Region counties, NYS, and NYS excluding NYC saw a sharp decrease from 2019 to 2020 and then steadily increased through 2022. In most cases, rates increased to near where they were before the COVID-19 pandemic, with the exception of Sullivan County, which has surpassed its pre-COVID-19 rate. All counties in the M-H Region met the objective outlined in the Prevention Agenda 2019–2024 of falling below 131.1 asthma ED visits per 10,000 among those aged 0–17 years by 2024.

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Figure 10.11: Asthma Emergency Department Visits, Rate per 10,000 Population 0–17 Years Old, 2017–2023

Table 10.12: Asthma Emergency Department Visits, Rate per 10,000 Population 0–17 Years Old, 2017–2023

Table 10.12										
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS	C
2017	56.1	55.4	47.3	40.7	83.9	76.0	89.9	68.9	124.1	1
2018	70.8	64.4	54.1	42.8	87.8	72.7	87.1	71.2	124.1	1
2019	62.8	64.0	34.1	33.9	89.1	60.7	82.1	65.1	107.5	1
2020	27.7	25.0	11.2	15.3	30.1	27.6	26.8	24.1	39.0	1
2021	41.0	40.8	21.4	24.5	40.5	54.3	50.0	41.6	59.9	1
2022	60.8	63.5	39.3	32.0	104.1	55.6	74.2	61.5	93.8	1
2023	61.9	61.5	39.0	36.7	102.2	64.8	73.8	†	94.8	1

i Source

Source: NYS Asthma Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/asthma/reports/#county

i Note

† 2023 data not available for Mid-Hudson Note: The 2018 population estimates are used to calculate rates for 2019 and 2020. Population estimates for 2021 and later are from the U.S. Census Bureau's most recently published estimates. Changes seen in 2020 and subsequent data years are possibly due to impacts of the COVID-19 pandemic. The ICD-10 code for asthma is: J45.

10.3.3 Cardiovascular Disease

Cardiovascular disease refers to several conditions that affect the heart and other components of the circulatory system, including congestive heart failure, cerebrovascular disease or stroke, coronary artery disease, and heart attack (88). Heart disease is a subset of cardiovascular disease and is the leading cause of death in the U.S. In 2022, heart disease was responsible for 1 in every five deaths in the U.S. The management, treatment, and lost productivity due to cardiovascular disease cost the U.S. approximately \$252 billion each year from 2019 to 2020 (89).

Key risk factors for cardiovascular disease include high blood pressure, high cholesterol, and smoking. Other risk factors include diabetes, obesity, unhealthy diet, physical inactivity, and excessive alcohol use (90). Research also shows an association between mental health disorders, such as mood disorders, anxiety disorders, chronic stress, and Post-Traumatic Stress Disorder (PTSD), and heart disease through both behavioral and physiological pathways (91).

According to Figure 10.12 and Table 10.13, in 2021, Sullivan County had the highest percentage of adults with cardiovascular disease (limited to heart attack, coronary artery disease, and stroke) in the M-H Region at 7.4%, a decrease from the region-wide peak of 8.6% in 2018. In 2021, Rockland County had the lowest percentage of adults with cardiovascular disease in the M-H Region at 5.7%, and the largest decrease from 2018 to 2021 (from 8.0% to 5.7%, respectively). This was followed by Orange County, which decreased from 7.8% in 2018 to 6.6% in 2021. Putnam County saw the largest increase of any county in the M-H Region, rising from 4.5% in 2018 to 6.8% in 2021, followed closely by Ulster County, which increased from 4.5% in 2018 to 6.7% in 2021.

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Figure 10.12: Percentage of Adults with Cardiovascular Disease, 2016, 2018, and 2021

Table 10.13: Percentage of Adults with Cardiovascular Disease, 2016, 2018, and 2021

Table 10.13									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2019–2021	102.3	116.1	76.9	81.1	129.9	109.6	90.9	99.3	111.2

i Source

NYS Community Health Indicator Reports Dashboard, April 2025 sourced from NYSDOH Behavioral Risk Factor Surveillance System https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “Has a doctor, nurse, or other health professional ever told you that you had any of the following:” and “Ever told you that you had a heart attack also called a myocardial infarction?” and “Ever told you that you had angina or coronary heart disease?” Based on responses to these questions, a person has Cardiovascular Disease if they responded yes to either of these questions.

Recent data from 2019–2021 show that Sullivan County had the highest cardiovascular hospitalization rate at 129.9 per 10,000 population. This rate was higher than the M-H Region (99.3 per 10,000 population) and NYS (111.2 per 10,000 population). Putnam County had the lowest cardiovascular hospitalization rate at 76.9 per 10,000 population Figure 10.13.

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Figure 10.13: Cardiovascular Hospitalization, Age-Adjusted Rate per 10,000, 2019–2021

Table 10.14: Cardiovascular Hospitalization, Age-Adjusted Rate per 10,000, 2019–2021

Table 10.14									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NY
2019-2021	102.3	116.1	76.9	81.1	129.9	109.6	90.9	99.3	111.1

i Source

NYS Community Health Indicator Reports Dashboard, March 2025 sourced from NY Statewide Planning and Research Cooperative System https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The 2018 population estimates are also used to calculate 2019 and 2020 rates. The ICD-10 codes used for cardiovascular disease are: I00-I99.

From 2014–2021, the rates of cardiovascular mortality generally trended downward for most of the M-H Region counties. The exceptions were Dutchess County, which experienced an increase from 2020–2021 (213.6 to 220.2 per 100,000 population), as well as an overall increase from 2014 to 2021 (from 209.8 to 220.2 per 10,000 population), and Ulster County, which experienced an increase from 2020–2021 (from 218.6 to 224.5 per 10,000 population) but an overall decrease from 2014 to 2021 (from 228.8 to 224.5 per 10,000 population). By contrast, both NYS and NYS excluding NYC experienced overall decreases from 2014–2021 and from 2020–2021 Figure 10.14.

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Figure 10.14: Cardiovascular Disease Mortality, Age-Adjusted Rate Per 100,000 Population, 2018–2021

Table 10.15: Cardiovascular Disease Mortality, Age-Adjusted Rate Per 100,000 Population, 2018–2021

Table 10.15

Year	Three Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	202.5	197.7	188.1	174.5	206.0	207.0	175.9	210.3	211.1
2019	205.8	201.8	194.8	180.6	215.8	208.5	181.2	205.5	208.6
2020	213.6	199.5	184.2	180.7	226.6	218.6	178.0	214.2	230.8
2021	220.2	198.4	177.9	176.0	235.5	224.5	177.2	211.1	206.2

Source

NYS Community Health Indicator Reports Dashboard, March 2025 sourced from Vital Statistics of NYS https://webbi1.health.ny.gov/SASStored-Process/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

Note

Note: This indicator includes deaths with cardiovascular disease as the primary cause of death. The ICD-10 codes for cardiovascular disease are: I00-I99.

10.3.4 Hypertension

As mentioned previously, hypertension is one of several risk factors for cardiovascular disease. Hypertension, or high blood pressure, occurs when the force of blood against the arteries becomes high enough to cause diseases such as cardiovascular disease. It is calculated based on the pressure in the arteries when the heart beats (systolic pressure) and the pressure in the arteries between heart beats (diastolic pressure) (92). Hypertension is defined as having a systolic blood pressure greater than 130 mmHg and a diastolic blood pressure greater than 80 mmHg (or being on medication for hypertension). Almost half of adults in the U.S. (48.1%) have hypertension, and less than a quarter of those (22.5%) have their hypertension under control (93).

Steps to controlling high blood pressure include measuring blood pressure on a regular basis, maintaining a healthy weight, managing other health-related conditions such as diabetes, creating a care plan with your health care team, and taking blood pressure medications as prescribed by a physician (94).

From 2016 to 2021, the age-adjusted percentage of adults with physician-diagnosed hypertension decreased for most counties in the M-H Region, as

well as across NYS as a whole and NYS excluding NYC. Exceptions include Putnam County, which increased from 21.1% in 2016 (the lowest in the region that year) to 27.9% in 2021 (the third highest in the region that year). Dutchess County experienced a more modest increase, from 27.5% in 2016 to 28.2% in 2021. Sullivan County experienced the greatest decrease from 2016 to 2021, changing from the county with the highest age-adjusted percentage of adults with physician-diagnosed high blood pressure in 2016 (31.7%) to the lowest in the region in 2021 (22.3%) Figure 10.15.

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Figure 10.15: Age-Adjusted Percentage of Adults with Physician Diagnosed High Blood Pressure, 2016 and 2021

Table 10.16: Age-Adjusted Percentage of Adults with Physician Diagnosed High Blood Pressure, 2016 and 2021

Table 10.16									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	27.5	30.4	21.1	28.1	31.7	29.4	24.2	26.7	29.4
2021	28.2	29.1	27.9	26.0	22.3	27.8	22.9	25.9	27.6

i Source

NYSDOH Behavioral Risk Factor Surveillance System, March 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?” Based on the responses to this question, a person has High Blood Pressure if they answered yes, and this excludes females who were told this only while they were pregnant.

10.3.5 Cerebrovascular Disease

Cerebrovascular disease is a term for a series of conditions (such as stroke, brain aneurysm, brain bleed, and carotid artery disease) that affect the blood vessels of the brain. Stroke is the most common type of cerebrovascular disease, and it

occurs when blood supply to the brain is blocked, which can lead to extensive damage to the brain and even death. There are three main types of stroke: ischemic stroke, hemorrhagic stroke, and transient ischemic attack (TIA) (95). Ischemic strokes are the most common type of strokes; they occur when blood clots or plaques block the blood vessels to the brain, causing the brain to receive decreased oxygen. A hemorrhagic stroke occurs when a blood vessel bursts inside the brain, resulting in blood build-up in the tissues and causing severe damage. A TIA, also called a mini-stroke, occurs when blood flow is blocked to the brain for a short period of time, usually five minutes or less. More than a third of people who have a TIA and do not receive treatment have a major stroke within one year of the TIA (96).

It is important to recognize the signs and symptoms of a stroke so action can be taken quickly. Signs of a stroke include numbness in the face or extremities, often on one side of the body; confusion or difficulty speaking; vision problems; loss of balance or lack of coordination; or a severe headache (97). Some risk factors for a stroke include lifestyle behaviors such as a fatty diet, decreased physical activity, use of illicit drugs, drinking too much alcohol, and cigarette smoking, as well as medical conditions including high blood pressure, high cholesterol, and diabetes, other types of cardiovascular disease, and other factors such as family history and being aged 55 years and older (98).

Recent data from 2019–2021 show that Sullivan County had the highest stroke hospitalization rate among the seven counties in the M-H Region, while Putnam had the lowest rate (23.6 and 14.7 per 10,000 population, respectively) Figure 10.16.

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Figure 10.16: Cerebrovascular Disease Hospitalization, Age-Adjusted Rate per 10,000 Population, 2019–2021

Table 10.17: Cerebrovascular Disease Hospitalization, Age-Adjusted Rate per 10,000 Population, 2019–2021

Table 10.17									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NY
2019-2021	18.7	21.9	14.7	17.7	23.6	19.4	17.8	18.7	19.9

i Source

NYS Community Health Indicator Reports Dashboard, March 2025
sourced from NY Statewide Planning and Research Cooperative
System Cooperative System <https://webbi1.health.ny.gov/SASStored->

Process/guest?__program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: This indicator includes deaths with cerebrovascular disease as the primary cause of death. The ICD-10 codes for cerebrovascular disease are: I60-I69.

When stratified by race and ethnicity, the age-adjusted cerebrovascular disease hospitalization rate per 10,000 from 2020–2022 shows that non-Hispanic Black adults had higher rates of stroke hospitalization compared to other racial and ethnic groups in the majority of the counties in the M-H Region, as well as in NYS and NYS excluding NYC. This excludes Putnam and Dutchess Counties, where non-Hispanic White adults had higher stroke hospitalization rates than Hispanics and non-Hispanic Blacks Figure 10.17.

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Figure 10.17: Cerebrovascular Disease Hospitalization, Age-Adjusted Rate per 10,000 Population by Race and Ethnicity, 2020–2022

Table 10.18: Cerebrovascular Disease Hospitalization, Age-Adjusted Rate per 10,000 Population by Race and Ethnicity, 2020–2022

Table 10.18								
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS e
Non-Hispanic White	15.7	17.6	12.8	12.6	20.8	17.3	11.8	16.7
Non-Hispanic Black	12.8	29.4	8.0*	21.1	36.5	20.4	27.8	33.1
Asian/Pacific Islander	5.0	16.0	13.6	6.9	14.1*	9.1*	7.7	11.2
Hispanic	9.1	15.4	11.0	15.1	12.8	11.2	10.5	15.4

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System <https://www.health.ny.gov/statistics/community/minority/county/index.htm>

i Note

*: The rate is unstable. Note: Cerebrovascular disease is also known as stroke. The ICD-10 codes for cerebrovascular disease are: I60-I69.

From 2018 to 2021, age-adjusted cerebrovascular disease mortality rates per 100,000 population remained relatively stable in counties in the M-H Region. Some counties experienced modest increases during this time. Orange County increased from 25.0 per 100,000 in 2018 to 26.0 per 100,000 in 2021, Westchester County increased from 21.6 per 100,000 in 2018 to 22.2 in 2021, and Putnam County increased from 20.1 per 100,000 in 2018 to 21.4 per 100,000 in 2021. Other counties experienced modest decreases during this time. Dutchess County decreased from 22.8 per 100,000 in 2018 to 21.8 per 100,000 in 2021, Rockland County decreased from 24.3 per 100,000 in 2018 to 23.1 per 100,000 in 2021, and Ulster County decreased from 26.1 per 100,000 in 2018 to 25.3 per 100,000 in 2021. The county that experienced the most significant decrease during this time was Sullivan County, which decreased from 26.2 per 100,000 in 2018 to 23.5 per 100,000 in 2021. Compared to the M-H Region, NYS and NYS excluding NYC both experienced larger increases in age-adjusted cerebrovascular disease mortality rates per 100,000 population from 2018–2021. NYS increased from 24.1 per 100,000 to 25.7 per 100,000 during the time period, and NYS excluding NYC increased from 27.3 per 100,000 to 28.7 per 100,000 during the time period Figure 10.18.

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Figure 10.18: Cerebrovascular Disease Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.19: Cerebrovascular Disease Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.19									
	Three Year Average							Single Year	
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	22.8	25.0	20.1	24.3	26.2	26.1	21.6	27.3	24.1
2019	22.1	25.7	19.4	22.1	24.9	24.2	21.6	27.0	23.9
2020	22.7	25.1	21.3	24.3	23.6	25.1	20.8	26.7	25.1
2021	21.8	26.0	21.4	23.1	23.5	25.3	22.2	28.7	25.7

i Source

NYS Community Health Indicator Reports Dashboard, March 2025 sourced from Vital Statistics of NYS https://webbi1.health.ny.gov/SASStored-Process/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: This indicator includes deaths with cerebrovascular disease as the primary cause of death. The ICD-10 codes for cerebrovascular disease are: I60-I69.

When stratified by race and ethnicity, the age-adjusted cerebrovascular disease mortality rates per 100,000 population from 2020–2022 differ from county to county. However, the majority of counties in the M-H Region (as well as NYS and NYS excluding NYC) had higher rates of non-Hispanic Black adults who died from a stroke relative to non-Hispanic Whites and Hispanics. Ulster County is the lone exception, with the Hispanic adult population (31.2 per 100,000) having a higher rate of stroke mortality than non-Hispanic Whites (25.1 per 100,000) and non-Hispanic Blacks (23.1 per 100,000). It must be noted that the rate for non-Hispanic Blacks during this period is statistically unstable [see Figure 104].

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Figure 10.19: Cerebrovascular Disease Mortality, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.20: Cerebrovascular Disease Mortality, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.20									
Year	Three Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	22.8	25.0	20.1	24.3	26.2	26.1	21.6	27.3	24.1
2019	22.1	25.7	19.4	22.1	24.9	24.2	21.6	27.0	23.9
2020	22.7	25.1	21.3	24.3	23.6	25.1	20.8	26.7	25.1
2021	21.8	26.0	21.4	23.1	23.5	25.3	22.2	28.7	25.7

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from Vital Statistics of NYS <https://www.health.ny.gov/statistics/community/minority/county/index.htm>

i Note

*: The rate is unstable. Note: This indicator includes deaths with cerebrovascular disease as the primary cause of death. ICD-10 codes are: I60-I69.

10.3.6 Coronary Heart Disease

In the U.S., Coronary Heart Disease (CHD), also known as coronary artery disease, is the most common type of cardiovascular disease (99). The buildup of plaque, deposits of fat, cholesterol, and other substances in the arteries that supply the heart cause CHD. This can lead to chest pain or discomfort (angina) or even a heart attack if the arteries become completely blocked. The good news is that you can do a lot to decrease your risk and prevent and manage CHD through healthy habits like eating well, being active, avoiding tobacco, and managing stress (100).

Data from 2021 show that Sullivan County had the highest CHD hospitalization rate of the seven counties in the M-H Region, and Rockland had the lowest rate (28.9 and 14.6 per 10,000 population, respectively). However, the rate in the M-H Region as a whole was still lower than the rates in NYS and NYS excluding NYC (18.0 vs 20.2 and 20.1 per 10,000 population, respectively) Figure 10.20.

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Figure 10.20: Coronary Heart Disease Hospitalization, Age-Adjusted Rate per 10,000, 2021

Table 10.21: Coronary Heart Disease Hospitalization, Age-Adjusted Rate per 10,000, 2021

Table 10.21									
Year	Three-Year Average			Rockland	Sullivan	Ulster	Westchester	Single-Year Mid-Hudson	NYS exc
	Dutchess	Orange	Putnam						
2021	16.7	22.4	14.9	14.6	28.9	20.1	16.3	18.0	20.1

i Source

NYS Community Health Indicator Reports Dashboard, April 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

Note: Three-year averages are used for counties, and single-year estimates are used for Mid-Hudson and NYS.

When stratifying this data by race and ethnicity, trends are not consistent through each county. For example, non-Hispanic White adults had higher CHD hospitalization rates compared to the other racial/ethnic groups in Dutchess, Putnam, and Ulster Counties. In Rockland Asian and Pacific Islander adults had higher CHD hospitalization rates compared to other racial and ethnic groups. However, in the remaining counties, NYS excluding NYC, and NYS, non-Hispanic Black adults had higher CHD hospitalization rates except that Hispanics for the state had higher rates. Figure 10.21.

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Figure 10.21: Coronary Heart Disease Age-Adjusted Hospitalization Rate per 10,000 by Race/Ethnicity, 2020–2022

Table 10.22: Coronary Heart Disease Age-Adjusted Hospitalization Rate per 10,000 by Race/Ethnicity, 2020–2022

Table 10.22								
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS e
Non-Hispanic White	15.2	19.3	13.7	12.3	24.8	17.9	11.4	17.8
Non-Hispanic Black	5.0	21.2	13.0	11.3	30.4	16.3	14.7	19.3
Asian/Pacific Islander	7.2	9.3	s	14.7	15.2	7.1*	8.0	14.7
Hispanic	9.6	17.6	6.4	14.2	25.6	13.6	8.3	15.2

i Source

NYS County Health Indicators by Race and Ethnicity, February 2025 https://www.health.ny.gov/community/health_equity/reports/county/county_list.htm

i Note

*: The rate is unstable. s: Data are suppressed due to not meeting confidentiality criteria. Note: Three-year age-adjusted rates.

When looking at recent data from 2021, the heart attack hospitalization rate was highest in Sullivan County (20 per 10,000 population). This rate was higher than rates in the M-H Region, NYS excluding NYC, and NYS (10.4, 12.0, and 10.9 per 10,000 population, respectively) Figure 10.22.

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Figure 10.22: Heart Attack, Age-Adjusted Hospitalization Rate per 10,000 population, 2021

Table 10.23: Heart Attack, Age-Adjusted Hospitalization Rate per 10,000 population, 2021

Table 10.23									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2021	10.9	14.4	7.9	8.6	20.0	12.0	8.7	10.4	12.0

i Source

NYS Community Health Indicator Reports Dashboard, September 2025 sourced from NY Statewide Planning and Research Cooperative System, February 2025 https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/

i Note

Note: Three-year averages are used for counties, and single-year estimates are used for Mid-Hudson and NYS.

CHD mortality rates have overall increased from 2018 to 2021 in most M-H Region counties, with the exception of Putnam County. The rate in NYS excluding NYC stayed relatively constant, with an increase in 2020, before decreasing in 2021. Similarly, the rate in NYS overall saw an increase from 2019 to 2020, before decreasing in 2021Figure 10.23.

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Figure 10.23: Congestive Heart Failure Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.24: Congestive Heart Failure Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.24									
Heart Failure Mortality	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	
2018	13.9	18.1	13.9	13.1	16.2	16.4	9.4	15.4	
2019	15.1	16.3	13.1	13.6	16.2	14.3	8.9	N/A	
2020	15.3	17.6	13.0	13.4	18.9	12.3	8.7	N/A	
2021	15.9	16.3	9.5	13.7	22.3	13.8	8.5	13.6	

i Source

NYS Community Health Indicator Reports Dashboard, September 2025 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: Three-year age-adjusted rates for counties and single-year age-adjusted rates for NYS and NYS excluding NYC are used in both the table and graph above.

As mentioned previously, complete blockage of arteries can lead to a heart attack, otherwise known as a myocardial infarction. During a heart attack, part of the heart muscle does not receive enough blood flow and the more time that passes, the greater the damage to the heart muscle (101). Heart attacks may also be caused by coronary artery disease that may be induced by poor lifestyle choices such as illicit drug use or smoking cigarette and lack of exercise. In the US, 805,000 Americans have a heart attack every year and one in five of these heart attacks were silent (102). Men aged 45 years and older and women aged 55 years and older are more likely to have heart attacks compared to other age groups (103). The major symptoms of a heart attack include Chest pain or discomfort, light-headedness, cold sweat, pain or discomfort in the jaw neck or back, both arms or shoulders (101).

Stratifying by race and ethnicity, the trends vary by county. Non-Hispanic Black adults had higher CHD mortality rates in Dutchess, Westchester, and Rockland

counties, as well as NYS and NYS excluding NYC. In contrast, nonHispanic White adults had higher CHD mortality rates in Ulster and Sullivan Counties Figure 10.24.

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Figure 10.24: Coronary Heart Disease, Age-Adjusted Hospitalization Rate per 10,000 by Race/Ethnicity, 2020–2022

Table 10.25: Coronary Heart Disease, Age-Adjusted Hospitalization Rate per 10,000 by Race/Ethnicity, 2020–2022

Table 10.25								
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS e
Non-Hispanic White	15.2	19.3	13.7	12.3	24.8	17.9	11.4	17.8
Non-Hispanic Black	5.0	21.2	13.0	11.3	30.4	16.3	14.7	19.3
Asian/Pacific Islander	7.2	9.3	s	14.7	15.2	7.1*	8.0	14.7
Hispanic	9.6	17.6	6.4	14.2	25.6	13.6	8.3	15.2

i Source

NYS County Health Indicators by Race and Ethnicity, September 2025
https://www.health.ny.gov/community/health_equity/reports/county/

i Note

*: The rate is unstable.

From 2018–2021, heart attack mortality rates have been highest in Sullivan County and lowest in Westchester County. Dutchess County shows a steady increase, from 21.1 in 2018 to 28.7 in 2021 Figure 10.25.

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Figure 10.25: Heart Attack Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.26: Heart Attack Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.26

Mortality	Three-Year Average							Single-Year NYS excl NYC	N
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester		
2018	21.1	22.3	16.7	35.9	39.9	20.9	15.9	25.9	2
2019	24.7	23.3	17.4	37.6	44.4	19.7	16.1	23.7	2
2020	27.2	21.8	16.7	36.1	41.7	20.3	15.6	25.7	2
2021	28.7	20.7	15.7	33.2	43.7	19.2	15.9	24.1	2

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabs/vis/PHIG_Public/chirs/reports/#county

i Note

Note: Three-year averages are used for counties, and single-year estimates are used for NYS excluding NYC, and NYS.

When looking at congestive heart failure (CHF) mortality rates from 2018–2021, apart from some slight fluctuations, NYS excluding NYC has trended down from the two data points, while NYS slightly decrease in 2019 and 2020 and increase back in 2021. In the M-H Region, trends varied by county. Sullivan County experiences a slight increase in rate of 3.4 per 100,000, marking the county to be the highest in Congestive Heart Failure Mortality amongst the counties. Counties such as Orange, Putnam, and Westchester experienced decreases over the years, while the remaining counties experienced slight increase Figure 10.26.

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Figure 10.26: Congestive Heart Failure Mortality, Age-Adjusted Rate per 100,000 population, 2018-2021

Table 10.27: Congestive Heart Failure Mortality, Age-Adjusted Rate per 100,000 population, 2018-2021

Table 10.27								
Heart Failure Mortality	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2018	13.9	18.1	13.9	13.1	16.2	16.4	9.4	15.4
2019	15.1	16.3	13.1	13.6	16.2	14.3	8.9	N/A
2020	15.3	17.6	13.0	13.4	18.9	12.3	8.7	N/A
2021	15.9	16.3	9.5	13.7	22.3	13.8	8.5	13.6

i Source

US Census Bureau; American Community Survey, 2023 American Community Survey , Table, 2025

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabis/PHIG_Public/chirs/reports/#county

i Note

Note: The ICD-10 code for congestive heart failure is: I50.

10.3.7 Diabetes

In the U.S., diabetes is the seventh leading cause of death. Diabetes is a chronic condition that changes how your body uses sugar (glucose) for energy. Normally, insulin helps sugar from food enter your cells, but with diabetes, this process does not work properly.

There are two main types:

- Type 1 Diabetes: The body's immune system attacks the cells that make insulin, so the body produces little or no insulin. People with Type 1 diabetes need to take insulin as daily maintenance (104).
- Type 2 Diabetes: The body either does not make enough insulin or does not use it well. This is the most common type, affecting about 90% of people with diabetes (105).

Before full diabetes, some people have prediabetes, meaning their blood sugar runs higher than normal. The good news is that people can often reduce their

risk of, or delay, type 2 diabetes. Staying active, losing weight, eating a healthy diet, and having regular checkups with a doctor are all important.

Figure 10.27 shows that, in 2021, 10.6% of adults in the M-H Region were diagnosed with prediabetes by a physician, which is lower than NYS (11.4%) and higher than NYS excluding NYC (10.1%). Sullivan County had the highest percentage diagnosed with prediabetes (13.3%), and Ulster County had the lowest (6.0%). According to the U.S. Diabetes Surveillance System (USDSS), 11.6% of the U.S. population aged 18 years and older was diagnosed with diabetes in 2021 (106).

Diabetes is also the 8th leading cause of death in the U.S. (107). The M-H Region percentage diagnosed with diabetes (9.0%) is lower than both NYS excluding NYC (9.4%) and NYS (10.2%). In the M-H Region, Rockland County had the highest percentage diagnosed with diabetes at 9.4%.

Some risk factors for diabetes include family history (genetics), age, and polycystic ovary syndrome. Modifiable risk factors include weight and diet. Unhealthy behaviors to avoid include tobacco use, alcohol use, and a sugary diet. Healthy behaviors to adopt include a balanced diet and increased physical activity, such as daily walks. Uncontrolled diabetes can result in serious morbidities over time, including heart disease, limb loss, vision loss (retinopathy), and kidney disease. According to the American Diabetes Association (ADA), the health care industry spent \$306.6 billion in direct medical costs in 2022 to manage the effects of diabetes (108).

Figure 112: “Diabetes, Age-Adjusted Percentage of Adults with Prediabetes and Diabetes, 2021”—>

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Figure 10.27: Percentage of Adults with Physician Diagnosed Prediabetes and Diabetes, 2021

Table 10.28: Percentage of Adults with Physician Diagnosed Prediabetes and Diabetes, 2021

Table 10.28									
Condition	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
Prediabetes	12.7	12.4	6.7	12.6	13.3	6.0	10.7	10.6	11.4
Diabetes	9.1	7.3	4.7	9.4	7.9	11.4	8.6	9.0	10.2

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/about_data

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Have you ever been told by a doctor or other health professional that you have prediabetes or borderline diabetes?” This excludes females who were told this only while they were pregnant.

In 2021, diabetes hospitalization rates varied across the seven counties in the M-H Region. According to Figure 10.29, Sullivan County had the highest hospitalization rate at 213.3 per 10,000 population and Putnam County had the lowest rate at 115.1 per 10,000 population. These rates are compared to the NYS at 196.6 per 10,000 population.

Figure 113: “Diabetes Hospitalization, Age-Adjusted Rate per 10,000, 2021”—>

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Figure 10.28: Diabetes Hospitalization, Age-Adjusted Rate per 10,000 Population, 2021

Table 10.29: Diabetes Hospitalization, Age-Adjusted Rate per 10,000 Population, 2021

Table 10.29									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2021	168.5	195.4	115.1	158.1	213.3	170.5	157.3	165.5	176.6

When stratifying this data by race and ethnicity, diabetes hospitalization rates were highest among the nonHispanic Black population in NYS and NYS excluding NYC, along with five out of seven counties in the M-H Region. However, in Sullivan County, non-Hispanic White adults had the highest hospitalization rate (188.1 per 10,000 population). Dutchess and Putnam Non-Hispanic White adults had the highest hospitalization rates Figure 10.29.

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Figure 10.29: Diabetes Hospitalization, Age-Adjusted Rate per 10,000 by Race and Ethnicity, 2020–2022

Table 10.30: Diabetes Hospitalization, Age-Adjusted Rate per 10,000 by Race and Ethnicity, 2020–2022

Table 10.30								
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS e
Non-Hispanic White	140.6	157.2	105.3	113.7	188.1	149.7	87.6	145.5
Non-Hispanic Black	122.9	298.3	67.8	251.3	372.4	251.8	272.2	334.5
Asian/Pacific Islander	59.5	91.1	49.4	87.3	93.6	79.7	66.5	112.0
Hispanic	127.6	185.6	87.2	176.8	207.2	172.9	118.6	183.9

Source

NYS County Health Indicators by Race and Ethnicity Dashboard, April 2025 sourced from NY Statewide Planning and Research Cooperative System https://www.health.ny.gov/community/health_equity/reports/county/

Note

Note: This indicator includes hospitalizations with diabetes as the primary and/or other diagnosis referred to as “any diagnosis.” The ICD10 codes for diabetes are: E10-E14.

To avoid the consequences of uncontrolled diabetes, many adults get their blood sugar tested by their medical provider. In 2021, the percentage of adults who had a test for high blood sugar or diabetes within the past three years was very similar across the M-H Region, with Rockland County the lowest at 45.4% and Putnam County the highest at 57.7%, as well as NYS and NYS excluding NYC. From 2013 to 2018, all seven counties, as well as NYS excluding NYC and NYS, had decreases in the percentage of adults who got their blood sugar tested, but by 2021, Orange, Putnam, Ulster, and Westchester had increases in adults testing for high blood sugar or diabetes Figure 10.30.

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Figure 10.30: Percentage of Adults Who Had a Test for High Blood Sugar or Diabetes Within the Past Three Years, 2013–2014, 2016, 2018, and 2021

Table 10.31: Percentage of Adults Who Had a Test for High Blood Sugar or Diabetes Within the Past Three Years, 2013–2014, 2016, 2018, and 2021

Table 10.31									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NY
2013-2014	56.4	57.7	59.3	59.5	55.5	51.8	57.8	57.4	57.2
2016	60.8	59.5	55.9	57.9	61.8	55.3	55.2	57.4	56.8
2018	48.1	50.7	50.0	53.2	55.6	45.4	51.1	50.2	48.0
2021	47.7	55.3	57.7	45.4	53.9	47.0	51.3	49.7	49.2

Source

NYS County Health Indicators by Race and Ethnicity Dashboard, April 2025 sourced from NY Statewide Planning and Research Cooperative System https://www.health.ny.gov/community/health_equity/reports/county/

Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, "Have you had a test for high blood sugar or diabetes within the past three years?" This excludes females who were told this only while they were pregnant.

From 2018 to 2021, diabetes mortality rates varied across the seven counties in the M-H Region. Sullivan County consistently experienced the highest rate in the M-H Region and was the only county to exceed both the NYS and NYS excluding NYC rates each year. Five out of the seven counties saw increases in the diabetes mortality rate from 2018 to 2021 Figure 10.31.

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Figure 10.31: Diabetes Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 10.32: Diabetes Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	13.4	16.2	9.2	12.4	21.6	15.0	11.2	16.6	18.0
2019	13.9	17.4	13.9	13.1	20.9	15.7	13.2	N/A	18.1
2020	13.9	17.9	17.2	13.0	23.3	16.0	13.6	N/A	21.6
2021	14.0	18.4	18.6	15.2	25.5	15.9	13.5	19.9	18.7

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/about_data

i Note

Note: This indicator includes deaths with diabetes as the primary cause of death. The ICD-10 codes for diabetes are: E10-E14.

When stratifying data by race and ethnicity, diabetes mortality rates were highest among the non-Hispanic Black population in NYS, NYS excluding NYC, and majority of counties in the M-H Region except Putnam and Ulster. The highest diabetes mortality rate among Non-Hispanic White in the M-H Region was Sullivan and lowest was Westchester Figure 10.32.

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Figure 10.32: Diabetes Mortality, Age-Adjusted per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.33: Diabetes Mortality, Age-Adjusted per 100,000 Population by Race and Ethnicity, 2020–2022

Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS e
Non-Hispanic White	12.0	16.6	18.6	11.6	23.7	14.9	9.8	18.5
Non-Hispanic Black	40.8	33.3	18*	29.4	74.8	28*	30.7	38.7
Asian/Pacific Islander	4.9*	6.8*	13.4*	17.8	47.3*	34.1*	8.2	16.5
Hispanic	4.0	25.6	20.7*	11.8	16.3*	16.3*	16.5	17.6

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, April 2025 sourced from Vital Statistics of NYS https://www.health.ny.gov/community/health_equity/reports/county/

i Note

*: The rate is unstable. Note: This indicator includes deaths with diabetes as the primary cause of death. The ICD-10 codes for diabetes are: E10-E14.

10.3.8 Obesity

Obesity is a chronic and serious disease in which an individual's weight is higher than what is considered healthy for their height. It poses substantial health risks across the population. For example, people with obesity are at greater risk of developing other conditions, including diabetes, heart disease, hypertension, cancer, and renal failure (109). At the same time, many factors that influence obesity are beyond individual control, including environmental and emotional factors such as stress. This disease is preventable and manageable through a moderate caloric deficit, regular physical activity, and ongoing consultation with a medical provider.

In 2021, among the seven counties in the M-H Region, Orange County had the highest percentage of adults who were overweight or obese (75.1%), and Westchester County had the lowest (59.4%). The prevalence in NYS and NYS excluding NYC was 66.7% in both groups. Since 2013, Putnam County, NYS, and NYS excluding NYC had increases in the percentage of adults who were overweight or obese. Sullivan, Ulster, and Westchester Counties had decreases in the percentage of adults who were overweight or obese Figure 10.33.

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Figure 10.33: Percentage of Adults Overweight or Obese, 2013–2014, 2016, 2018, 2021

Table 10.34: Percentage of Adults Overweight or Obese, 2013–2014, 2016, 2018, 2021

Table 10.34								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2013–2014	63.7	67.6	59.0	64.2	63.0	59.9	58.2	62.3
2016	61.2	69.6	52.5	55.6	64.6	64.4	56.2	63.6

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2018	61.6	64.7	63.7	59.4	69.9	63.2	59.7	64.4
2021	67.1	75.1	65.1	62.5	64.9	62.5	59.4	66.7

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/about_data

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “About how much do you weigh without shoes?” and “About how tall are you without shoes?” Based on the responses to these questions, Body Mass Index is calculated using the formula: weight in kilograms divided by height in meters squared (kg/m²). Respondents are classified as obese based on BMI 30.00 or higher. Respondents are classified as overweight based on BMI between 25.00 and 29.9.

Obesity poses substantial health risks in the U.S. population because of its association with higher mortality, reduced life expectancy, and many chronic diseases. People with obesity are at greater risk of developing other conditions, including diabetes, heart disease, hypertension, cancer, and renal failure. Obesity is also costly: as of 2019, annual medical costs were \$1,861 higher per person compared with people with normal weight (110). Eating calorie-dense food without a corresponding increase in physical activity increases the risk of obesity. Many factors contribute to obesity, including stress, environmental conditions, and behavioral factors. Everyday stress can indirectly affect obesity by contributing to overconsumption of food, increased alcohol intake, and a less active lifestyle, which can result in weight gain (111).

Recent data show that more than 40% of adults aged 20 years and older in the U.S. are obese (110). Comparing data from 2018 to 2021, there were changes in the percentage of the population with obesity in each M-H Region county Figure 10.34. Most counties experienced an increase, while one county experienced a decrease: Rockland (27.0% to 23.1%). In 2021, Orange County had the highest obesity rate across the seven counties at 38.5%, which was above both NYS and NYS excluding NYC (32.1% and 29.8%, respectively).

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Figure 10.34: Percentage of Adults who are Obese, 2013–2014, 2016, 2018, and 2021

Table 10.35: Percentage of Adults who are Obese, 2013–2014, 2016, 2018, and 2021

Table 10.35								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2013–2014	25.5	32.5	20.5	23.1	27.7	26.4	21.0	N/A
2016	27.0	29.7	19.2	20.7	32.9	31.8	17.7	23.1
2018	27.4	24.3	27.8	27.0	38.9	28.0	24.1	25.3
2021	31.4	38.5	31.6	23.1	33.3	32.3	26.5	29.8

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/about_data

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents “About how much do you weigh without shoes?” and “About how tall are you without shoes?” Based on the responses to these questions, Body Mass Index is calculated using the formula: weight in kilograms divided by height in meters squared (kg/m^2). Respondents are classified as obese based on BMI 30.00 or higher. Respondents are classified as overweight based on BMI between 25.00 and 29.9.

In 2007, the Student Weight Status Category Reporting System (SWSCRS) was established through amendments to NYS Education Law to help the state and counties address increasing rates of obesity among school-aged children. Looking at the combined prevalence of overweight and obesity among school-aged children from 2014 to 2023, trends were similar across counties. Westchester County had a slight decrease, while Sullivan and Ulster Counties had the highest percentages of students who were overweight or obese compared with the other M-H Region counties and NYS excluding NYC Figure 10.35.

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Figure 10.35: Percentage of School-Aged Children and Adolescents Who Are Overweight or Obese, 2014–2023

Table 10.36: Percentage of School-Aged Children and Adolescents Who Are Overweight or Obese, 2014–2023

Table 10.36								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2014–2016	33.8	33.0	31.4	34.2	39.0	37.0	27.8	33.9
2016–2018	33.5	36.2	32.1	33.9	37.7	37.0	28.6	33.7
2019–2021	35.5	35.2	32.9	34.0	41.2	38.2	31.0	34.8
2021–2023	35.7	38.7	34.7	36.1	41.6	40.4	29.6	N/A

i Source

NYS Community Health Indicator Reports Dashboard, April 2025 sourced from NYS Student Weight Status Category Reporting System https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

Note: Overweight is defined as a body mass index (BMI) at or above the 85th percentile and below the 95th percentile. Obesity is defined as BMI greater than or equal to the 95th percentile. Counties outside NYC: grades pre-K, K, 2nd, 4th, 7th, and 10th prior to the 2019–2020 school year; grades pre-K, K, 1st, 3rd, 5th, 7th, 9th, and 11th starting with the 2019–2020 school year; data collected over two school years. Due to changes in Student Weight Status Category Reporting System data collection during the 2019–2020 school year, estimates from the 2019–2021 school years may not be directly comparable to previous school years.

10.3.9 Cirrhosis of the Liver

Cirrhosis occurs when scarring permanently damages the liver and hinders it from functioning normally. It can eventually lead to liver failure and other complications, such as liver cancer and an increased risk of infections, Figure 10.36. Common causes of cirrhosis include alcohol-associated liver disease, nonalcoholic fatty liver disease, and chronic hepatitis C or hepatitis B infection. Early symptoms can vary widely. In some cases, there may be no symptoms until the liver is badly damaged. However, early symptoms can include itching of the skin, poor appetite, nausea, vomiting, and mild pain in the upper-right side of the abdomen. Later-stage symptoms can include bruising easily, edema, and jaundice, Figure 10.37.

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Figure 10.36: Cirrhosis Hospitalization, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 10.37: Cirrhosis Hospitalization, Age-Adjusted Rate per 10,000 Population, 2020–2022

Table 10.37									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NY
2020–2022	4.6	4.0	3.0	3.0	2.9	5.1	3.4	3.7	3.8

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The ICD-10 code for cirrhosis is: K70, K73-K74.

Between 2014 and 2021, cirrhosis mortality rates fluctuated across M-H Region counties. Of note, Dutchess and Putnam Counties saw sharp increases in cirrhosis mortality rates between 2018 and 2021 Figure 10.37.

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Figure 10.37: Cirrhosis Mortality, Age-Adjusted Rate per 100,000 Population, 2014–2021

Table 10.38: Cirrhosis Mortality, Age-Adjusted Rate per 100,000 Population, 2014–2021

Table 10.38								
Year	Three-Year Average							Single-Year
Year	Dutchess	Orange	Orange	Orange	Orange	Orange	Orange	NYS
2014	6.9	6.6	6.6	6.6	6.6	6.6	6.6	6.7
2015	6.1	6.0	6.0	6.0	6.0	6.0	6.0	6.7
2016	5.8	6.4	6.4	6.4	6.4	6.4	6.4	6.9
2017	5.4	7.1	7.1	7.1	7.1	7.1	7.1	7.0
2018	4.9	7.5	16.5	7.5	7.5	7.5	7.5	6.9
2019	6.3	7.3	7.3	7.3	7.3	7.3	7.3	6.9
2020	8.1	7.8	7.8	7.8	7.8	7.8	7.8	8.0

Year	Three-Year Average							Single-Year
2021	8.8	8.3	8.3	8.3	8.3	8.3	8.3	8.2

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NY Statewide Planning and Research Cooperative System https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: Three-year averages are used for counties and single-year rates are used for NYS. The ICD-10 code for cirrhosis is: K70, K73-K74.

10.3.10 Cancer

Cancer is a disease in which cells in the body grow out of control and invade surrounding tissues. Cancer can metastasize, or spread, from one part of the body to another (112). Though the causes of cancer are complex, certain risk factors are associated with a higher chance of developing cancer, such as environmental exposures, health behaviors, and age. Examples include sunlight, radiation, infectious agents, obesity, alcohol, and tobacco (113).

Cancer is one of the leading causes of death across all seven counties in the M-H Region (114). From 2019 to 2021, incidence rates were relatively similar across the seven counties in the M-H Region, as well as NYS Figure 10.38. Putnam County had the highest incidence rate of the seven M-H Region counties at 483.6 cases per 100,000. Orange County had the highest mortality rate, with 156.4 deaths per 100,000 Figure 10.38.

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Figure 10.38: All Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population, 2019–2021

Table 10.39: All Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population, 2019–2021

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYC
Incidence	458.2	462.4	483.6	453.2	438.4	454.1	444.7	452.4	458.2
Mortality	132.2	156.4	117.4	101.6	142.3	138.3	104.5	119.9	124.2

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: Incidence rates of cancers are based on reports from hospitals and other health facilities that diagnose and treat cancer patients. These data include only invasive malignant tumors. For breast and prostate cancers, late-stage incidence rates are presented. “Late stage” is defined as all cancers that have spread beyond the organ of origin at the time of diagnosis.

When all cancer incidence and mortality rates were stratified by sex, males had higher incidence and mortality rates than females in all seven counties, as well as NYS and NYS excluding NYC Figure 10.39.

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Figure 10.39: All Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population by Sex, 2018–2022

Table 10.40: All Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population by Sex, 2018–2022

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl
Incidence - Male	505.0	505.8	507.1	502.8	470.6	481.5	490.4	541.3
Incidence - Female	445.6	447.5	493.6	442.2	433.4	442.6	440.2	471.2

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl
Mortality - Male	154.9	186.5	135.2	116.1	152.4	163.3	120.7	160.1
Mortality - Female	119.1	155.5	103.3	96.2	135.0	123.7	94.8	123.7

i Source

NYS County and New York City Neighborhood Cancer Statistics Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics <https://www.health.ny.gov/statistics/cancer/registry/ratebyCounty.htm>

i Note

Note: Cancer statistics are for invasive cancers only.

10.3.11 Colorectal Cancer

Colorectal cancer (sometimes called colon cancer) is a cancer that starts in the colon or rectum. Symptoms can include blood in the stool, changes in bowel habits, abdominal pain or aches, and unintentional weight loss (115). However, colorectal cancer does not always cause symptoms. Most colorectal cancers begin as polyps. Polyps are abnormal growths that can form in the colon or rectum and may turn into cancer over time if they are not removed. Colorectal cancer screening can detect polyps so they can be removed, which can prevent colorectal cancer from developing (116).

Of the seven counties in the M-H Region, Sullivan County had the highest colorectal cancer incidence rate, closely followed by Ulster County (37.3 and 37.2 per 100,000 population, respectively). Orange County had the highest mortality rate in the region, followed by Sullivan County (13.6 and 13.4 per 100,000 population) Figure 10.40.

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Figure 10.40: Colon and Rectum Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population, 2019–2021

Table 10.41: Colon and Rectum Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population, 2019–2021

Table 10.41									
County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
Incidence	33.5	35.0	28.7	36.0	37.3	37.2	30.6	33.1	35.0

County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
Mortality	9.3	13.6	9.7	9.3	13.4	12.7	8.8	10.1	10.8

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The ICD-10 codes for colon and rectum cancer are: C18, C19, C20 and C26.0.

When stratifying by sex, males had higher colorectal cancer incidence rates across all seven counties in the M-H Region, with the exception of Putnam County, where females had a slightly higher incidence rate than males. Mortality rates were higher in males across all M-H Region counties, as well as in NYS and NYS excluding NYC Figure 10.41.

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Figure 10.41: Colon and Rectum Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population by Sex, 2018–2022

Table 10.42: Colon and Rectum Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population by Sex, 2018–2022

Table 10.42								
County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl
Incidence - Male	39.6	40.7	27.3	41.0	47.3	41.3	35.8	41.4
Incidence - Female	30.3	31.8	29.9	33.3	28.7	31.7	30.1	32.8
Mortality - Male	10.3	17.4	10.3	10.2	12.3	14.9	10.3	13.4
Mortality - Female	7.5	12.7	7.6	8.8	9.8	11.0	7.5	9.8

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics

https://webbi1.health.ny.gov/SASStoredProcess/guest?__program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The ICD-10 codes for colon and rectum cancer are: C18, C19, C20 and C26.0.

When stratifying available data by race and ethnicity, rates differed in most counties. Non-Hispanic White populations had the highest rates of colorectal cancer in the seven counties in the M-H Region. This differed from NYS, where non-Hispanic Black populations had a slightly higher incidence than non-Hispanic White populations (36.5 and 36.4 cases per 100,000 population, respectively) Figure 10.42.

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Figure 10.42: Colorectal Cancer Incidence, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.43: Colorectal Cancer Incidence, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.43							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	35.1	37.8	29.7	37.5	39.2	39.5	31.9
Non-Hispanic Black	30.5	22.2	0.0	31.1	s	s	30.9
Non-Hispanic Asian/Pacific Islander	s	s	s	23.7	s	s	23.4
Hispanic	24.6	29.0	s	38.5	s	s	27.6

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics <https://www.health.ny.gov/statistics/community/minority/county/>

i Note

s: Data are suppressed due to not meeting confidentiality criteria.
Note: The ICD-10 codes for colorectal cancer are: C18-C21, C26.0.

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics <https://www.health.ny.gov/statistics/community/minority/county/>

The US Preventive Services Task Force recommends that adults aged 45 to 75 years receive regular screening for colorectal cancer (117). A colonoscopy, which uses a long, thin, flexible tube to check for polyps or cancer inside the entire colon, is one recommended screening method. Doctors can remove most polyps and some cancers during the procedure. Other screening tests include the guaiac-based fecal occult blood test (gFOBT), which uses a chemical called guaiac to detect blood in the stool, and the fecal immunochemical test (FIT), which uses antibodies to detect blood in the stool (118).

The Healthy People 2030 target for the proportion of adults who get screened for colorectal cancer was 72.8% of adults aged 45 to 75. In 2018, Putnam County had the highest percentage of adults between 50 and 64 years who received colorectal cancer screening (86.3%). Sullivan County had the lowest percentage, with 58.8% of adults between 50 and 64 years receiving screening Figure 10.43.

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Figure 10.43: Percentage of Adults 50–64 Years Old Who Received a Colorectal Cancer Screening Based on the Most Recent Guidelines, 2018

Table 10.44: Percentage of Adults 50–64 Years Old Who Received a Colorectal Cancer Screening Based on the Most Recent Guidelines, 2018

Table 10.44									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	62.2	68.8	64.7	61.9	48.1	60.2	63.7	63.3	63.7
2018	60.6	61.7	86.3	62.3	58.8	68.8	70.0	64.1	66.5

i Source

NYS Prevention Agenda Tracking Dashboard, June 2025 sourced from NYSDOH Behavioral Risk Factor Surveillance System https://webbi1.health.ny.gov/SASStoredProcess/guest?__program=%2FEBI%2FPHIG%2Fapps%2Fdashboard%2Fpa_dashboard&p=ch&cos=33

i Note

Note: For colonoscopy and sigmoidoscopy, the Behavioral Risk Factor Surveillance System asks respondents, “Colonoscopy and sigmoidoscopy are exams to check for colon cancer. Have you ever had either of these exams?” and “Have you had a colonoscopy, a sigmoidoscopy, or both?” and “How long has it been since your most recent colonoscopy?” A general question asks respondents, “Have you ever had any other kind of test for colorectal cancer, such as virtual colonoscopy, CT colonography, blood stool test, FIT DNA, or Cologuard test?” For CT colonography, respondents are asked, “A virtual colonoscopy uses a series of X-rays to take pictures of inside the colon. Have you ever had a virtual colonoscopy?” and “When was your most recent CT colonography or virtual colonoscopy?” For fecal immunochemical tests, respondents are asked, “One stool test uses a special kit to obtain a small amount of stool at home and returns the kit to the doctor or the lab. Have you ever had this test?” and “How long has it been since you had this test?” Based on responses to these questions, a person meets current United States Preventive Services Task Force guidance if they had a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past 10 years.

10.3.12 Lung Cancer

Lung cancer is the leading cause of cancer deaths among both males and females in the M-H Region and NYS. Some symptoms of lung cancer include chest pain, coughing (sometimes with blood), shortness of breath, and wheezing. The leading risk factor for lung cancer is tobacco use. According to the NYSDOH, smoking is responsible for over 80% of lung cancers (119). Another risk factor for lung cancer is radon exposure. Radon is a colorless, radioactive gas that comes from the decay of elements such as uranium, which is found in soil and rock (120). Radon is present in surrounding air, but preventive measures can be taken, such as using radon detection kits. For smoking, preventive measures include abstaining, quitting, and avoiding exposure to secondhand smoke.

From 2018 to 2022, the highest rates of lung cancer incidence were in Orange, Putnam, and Sullivan Counties (59.9, 57.6, and 62.9 per 100,000 population, respectively), which were higher than NYS but consistent with NYS excluding NYC (52.4 and 59.9 per 100,000 population, respectively) Figure 10.44. The Healthy People 2030 goal was to reduce lung cancer mortality to 25.1 deaths per 100,000 population. Only Westchester and Rockland Counties in the M-H Region met this target, and NYS and NYS excluding NYC are close to meeting it Figure 10.44.

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Figure 10.44: Lung and Bronchus Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population, 2018–2022

Table 10.45: Lung and Bronchus Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population, 2018–2022

Table 10.45									
County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	N
Incidence	56.5	59.9	57.6	44.9	62.9	55.1	42.0	59.9	5
Mortality	29.1	37.9	27.7	21.7	35.6	32.6	18.8	31.3	2

i Source

NYS County and New York City Neighborhood Cancer Statistics Dashboard, April 2025 sourced from NYS Cancer Registry and Cancer Statistics <https://www.health.ny.gov/statistics/cancer/registry/ratebyCounty.htm>

i Note

Note: The ICD-10 code for lung and bronchus cancer is: C34.

When stratifying by sex, lung cancer incidence was mixed across the seven counties males had higher incidence in Orange, Ulster, and Westchester as well as in NYS and NYS excluding NYC. Females had higher incidence in Dutchess, Putnam, and Sullivan, with Rockland essentially equal Figure 10.45.

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Figure 10.45: Lung and Bronchus Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population by Sex, 2015–2019

Table 10.46: Lung and Bronchus Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population by Sex, 2015–2019

Table 10.46								
County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl
Incidence (Male)	56.2	63.0	55.9	45.2	56.9	57.8	43.0	62.2
Incidence (Female)	56.8	58.2	59.5	45.3	69.2	52.9	41.6	58.6
Mortality (Male)	31.6	42.9	31.0	25.1	35.7	38.8	21.5	35.5
Mortality (Female)	27.3	34.5	25.2	19.2	35.7	26.9	16.8	28.2

i Source

New York County and New York City Neighborhood Cancer Statistics Dashboard, April 2025 sourced from NYS Cancer Registry and Cancer Statistics <https://www.health.ny.gov/statistics/cancer/registry/ratebyCounty.htm>

i Note

Note: The ICD-10 code for lung and bronchus cancer is: C34.

When stratifying these data by race and ethnicity, non-Hispanic White adults had the highest lung cancer incidence rates in most M-H Region counties and at the state level, with the exception of Ulster and Dutchess Counties, where non-Hispanic Black adults had higher lung cancer incidence rates Figure 10.46.

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Figure 10.46: Lung Cancer Incidence, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.47: Lung Cancer Incidence, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 10.47								
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS e
Non-Hispanic White	59.3	65.9	60.3	51.6	63.1	58.5	44.0	61.6
Non-Hispanic Black	67.1	40.7	s	30.2	s	61.7	35.8	53.4
Asian/Pacific Islander	s	s	s	28.2	0.0	s	27.0	31.5
Hispanic	31.3	37.3	s	31.4	s	s	27.5	32.8

i Source

New York City Health Indicators by Race and Ethnicity, 2020–2022 https://www.health.ny.gov/community/health_equity/reports/county/newyorkcity.htm

i Note

Note: Lung Cancer Incidence, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

10.3.13 Prostate Cancer

Out of every 100 American men, about 13 will get prostate cancer during their lifetime (121). Some common symptoms of prostate cancer include difficulty urinating, frequent urination, blood in the urine or semen, and painful ejaculation. Prostate cancer has a better prognosis than many other cancers when people receive treatment early. The prostate-specific antigen (PSA) test measures the level of PSA in the blood, which is a substance created in the prostate. When PSA levels are high, this often means there is a problem with the prostate. It is important for men to begin testing at a younger age to help prevent future complications. Preventive measures can include lifestyle changes such as increased daily exercise, maintaining a healthy weight, improving diet, reducing alcohol use, and abstaining from smoking.

When looking at Figure 132, the highest prostate cancer incidence rate was seen in Westchester County and the lowest incidence rate was seen in Sullivan County (141.3 and 93.4 per 100,000 males, respectively). The Healthy People 2030 goal is to reduce prostate cancer mortality to 16.9 deaths per 100,000 males. According to Figure 132, Putnam, Rockland, Sullivan, Ulster, and Westchester Counties in the M-H Region, as well as NYS and NYS excluding NYC, met this target. Orange County had the highest prostate cancer mortality rate in the M-H Region and was above the goal (18.2 per 100,000 males).

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Figure 10.47: Prostate Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population Males, 2018–2022

Table 10.48: Prostate Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population Males, 2018–2022

Table 10.48									
County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
Incidence	139.8	126.9	124.5	137.9	93.4	115.5	141.3	140.2	137.1
Mortality	18.0	18.2	10.4	10.9	12.4	16.3	12.7	15.9	16.9

i Source

New York County and New York City Neighborhood Cancer Statistics Dashboard, April 2025 sourced from NYS Cancer Registry and Cancer Statistics <https://www.health.ny.gov/statistics/cancer/registry/ratebyCounty.htm>

i Note

Note: The ICD-10 code for prostate cancer is: C61.

10.3.14 Female Breast Cancer

Breast cancer is one of the most prevalent cancers in American women. The most common symptom of breast cancer is a lump or mass found in the breast. The average lifetime risk of a woman in the U.S. developing breast cancer is about 13% (122). Many factors influence female breast cancer risk, and prevention can include maintaining a healthy weight, being physically active, and avoiding harmful habits such as alcohol use and cigarette smoking.

In the U.S., the age-adjusted rate of breast cancer incidence from 2015 to 2019 was 130.8 per 100,000 females. In the M-H Region, as well as NYS and NYS excluding NYC, the highest breast cancer incidence rate from 2018 to 2022 was in Putnam County, and the lowest rate was in Sullivan County (160.7 and 114.3 per 100,000 females, respectively). For mortality rates, the highest rate was in Orange County at 23.5 per 100,000 females Figure 10.48.

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Figure 10.48: Breast Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population Females, 2018–2022

Table 10.49: Breast Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Population Females, 2018–2022

Table 10.49								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2013–2014	83.7	76.8	77.7	81.7	68.6	66.0	84.5	80.4
2016	87.2	74.5	69.5	72.0	64.0	72.3	84.8	79.2
2018	78.0	78.8	80.2	69.8	66.1	73.3	79.3	80.9
2021	88.5	73.3	80.2	72.7	52.2	77.1	77.3	78.8

i Source

New York County and New York City Neighborhood Cancer Statistics Dashboard, April 2025 sourced from NYS Cancer Registry and Cancer Statistics <https://www.health.ny.gov/statistics/cancer/registry/ratebyCounty.htm>

i Note

Note: The ICD-10 code for breast cancer is: C50.

The decrease in breast cancer mortality rates over time can be attributed to public awareness, increased screening, and advancements in treatment options. One of the most important and common screening tests for breast cancer is a mammogram, which is an X-ray image of the breast that should be routinely administered to women aged 40 years and older. Advancements in technology have also led to newer and experimental imaging tests (123). The Healthy People 2030 goal was for at least 80.3% of the female population to receive breast cancer screening based on the most recent guidelines. However, as seen in Figure 134, in 2021 all counties except Orange in the M-H Region, as well as NYS excluding NYC, failed to meet this target. NYS was the only location to meet this target at 80.3%. The percentage of women aged 50 to 74 years receiving breast cancer screening based on the most recent guidelines has generally remained stable since 2013 Figure 10.49.

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Figure 10.49: Percentage of Women 50–74 Years Old Receiving Breast Cancer Screening Based on the Most Recent Guidelines, 2013–2018

Table 10.50: Percentage of Women 50–74 Years Old Receiving Breast Cancer Screening Based on the Most Recent Guidelines, 2013–2018

Table 10.50								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC
2013–2014	83.7	76.8	77.7	81.7	68.6	66.0	84.5	80.4
2016	87.2	74.5	69.5	72.0	64.0	72.3	84.8	79.2
2018	78.0	78.8	80.2	69.8	66.1	73.3	79.3	80.9
2021	88.5	73.3	80.2	72.7	52.2	77.1	77.3	78.8

i Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/about_data

i Note

Note: The Behavioral Risk Factor Surveillance System asks respondents, “Have you ever had a mammogram?” and “How long has it been since you had your last mammogram?” Based on responses to these questions, women aged 50 to 74 years who had a mammogram in the past two years meet the current United States Preventive Services Task Force guidance.

10.3.15 Cervix Uteri Cancer

Cervical cancer is a cancer that starts in the cells of the cervix. It often develops slowly and usually does not have any accompanying symptoms until after the cancer has spread (124). Early-stage symptoms can include vaginal bleeding after sex or between periods, pelvic pain, or pain during sex. Advanced-stage symptoms (when the cancer has spread beyond the cervix to other body parts) can include difficult or painful bowel movements, difficult or painful urination, blood in the urine, bleeding from the rectum, dull backache, or pain in the abdomen (125). HPV causes almost all cervical cancers. Though most HPV infections go away on their own, high-risk HPV infections that last for years can lead to changes in cervical cells, causing precancerous lesions. These lesions can eventually develop into cervical cancer if they are not found and removed. Nearly all cervical cancers could be prevented with HPV vaccination and cervical cancer screening. Cervical cancer can be screened for with a Pap test or an HPV test (126).

Other gynecological cancers include ovarian, uterine, vaginal, and vulvar cancers (127). Each type of gynecologic cancer can vary across individuals. Those experiencing abnormal vaginal bleeding, including bleeding after menopause, should consult a doctor. Other symptoms include feeling full too quickly, bloating, back pain, pelvic pain, urgent need to urinate, constipation, and changes in vulva color or skin (128).

When looking at the incidence and mortality rates of cervical cancer in Figure 135, the highest incidence rate was in Sullivan County at 14.0 per 100,000 females and the lowest was in Westchester County at 5.9 per 100,000 females. The highest mortality rate was seen in Orange County at 2.7 per 100,000 females Figure 10.50.

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Figure 10.50: Cervix Uteri Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Female Population, 2018–2022

Table 10.51: Cervix Uteri Cancer Incidence and Mortality, Age-Adjusted Rates per 100,000 Female Population, 2018–2022

Table 10.51									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2018	90.6	88.8	96.2	80.6	81.7	86.1	87.8	86.5	84.7

i Source

New York County and New York City Neighborhood Cancer Statistics Dashboard, June 2025 sourced from NYS Cancer Registry and Statistics <https://www.health.ny.gov/statistics/cancer/registry/ratebyCounty.htm>

i Note

s: Rates are not displayed if fewer than 16 cases or deaths are reported in a specific category during those 5 years. Note: Cancer statistics are for invasive cancers only. Rates are age-adjusted to the US Census Bureau’s 2000 US standard population, Table P25-1130. Five-year age-adjusted rates. This indicator includes deaths with cervix uteri cancer as the primary cause of death. The ICD-10 code for cervix uteri cancer is: C53.

Healthy People 2030 aims for 79.2% of women aged 21 to 65 to receive cervical cancer screenings in accordance with the latest clinical guidelines. The M-H Region exceeded this target, with 86.5% of females aged 21 to 65 having received a cervical cancer screening in 2018. Putnam County had the highest percentage among counties in the region at 96.2%, and Rockland County had the lowest rate at 80.6% Figure 10.51.

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Figure 10.51: Percentage of Women 21–65 Years Old Receiving Cervical Cancer Screening Based on Most Recent Guidelines, 2018

Table 10.52: Percentage of Women 21–65 Years Old Receiving Cervical Cancer Screening Based on Most Recent Guidelines, 2018

Table 10.52									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS
2018	90.6	88.8	96.2	80.6	81.7	86.1	87.8	86.5	84.7

i Source

NYS Community Health Indicator Reports Dashboard, June 2025 sourced from NYSDOH Behavioral Risk Factor Surveillance System https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fchir_dashboard%2Fchir_dashboard&p=ch&cos=33

i Note

Note: The U.S. Preventive Services Task Force recommends screening for cervical cancer every 3 years with cervical cytology alone in women aged 21 to 29 years. For women aged 30 to 65 years, the USPSTF recommends screening every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting). The Behavioral Risk Factor Surveillance System asks respondents, “Have you ever had a Pap test?”, “How long has it been since you had your last Pap test?”, and “How long has it been since you had your last HPV test?”

10.3.16 Infectious Diseases

10.3.16.1 Vaccine-Preventable Diseases

Infectious diseases are illnesses caused by disease-causing organisms that often spread from person to person. Vaccination is a well-established method of preventing numerous infectious diseases. Diseases that can be prevented by vaccination are referred to as vaccine-preventable diseases. A critical period for vaccination is during childhood. It is estimated that childhood vaccination prevents as many as 4 million deaths per year globally (129).

10.3.16.2 Childhood Immunization

The Advisory Committee on Immunization Practices (ACIP) recommends that children receive several routine childhood vaccinations by two years of age (130). The combined 4:3:1:3:3:1:4 vaccine series consists of four doses of diphtheria, tetanus, and acellular pertussis (DTaP); three doses of polio; one dose of measles, mumps, and rubella (MMR); three doses of *Haemophilus influenzae* type b (Hib); three doses of hepatitis B (HepB); one dose of varicella; and four doses of pneumococcal conjugate vaccine (PCV). Appropriate vaccination coverage is linked to improved health outcomes and cost savings. Complying with age-appropriate receipt of vaccines is critical to providing maximum effectiveness against vaccine-preventable diseases.

NYSPA 2025–2030 set an objective for 62.3% of the 24- to 35-month-old population to complete the series. This objective is lower than the objective for the

previous PA (70.5%). The change in objective reflects a change in the denominator source for this indicator. In the previous PA, the denominator for this indicator was based on census data; in the 2025–2030 indicator, the denominator is based on NYSIIS data. The use of the NYSIIS denominator caused all rates to decrease for the 2025–2030 PA indicator relative to the 2019–2024 PA.

Rates for most counties in the M-H Region, as well as for NYS and NYS excluding NYC, continued to stay below the 62.3% objective from 2019 through 2024. Exceptions include Putnam County, which exceeded the objective for 2022–2024 (with the highest percentages in the M-H Region overall), as well as Dutchess and Ulster Counties, which exceeded the objective in 2024.

Most counties in the M-H Region, as well as NYS and NYS excluding NYC, displayed an overall upward trend from 2019 to 2024. Rockland and Sullivan Counties were exceptions to this trend, with Rockland County experiencing a decrease from 37.4% in 2019 to 36.8% in 2024, and Sullivan County experiencing a decrease from 48.6% in 2019 to 48.1% in 2024. Rockland County had the lowest percentages in the region throughout the entire time period, reaching its lowest percentage in 2023 (32.2%). By contrast, Putnam County experienced the largest increase in the region during this time period, from 59.2% in 2019 to 66.2% in 2024 Figure 10.52.

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Figure 10.52: Percentage of Children Aged 24–35 Months with the 4:3:1:3:3:1:4 Vaccine Series, 2019–2024

Table 10.53: Percentage of Children Aged 24–35 Months with the 4:3:1:3:3:1:4 Vaccine Series, 2019–2024

Table 10.53									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2019	62.2	43.1	59.2	37.4	48.6	57.4	51.6	60.1	56.7
2020	60.0	41.8	58.4	35.8	44.2	58.0	51.1	60.0	56.4
2021	60.5	39.2	59.8	34.6	42.5	56.9	52.6	60.1	55.6
2022	58.9	40.4	63.7	35.2	42.5	55.6	54.8	59.4	55.8
2023	62.2	39.0	64.8	32.2	45.6	58.2	53.5	59.1	56.9
2024	65.2	44.1	66.2	36.8	48.1	64.0	60.3	60.9	59.3

i Source

NYS Prevention Agenda Tracking Dashboard, April 2025 sourced from NYS Immunization Information System, and Citywide Immunization Registry https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/re-

ports/#county

i Note

Note: Refers to the standard series of vaccinations recommended for children by age two. This series includes: 4 doses of DTaP (diphtheria, tetanus, and acellular pertussis), 3 doses of polio, 1 dose of MMR (measles, mumps, and rubella), 3 doses of Hib (Haemophilus influenzae type b), 3 doses of HepB (hepatitis B), 1 dose of varicella (chickenpox), and 4 doses of PCV (pneumococcal conjugate vaccine).

10.3.17 COVID-19

COVID-19 is a contagious respiratory disease caused by the SARS-CoV-2 virus, which spreads readily from person to person through respiratory droplets. The development and administration of COVID-19 vaccines has played a part in preventing severe illness, hospitalization, and death. With the shift away from the pandemic emergency phase, COVID-19 surveillance and public health messaging are increasingly integrated with other common respiratory illnesses, such as influenza and RSV, to create a more unified seasonal approach. The pandemic highlighted persistent health vulnerabilities and inequities within communities that require ongoing assessment.

COVID-19 mortality significantly declined from the beginning of the pandemic in 2020 to the most recent data in 2022 for the Mid-Hudson (M-H) Region, NYS excluding NYC, and NYS Figure 10.53. This general decline was also seen in each M-H County. There was a consistent decline over the three-year period except in Dutchess, Sullivan, and Ulster Counties. These counties had an increase in mortality rates between 2020 and 2021 before a decline in 2022.

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Figure 10.53: COVID-19 Mortality, Age-Adjusted Rate per 100,000 Population, 2020–2022

Table 10.54: COVID-19 Mortality, Age-Adjusted Rate per 100,000 Population, 2020–2022

Table 10.54									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2020	63.1	142.0	95.7	204.4	62.2	58.4	143.0	128.1	92.7
2021	83.0	90.5	41.6	67.4	83.4	77.5	68.4	73.5	86.0
2022	42.8	53.2	28.9	45.5	60.0	34.0	35.5	40.8	42.3

i Source

NYS Community Health Indicator Reports Dashboard, July 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tab-vis/PHIG_Public/chirs/reports/#county

i Note

Note: This indicator includes deaths with coronavirus disease recorded as the underlying cause of death. The ICD-10 code for coronavirus disease is: U07.1.

10.3.18 Human Papillomavirus Immunization

In the U.S., HPV is the most common sexually transmitted infection (STI). More than 42 million Americans are living with HPV infections. Each year, approximately 13 million more Americans become infected with the virus, including adolescents (131). HPV is spread through vaginal, anal, or oral sex with someone who has the virus, even if they have no symptoms. Anyone who is sexually active is at risk for HPV, and symptoms may not develop until years after exposure.

While HPV can often go away on its own without causing health problems, it can lead to conditions such as genital warts and cervical cancer. There is no way to know which people with HPV will develop cancer or other health problems. The Centers for Disease Control and Prevention (CDC) recommends adolescents aged 11 to 12 years get two doses of HPV vaccine to protect against cancers caused by HPV. Other actions individuals can take to lower their risk of HPV include screening for cervical cancer, using latex condoms during sex, and limiting the number of sexual partners.

The NYSPA 2019–2024 target aimed to increase the percentage of 13-year-old adolescents completing the HPV vaccine series by 10%, which translates to 37.4% statewide (132). In 2024, Westchester County had the highest percentage of adolescents aged 13 years with a complete HPV vaccine series (22.4%), while Ulster County and Putnam County had the lowest percentage (14.5%) Figure 10.51. The NYSPA objective was not met.

The NYSPA 2025–2030 set an objective of 13-year-old adolescents with a complete HPV vaccine series at 28.7%. This objective is lower than the objective for the previous PA (37.4%). The change in objective reflects the change in the source of the denominator for this indicator. In the previous PA, the denominator for this indicator was based on census data; in the 2025–2030 indicator, the denominator is based on NYSIIS data. The use of the NYSIIS denominator caused all rates to decrease for the 2025–2030 PA indicator relative to the 2019–2024 PA.

From 2019 to 2024, all counties in the M-H Region, as well as NYS and NYS excluding NYC, failed to meet the 28.7% objective. However, both NYS and NYS excluding NYC outperformed the M-H Region throughout the time period. Within the M-H Region, Westchester and Rockland Counties were the only counties to experience overall increases during the period; Westchester County increased from 19.6% in 2019 to 22.4% in 2024 (the highest rate in the region during the time period), and Rockland County increased from 15.1% in 2019 to 16.1% in 2024. The county that experienced the largest overall decrease during the period was Putnam County, with a decrease from 20.1% in 2019 to 14.5% in 2024 Figure 10.54.

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Figure 10.54: Percentage of Adolescents 13 Years Old with a Complete HPV Vaccine Series, 2019–2024

Table 10.55: Percentage of Adolescents 13 Years Old with a Complete HPV Vaccine Series, 2019–2024

Table 10.55									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2019	17.5	21.5	20.1	15.1	21.6	15.6	19.6	23.6	24.9
2020	16.9	20.2	19.6	15.7	19.3	15.7	19.3	24.1	25.2
2021	18.9	20.2	17.0	15.3	19.1	15.4	21.3	25.1	25.8
2022	16.9	19.7	15.2	15.2	20.3	16.4	21.1	24.6	25.3
2023	15.2	15.2	15.9	15.0	20.3	16.1	22.1	24.5	25.6
2024	16.1	18.7	14.5	16.1	19.8	14.5	22.4	24.4	25.7

Source

NYS Prevention Agenda Tracking Dashboard, April 2025 sourced from NYS Immunization Information System, and Citywide Immunization Registry https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/reports/#county

Note

Note: Refers to human papillomavirus vaccines. Two doses are required for those starting the series between the ages of 9 and 14 years old. Three doses are required for those starting the series at 15 years or older, or those with a weakened immune system.

10.3.19 Flu Immunization

Influenza (flu) is a contagious respiratory virus that can cause mild to severe illness. Severe illness from flu can result in hospitalization or even death. Certain populations are at higher risk of complications from the flu virus, such as older adults, young children, and people with certain health conditions. An annual flu vaccine is the best way to help protect against flu. Vaccination has been shown to reduce the risk of flu, hospitalization, and flu-related death (133).

ACIP recommends that everyone six months of age and older receive a flu vaccine every flu season (134). Healthy People 2030 set a target to increase the percentage of noninstitutionalized adults aged 18 years and older who are vaccinated annually against seasonal influenza to 70% (135). In 2021, 44.5% of adults aged 18 years and older received a flu vaccine in NYS. Westchester County had the highest percentage of adults vaccinated (44.5%), while Sullivan County had the lowest coverage (28.2%) in the M-H Region. From 2018 to 2021, the percentage of adults aged 18 years and older who received a flu vaccine increased in all seven counties, as well as in NYS excluding NYC and NYS Figure 10.55.

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Figure 10.55: Percentage of Adults with Flu Immunization in the Past Year, 2016, 2018, and 2021

Table 10.56: Percentage of Adults with Flu Immunization in the Past Year, 2016, 2018, and 2021

Table 10.56									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	36.6	34.7	32.5	38.7	40.0	35.7	38.9	38.9	38.7
2018	22.4	27.4	28.9	27.9	27.8	23.2	29.5	25.9	26.9
2021	41.1	40.7	43.8	42.9	28.2	44.5	45.5	44.7	44.5

Source

NYSDOH Behavioral Risk Factor Surveillance System, April 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents,

“During the past 12 months, have you had either a flu vaccine that was sprayed in your nose or a flu shot injected into your arm?”

In NYS, 66.8% of those aged 65 years and older received a flu immunization in 2021 [see Figure 141]. Dutchess County had the highest percentage of individuals aged 65 years and older who received a flu vaccine (76.0%), while Sullivan County had the lowest flu vaccine coverage (48.3%). From 2018 to 2021, the percentage of adults aged 65 years and older who received a flu vaccine increased in all seven counties in the M-H Region, as well as in NYS excluding NYC and NYS.

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Figure 10.56: Percentage of Adults 65 Years and Older with Flu Immunization in the Past Year, 2016, 2018, and 2021

Table 10.57: Percentage of Adults 65 Years and Older with Flu Immunization in the Past Year, 2016, 2018, and 2021

Table 10.57									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	36.6	34.7	32.5	38.7	40.0	35.7	38.9	38.9	38.7
2018	22.4	27.4	28.9	27.9	27.8	23.2	29.5	25.9	26.9
2021	41.1	40.7	43.8	42.9	28.2	44.5	45.5	44.7	44.5

i Source

NYSDOH Behavioral Risk Factor Surveillance System, June 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

*: Unreliable crude rate due to large standard error. Note: An adult is a person aged 65 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “During the past 12 months, have you had either a flu vaccine that was sprayed in your nose or a flu shot injected into your arm?” This only includes those who are 65 years and older.

10.3.20 Pneumonia Immunization

Pneumococcal disease is caused by a type of bacteria that can lead to pneumonia, meningitis, and bacteremia. Pneumococcal bacteria are spread through droplets

in the air from someone who coughs or sneezes. While pneumococcal disease is more common in children, it is more likely to cause serious complications in adults (136). Healthy choices, such as quitting smoking and managing chronic illnesses, can also help prevent pneumonia. The CDC recommends two pneumococcal vaccines for adults aged 65 years and older. In 2021, Putnam County had the highest percentage of adults aged 65 years and older vaccinated (75.7%), while Sullivan County had the lowest percentage (44.6%). From 2018 to 2021, Orange, Putnam, Rockland, and Ulster Counties increased their percentages. However, in that same time period, Dutchess, Sullivan, and Westchester Counties saw decreases in their percentages Figure 10.57.

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Figure 10.57: Percentage of Adults 65 Years and Older with Pneumococcal Immunization, 2016, 2018, and 2021

Table 10.58: Percentage of Adults 65 Years and Older with Pneumococcal Immunization, 2016, 2018, and 2021

Table 10.58									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	65.6*	74.8	71.1	64.0*	64.0*	60.7	72.7	73.8	69.3
2018	75.0	63.2*	66.4*	66.4*	62.7*	61.7*	69.2	69.4	64.0
2021	65.0	67.0	75.7	68.2*	44.6*	63.4*	65.0	70.1	65.6

i Source

NYSDOH Behavioral Risk Factor Surveillance System, June 2025
<https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/data>

i Note

*: Crude rate is unreliable due to large standard error. Note: An adult is a person aged 65 years or older. The Behavioral Risk Factor Surveillance System asks respondents, " Have you ever had a pneumonia shot also known as a pneumococcal vaccine?" This only includes those who are 65 years and older.

10.3.21 Sexually Transmitted Infections

10.3.21.1 HIV/AIDS

The Human Immunodeficiency Virus (HIV) attacks the body's immune system, weakening its ability to fight infections and illnesses. HIV is transmitted primarily through sexual contact and sharing of needles and other drug-injection equipment, but it can also be transmitted from mother to baby during pregnancy, childbirth, and breastfeeding (137). Left untreated, HIV infection can lead to acquired immunodeficiency syndrome (AIDS). While most people experience brief flu-like symptoms during early infection, some have no symptoms at all. HIV screening is critical to identify HIV infections, facilitate treatment, and prevent spread. Although there is no cure for HIV, proper treatment can control the virus, preventing progression to AIDS in infected individuals and decreasing risk of transmission to others. Other HIV prevention strategies include consistent use of safer-sex practices such as condoms, never sharing drug-injection equipment, and using PrEP (pre-exposure prophylaxis) and PEP (post-exposure prophylaxis) (138).

In 2023, 39,201 people over 13 years of age were diagnosed with HIV in the U.S. The highest rates were among males (22.5 per 100,000 population), those aged 25–34 (31.3 per 100,000 population), Black/African Americans (41.9 per 100,000 population), and residents of southern states (18.4 per 100,000 population). Male-to-male sexual contact (MMSC) accounted for 66% of cases, with 50% occurring in southern states. Females accounted for 19% of diagnoses, with Black/African American women representing 50% of female cases despite making up only 13% of the female population. Their diagnosis rate (19.6 per 100,000 population) was 3 times higher than Hispanic/Latino females and 11 times higher than White females (139).

The number of new HIV diagnoses in New York State decreased by 37% from 2011 to 2023, dropping from 4,007 to 2,517. However, in 2023, 19% of new HIV diagnoses were concurrently diagnosed with AIDS, indicating that many people are being diagnosed late in the course of infection. As of December 2023, 105,447 New Yorkers were living with diagnosed HIV. The burden of HIV was heaviest in New York City, which reported 1,799 HIV cases in 2023 (21.2 per 100,000 population), while the remainder of the state recorded 718 (7.1 per 100,000 population). Non-Hispanic Black and Hispanic individuals were disproportionately affected in both areas (140).

In the M-H Region, three-year average rates of newly diagnosed HIV cases remained stable or decreased for all counties from 2013 to 2022, underscoring local progress in HIV prevention and treatment initiatives. Among the seven counties, Westchester had the highest three-year average rate from 2020 to 2022 (6.8 per 100,000 population) and was the only county with a rate higher than the NYS excluding NYC 2021 one-year rate of 5.3 per 100,000 population. Sullivan County had the lowest rate at 2.1 per 100,000 population Figure 10.58.

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Figure 10.58: Newly Diagnosed HIV, Age-Adjusted Case Rate per 100,000 Population, 2014–2021

Table 10.59: Newly Diagnosed HIV, Age-Adjusted Case Rate per 100,000 Population, 2014–2021

Table 10.59									
	Three-Year Average							Single-Year	
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2014	7.7	3.9	3.9*	8.2	9.4	5.5	11.8	7.8	18.0
2015	7.7	5.3	1.7*	7.9	9.8	5.1	11.9	6.8	16.9
2016	6.2	6.8	1.3*	7.1	6.7	4.4	11.7	7.0	15.7
2017	5.8	8.4	2.9*	8.3	5.6	5.7	10.9	6.8	15.5
2018	5.4	8.1	3.5	8.4	5.2	5.7	10.2	5.8	13.9
2019	5.1	6.0	3.5	7.4	5.2	5.5	8.0	6.0	13.2
2020	5.4	5.8	2.2*	6.6	3.5*	3.7	7.5	5.1	10.8
2021	4.2	4.8	3.4*	4.9	2.1*	3.2	6.8	5.3	11.0

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from NYS HIV Surveillance System https://apps.health.ny.gov/public/tabis/PHIG_Public/chirs/reports/#county

i Note

*: The rate is unstable. Note: Three-year age-adjusted rates for counties and single-year age-adjusted rates for NYS and NYS excluding NYC are used in both the table and graph above. This includes the number of people newly diagnosed with human immunodeficiency virus (HIV), regardless of concurrent or subsequent AIDS diagnosis.

10.3.21.2 Gonorrhea

Gonorrhea is the second most commonly reported sexually transmitted infection (STI) in the United States (141). Transmission occurs through unprotected vaginal, anal, or oral sexual contact and from mother to child during childbirth. Many infections are asymptomatic, particularly in women, which contributes to underdiagnosis and inadvertent spread. When symptoms occur, they may include painful urination, discharge, or genital discomfort (142). Untreated gonorrhea

can increase risk for contracting HIV and progress to pelvic inflammatory disease (PID) in women, increasing future risk for infertility, miscarriage and ectopic pregnancy. Gonorrhea can be cured with antibiotics; however antimicrobial resistance is becoming more common in the bacteria that causes gonorrhea (143).

Figure 10.59 depicts an overall increasing trend in gonorrhea case rates across the M-H Region and NYS excluding NYC from 2017 to 2023. Among M-H Region counties in 2023, Putnam and Dutchess Counties are notable for reporting the lowest (41 cases per 100,000 population) and highest rates (147 cases per 100,000 population), respectively. Over this seven-year span, Dutchess County's rate doubled, increasing from 74 to 147 cases per 100,000 population. In contrast, Putnam County consistently maintained the region's lowest rates, with rates ranging from a low of 25 cases per 100,000 in 2018, to a high of 41 cases per 100,000 in 2023.

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Figure 10.59: Gonorrhea Incidence, Age-Adjusted Rate per 100,000 Population, 2017–2023

Table 10.60: Gonorrhea Incidence, Age-Adjusted Rate per 100,000 Population, 2017–2023

Table 10.60									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2017	74.0	80.0	29.0	41.0	113.0	75.0	76.0	71.0	101.2
2018	63.0	66.0	25.0	38.0	52.0	60.0	87.0	68.0	107.0
2019	75.0	77.0	36.0	47.0	69.0	71.0	105.0	81.0	114.9
2020	109.0	109.0	35.0	38.0	161.0	93.0	119.0	101.0	168.8
2021	83.0	87.0	40.0	63.0	99.0	89.0	113.0	92.0	141.6
2022	103.0	74.0	38.0	57.0	63.0	81.0	104.0	86.0	135.3
2023	147.0	94.0	41.0	74.0	85.0	80.0	99.0	96.0	131.5

i Source

NYS Department of Health Office of Sexual Health and Epidemiology, May 2025 sourced from Sexually Transmitted Infections Surveillance Summary Reports, 2017-2023 <https://www.health.ny.gov/statistics/diseases/communicable/std/index.htm>

10.3.21.3 Chlamydia

Chlamydia is the most frequently reported bacterial sexually transmitted infection (STI) in the United States. According to the Centers for Disease Control

and Prevention (CDC), over 1.6 million cases of chlamydia were reported in the U.S. in 2023 (141), though actual incidence is likely higher due to underdiagnosis. Often asymptomatic, it poses significant challenges for timely diagnosis and treatment, contributing to hidden transmission and long-term health complications. Left untreated in women, chlamydia can lead to pelvic inflammatory disease (PID), which increases future risk of miscarriage, ectopic pregnancy, and infertility. Chlamydia infection also increases the risk for contracting other STIs like gonorrhea and HIV. Routine screening, which is critical to preventing these consequences, decreased due to COVID-19 impacts on healthcare services, and this is reflected in decreased incidence rates in 2020 and 2021 (143).

In 2023, chlamydia incidence rates rose for every county in the M-H Region as compared to 2022. Putnam and Westchester Counties are notable for having the lowest (237 per 100,000 population) and highest rates (446 per 100,000 population), respectively, with Westchester’s incidence far exceeding the regional rate (387 per 100,000 population). Looking longitudinally from 2017–2023, chlamydia rates peaked in the region in 2019, dropped in 2020 due to pandemic impacts on screening, and then resumed an upward trend Figure 10.60.

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Figure 10.60: Chlamydia Incidence, Age-Adjusted Rate per 100,000 Population, 2017–2023

Table 10.61: Chlamydia Incidence, Age-Adjusted Rate per 100,000 Population, 2017–2023

Table 10.61									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2017	360.0	402.0	209.0	307.0	417.0	345.0	428.0	382.0	421.0
2018	395.0	402.0	207.0	358.0	418.0	367.0	440.0	401.0	444.0
2019	401.0	450.0	243.0	384.0	435.0	380.0	491.0	437.0	458.0
2020	313.0	373.0	163.0	311.0	328.0	301.0	349.0	331.0	394.0
2021	308.0	361.0	204.0	323.0	292.0	240.0	397.0	346.0	370.0
2022	334.0	340.0	210.0	305.0	305.0	284.0	429.0	360.0	377.0
2023	374.0	375.0	237.0	330.0	346.0	334.0	446.0	387.0	404.0

i Source

NYS Department of Health Office of Sexual Health and Epidemiology, May 2025 sourced from Sexually Transmitted Infections Surveillance Summary Reports, 2017-2023 <https://www.health.ny.gov/statistics/diseases/communicable/std/index.htm>

i Note

Note: Y-axis does not begin at zero in order to clearly display trend lines.

10.3.21.4 Syphilis

Syphilis is a sexually transmitted infection (STI) with four progressive stages which can lead to serious long-term health problems if left untreated. Syphilis can be cured with antibiotics, but any damage to the body that has already occurred cannot be undone. Having syphilis also increases the risk for HIV infection, and women with syphilis can pass it to their baby during pregnancy. Syphilis infection during pregnancy can result in poor birth outcomes such as pre-term birth, stillbirth, and severe health problems in infants. Safer sex practices such as consistent and correct use of condoms can reduce risk of contracting syphilis. Regular screening of pregnant women and those with certain risk factors (e.g. HIV infection, multiple sex partners) is critical to early diagnosis and prevention of severe outcomes (144). Syphilis rates are increasing in the US. In 2023, 209,253 cases of syphilis were reported, which was the highest number of cases reported since 1950.(141) In New York State, syphilis cases have been surging since the early 2000s, but decreases were seen in 2023 as compared to 2022 (143).

In the M-H Region early syphilis rates have followed those of NYS, excluding NYC with rates increasing from 2017 to 2021, and then decreasing in 2022 and again in 2023. In 2023, Dutchess and Sullivan had the highest rates among the counties and Dutchess was the only county to see an increase from 2022 to 2023 Figure 10.61.

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Figure 10.61: Early Syphilis Incidence, Age-Adjusted Rate per 100,000 Population, 2017–2023

Table 10.62: Early Syphilis Incidence, Age-Adjusted Rate per 100,000 Population, 2017–2023

Table 10.62									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson Region	NYS
2017	22.0	14.0	11.0	10.0	13.0	8.0	16.0	15.0	14.0
2018	17.0	17.0	17.0	11.0	11.0	12.0	14.0	15.0	14.0
2019	34.0	29.0	9.0	14.0	13.0	18.0	16.0	20.0	18.0
2020	25.0	27.0	14.0	12.0	12.0	14.0	19.0	19.0	18.0
2021	29.0	29.0	15.0	14.0	14.0	14.0	24.0	23.0	22.0
2022	24.0	27.0	16.0	18.0	30.0	19.0	22.0	22.0	22.0
2023	29.0	22.0	15.0	13.0	29.0	11.0	19.0	19.0	22.0

i Source

NYS Department of Health Office of Sexual Health and Epidemiology, May 2025 sourced from Sexually Transmitted Infections Surveillance Summary Reports, 2017-2023 <https://www.health.ny.gov/statistics/diseases/communicable/std/index.htm>

i Note

Note: Y-axis does not begin at zero in order to clearly display trend lines. Early syphilis includes non-primary and non-secondary stages.

10.3.22 Tick-Borne Diseases

10.3.22.1 Lyme Disease

Lyme disease is caused by the bacterium *Borrelia burgdorferi*, which is transmitted through the bite of infected black-legged ticks. Symptoms of Lyme disease may include fever, headache, fatigue, and a rash known as erythema migrans. Most cases of Lyme disease can be treated with antibiotics. Left untreated, Lyme disease can cause more severe disease (145). Lyme disease is diagnosed based on symptoms, physical findings, and exposure to infected ticks. Laboratory testing can also be helpful in diagnosis.

According to the CDC, recent estimates suggest that as many as 476,000 people may be diagnosed and treated for Lyme disease every year (146). Preventing Lyme disease starts with reducing the likelihood of tick bites. Tick-bite prevention methods include using EPA-approved insect repellent, avoiding dense woods and bushy areas, wearing enclosed shoes, long pants, and long-sleeve shirts when entering areas that might contain ticks, and performing a full-body check after being outdoors and removing ticks promptly (147).

From 2020 through 2023, all counties in the M-H Region, as well as NYS, experienced increases in Lyme disease case rates per 100,000 population. For all counties in the M-H Region, as well as NYS, the largest case-rate increases took place from 2021 to 2022, with the exception of Putnam County, whose largest case-rate increase took place from 281.5 per 100,000 population in 2020 to 351.9 per 100,000 population in 2021. It must be noted that the CDC enacted a change in the case definition (148) in 2022, which likely explains the large case-rate increases that the rest of the M-H Region and NYS experienced from 2021 to 2022 Figure 10.62.

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Figure 10.62: Lyme Disease, Case Rate per 100,000 Population, 2020–2023

Table 10.63: Lyme Disease, Case Rate per 100,000 Population, 2020–2023

Table 10.63									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson Region	N
2017	22.0	14.0	11.0	10.0	13.0	8.0	16.0	15.0	1
2018	17.0	17.0	17.0	11.0	11.0	12.0	14.0	15.0	1
2019	34.0	29.0	9.0	14.0	13.0	18.0	16.0	20.0	1
2020	25.0	27.0	14.0	12.0	12.0	14.0	19.0	19.0	1
2021	29.0	29.0	15.0	14.0	14.0	14.0	24.0	23.0	2
2022	24.0	27.0	16.0	18.0	30.0	19.0	22.0	22.0	2
2023	29.0	22.0	15.0	13.0	29.0	11.0	19.0	19.0	2

i Source

NYSDOH Communicable Disease Annual Reports, June 2025 sourced from NYSDOH Communicable Disease Electronic Surveillance System <https://health.ny.gov/statistics/diseases/communicable/>

i Note

Note: Lyme disease is tracked by the NYSDOH through surveillance systems. The number of Lyme disease cases is estimated using a combination of traditional surveillance and sampling methods. The case definition for Lyme disease changed in 2022. Data from before that time are not comparable.

10.3.22.2 Anaplasmosis

Anaplasmosis is caused by the bacterium *Anaplasma phagocytophilum*, which is transmitted to humans via the bite of infected black-legged ticks. Early symptoms of anaplasmosis may include fever, headache, chills, and muscle aches. If left untreated, or if other medical conditions are present, anaplasmosis can cause serious illness resulting in respiratory failure, bleeding problems, organ failure, and, in rare cases, death. Anaplasmosis is diagnosed based on symptoms and blood tests. People with weakened immune systems may be at increased risk of severe outcomes (149).

The number of reported anaplasmosis cases in the U.S. has increased steadily since the disease became nationally notifiable. Cases increased in 2021 to 6,729, which was higher than pre-pandemic levels. Cases decreased in 2022 but still remained higher than pre-pandemic levels. Cases increased again to a high of 7,280 in 2023 (150). The geographic range of anaplasmosis also appears to be

increasing as black-legged ticks expand in range. Increasing ranges for the black-legged tick have been documented along the Hudson River Valley, Michigan, and Virginia. Ninety percent of all reported anaplasmosis cases came from eight states: Maine, Massachusetts, Minnesota, New Jersey, New York, Pennsylvania, Vermont, and Wisconsin. NYS incidence per million nearly doubled from 2022 to 2023 (150).

In most counties, the case rate increased from 2020 to 2021, except for Rockland, which saw a decrease Figure 10.63. All counties experienced an increase from 2022 to 2023, except for Westchester, which had a large decrease. In 2023, Putnam County reported the highest rate of anaplasmosis cases (96.6 per 100,000 population), and Rockland had the lowest (2.1 per 100,000 population).

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Figure 10.63: Anaplasmosis, Case Rate per 100,000 Population, 2020–2023

Table 10.64: Anaplasmosis, Case Rate per 100,000 Population, 2020–2023

Table 10.64								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2020	11.9	6.0	30.4	2.1	14.5	4.5	3.8	7.0
2021	17.0	17.9	84.2	1.2	25.1	20.3	4.6	10.3
2022	0.7	9.4	33.7	1.8	21.3	43.3	43.3	6.0
2023	10.4	18.7	96.6	2.1	45.1	75.1	6.0	10.3

i Source

NYSDOH Communicable Disease Annual Reports, June 2025 sourced from NYSDOH Communicable Disease Electronic Surveillance System <https://health.ny.gov/statistics/diseases/communicable/>

i Note

Note: Y-axis does not begin at zero in order to clearly display trend lines.

10.3.22.3 Babesiosis

Babesiosis is caused by the parasite *Babesia microti*, which infects red blood cells and is spread by black-legged ticks. Tick-borne transmission is most common in the Northeast and upper Midwest of the U.S. and usually peaks during warmer months. Many individuals infected with babesiosis do not experience symptoms, but treatment is available for those who do. In symptomatic individuals,

babesiosis is usually diagnosed by examining blood specimens for *Babesia microti* parasites in red blood cells (151).

From 2020 through 2021, all counties in the region except Westchester experienced a net increase in case rate, with Putnam experiencing the most significant increase during this time. From 2021 through 2022, Dutchess, Orange, Putnam, and Westchester experienced a net decrease. As of 2023, all counties in the M-H Region experienced rates that were higher than NYS and had a net increase in case rates Figure 10.64.

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Figure 10.64: Babesiosis, Case Rate per 100,000 Population, 2020–2023

Table 10.65: Babesiosis, Case Rate per 100,000 Population, 2020–2023

Table 10.65								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2020	8.2	11.2	25.4	2.1	5.3	2.8	5.9	2.8
2021	17.4	17.1	51.8	4.9	10.6	11.8	5.7	4.1
2022	0.7	8.1	31.6	5.9	16.3	20.8	3.7	3.0
2023	10.1	19.9	61.0	6.8	28.8	38.9	12.5	5.9

i Source

NYSDOH Communicable Disease Annual Reports, June 2025 sourced from NYSDOH Communicable Disease Electronic Surveillance System <https://health.ny.gov/statistics/diseases/communicable>

10.3.22.4 Rabies

Rabies is a nearly 100% fatal viral disease that attacks the central nervous system, transmitted primarily through bites or scratches from infected animals. While human cases are rare in the U.S. due to widespread pet vaccination programs, the virus persists in wildlife populations, posing ongoing risks to pets, livestock, and people. In the U.S., over 90% of animal rabies cases occur in wildlife, including bats, raccoons, skunks, and foxes, with bats accounting for 70% of human deaths (152). Globally, dogs remain the primary source of human infections, particularly in Africa, Asia, and parts of Central/South America where access to rabies post-exposure prophylaxis (RPEP) is limited, resulting in 70,000+ annual fatalities (153). In the United States, prevention continues to be a public health priority due to the high case-fatality rate. Every year, more than 90 million cats and dogs get vaccinated by veterinarians, and more than 5 million oral vaccine baits are distributed to wildlife (154). In 2024, the M-H

Region saw 5 confirmed rabies cases in domestic animals (2 in Orange County, 1 each in Dutchess, Rockland, and Westchester), constituting 2.1% of all domestic animal specimens tested. There were 44 positive wildlife cases, constituting 7.3% of all wild animal specimens tested. Westchester County had the highest number of rabies positive wild animals (18), while Sullivan County reported the highest wildlife positivity rate (23.1%) Table 10.66.

Table 10.66: Animal Rabies Testing of Domestic Species†, 2024

Table 10.66			
County	Total Domestic Animals Tested	Total Domestic Animals Positive	Percent Positive
Dutchess	35.0	1.0	2.9
Orange	51.0	2.0	3.9
Putnam	13.0	0.0	0.0
Rockland	25.0	1.0	4.0
Sullivan	33.0	0.0	0.0
Ulster	26.0	0.0	0.0
Westchester	55.0	1.0	1.8
Mid-Hudson	238.0	5.0	2.1

Source

NYSDOH Wadsworth Center Rabies Laboratory, May 2025 Laboratory Submissions Rabies Testing Domestic and Wild Animal Species

Note

Note: †Domestic species include dogs, cats, ferrets, horses, donkeys, mules, cattle, sheep, goats, and pigs.

Table 10.67: Animal Rabies Testing of Wild Species†, 2024

Table 10.67			
County	Total Wild Animals Tested	Total Wild Animals Positive	Percent Positive
Dutchess	76.0	6.0	7.9
Orange	71.0	4.0	5.6
Putnam	54.0	3.0	5.6
Rockland	31.0	0.0	0.0
Sullivan	13.0	3.0	23.1
Ulster	58.0	10.0	17.2
Westchester	294.0	18.0	6.1

County	Total Wild Animals Tested	Total Wild Animals Positive	Percent Positive
Mid-Hudson	597.0	44.0	7.3

i Source

NYSDOH Wadsworth Center Rabies Laboratory, May 2025 Laboratory Submissions Rabies Testing Domestic and Wild Animal Species

i Note

Note: †Wild species include bats, bears, bobcats, coyote, deer, fox, opossum, porcupine, rabbit, raccoon, rat, skunk, squirrel, weasel, and woodchuck.

Prompt medical intervention is critical after suspected rabies exposure. Rabies post-exposure prophylaxis (RPEP), which typically consists of wound care, human rabies immune globulin (HRIG), and a series of rabies vaccines (155), is highly effective if administered promptly after exposure. Approximately 100,000 Americans receive RPEP annually (154). In NYS, local health departments prevent rabies in people by investigating reports of human and pet exposures to possibly rabid animals and assuring access to RPEP when indicated. In the Mid-Hudson Region over the last decade, 2 to 3 people per 10,000 population were authorized by local health departments to receive RPEP each year. In 2024, Sullivan County had the highest rate of RPEP authorization (4.6 per 10,000), while Ulster County had the lowest rate (0.8 per 10,000) Figure 10.65.

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Figure 10.65: Persons Authorized to Receive Rabies Post-Exposure Prophylaxis, Rate per 10,000 Population, 2021–2024

Table 10.68: Persons Authorized to Receive Rabies Post-Exposure Prophylaxis, Rate per 10,000 Population, 2021–2024

Table 10.68								
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson
2021	2.4	2.1	2.3	1.4	2.0	3.8	1.9	2.1
2022	4.1	2.4	2.9	2.7	2.4	2.5	2.1	2.5
2023	3.3	3.0	2.4	4.4	3.3	1.7	1.9	2.7
2024	3.0	4.9	3.4	1.9	4.6	0.8	2.5	2.9

i Source

Data request from NYSDOH Bureau of Communicable Disease Control, May 2025

i Note

Note: Rates are calculated using population estimates from the U.S. Census Bureau's 2023 American Community Survey (ACS) 5-Year Estimate, Table B01003.

10.3.23 Maternal and Infant Health

Maternal and infant health looks at the well-being of women during pregnancy, childbirth, and the postpartum period. It also includes the health of infants during the first year of life. Maternal and infant health are closely linked so are typically assessed together. Maternal and infant mortality are considered key indicators of a community overall health.

10.3.23.1 Prenatal Care

Prenatal care is health care received from medical providers during pregnancy, including checkups, physical exams, and prenatal testing. Getting early and regular prenatal care in the first trimester can help keep mothers and babies healthy by allowing medical providers to identify and treat health problems early. Babies born to mothers who do not get prenatal care are three times more likely to have a low birthweight and five times more likely to die (156). During the first two trimesters, mothers should have prenatal visits every four to six weeks. After the first two trimesters, mothers should schedule prenatal visits every two to three weeks until week 36. After week 36, mothers should have a prenatal visit every week.

One Healthy People 2030 objective is to increase the proportion of pregnant women who receive early and adequate prenatal care. The target is to increase the percentage of pregnant women who begin prenatal care in the first trimester to 80.5% (157).

From 2014 to 2021, there were no marked changes in the percentage of women who received early prenatal care in the M-H Region. In 2021, Sullivan County had the lowest percentage of women who received early prenatal care (61.3%), and Putnam County had the highest percentage (84.0%) Figure 10.66. In all M-H Counties except Rockland County, there was a slight increase in the percentage of women receiving late or no prenatal care from 2014 to 2021 Figure 10.67.

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Figure 10.66: Percentage of Births with Early Prenatal Care, 2014–2021

Table 10.69: Percentage of Births with Early Prenatal Care, 2014–2021

Table 10.69										
Year	Three-Year Average			Putnam	Rockland	Sullivan	Ulster	Westchester	Single Year	
	Dutchess	Orange							NYS excl NYC	NYS
2014	78.9	73.6	78.1	67.3	66.5	77.8	66.2	75.8		73.9
2015	81.3	73.4	79.7	69.3	66.5	77.5	70.1	76.9		75.4
2016	83.1	74.5	83.6	72.2	67.4	75.6	75.8	78.4		76.4
2017	84.7	73.6	85.7	74.1	67.9	74.0	80.9	77.8		76.3
2018	84.4	72.4	86.8	74.5	67.7	72.5	81.5	78.6		76.0
2019	84.2	70.9	85.3	74.5	66.2	72.9	81.0	78.8		76.7
2020	83.2	69.9	85.1	73.0	63.1	71.6	79.9	77.7		75.7
2021	81.3	68.5	84.0	71.5	61.3	70.1	78.0	78.2		75.4

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabs/vis/PHIG_Public/chirs/#

i Note

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC. Early prenatal care is provided in the first trimester.

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Figure 10.67: Percentage of Births with Late or No Prenatal Care, 2014–2021

Table 10.70: Percentage of Births with Late or No Prenatal Care, 2014–2021

Table 10.70									
	Three-Year Average							Single Year	
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2014	3.2	3.9	2.3	4.7	5.8	3.9	4.1	4.1	5.6
2015	3.1	4.1	2.6	4.6	6.1	3.9	4.0	4.0	5.4
2016	3.4	4.4	2.7	4.2	6.3	4.9	3.9	4.4	5.7
2017	3.7	5.0	2.6	3.9	5.9	4.7	3.9	4.4	5.4
2018	3.7	5.3	2.5	3.8	5.2	5.2	3.9	4.2	5.4

Year	Three-Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2019	3.7	5.3	2.4	3.8	5.8	4.7	4.2	4.3	5.5
2020	3.8	5.6	2.6	4.0	7.0	5.2	4.6	4.4	5.1
2021	4.3	6.4	3.1	4.3	8.0	5.3	4.9	4.3	5.4

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tab-vis/PHIG_Public/chirs/#

i Note

Note: Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC. Late prenatal care is provided in the third trimester.

There are racial and ethnic disparities in prenatal care in the M-H Region. Non-Hispanic White women had the highest percentage of early prenatal care in every county except Rockland and Sullivan. In Rockland and Sullivan, non-Hispanic Asian and Pacific Islander women had the highest percentage of early prenatal care. Non-Hispanic Black and Hispanic women had slightly lower percentages of early prenatal care than non-Hispanic White and non-Hispanic Asian and Pacific Islander women, except in Putnam County, where non-Hispanic Black women had the second-highest percentage of early prenatal care Figure 10.68.

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Figure 10.68: Percentage of Births with Early Prenatal Care by Race and Ethnicity, 2020–2022

Table 10.71: Percentage of Births with Early Prenatal Care by Race and Ethnicity, 2020–2022

Table 10.71							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	84.7	73.2	89.0	74.1	62.3	72.8	85.5
Non-Hispanic Black	75.5	60.9	86.4	66.8	53.2	61.3	69.5
Non-Hispanic Asian/Pacific Islander	79.4	65.3	79.2	79.3	66.1	67.7	79.9
Hispanic	74.3	60.2	74.6	62.4	60.0	62.5	72.0

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, May 2025 sourced from Vital Statistics of NYS https://www.health.ny.gov/community/health_equity/reports/county/

i Note

Note: Early prenatal care is provided in the first trimester.

10.3.23.2 All Pregnancies by Age Group

Among women aged 15 to 44 years, the 2021 pregnancy rate was highest in Rockland County (111.1 per 1,000 females), followed by Orange and Sullivan Counties (84.3 and 83.4 per 1,000 females, respectively). The lowest pregnancy rate was in Ulster County (55.3 per 1,000 females). From 2014 to 2021, the pregnancy rate decreased in all Mid-Hudson counties except Putnam and Rockland Counties Figure 10.69.

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Figure 10.69: Pregnancy, Rate per 1,000 Female Population 15–44 Years Old, 2014–2021

Table 10.72: Pregnancy, Rate per 1,000 Female Population 15–44 Years Old, 2014–2021

Table 10.72									
	Three-Year Average							Single Year	
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2014	65.0	91.1	55.8	94.3	86.3	66.3	75.2	74.3	86.5
2015	64.4	92.6	56.9	97.2	89.1	65.0	75.3	73.8	84.7
2016	64.5	94.0	56.5	97.7	91.1	65.3	72.9	72.2	83.3
2017	63.5	93.5	56.1	100.2	92.9	65.5	70.7	72.7	81.3
2018	64.4	92.4	55.1	104.0	92.9	64.9	71.7	72.0	79.4
2019	62.5	90.1	55.2	106.0	91.3	62.2	71.3	72.2	78.5
2020	60.7	87.4	57.4	109.1	87.6	58.2	71.7	68.3	70.9
2021	57.7	84.3	59.1	111.1	83.4	55.3	70.5	68.4	71.2

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tab-vis/PHIG_Public/chirs/#

i Note

Note: Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC.

Among women aged 15 to 44 years, the pregnancy rate varied by race and ethnicity in the M-H Region. Non-Hispanic White women had the highest pregnancy rates in Rockland, Orange, and Sullivan Counties, while having the lowest rates in Dutchess, Ulster, and Westchester Counties, as well as in NYS. Non-Hispanic Black women had the highest pregnancy rates in Dutchess County and NYS, while Hispanic women had the highest pregnancy rates in Putnam and Westchester Counties Figure 10.70.

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Figure 10.70: Pregnancy, Rate per 1,000 Female Population 15–44 Years Old by Race and Ethnicity, 2020–2022

Table 10.73: Pregnancy, Rate per 1,000 Female Population 15–44 Years Old by Race and Ethnicity, 2020–2022

Table 10.73							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	50.7	86.9	52.9	125.9	82.8	52.3	56.6
Non-Hispanic Black	71.7	67.9	40.2	60.4	57.4	62.0	79.0
Non-Hispanic Asian/Pacific Islander	37.0	51.4	50.2	50.6	72.7	34.2	55.1
Hispanic	71.3	80.7	78.5	98.7	81.3	64.4	80.5

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, May 2025 sourced from Vital Statistics of NYS https://www.health.ny.gov/community/health_equity/reports/county/

i Note

Note: Pregnancies are the sum of the number of live births, induced terminations of pregnancies, and all fetal deaths. Pregnancy rate is the total number of pregnancies to women of any age, per 1,000 female population aged 15 to 44 years.

10.3.23.3 Adolescent Pregnancy

Teen pregnancy has been decreasing since 1991. Evidence suggests that this decline may be due to teens abstaining from sexual activity and more sexually active teens using birth control. Despite this progress, the teen pregnancy rate in the U.S. is still higher than in many other high-income countries. Socioeconomic conditions, such as lower educational attainment, lower income, and experience in foster care, may contribute to higher teen pregnancy rates (158). Pregnant teens may face increased health risks and stressors, and teen pregnancy can also have lasting impacts on mothers and children. Teen pregnancy is a significant contributor to high school dropout rates. In the U.S., 50% of teen mothers graduate high school by age 22, while 90% of women who did not give birth during adolescence receive a high school diploma. The children of teenage mothers are more likely to drop out of high school, have more health problems, become incarcerated at some point during adolescence, give birth as a teenager, and experience unemployment as an adult (159).

The pregnancy rate in teens aged 15 to 19 years decreased statewide and in each county in the M-H Region from 2014 to 2021. Sullivan County had the highest pregnancy rate among teens aged 15 to 19 years in the M-H Region (24.4 per 1,000) Figure 10.71. These rates meet Healthy People 2030's target of reducing pregnancies among adolescent females aged 15 to 17 years to 31.4 teen pregnancies per 1,000 adolescent females (160).

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Figure 10.71: Teen Pregnancy, Rate per 1,000 Female Population 15–19 Years Old, 2014–2021

Table 10.74: Teen Pregnancy, Rate per 1,000 Female Population 15–19 Years Old, 2014–2021

Table 10.74									
Year	Three-Year Average							Single Year	
Year	Dutchess	Orange	Orange	Orange	Orange	Orange	Orange	NYS excl NYC	Or
2014	18.6	29.7	29.7	29.7	29.7	29.7	29.7	24.2	29
2015	16.7	28.7	28.7	28.7	28.7	28.7	28.7	22.6	28

Year	Three-Year Average							Single Year	
2016	16.2	28.3	28.3	28.3	28.3	28.3	28.3	20.7	28.3
2017	15.2	25.1	25.1	25.1	25.1	25.1	25.1	19.9	25.1
2018	15.5	22.4	22.4	22.4	22.4	22.4	22.4	18.8	22.4
2019	14.0	18.6	18.6	18.6	18.6	18.6	18.6	18.9	18.6
2020	12.3	16.8	16.8	16.8	16.8	16.8	16.8	16.0	16.8
2021	10.1	15.5	15.5	15.5	15.5	15.5	15.5	15.2	15.5

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabs/vis/PHIG_Public/chirs/#

i Note

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC. Pregnancies are the sum of the number of live births, induced terminations of pregnancies, and all fetal deaths.

There are racial and ethnic disparities in teen pregnancy, with non-Hispanic Black teens experiencing the highest rates of teen pregnancy in Sullivan and Dutchess Counties, as well as in NYS. Hispanic teens had the highest teen pregnancy rates in Orange, Putnam, Rockland, and Ulster Counties. Non-Hispanic White teens experienced the lowest teen pregnancy rate in NYS and in each M-H Region county Figure 10.72.

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Figure 10.72: Teen Pregnancy, Rate per 1,000 Female Population 17 Years Old and Younger by Race and Ethnicity, 2020–2022

Table 10.75: Teen Pregnancy, Rate per 1,000 Female Population 17 Years Old and Younger by Race and Ethnicity, 2020–2022

Table 10.75							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	1.1	0.7	0.6*	0.1*	2.3	1.6	0.6
Non-Hispanic Black	5.1	3.9	0.0*	2.1	7.8*	2.6*	4.9
Non-Hispanic Asian/Pacific Islander	0.0*	1.7*	0.0*	0.3*	0.0*	0.0*	0.1*
Hispanic	2.9	4.0	2.1*	6.3	5.2	5.0	4.8

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, May 2025 sourced from Vital Statistics of NYS https://www.health.ny.gov/community/health_equity/reports/county/

i Note

*: Data are unstable due to fewer than 10 events in the numerator. Note: Pregnancies are the sum of the number of live births, induced terminations of pregnancies, and all fetal deaths.

10.3.23.4 Self-Pay or Medicaid Births / Pregnancies

Most births in the M-H Region were covered by private insurance or Medicaid, with only a small percentage of births as self-pay. In 2022, a majority of births in Dutchess, Putnam, Ulster, and Westchester Counties were covered by private insurance, while a majority of births in Orange, Rockland, and Sullivan Counties were covered by Medicaid Figure 10.73.

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Figure 10.73: Percentage of Live Births by Financial Coverage, 2022

Table 10.76: Percentage of Live Births by Financial Coverage, 2022

Table 10.76									
Insurance	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NY
Medicaid	32.4	57.3	23.7	60.9	66.6	44.7	32.5	45.5	49.8
Self-pay	0.3	0.8	0.1	0.7	0.4	0.3	0.3	0.5	1.0
Private	65.0	35.3	72.3	30.7	27.0	49.7	61.7	48.2	45.7

i Source

Vital Statistics of NYS, May 2025 https://www.health.ny.gov/statistics/vital_statistics/2022/table13.htm

i Note

Note: Other forms of coverage not shown include Indian Health, CHAMPUS, Other, and Not Stated. Medicaid includes births with Medicaid

listed as secondary payer.

10.3.24 Adverse Birth Outcomes

10.3.24.1 Preterm Births

Preterm birth is when a mother gives birth to a baby more than three weeks before its due date. Preterm babies, especially those born very early, often have medical complications. While these complications may vary, the more premature a baby is, the higher the risk for complications. Short-term complications of premature birth may include problems with breathing, metabolism, temperature control, blood, and the heart, brain, gastrointestinal system, and immune system. Long-term complications of premature birth may include problems with vision, hearing, dental health, behavioral and mental health, cerebral palsy, impaired learning, and other chronic health issues (161).

Risk factors for premature birth include pregnancy with twins, triplets, or other multiples; conceiving through in vitro fertilization; smoking cigarettes or using illicit drugs; certain infections, especially those of the amniotic fluid and lower genital tract; certain chronic conditions, such as high blood pressure or diabetes; stressful life events; physical injury or trauma; and an interval of less than six months between pregnancies. While the preterm birth rate declined 1% nationwide in 2022, racial and ethnic differences in preterm birth rates remain. In 2022, the preterm birth rate among Black women in the U.S. was about 50% higher than the rate among White or Hispanic women (162).

Healthy People 2030 set an objective to reduce the total number of preterm births to 9.4% (163). In 2021, NYS excluding NYC, as well as Dutchess, Sullivan, and Ulster Counties, did not reach this goal. In the M-H Region, Rockland County had the lowest rate of preterm births (6.5%), while Dutchess, Sullivan, and Ulster Counties had the highest rates (9.7%, 9.7%, and 10%, respectively). The percentage of preterm births generally remained stable from 2014 to 2021 [see Figure 159].

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Figure 10.74: Percentage of Preterm Births, 2014–2021

Table 10.77: Percentage of Preterm Births, 2014–2021

Table 10.77									
Year	Three-Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2014	8.8	7.9	9.7	6.4	10.8	8.5	9.3	9.0	8.8
2015	9.1	8.3	10.2	6.7	10.6	8.6	9.2	8.7	8.7

Year	Three-Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2016	9.2	8.2	9.4	7.0	9.6	8.6	9.0	9.1	8.9
2017	9.6	8.2	9.0	6.5	8.9	8.5	8.9	9.0	9.0
2018	9.2	8.1	8.3	6.4	9.1	9.0	9.1	9.0	9.0
2019	9.0	8.3	8.7	6.3	10.3	9.0	9.1	9.3	9.2
2020	9.4	8.4	9.1	6.6	9.7	9.9	9.0	9.3	9.2
2021	9.7	8.4	9.1	6.5	9.7	10.0	9.0	9.6	9.7

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabis/PHIG_Public/chirs/#

i Note

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC.

10.3.24.2 Low Birthweight Births

Low birthweight (LBW) describes babies born weighing less than 2.5 kilograms (5 pounds, 8 ounces). Over 8% of all births in the U.S. are LBW, and this percentage is increasing (164). This is thought to result in part from an increased number of babies born in multiples, as these babies are more likely to be born prematurely. The primary cause of LBW is preterm birth, which means a baby has less time in a mother's uterus to grow and gain weight. Another cause of LBW is intrauterine growth restriction (IUGR), which occurs when a baby does not grow adequately during pregnancy due to problems with the placenta, the mother's health, or the baby's condition. Babies with IUGR may be born at full term but still have LBW.

Different risk factors can contribute to a baby being born with LBW. Non-Hispanic Black babies are twice as likely to have LBW as non-Hispanic White babies. Babies born to teen mothers also have a higher risk of LBW. Babies born in multiples are at increased risk because they are more likely to be born preterm. Maternal health can also contribute to LBW risk due to exposure to alcohol, cigarettes, and illicit drugs. Babies born to mothers of low socioeconomic status are also at higher risk of LBW due to poorer nutrition, inadequate prenatal care, and pregnancy complications (164).

Babies with LBW have a higher risk of complications. They may have a harder time eating, gaining weight, controlling body temperature, and fighting

infections. Because many babies with LBW are also premature, it can be difficult to determine which problems are due to prematurity and which are due to LBW (164). Generally, the lower the birthweight, the greater the risk for complications.

All M-H Region counties fell below the overall NYS excluding NYC percentage of low birthweight births (8.0%), except Sullivan County (8.1%). Orange and Rockland Counties had the lowest rates of low birthweight births (7.1% and 5.7%, respectively). From 2014 to 2021, the percentage of LBW births in the M-H Region remained similar [see Figure 160].

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Figure 10.75: Percentage of Low Birthweight Infants, 2014–2021

Table 10.78: Percentage of Low Birthweight Infants, 2014–2021

Table 10.78									
Year	Three-Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2014	7.5	6.8	7.5	6.2	9.3	7.3	8.1	7.7	7.8
2015	7.5	6.9	7.4	6.3	8.8	7.4	8.2	7.5	7.8
2016	7.4	6.6	7.0	6.3	8.3	7.2	8.0	7.7	7.9
2017	7.5	6.7	7.0	6.0	7.2	7.2	7.9	7.7	8.1
2018	7.5	6.6	6.5	5.8	7.8	7.6	7.8	7.7	8.1
2019	7.3	7.0	6.6	5.6	8.6	7.7	7.8	7.7	8.1
2020	7.8	7.0	7.0	5.7	8.3	7.9	7.7	7.8	8.2
2021	7.8	7.1	7.3	5.7	8.1	7.9	7.8	8.0	8.4

Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabis/PHIG_Public/chirs/#

Note

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC. Low birth weight includes babies weighing less than 2.5 kg (5 pounds, 8 ounces) at time of birth.

There are also racial and ethnic disparities in low birthweight births. In each county in the M-H Region, non-Hispanic Black women had higher percentages of pregnancies resulting in LBW births [see Figure 161].

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Figure 10.76: Percentage of Low Birthweight Infants by Race and Ethnicity, 2020–2022

Table 10.79: Percentage of Low Birthweight Infants by Race and Ethnicity, 2020–2022

Table 10.79							
Race and Ethnicity	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westch
Non-Hispanic White	6.5	5.7	7.1	4.6	7.2	7.2	5.8
Non-Hispanic Black	13.4	13.4	10.2*	10.4	16.9	11.8	13.0
Non-Hispanic Asian/Pacific Islander	8.0	8.1	4.2*	9.3	5.4*	7.2*	9.2
Hispanic	8.1	8.5	7.6	7.1	9.0	7.5	7.9

i Source

NYS County Health Indicators by Race and Ethnicity Dashboard, May 2025 sourced from Vital Statistics of NYS https://www.health.ny.gov/community/health_equity/reports/county/

i Note

*: Data are unstable due to fewer than 10 events in the numerator. Note: Low birth weight includes babies weighing less than 2.5 kg (5 pounds, 8 ounces) at the time of birth.

10.3.24.3 Infant Mortality

Infant mortality is the death of an infant before their first birthday. It is an important indicator of maternal and infant health, as well as the overall health of a society (165). The five leading causes of infant mortality in the U.S. in 2018 were birth defects, preterm birth and low birthweight, injuries, sudden infant death syndrome, and maternal pregnancy complications. The risk of infant mortality can be reduced by increasing access to high-quality care and community-based interventions.

One Healthy People 2030 objective is to reduce the rate of all infant deaths to no more than 5 infant deaths per 1,000 live births (166). All counties in the M-H Region, as well as NYS overall and NYS excluding NYC, met or surpassed this goal in 2021, with infant mortality rates at or below 5.0 per 1,000 live births. Sullivan and Ulster Counties had the highest infant mortality rates (5.0 and 4.8 deaths per 1,000 live births, respectively), while Putnam and Rockland Counties

had the lowest rates (2.6 and 2.9 deaths per 1,000, respectively). From 2014 to 2021, all M-H Counties except Sullivan saw a decrease in infant mortality, though Ulster County’s infant mortality rate rose from 2019 to 2021 Figure 10.77.

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Figure 10.77: Infant Mortality, Rate per 1,000 Live Births, 2014–2021

Table 10.80: Infant Mortality, Rate per 1,000 Live Births, 2014–2021

Table 10.80									
Year	Three-Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2014	4.9	5.3	3.7*	4.0	4.6	5.3	4.1	5.1	4.6
2015	4.0	4.9	2.0*	3.6	4.9	5.0	3.6	5.0	4.6
2016	3.4	4.0	1.6*	3.6	4.9	4.8	3.1	5.0	4.4
2017	4.5	3.9	2.0*	3.0	4.4	4.0	3.6	4.7	4.5
2018	4.3	3.6	2.5*	3.0	3.6*	3.3	3.8	4.9	4.3
2019	4.2	3.9	3.2*	2.8	3.5*	3.3	3.8	4.7	4.3
2020	3.5	3.9	2.8*	3.1	4.4	3.9	3.3	4.5	4.1
2021	3.5	3.6	2.6*	2.9	5.0	4.8	3.3	4.5	4.2

i Source

NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tab-vis/PHIG_Public/chirs/#

i Note

*: The rate is unstable. Note: Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC. Infant mortality includes the death of a baby that occurs between the time it is born and 1 year of age.

10.3.24.4 Breastfeeding

The U.S. Dietary Guidelines for Americans, as well as the American Academy of Pediatrics and the World Health Organization, recommend that infants be exclusively breastfed for about the first 6 months. Breastfeeding provides multiple benefits for both the infant and the mother, including lower risk of certain diseases (167).

In 2022, Ulster County had the highest rate of infants who were exclusively breastfed in the hospital among all infants (61.3%), while Rockland County had the lowest rate (27.7%). From 2013 to 2022, there was a decrease in the percentage of infants who were exclusively breastfed in the hospital in all counties in the M-H Region except Ulster County Figure 10.78.

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Figure 10.78: Percentage of Infants Who Are Exclusively Breastfed in the Hospital among All Infants, 2013–2022

Table 10.81: Percentage of Infants Who Are Exclusively Breastfed in the Hospital among All Infants, 2013–2022

Table 10.81									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2013	57.8	55.4	63.8	46.0	45.1	63.1	55.0	54.1	51.3
2014	55.1	50.5	68.5	52.0	49.1	61.6	53.0	53.5	52.5
2015	55.5	49.7	67.8	52.7	52.7	63.2	50.6	52.8	52.5
2016	56.6	44.0	61.4	36.9	54.3	65.6	54.5	50.0	52.4
2017	56.8	44.3	64.6	38.0	55.7	64.3	52.2	49.6	51.7
2018	52.3	37.7	65.4	31.2	54.4	61.3	52.1	46.1	50.7
2019	49.6	36.9	53.4	32.7	50.7	60.8	51.0	44.9	49.6
2020	52.4	37.7	48.3	29.8	50.2	57.8	48.5	43.4	48.8
2021	49.7	38.1	49.1	34.0	49.0	60.4	43.8	42.5	47.9
2022	48.5	38.2	38.5	27.7	43.5	61.3	37.2	38.2	46.7

Source

NYS Prevention Agenda Tracking Dashboard, June 2025
https://webbi1.health.ny.gov/SASStoredProcess/guest?__program=%2FEBI%2FPHIG%2Fapps%2Fdashboard%2Fpa_dashboard&p=ch&cos=33

Note

Note: This includes the number of newborn infants who were fed only breast milk since birth while in the hospital, based on NYS residence, among live-born infants not admitted to the Neonatal Intensive Care Unit and not transferred to another hospital.

10.3.24.5 Oral Health

Poor oral health has been linked to chronic diseases such as diabetes and heart disease. It has also been linked to lifestyle behaviors, including tobacco use and eating and drinking substances with high sugar content. In the U.S., one in five adults aged 20 to 64 years has at least one untreated cavity (168). According to the CDC, the U.S. spends more than \$124 billion per year on dental care. On average, more than \$45 billion in productivity and more than 34 million school hours are lost because of dental emergencies requiring unplanned care. Oral diseases include conditions such as caries (also known as cavities or tooth decay), gum disease, and oral cancers. Good oral health is achievable and is an important part of overall health. Visiting a dentist twice a year for cleanings, and increasing daily flossing and brushing in the morning and evening, are ways to prevent poor oral health.

The most common barriers to good oral health include financial barriers, geographic location, lack of dental insurance, poor oral health literacy, and language, education, or cultural barriers (169). To combat poor oral health, people are encouraged to have a dental visit at least once a year for routine examination and cleaning. Dental care is harder to access for low-income populations who cannot afford comprehensive dental coverage. Between 2019 and 2020, the percentage of adults who had a dental visit within the past 12 months decreased across all family income levels, but rates were lowest in households below the Federal Poverty Level, with only 45.7% of adults in 2020 reporting a dental visit within the past 12 months (170). This includes people enrolled in Medicaid, where general health care coverage is limited compared to private or other forms of insurance.

Compared to the overall population of Medicaid enrollees, those aged 2 to 20 years were more likely to visit a dentist within the last year. NYS excluding NYC had a higher percentage of all Medicaid enrollees who had a dental visit within the last year compared to NYS (30.2% and 29.5%, respectively). Of the seven counties in the M-H Region, Rockland had the highest percentage of all enrollees (45.5%) and those aged 2 to 20 years (64.4%) who had a dental visit within the past year. Six out of seven counties exceeded the NYS rate for all enrollees, as well as for enrollees aged 2 to 20 years having a dental visit within the past year Figure 10.79.

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Figure 10.79: Percentage of Medicaid Enrollees with at least One Dental Visit Within The Last Year, 2021–2023

Table 10.82: Percentage of Medicaid Enrollees with at least One Dental Visit Within The Last Year, 2021–2023

Table 10.82

County	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS exc
All Enrollees	30.8	35.8	31.6	45.5	29.1	28.5	30.7	30.2
Enrollees Aged 2-20	49.2	51.5	53.1	64.4	43.6	47.8	52.0	54.2

i Source

NYSDOH Behavioral Risk Factor Surveillance System, February 2025 sourced from NYS Medicaid Program https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

Note: This includes the number of Medicaid enrollees who had a dental visit within the past 12 months.

Across the M-H Region through 2022, each county saw a slight decrease. The 2019 data, a three-year average that includes data from 2020, could indicate a decrease in dental visits due to COVID-19-related concerns that prevented people from seeking medical and dental treatment , Figure 10.80.

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Figure 10.80: Percentage of All Medicaid Enrollees with a Dental Visit in the Past 12 Months, 2019–2022

Table 10.83: Percentage of All Medicaid Enrollees with a Dental Visit in the Past 12 Months, 2019–2022

Table 10.83

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS
2019	31.1	34.8	32.8	45.6	31.0	28.6	32.7	33.5
2020	30.9	34.1	31.7	45.3	29.8	28.4	31.2	26.3
2021	30.3	33.9	30.7	44.7	28.5	27.7	29.8	29.8
2022	30.8	35.8	31.6	44.5	29.1	28.5	30.7	29.8

i Source

NYSDOH Behavioral Risk Factor Surveillance System, February 2025
sourced from NYS Medicaid Program https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

To prevent long-term dental damage, it is essential to instill good hygiene habits during childhood. Compared to children who have good oral health, those with poor oral health are more likely to miss school and have lower grades in their classes (171).

Chapter 11

Behavioral Health

11.1 Mental Health

Health is an all-encompassing term that involves not only physical well-being but also mental wellness. The World Health Organization (WHO) defines health as a “state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity” (172). There are many factors that contribute to a person’s mental health, including daily habits, traumatic life events, family history of mental illness, and substance use. Almost one in five young people in the U.S. are affected by some type of mental, emotional, or behavioral disorder (MEB), such as depression or substance use (173). Poor mental health can affect all aspects of an individual’s life, including family, school, and work. It is a major economic burden in the U.S., costing \$193.2 billion in lost earnings annually due to serious mental illness (174). Mental and physical health are closely connected, and it is therefore important to address mental health issues in the community.

In 2021, the percentage of adults who reported poor mental health for 14 or more days was highest in Putnam, Sullivan, and Ulster Counties (17.4%, 16.3%, and 15.7%, respectively), while the lowest percentage was in Rockland County (9.4%). The M-H Region as a whole was lower than NYS (10.4% vs 13.4%, respectively). From 2016 to 2021, the percentage increased in most counties, with the exception of Dutchess and Orange.

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(a) Percentage of Adults with Poor Mental Health for 14 or More Days in the Last Month, 2016, 2018, and 2021

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(b)

Figure 11.1

Table 11.1: Percentage of Adults with Poor Mental Health for 14 or More Days in the Last Month, 2016, 2018, and 2021

Table 11.1

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	13.7	11.8	8.5	8.0	14.9	12.3	9.1	10.6	11.2
2018	11.7	8.6	10.0	9.2	11.2	11.6	8.9	9.1	11.8
2021	10.7	10.4	17.4	9.4	16.3	15.7	10.4	10.4	13.2

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://www.health.ny.gov/statistics/brfss/expanded/>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” Based on responses to this question, BRFSS defines “poor mental health” as an adult over the age of 18 reporting 14 or more days to this question.

One major disorder that can lead to poor mental health is depression. Depression is a mood disorder that causes a constant feeling of sadness or lack of interest in usual life activities. In 2021, the highest percentage of people reporting a depressive disorder was in Ulster County (24.1%), and the lowest was in Westchester County (12.4%) [see Figure 167]. From 2016 to 2021, the percentage of people reporting a depressive disorder increased in all counties, the Mid-Hudson (M-H) Region, and NYS.

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Figure 11.2: Percentage of Adults Reporting a Depressive Disorder, 2016, 2018, and 2021

Table 11.2: Percentage of Adults Reporting a Depressive Disorder, 2016, 2018, and 2021

Table 11.2									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	12.9	9.4	8.0	8.3	19.0	14.5	10.7	10.8	13.0
2018	16.8	11.6	10.4	12.5	23.5	21.4	13.2	13.6	16.6
2021	19.5	16.3	16.6	13.7	19.7	24.1	12.4	14.2	18.7

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://www.health.ny.gov/statistics/brfss/expanded/>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Have you ever been told you had a depressive disorder (including depression, major depression, dysthymia, or minor depression)?”

11.2 Substance Use

Substance use refers to the recurrent use of substances, such as nicotine, alcohol, and/or opioids. Drug addiction, also called substance use disorder, can affect a person’s brain and behavior and interfere with responsibilities at school, work, or home. It is linked to many health problems, and overdoses can lead to hospital visits or death (175). According to the 2023 National Survey on Drug Use and Health (NSDUH), 48.5 million people aged 12 years or older (or 17.1% of this population) had a substance use disorder in the past year, including 28.9 million who had alcohol use disorder and 27.2 million who had a drug use disorder (176).

11.2.1 Tobacco & Vaping

Tobacco use leads to diseases that harm almost every organ in the body. Smoking is the leading cause of preventable death in the U.S., and in 2018 smoking-related illness cost an estimated more than \$600 billion in direct medical care and lost productivity (177). Tobacco contains nicotine, a chemical substance that can lead to addiction. More than 16 million Americans are living with a disease caused by smoking, including cancer (specifically lung cancer), heart disease, stroke, diabetes, and COPD (178). Table 11.3 shows the increased risk that smoking can have on the incidence and mortality of certain diseases.

Table 11.3: Increased Risk of Disease Incidence from Smoking, 2021

Table 11.3	
Disease	Risk Increase
Coronary Heart Disease Incidence	2–4 times
Stroke Incidence	2–4 times
Lung Cancer Incidence	25 times

Tobacco use can also have disproportionate effects on diverse populations. For example, the Medicaid population has a higher prevalence of smoking and has a harder time quitting. African Americans are more likely to die from smoking-related disease. People with mental health conditions are four times more likely to die from smoking. People experiencing disability also have a higher prevalence of smoking. Figure 168 shows the percentage of New York State Smokers Quitline users from the Metro Region, which includes the seven M-H Region counties, who fell into these diverse categories.

 Source

NYS Smokers’ Quitline, 2024 https://www.nysmokefree.com/wp-content/uploads/2025/02/2024_SustainabilityReport_StatewideHighlights.pdf

From 2016 to 2021, the percentage of adults who smoked cigarettes decreased in almost every county in the M-H Region, with the exception of Dutchess and Rockland Counties, NYS, and NYS excluding NYC. In 2021, Dutchess County had the highest percentage of adults who smoked cigarettes and Westchester County had the lowest percentage (17.4% and 6.3%, respectively). The Healthy People 2030 goal is to reduce cigarette smoking among adults to 6.1% (179). Figure 11.4

Table 11.4: Percentage of Adults Who Are Current Smokers, 2016, 2018, and 2021

Table 11.4									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	16.4	13.2	18.3	6.6	20.1	15.6	9.4	11.7	17.0
2018	12.2	11.7	9.0	7.6	21.6	14.7	7.4	10.2	14.7
2021	17.4	12.0	16.7	14.0	13.3	12.7	6.3	11.1	14.1

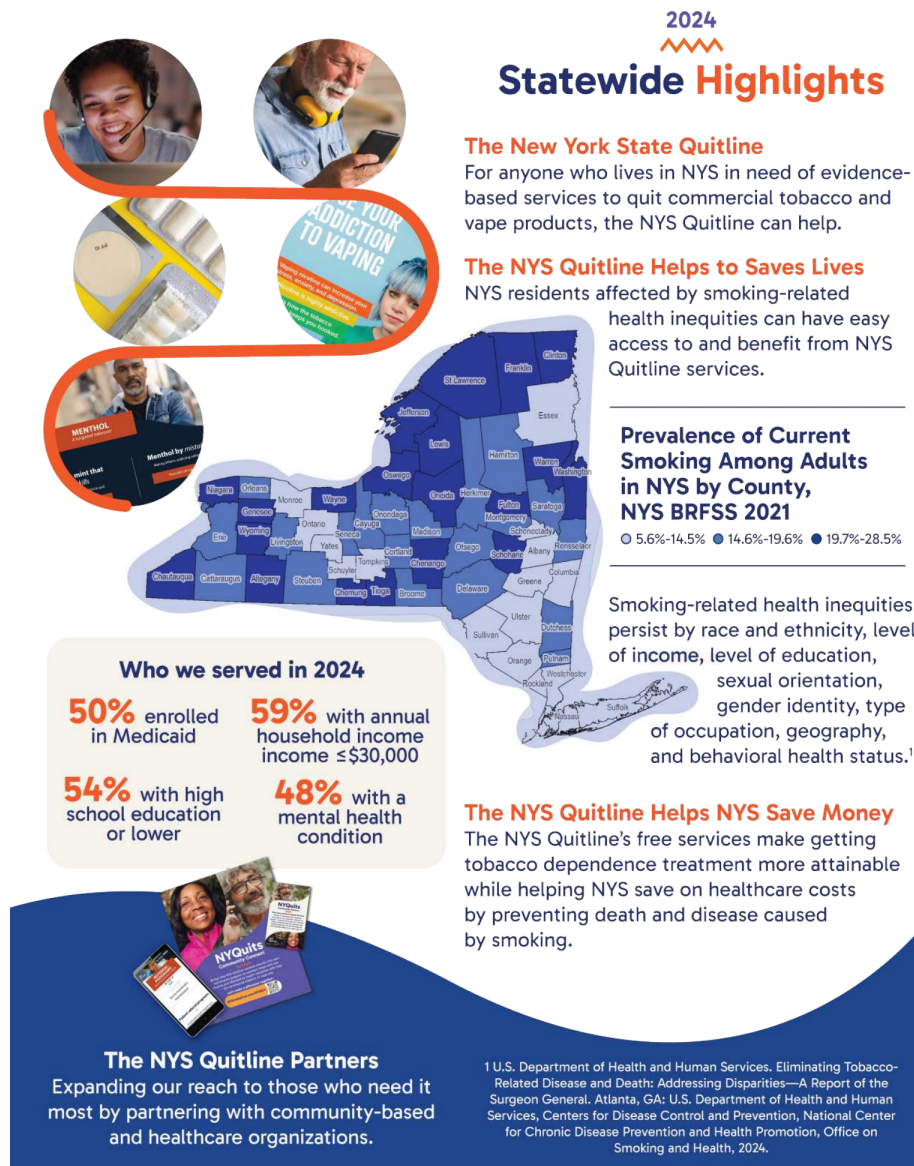


Figure 11.3: 2024 NYS Smokers Quitline statewide highlights graphic

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Figure 11.4: Percentage of Adults Who Are Current Smokers, 2016, 2018, and 2021

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://www.health.ny.gov/statistics/brfss/expanded/>

i Note

*: Percentage is unreliable due to large standard error. Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Have you smoked at least 100 cigarettes in your entire life?” and “How long has it been since you last smoked a cigarette, even one or two puffs?” Based on responses to both questions, BRFSS defines “current smoker” as an adult over the age of 18 who has smoked at least 100 cigarettes in their lifetime and currently smokes on at least some days.

Although tobacco use appears to be decreasing over time, the use of electronic nicotine delivery systems (ENDS), or vaping, has become widely popular over the past few years. Electronic nicotine delivery systems (electronic cigarettes or e-cigarettes, vaping pens, hookah pens, etc.) were originally created to provide alternative products for people trying to quit smoking cigarettes. Although use became a trend among young adults, according to the NYSDOH, e-cigarette use among high school youth appears to have peaked in 2018 at 27.4% and declined to 18.7% in 2022. Similarly, use of any tobacco product among high school students, including ENDS, has decreased since 2018 from 30.6% to 20.8% in 2022 and has reached the lowest youth smoking rate on record. (180)

For more information, please visit the CDC’s Electronic Cigarette page (181).

For more information on how to quit smoking, call 1-866-NY-QUITS or visit <https://nysmokefree.com/>.

11.2.2 Alcohol

Excessive alcohol use has led to more than 170,000 deaths and about 4 million years of potential life lost each year in the U.S. from 2020 to 2021 (182). Binge drinking, defined as when women have four or more drinks or men have five or more drinks on one occasion, is the most common pattern of excessive alcohol use (183). Among adults in the United States, 17% binge drink (184).

Binge drinking decreased in almost all counties in the M-H Region from 2016 to 2021, with the exception of Rockland and Sullivan Counties. Putnam County had the highest percentage of adults binge drinking in 2021 at 18.7%, and Rockland County had the lowest percentage at 12.2% Figure 11.5.

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Figure 11.5: Percentage of Adults Binge Drinking During the Past Month, 2016, 2018, and 2021

Table 11.5: Percentage of Adults Binge Drinking During the Past Month, 2016, 2018, and 2021

Table 11.5									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2016	17.5	15.7	21.7	11.0	15.7	22.2	20.7	18.1	19.1
2018	20.7	16.1	14.1	12.6	22.1	18.5	16.7	16.1	18.4
2021	15.1	13.8	18.7	12.2	17.8	13.9	13.0	13.1	16.1

i Source

NYSDOH Behavioral Risk Factor Surveillance System, May 2025
<https://www.health.ny.gov/statistics/brfss/expanded/>

i Note

Note: The percentage is age-adjusted. An adult is a person aged 18 years or older. The Behavioral Risk Factor Surveillance System asks respondents, “Considering all types of alcoholic beverages, how many times during the past 30 days did you have (for men) 5 or more drinks on an occasion or (for women) 4 or more drinks on an occasion?” Based on the responses to this question “binge drinking” is defined as consuming 4 or more drinks for women and 5 or more drinks for men on a single occasion.

Binge drinking can lead to many different health and social problems, including unintentional motor vehicle accidents. In 2023, 30% of traffic-related deaths in the U.S. were due to alcohol-impaired driving (185). For regional data regarding alcohol-related motor vehicle injuries and deaths, refer to the Motor Vehicle Accidents section.

11.2.3 Opioid Use

Opioids are a class of drugs that include illicit drugs such as heroin, synthetic opioids such as fentanyl, and prescription pain relievers such as oxycodone, hydrocodone, and morphine. According to the CDC, in 2023 about 76% of drug overdoses involved an opioid, and deaths involving multiple drugs also increased (186). The financial costs of management, treatment, and lost productivity due

to misuse of illicit drugs, prescription drugs, and alcohol were estimated at \$442 billion in 2012 (173).

From 2019 to 2020, ED visit rates for overdoses involving any opioid increased in almost all seven counties in the M-H Region except Westchester. Since 2020, rates have fallen or remained relatively stable in all seven counties in the M-H Region, as well as in NYS and NYS excluding NYC Figure 11.6.

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Figure 11.6: All Emergency Department Visits Involving Any Opioid Overdose, Age-Adjusted Rate per 100,000 Population, 2019–2022

Table 11.6: All Emergency Department Visits Involving Any Opioid Overdose, Age-Adjusted Rate per 100,000 Population, 2019–2022

Table 11.6									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	98.8	62.8	51.6	29.1	84.8	94.1	35.2	53.7	66.7
2020	88.9	82.7	55.7	38.7	154.3	127.2	34.1	61.8	74.3
2021	83.9	64.0	60.9	36.1	136.9	113.9	39.4	58.8	73.1
2022	77.9	64.5	40.1	28.4	123.9	80.4	34.8	51.1	64.8

i Source

NYS Opioid Data Dashboard, May 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

Note: Includes outpatient and admitted patient visits to the emergency department involving any opioid poisoning as the principal diagnosis or first-listed cause of injury.

Hospital discharges involving any opioid overdose have generally remained stable over time, with the exception of Sullivan County, which saw a large rate increase in 2020 before rates began to decrease Figure 11.7.

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Figure 11.7: Hospital Discharges Involving Any Opioid Overdose, Age-Adjusted Rate per 100,000 Population, 2019–2022

Table 11.7: Hospital Discharges Involving Any Opioid Overdose, Age-Adjusted Rate per 100,000 Population, 2019–2022

Table 11.7

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	19.1	13.8	9.3	8.8	16.8	18.4	10.4	12.6	13.4
2020	17.3	15.0	13.7	10.0	28.1	16.0	10.1	13.0	14.3
2021	17.0	11.5	9.5*	8.5	22.0	19.2	11.9	12.9	13.7
2022	13.9	13.0	9.9	9.6	16.6	14.7	8.0	10.7	12.1

i Source

NYS Opioid Data Dashboard, May 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

*: The rate is unstable. Note: Y-axis does not begin at zero in order to clearly display trend lines. Includes hospital discharges involving any opioid poisoning, principal diagnosis or first-listed cause of injury.

Substance use treatment is intended to help people address problems associated with their use of alcohol or drugs, including related medical problems. Data on who actually seeks help can indicate whether interventions are effectively reaching those in need. In 2019, about 21.6 million people needed substance use treatment, but only 2.6 million received it. Despite increased awareness of the opioid epidemic, as well as laws and regulations that expanded treatment coverage, there has been no consistent upward trend in people seeking and accessing treatment (187). This flattened trend is evident in the M-H Region, where in most counties the number of individuals enrolled in OASAS-certified substance use disorder programs has remained relatively level Figure 11.8.

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Figure 11.8: Individuals Enrolled in Treatment Programs Reporting Any Opioid as a Primary Substance, Crude Rate per 100,000 Population, 2020–2023

Table 11.8: Individuals Enrolled in Treatment Programs Reporting Any Opioid as a Primary Substance, Crude Rate per 100,000 Population, 2020–2023

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester
2020	459.9	405.4	248.8	188.9	693.2	487.8	255.1
2021	475.0	393.7	252.1	197.9	710.7	531.2	251.9
2022	460.8	366.9	250.1	188.2	777.4	516.0	244.4
2023	447.6	333.5	224.5	190.9	778.3	496.4	233.2

i Source

Data request from NYS Office of Addiction Services and Supports Client Data System, May 2025

i Note

Note: This indicator includes people who were admitted to an OASAS-certified substance use disorder treatment program. A person is counted once if they were in treatment (received one or more services) during the calendar year. A unique person may receive multiple services or be in treatment for many years and, therefore, may be counted uniquely across one or more calendar years. Totals cannot be summed across years/rows because they are not mutually exclusive. The most recent data collected for the year of enrollment was used to determine the person's county of residence during the reported year. Any opioid use includes heroin use.

From 2019 to 2022, the rate of overdose deaths involving any opioid steadily increased across most counties in the M-H Region, as well as in NYS and NYS excluding NYC. In 2022, the highest rate was in Sullivan County and the lowest rate was in Rockland County (61.5 and 12.9 per 100,000 population, respectively) Figure 11.9.

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Figure 11.9: Overdose Deaths Involving Any Opioid, Crude Rate per 100,000 Population, 2019–2022

Table 11.9: Overdose Deaths Involving Any Opioid, Crude Rate per 100,000 Population, 2019–2022

Table 11.9

Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	22.1	20.7	12.1	14.1	39.8	17.9	9.4	15.3	16.1
2020	35.7	26.9	18.2	12.9	63.7	31.4	13.8	21.8	22.7
2021	29.1	33.8	20.4	19.1	46.4	25.6	15.0	22.6	25.2
2022	39.3	30.5	22.4	12.9	61.5	35.7	15.4	24.0	26.3

i Source

NYS Opioid Data Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

*: The rate is unstable. Note: Includes poisoning deaths involving any opioid, all manners, using all causes of death.

Figure 11.10 shows the rate of overdose deaths in 2022 stratified by the type of opioid used. The highest rate of overdose deaths in all counties was caused by opioid pain relievers. Synthetic opioids other than methadone were a close second.

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Figure 11.10: Overdose Deaths Involving Opioid Pain Relievers, Heroin, and Synthetic Opioids Other than Methadone, Age-Adjusted Rate per 100,000 Population, 2022

Table 11.10: Overdose Deaths Involving Opioid Pain Relievers, Heroin, and Synthetic Opioids Other than Methadone, Age-Adjusted Rate per 100,000 Population, 2022

Table 11.10

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	V
Opioid Pain Relievers	39.6	31.1	19.8	14.2	62.5	34.7	1
Heroin	3.5	5.9	2.2	2.2	10.1	2.8	2
Synthetic Opioids Other Than Methadone	37.2	28.0	18.0	12.6	58.1	32.6	1

i Note

*: The rate is unstable. Note: Includes poisoning deaths involving any opioid pain relievers (including illicitly produced opioids such as fentanyl), heroin, and synthetic opioids other than methadone, all manners, using all causes of death.

When overdose deaths are stratified by age, the rate of overdose death was higher in most counties among adults aged 45 to 64 years compared with those aged 18 to 44 years across all three types of overdose deaths (any opioid, heroin, and opioid pain relievers) Figure 11.11- Figure 11.13. This shows a shift from previous years, when overdose deaths were predominantly among adults aged 18 to 44 years. Sullivan County had the highest overdose death rates among adults aged 18 to 44 years caused by all three types (99.9, 11.5, and 99.9 per 100,000 population, respectively), as well as among adults aged 45 to 64 years (89.3, 23.5, and 89.3 per 100,000 population, respectively).

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Figure 11.11: Overdose Deaths among Adults Involving Any Opioid, Crude Rate per 100,000 Population, 2022

Table 11.11: Overdose Deaths among Adults Involving Any Opioid, Crude Rate per 100,000 Population, 2022

Table 11.11									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2019	22.1	20.7	12.1	14.1	39.8	17.9	9.4	15.3	16.1
2020	35.7	26.9	18.2	12.9	63.7	31.4	13.8	21.8	22.7
2021	29.1	33.8	20.4	19.1	46.4	25.6	15.0	22.6	25.2
2022	39.3	30.5	22.4	12.9	61.5	35.7	15.4	24.0	26.3

i Source

Source: NYS Opioid Data Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

Note: This includes adults aged 18–64 years old. Includes all poisoning deaths involving opioids, all manners, using all causes of death.

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Figure 11.12: Overdose Deaths among Adults Involving Heroin, Crude Rate per 100,000 Population, 2022

Table 11.12: Overdose Deaths among Adults Involving Heroin, Crude Rate per 100,000 Population, 2022

Table 11.12									
Age Group	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	N
18–44 years	5.8*	6.4*	3.2*	0.9*	11.5*	4.8*	3.7	4.4	3.
45–64 years	6.0*	10.8	3.4*	7.8*	23.5*	4.0*	2.6*	5.8	2.

i Source

Source: NYS Opioid Data Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

*: The rate is unstable. Note: This includes adults aged 18–64 years old. Poisoning deaths involving heroin, all manners, using all causes of death.

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Figure 11.13: Overdose Deaths among Adults Involving Opioid Pain Relievers, Crude Rate per 100,000 Population, 2022

Table 11.13: Overdose Deaths among Adults Involving Opioid Pain Relievers, Crude Rate per 100,000 Population, 2022

Table 11.13									
Age Group	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	N
18–44 years	63.1	42.0	28.7*	21.2	99.9	51.6	24.4	36.8	41.
45–64 years	55.4	50.0	34.4	24.6	89.3	51.6	22.4	36.5	38.

i Source

NYS Opioid Data Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

*: The rate is unstable. Note: This includes adults aged 18–64 years old. Includes poisoning deaths involving opioid pain relievers (including illicitly produced opioids such as fentanyl), all manners, using all causes of death.

There are many efforts being made at the federal, state, and local levels to combat the opioid epidemic. Methods include improving opioid prescribing practices; increasing education, training, and distribution of naloxone (an overdose reversal drug); and increasing access to medication-assisted treatment (188).

From 2020 to 2023, prescription rates for opioid analgesics (pain relievers) decreased across each county in the M-H Region, as well as in NYS and NYS excluding NYC. In 2023, Sullivan County had the highest opioid analgesic prescription rate and Westchester County had the lowest rate (352.7 and 162.9 per 1,000 population, respectively) Figure 11.14.

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Figure 11.14: Opioid Analgesics Prescriptions, Age-Adjusted Rate per 1,000 Population, 2020–2023

Table 11.14: Opioid Analgesics Prescriptions, Age-Adjusted Rate per 1,000 Population, 2020–2023

Table 11.14									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS exc
2020	348.0	321.2	300.1	225.1	502.0	436.9	202.3	275.9	342.4
2021	319.0	292.5	288.3	211.3	432.6	398.9	187.9	253.7	321.2
2022	296.2	269.6	261.7	193.7	398.5	364.7	173.3	233.8	300.2
2023	270.7	250.5	239.3	179.4	352.7	333.4	162.9	216.3	283.8

i Source

NYS Opioid Data Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/opioid/

i Note

Note: Includes Schedule II (Drugs with some medically acceptable uses, but with high potential for abuse and/or addiction. These drugs can be obtained through prescription.), III (Drugs with low to moderate potential

for abuse and/or addiction, but less dangerous than Schedule I or II. These drugs can be obtained through prescription but generally are not available over the counter.), and IV (Drugs with viable medical use and low probability of use or misuse.) opioid analgesic prescriptions dispensed to state residents.

Buprenorphine is an opioid used to treat opioid addiction. It is a medication that can be prescribed in physician offices, thereby increasing access to treatment. It can produce effects such as euphoria and respiratory depression, but these effects are much weaker than those of other opioids such as heroin (189). From 2020 to 2023, the rate of patients who received at least one buprenorphine prescription for opioid use disorder generally increased across each county and NYS [see Figure 180]. In 2023, Sullivan County had the highest buprenorphine prescription rate and Westchester County had the lowest rate (1529.8 and 215.3 per 100,000 population, respectively).

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Figure 11.15: Patients Who Received at Least One Buprenorphine Prescription for Opioid Use Disorder, Age-Adjusted Rate per 100,000 Population, 2020–2023

Table 11.15: Patients Who Received at Least One Buprenorphine Prescription for Opioid Use Disorder, Age-Adjusted Rate per 100,000 Population, 2020–2023

Table 11.15									
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS ex
2020	535.7	608.7	546.4	251.4	1392.5	916.9	197.2	422.9	638.4
2021	544.4	527.6	501.8	237.5	1261.5	913.7	183.3	398.5	637.7
2022	551.2	514.2	453.4	234.2	1303.8	976.4	187.8	403.9	657.2
2023	609.7	520.4	482.1	217.9	1529.8	1048.4	215.3	436.6	705.4

i Source

NYS Opioid Data Dashboard, May 2025 sourced from NYS Prescription Monitoring Program https://apps.health.ny.gov/public/tabis/PHIG_Public/opioid/

i Note

Note: Patients Who Received at Least One Buprenorphine Prescription for Opioid Use Disorder, Age-Adjusted Rate per 100,000 Population, 2020–2023

11.3 Suicide

Suicide is a serious public health problem that can have lasting harmful effects on individuals, families, and communities. It is associated with several risk factors, including experiences of bullying, sexual violence, and child abuse. In 2023, 12.8 million American adults considered attempting suicide, and over 49,000 died by suicide (190). Protective factors, such as connectedness with family and friends and access to health care services, can help prevent suicide.

Healthy People 2030 set a goal to reduce suicide rates to 12.8 suicides per 100,000 population. Four counties met this target, with three exceptions (Dutchess, Sullivan, and Ulster) [see Figure 181]. Suicide among young people is also a public health concern, especially in Ulster County, where the suicide mortality rate among teenagers aged 15 to 19 years was 12.0 per 100,000 population, though this rate is unstable.

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Figure 11.16: Suicide Mortality, Crude Rate per 100,000 Total Population Compared to Those 15–19 Years Old, 2020–2022

Table 11.16: Suicide Mortality, Crude Rate per 100,000 Total Population Compared to Those 15–19 Years Old, 2020–2022

Table 11.16								
	Three-Year Average							Single-Year
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson
Total Population	13.8	9.0	9.1	4.5	14.9	14.5	7.6	8.6
15–19 Years	6.4*	1.1*	5.5*	4.0*	7.2*	12.0*	2.6*	5.4*

i Source

NYS Community Health Indicator Reports Dashboard, April 2025 sourced from Vital Statistics of NYS <https://www.health.ny.gov/statistics/chac/indicators/index.htm>

i Note

*: The rate is unstable. Note: Three-year averages are used for counties and single-year rates are used for Mid-Hudson, NYS, and NYS excluding NYC. The ICD-10 codes used for suicide are: X60-X84, Y87.0.

Suicide mortality rates remained relatively flat for a few counties and NYS from 2018 to 2021, while increases were seen between 2020 and 2021 for Putnam,

Westchester, and Dutchess. Rockland County showed a steady decrease in suicide rate since 2018 Figure 11.17.

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Figure 11.17: Suicide Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 11.17: Suicide Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 11.17									
Year	Three-Year Average							Single-Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	12.8	10.1	6.2	7.4	12.2	13.2	6.4	10.0	8.2
2019	11.9	10.1	5.3	6.4	12.6	13.8	6.7	10.0	8.2
2020	12.6	9.3	4.6	5.6	14.3	13.0	6.5	9.6	7.9
2021	12.7	9.0	7.3	4.7	12.9	12.5	7.3	9.5	7.9

i Source

NYS Community Health Indicator Reports Dashboard, April 2025 sourced from Vital Statistics of NYS <https://www.health.ny.gov/statistics/chac/indicators/index.htm>

i Note

Note: Y-axis does not begin at zero in order to clearly display trend lines. Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC. The ICD-10 codes used for suicide are: X60-X84, Y87.0.

Chapter 12

Child Health

Preventive health care is important across all age groups. However, it is especially important for children and adolescents to help them avoid preventable diseases and maintain good health throughout their lives. According to the US Census Bureau, 5.8% of the population in the Mid-Hudson (M-H) Region is under five years old; Rockland County has the highest percentage of children in this cohort (8.5%) and Ulster County has the lowest (4.4%) Table 6.3.

Children are at risk for developing certain diseases, including ambulatory care sensitive (ACS) conditions. These are conditions where ED use is thought to be avoidable by focusing on interventions in primary care (191). Some ACS conditions include asthma, otitis media, gastroenteritis, and pneumonia.

12.1 Asthma

Asthma is caused by airway restriction in the lungs, resulting in difficulty breathing, wheezing, chest tightness, and coughing. It is a condition commonly found among children, but it can be managed and treated with medical care [see page 144]. Looking at the 2020–2022 hospitalization rate for those aged 0–4 years, the M-H Region had a higher hospitalization rate than NYS excluding NYC Figure 10.9 and Table 10.10.

12.2 Gastroenteritis

Gastroenteritis is an intestinal infection that can affect children starting at a young age. It is typically a viral infection that causes fever, watery diarrhea, nausea, vomiting, and abdominal pain (192). Viral infections are generally spread through contact with someone infected with the disease or by ingesting contaminated substances. Children are especially at risk at day care centers or schools, where they can encounter other infected classmates.

The 2020–2022 hospitalization rate of gastroenteritis for children 0 to 4 years of age in the M-H Region was higher than the hospitalization rate for NYS excluding NYC but lower than NYS Figure 12.1.

12.3 Otitis Media

Otitis media is an infection that occurs in the middle ear and is most often diagnosed in children. Even though antibiotics are typically used to clear the infection, some children are prone to chronic ear infections. This can lead to other consequences, such as antibiotic resistance, surgery, and hearing loss. Common symptoms of otitis media include ear pain, tugging or pulling at the ear, crying more than usual, trouble hearing, fever, and drainage from the ear (193).

For the 2020–2022 hospitalization rate for those aged 0–4 years, the M-H Region had the same rate as NYS but was slightly higher than NYS excluding NYC Figure 12.1.

12.4 Pneumonia

Pneumonia is an infection that causes inflammation in the air sacs in one or both lungs. Pneumonia can be caused by bacteria, viruses, or fungi. It can lead to serious consequences in young children, as well as people over age 65. Symptoms of pneumonia include fever, cough, chest pain, and shortness of breath (194).

The 2020–2022 hospitalization rate for children aged 0–4 years was higher in the M-H Region (15.2) than NYS (13.4) and NYS excluding NYC (11.5) Figure 12.1.

It is important that children be vaccinated to prevent pneumococcal infection. For more information about vaccination rates, please see page 270.

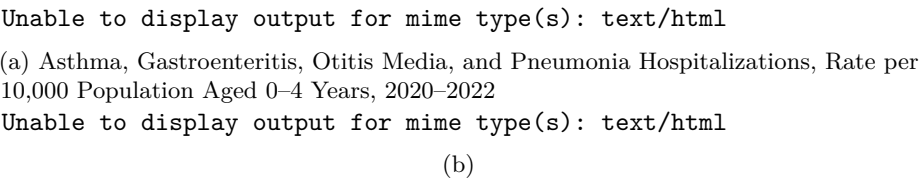


Figure 12.1

Table 12.1: Asthma, Gastroenteritis, Otitis Media, and Pneumonia Hospitalizations, Rate per 10,000 Population Aged 0–4 Years, 2020–2022

Table 12.1				
Region	Asthma	Gastroenteritis	Otitis Media	Pneumonia
Mid-Hudson	18.8	6.8	1.0	15.2

Region	Asthma	Gastroenteritis	Otitis Media	Pneumonia
NYS excl NYC	17.2	5.3	0.8	11.5
NYS	24.9	7.7	1.0	13.4

i Source

NYS Community Health Indicator Reports Dashboard, April 2025 sourced from NY Statewide Planning and Research Cooperative System https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

Note: The ICD-10 codes for otitis media are: H65.0, H65.1, H65.2, H65.3, H66.0, H66.1, and H66.2.

Chapter 13

Environmental Indicators

13.1 Safety

13.1.1 Injury

Injuries fall into two distinct categories: intentional acts (such as assaults or suicides) and unintentional incidents (such as falls, car accidents, or poisoning). Their predictable patterns and identifiable risk factors make injuries largely preventable (195).

Unintentional injury was the fourth leading cause of death in NYS in 2022, accounting for 10,920 fatalities statewide, which is equivalent to a rate of 50.6 deaths per 100,000 population (114). It is the number one cause of death for residents aged 1 to 44 years (195). Beyond mortality, injuries contribute to significant societal burdens, including financial costs, long-term disability, mental health challenges, and lost productivity (196).

In the Mid-Hudson (M-H) Region from 2020 to 2022, Sullivan County had the highest three-year average unintentional injury mortality rate (92 per 100,000 population), while Westchester County recorded the lowest rate (32 per 100,000 population). The unintentional injury mortality rate is trending up in all seven counties, alongside NYS excluding NYC and NYS overall Figure 13.1.

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(a) Unintentional Injury Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

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(b)

Figure 13.1

Table 13.1: Unintentional Injury Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 13.1									
Year	Three-Year Average		Putnam	Rockland	Sullivan	Ulster	Westchester	Single-Year NYS excl NYC	NYS
	Dutchess	Orange							
2018	49.0	49.0	38.0	32.0	75.0	50.0	27.0	41.0	34.0
2019	52.0	49.0	34.0	36.0	82.0	57.0	28.0	40.0	34.0
2020	52.0	50.0	36.0	39.0	85.0	59.0	30.0	47.0	41.0
2021	59.0	56.0	41.0	38.0	92.0	64.0	32.0	52.0	47.0

i Source

Source: NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabs/vis/PHIG_Public/chirs/reports/#county

i Note

Note: Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC. Y-axis does not begin at zero in order to clearly display trend lines. The ICD-10 codes for unintentional injury are: V01-X59, Y85-Y86.

13.2 Poisonings

In 2023, preventable poisonings resulted in 100,304 U.S. deaths, with a death rate of 29.9 per 100,000 population, nearly eight times higher than 1999 levels despite a modest 2.5% decline from 2022 (197). Poisonings disproportionately affected adults aged 19 and older, who accounted for 98.4% of fatal unintentional poisonings and 90% of non-fatal poisonings (198). These poisoning trends were driven largely by drug overdoses, primarily involving opioids, which accounted for 93% of fatalities (199). In contrast, based on call data from the American Association of Poison Control Centers, 40% of poison exposures in the United States in 2023 occurred in children under 5 years old and were largely attributable to ingestion of personal care and household cleaning products (198).

In New York, poison control centers handled 96,197 calls statewide during 2023. Approximately 80% of calls in the state stemmed from unintentional exposure. Residential settings accounted for 93% of these cases. Children aged 5 years and younger were disproportionately affected, with 34,522 exposure cases reported, representing 36% of all New York poison exposure incidents that year. The

leading causes for exposures in young children included ingestion of cleaning substances (10.1%), personal care products (10%), foreign bodies or toys (9.3%), and analgesics (9%) (200).

The Upstate New York Poison Center handles poison exposure calls for all Mid-Hudson (M-H) Region counties except Westchester, which receives coverage from the NYC Poison Center. In 2024, call rates varied significantly: Putnam County reported 226 exposures per 100,000 residents, while Sullivan County saw the highest rate at 636 per 100,000 Figure 13.2.

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Figure 13.2: Poison Center Calls, Rate per 100,000 Population, 2020–2024

Table 13.2: Poison Center Calls, Rate per 100,000 Population, 2020–2024

Table 13.2							
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester
2020	541.0	604.0	237.0	431.0	583.0	609.0	497.0
2021	421.0	593.0	220.0	456.0	589.0	494.0	441.0
2022	436.0	613.0	222.0	470.0	542.0	446.0	408.0
2023	443.0	573.0	230.0	399.0	642.0	444.0	404.0
2024	464.0	570.0	226.0	366.0	636.0	530.0	388.0

i Source

Source: Data request from Upstate NY Poison Center and NYC Poison Center, May 2025

i Note

Note: Rates calculated using population estimates from U.S. Census Bureau’s 2023 American Community Survey (ACS) 5-Year Estimate, Table B01003.

Orange and Rockland County had the highest proportion of calls for poisoning exposures involving children under 5 (38.5% and 38.4%, respectively), while Putnam County reported the lowest (28.5%) Figure 13.3.

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Figure 13.3: Percentage of Poison Center Calls Involving Children 5 Years Old and Younger, 2020–2024

Table 13.3: Percentage of Poison Center Calls Involving Children 5 Years Old and Younger, 2020–2024

Table 13.3							
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester
2020	29.7	30.9	20.1	32.7	34.6	31.1	34.6
2021	30.9	33.4	26.4	36.1	30.4	30.2	34.2
2022	31.9	35.8	26.7	36.8	34.0	30.3	33.8
2023	32.6	40.5	26.7	41.3	32.7	28.8	33.8
2024	30.6	38.5	28.5	38.4	30.8	29.0	31.6

i Source

Source: Data request from Upstate NY Poison Center and NYC Poison Center, May 2025

In NYS, cannabis has been legal for medical purposes since 2016 and for recreational use since 2021 (201). Increased availability could increase the risk for cannabis-related poisoning, but this trend is not consistently evident in call center data for Mid-Hudson (M-H) Region counties from 2020 to 2024. In 2024, Sullivan County saw the highest rate of cannabis-related calls at 8.8 per 100,000 people, whereas Rockland County recorded the lowest rate at 1.8 per 100,000 people Figure 13.4.

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Figure 13.4: Poison Center Cannabis Calls, Rate per 100,000 Population, 2020–2024

Table 13.4: Poison Center Cannabis Calls, Rate per 100,000 Population, 2020–2024

Table 13.4							
Year	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester
2020	1.4	5.8	2.0	2.2	0.0	1.7	5.5
2021	3.0	5.3	2.0	1.8	10.2	3.3	7.1
2022	5.1	7.7	3.1	3.6	7.6	2.7	6.4
2023	5.0	5.7	3.1	2.4	8.8	1.1	6.7
2024	5.7	6.7	2.0	1.8	8.8	3.3	5.9

i Source

Source: Data request from Upstate NY Poison Center and NYC Poison Center, May 2025

i Note

Note: Rates calculated using population estimates from U.S. Census Bureau’s 2023 American Community Survey (ACS) 5-Year Estimate, Table B01003.

13.3 Motor Vehicle Accidents

Motor vehicle accidents are a leading cause of injury and death in the United States for all age groups. According to the CDC, in 2022 there were over 2.6 million emergency department visits for injuries from motor vehicle accidents and more than 44,000 deaths due to motor vehicle accidents, equivalent to 120 people killed daily (202). Major risk factors include speeding, not wearing seat belts, and impaired driving (203). Proven strategies targeting these risk factors can prevent motor vehicle-related injuries and fatalities.

Between 2020 and 2022, Sullivan County had the highest three-year average motor vehicle-related mortality rate in the Mid-Hudson (M-H) Region at 14.9 per 100,000 population, and alongside Ulster County it was above the Healthy People 2030 target of 10.1 per 100,000 population (204). Westchester (4.5 per 100,000 population) and Rockland County (5.7 per 100,000 population) had the lowest rates. Rates are trending up in NYS and in all M-H Counties except Orange, where rates are flat Figure 13.5.

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Figure 13.5: Motor Vehicle Injury Mortality, Rate per 100,000 Population, 2018–2021

Table 13.5: Motor Vehicle Injury Mortality, Rate per 100,000 Population, 2018–2021

Table 13.5										
Period	Three Year Average			Putnam	Rockland	Sullivan	Ulster	Westchester	Single Year	
	Dutchess	Orange							NYS excl NYC	NYS
2018	8.2	9.0	3.7	4.7	13.3	8.4	3.4	7.0	5.3	
2019	9.2	7.9	4.7	4.5	12.4	9.5	3.7	7.1	5.5	
2020	8.8	8.2	5.4	5.1	12.6	10.9	4.2	7.6	6.0	

Period	Three Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2021	9.9	8.3	7.8	5.7	14.9	10.7	4.5	8.5	6.7

i Source

Source: NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabvis/PHIG_Public/chirs/reports/#county

i Note

Note: Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC. The ICD-10 codes for motor vehicle related injuries are: V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2.

According to the National Highway Traffic Safety Administration (NHTSA), there was a 7.6% decrease in fatalities related to alcohol-impaired motor vehicle driving in the U.S. from 2022 to 2023. In 2023, there were 12,429 fatalities, or about one fatality every 42 minutes (185).

Among the Mid-Hudson (M-H) Region's seven counties, Ulster (40.2 per 100,000 population), Orange (38.7 per 100,000 population), and Sullivan (36.6 per 100,000 population) had the highest three-year average incidence of injuries and fatalities due to alcohol-related driving accidents from 2020 to 2022, while Westchester had the lowest incidence rate at 22.5 per 100,000 population. From 2017 to 2022, there was an overall downward trend in the rate of alcohol-related injuries and fatalities in NYS and M-H Region Counties Figure 13.6.

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Figure 13.6: Alcohol Related Motor Vehicle Injuries and Deaths, Crude Rate per 100,000 Population, 2018–2021

Table 13.6: Alcohol Related Motor Vehicle Injuries and Deaths, Crude Rate per 100,000 Population, 2018–2021

Table 13.6									
Period	Three Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	35.2	34.9	44.2	29.2	50.1	44.8	28.9	35.1	28.8
2019	33.9	34.2	37.1	29.0	39.8	43.1	26.6	33.5	27.6
2020	32.5	34.4	33.1	27.9	31.2	42.0	24.1	28.6	23.0
2021	31.7	38.7	28.1	27.1	36.6	40.2	22.5	31.4	25.4

i Source

Source: NYS Community Health Indicator Reports Dashboard, May 2025 sourced from Vital Statistics of NYS https://apps.health.ny.gov/public/tabs/vis/PHIG_Public/chirs/reports/#county

i Note

Note: Three-year averages are used for counties and single-year rates are used for NYS and NYS excluding NYC. Y-axis does not begin at zero in order to clearly display trend lines. Data include persons killed or injured in motor vehicle crashes where alcohol was considered to be a factor. It also includes pedestrians, bicyclists and all other non-vehicle involved persons as well as vehicle occupants. These data were gathered from police reports. Crashes are reported by the county where the event occurred.

Motor vehicle mortality rates are known to vary by age and gender. In the US during 2023, males had a higher motor vehicle mortality rate than females in all age groups. The highest motor vehicle mortality rate was seen in persons 20 to 24 years of age (203). Determining motor vehicle-related fatalities by race and ethnicity allows counties to target prevention messaging further if disparities are detected. From 2020 to 2022, the highest vehicle-related mortality rates were seen in Hispanic or non-Hispanic Black populations in all seven M-H Region Counties. In Ulster County, the Hispanic population had the highest rate at 13.4 per 100,000 population Figure 13.7.

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Figure 13.7: Motor Vehicle Related Mortality, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 13.7: Motor Vehicle Related Mortality, Age-Adjusted Rate per 100,000 Population by Race and Ethnicity, 2020–2022

Table 13.7

Group	Three-Year Average						
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Wes
Non-Hispanic White	10.1	5.8	2.0	2.2	0.0	1.7	5.5
Non-Hispanic Black	6.3*	5.3	2.0	1.8	10.2	3.3	7.1
Non-Hispanic Asian or Pacific Islander	5.8*	7.7	3.1	3.6	7.6	2.7	6.4
Hispanic	8.0	5.7	3.1	2.4	8.8	1.1	6.7
Total	9.4	6.7	2.0	1.8	8.8	3.3	5.9

Source

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, May 2025 sourced from Vital Statistics of NYS https://www.health.ny.gov/community/health_equity/reports/county

Note

*: The rate is unstable. Note: This indicator includes deaths with motor vehicle related as the primary cause of death. The ICD-10 codes for motor vehicle related injuries are: V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8,V89.0,V89.2.

13.4 Falls

Falls pose a significant injury risk across all age groups, with adults aged 65 years and older facing the greatest risk. More than one in four older adults fall annually, yet less than half report these falls to their doctor. Key risk factors for falls include lower body weakness, difficulties with walking and balance, certain medications (including tranquilizers, sedatives, antidepressants, and some over-the-counter drugs), poor vision, vitamin D deficiency, foot pain or poor footwear, and environmental hazards such as broken steps, throw rugs, and clutter. Most falls result from a combination of these risk factors, and the risk rises with each additional factor present (205).

Falls have multifaceted impacts, with key consequences including (206): - Acute injuries: - Most common cause of traumatic brain injury (TBI) - Responsible for about 88% of hip fractures - Functional decline: - Cause serious injury requiring medical care/activity restriction in 37% of cases - Trigger reduced activity due

In the Mid-Hudson (M-H) Region from 2020–2022, 3-year average fall related hospitalization rates in Orange, Sullivan and Ulster Counties were higher than the 2021 rate in New York State (excluding NYC). Conversely, Putnam and Rockland Counties consistently report the lowest fall rates in the region Figure 13.8.

Figure 13.8: Falls Hospitalization, Age-Adjusted Rate per 10,000 Population, 2018–2021

Table 13.8

Period	Three Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	34.6	39.8	29.2	30.9	33.8	39.6	31.8	37.6	35.1
2019	35.1	39.8	29.3	30.4	35.3	40.0	33.0	38.0	36.4
2020	35.3	39.4	28.6	29.4	36.2	39.7	34.1	35.2	34.1
2021	36.5	39.9	27.8	29.6	39.9	39.3	33.6	38.0	36.4

Source: NYS Community Health Indicator Reports Dashboard, May 2025
sourced from NY Statewide Planning and Research Cooperative System
https://www.health.ny.gov/community/health_equity/reports/county/

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC. Y-axis does not begin at zero in order to clearly display trend lines. The ICD-10 codes for falls are: V00111,V00121,V00131,V00141,V00151,V00181,V00211,V00221,V00281,V00311,V00321,V00381,V00811,V00812,V00813,V00814,V00815,V00818,V00821,V00822,V00828,V00831,V00832,V00838,V00841,V00842,V00848,V00851,V00852,V00858,V00861,V00862,V00868,V00871,V00872,V00878,V00881,V00882,V00888,V00891,V00892,V00898,V00911,V00912,V00918,V00921,V00922,V00928,V00931,V00932,V00938,V00941,V00942,V00948,V00951,V00952,V00958,V00961,V00962,V00968,V00971,V00972,V00978,V00981,V00982,V00988,V00991,V00992,V00998,V01011,V01012,V01018,V01021,V01022,V01028,V01031,V01032,V01038,V01041,V01042,V01048,V01051,V01052,V01058,V01061,V01062,V01068,V01071,V01072,V01078,V01081,V01082,V01088,V01091,V01092,V01098,V01111,V01112,V01118,V01121,V01122,V01128,V01131,V01132,V01138,V01141,V01142,V01148,V01151,V01152,V01158,V01161,V01162,V01168,V01171,V01172,V01178,V01181,V01182,V01188,V01191,V01192,V01198,V01211,V01212,V01218,V01221,V01222,V01228,V01231,V01232,V01238,V01241,V01242,V01248,V01251,V01252,V01258,V01261,V01262,V01268,V01271,V01272,V01278,V01281,V01282,V01288,V01291,V01292,V01298,V01311,V01312,V01318,V01321,V01322,V01328,V01331,V01332,V01338,V01341,V01342,V01348,V01351,V01352,V01358,V01361,V01362,V01368,V01371,V01372,V01378,V01381,V01382,V01388,V01391,V01392,V01398,V01411,V01412,V01418,V01421,V01422,V01428,V01431,V01432,V01438,V01441,V01442,V01448,V01451,V01452,V01458,V01461,V01462,V01468,V01471,V01472,V01478,V01481,V01482,V01488,V01491,V01492,V01498,V01511,V01512,V01518,V01521,V01522,V01528,V01531,V01532,V01538,V01541,V01542,V01548,V01551,V01552,V01558,V01561,V01562,V01568,V01571,V01572,V01578,V01581,V01582,V01588,V01591,V01592,V01598,V01611,V01612,V01618,V01621,V01622,V01628,V01631,V01632,V01638,V01641,V01642,V01648,V01651,V01652,V01658,V01661,V01662,V01668,V01671,V01672,V01678,V01681,V01682,V01688,V01691,V01692,V01698,V01711,V01712,V01718,V01721,V01722,V01728,V01731,V01732,V01738,V01741,V01742,V01748,V01751,V01752,V01758,V01761,V01762,V01768,V01771,V01772,V01778,V01781,V01782,V01788,V01791,V01792,V01798,V01811,V01812,V01818,V01821,V01822,V01828,V01831,V01832,V01838,V01841,V01842,V01848,V01851,V01852,V01858,V01861,V01862,V01868,V01871,V01872,V01878,V01881,V01882,V01888,V01891,V01892,V01898,V01911,V01912,V01918,V01921,V01922,V01928,V01931,V01932,V01938,V01941,V01942,V01948,V01951,V01952,V01958,V01961,V01962,V01968,V01971,V01972,V01978,V01981,V01982,V01988,V01991,V01992,V01998,V02011,V02012,V02018,V02021,V02022,V02028,V02031,V02032,V02038,V02041,V02042,V02048,V02051,V02052,V02058,V02061,V02062,V02068,V02071,V02072,V02078,V02081,V02082,V02088,V02091,V02092,V02098,V02111,V02112,V02118,V02121,V02122,V02128,V02131,V02132,V02138,V02141,V02142,V02148,V02151,V02152,V02158,V02161,V02162,V02168,V02171,V02172,V02178,V02181,V02182,V02188,V02191,V02192,V02198,V02211,V02212,V02218,V02221,V02222,V02228,V02231,V02232,V02238,V02241,V02242,V02248,V02251,V02252,V02258,V02261,V02262,V02268,V02271,V02272,V02278,V02281,V02282,V02288,V02291,V02292,V02298,V02311,V02312,V02318,V02321,V02322,V02328,V02331,V02332,V02338,V02341,V02342,V02348,V02351,V02352,V02358,V02361,V02362,V02368,V02371,V02372,V02378,V02381,V02382,V02388,V02391,V02392,V02398,V02411,V02412,V02418,V02421,V02422,V02428,V02431,V02432,V02438,V02441,V02442,V02448,V02451,V02452,V02458,V02461,V02462,V02468,V02471,V02472,V02478,V02481,V02482,V02488,V02491,V02492,V02498,V02511,V02512,V02518,V02521,V02522,V02528,V02531,V02532,V02538,V02541,V02542,V02548,V02551,V02552,V02558,V02561,V02562,V02568,V02571,V02572,V02578,V02581,V02582,V02588,V02591,V02592,V02598,V02611,V02612,V02618,V02621,V02622,V02628,V02631,V02632,V02638,V02641,V02642,V02648,V02651,V02652,V02658,V02661,V02662,V02668,V02671,V02672,V02678,V02681,V02682,V02688,V02691,V02692,V02698,V02711,V02712,V02718,V02721,V02722,V02728,V02731,V02732,V02738,V02741,V02742,V02748,V02751,V02752,V02758,V02761,V02762,V02768,V02771,V02772,V02778,V02781,V02782,V02788,V02791,V02792,V02798,V02811,V02812,V02818,V02821,V02822,V02828,V02831,V02832,V02838,V02841,V02842,V02848,V02851,V02852,V02858,V02861,V02862,V02868,V02871,V02872,V02878,V02881,V02882,V02888,V02891,V02892,V02898,V02911,V02912,V02918,V02921,V02922,V02928,V02931,V02932,V02938,V02941,V02942,V02948,V02951,V02952,V02958,V02961,V02962,V02968,V02971,V02972,V02978,V02981,V02982,V02988,V02991,V02992,V02998,V03011,V03012,V03018,V03021,V03022,V03028,V03031,V03032,V03038,V03041,V03042,V03048,V03051,V03052,V03058,V03061,V03062,V03068,V03071,V03072,V03078,V03081,V03082,V03088,V03091,V03092,V03098,V03111,V03112,V03118,V03121,V03122,V03128,V03131,V03132,V03138,V03141,V03142,V03148,V03151,V03152,V03158,V03161,V03162,V03168,V03171,V03172,V03178,V03181,V03182,V03188,V03191,V03192,V03198,V03211,V03212,V03218,V03221,V03222,V03228,V03231,V03232,V03238,V03241,V03242

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Table 13.9: Falls Hospitalization, Rate per 10,000 Population 85 Years and Older, 2018–2021

Period	Three Year Average							Single Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	575.0	690.0	618.0	523.0	545.0	682.0	577.0	650.0	572.0
2019	582.0	707.0	606.0	494.0	550.0	691.0	595.0	644.0	581.0
2020	610.0	690.0	583.0	495.0	558.0	688.0	610.0	577.0	515.0
2021	645.0	695.0	540.0	520.0	647.0	680.0	597.0	679.0	597.0

Source: NYS Community Health Indicator Reports Dashboard, May 2025
sourced from NY Statewide Planning and Research Cooperative System
https://www.health.ny.gov/community/health_equity/reports/county/

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC. Y-axis does not begin at zero in order to clearly display trend lines. The ICD-10 codes for falls are: V00111,V00121,V00131,V00141,V00151,V00181,V00211,V00221,V00281,V00311,V00321,V00381,V00811,V00821,V00831,V00841,V00851,V00861,V00871,V00881,V00891,V00911,V00921,V00931,V00941,V00951,V00961,V00971,V00981,V00991,V01011,V01021,V01031,V01041,V01051,V01061,V01071,V01081,V01091,V01111,V01121,V01131,V01141,V01151,V01161,V01171,V01181,V01191,V01211,V01221,V01231,V01241,V01251,V01261,V01271,V01281,V01291,V01311,V01321,V01331,V01341,V01351,V01361,V01371,V01381,V01391,V01411,V01421,V01431,V01441,V01451,V01461,V01471,V01481,V01491,V01511,V01521,V01531,V01541,V01551,V01561,V01571,V01581,V01591,V01611,V01621,V01631,V01641,V01651,V01661,V01671,V01681,V01691,V01711,V01721,V01731,V01741,V01751,V01761,V01771,V01781,V01791,V01811,V01821,V01831,V01841,V01851,V01861,V01871,V01881,V01891,V01911,V01921,V01931,V01941,V01951,V01961,V01971,V01981,V01991,V02011,V02021,V02031,V02041,V02051,V02061,V02071,V02081,V02091,V02111,V02121,V02131,V02141,V02151,V02161,V02171,V02181,V02191,V02211,V02221,V02231,V02241,V02251,V02261,V02271,V02281,V02291,V02311,V02321,V02331,V02341,V02351,V02361,V02371,V02381,V02391,V02411,V02421,V02431,V02441,V02451,V02461,V02471,V02481,V02491,V02511,V02521,V02531,V02541,V02551,V02561,V02571,V02581,V02591,V02611,V02621,V02631,V02641,V02651,V02661,V02671,V02681,V02691,V02711,V02721,V02731,V02741,V02751,V02761,V02771,V02781,V02791,V02811,V02821,V02831,V02841,V02851,V02861,V02871,V02881,V02891,V02911,V02921,V02931,V02941,V02951,V02961,V02971,V02981,V02991,V03011,V03021,V03031,V03041,V03051,V03061,V03071,V03081,V03091,V03111,V03121,V03131,V03141,V03151,V03161,V03171,V03181,V03191,V03211,V03221,V03231,V03241,V03251,V03261,V03271,V03281,V03291,V03311,V03321,V03331,V03341,V03351,V03361,V03371,V03381,V03391,V03411,V03421,V03431,V03441,V03451,V03461,V03471,V03481,V03491,V03511,V03521,V03531,V03541,V03551,V03561,V03571,V03581,V03591,V03611,V03621,V03631,V03641,V03651,V03661,V03671,V03681,V03691,V03711,V03721,V03731,V03741,V03751,V03761,V03771,V03781,V03791,V03811,V03821,V03831,V03841,V03851,V03861,V03871,V03881,V03891,V03911,V03921,V03931,V03941,V03951,V03961,V03971,V03981,V03991,V04011,V04021,V04031,V04041,V04051,V04061,V04071,V04081,V04091,V04111,V04121,V04131,V04141,V04151,V04161,V04171,V04181,V04191,V04211,V04221,V04231,V04241,V04251,V04261,V04271,V04281,V04291,V04311,V04321,V04331,V04341,V04351,V04361,V04371,V04381,V04391,V04411,V04421,V04431,V04441,V04451,V04461,V04471,V04481,V04491,V04511,V04521,V04531,V04541,V04551,V04561,V04571,V04581,V04591,V04611,V04621,V04631,V04641,V04651,V04661,V04671,V04681,V04691,V04711,V04721,V04731,V04741,V04751,V04761,V04771,V04781,V04791,V04811,V04821,V04831,V04841,V04851,V04861,V04871,V04881,V04891,V04911,V04921,V04931,V04941,V04951,V04961,V04971,V04981,V04991,V05011,V05021,V05031,V05041,V05051,V05061,V05071,V05081,V05091,V05111,V05121,V05131,V05141,V05151,V05161,V05171,V05181,V05191,V05211,V05221,V05231,V05241,V05251,V05261,V05271,V05281,V05291,V05311,V05321,V05331,V05341,V05351,V05361,V05371,V05381,V05391,V05411,V05421,V05431,V05441,V05451,V05461,V05471,V05481,V05491,V05511,V05521,V05531,V05541,V05551,V05561,V05571,V05581,V05591,V05611,V05621,V05631,V05641,V05651,V05661,V05671,V05681,V05691,V05711,V05721,V05731,V05741,V05751,V05761,V05771,V05781,V05791,V05811,V05821,V05831,V05841,V05851,V05861,V05871,V05881,V05891,V05911,V05921,V05931,V05941,V05951,V05961,V05971,V05981,V05991,V06011,V06021,V06031,V06041,V06051,V06061,V06071,V06081,V06091,V06111,V06121,V06131,V06141,V06151,V06161,V06171,V06181,V06191,V06211,V06221,V06231,V06241,V06251,V06261,V06271,V06281,V06291,V06311,V06321,V06331,V06341,V06351,V06361,V06371,V06381,V06391,V06411,V06421,V06431,V06441,V06451,V06461,V06471,V06481,V06491,V06511,V06521,V06531,V06541,V06551,V06561,V06571,V06581,V06591,V06611,V06621,V06631,V06641,V06651,V06661,V06671,V06681,V06691,V06711,V06721,V06731,V06741,V06751,V06761,V06771,V06781,V06791,V06811,V06821,V06831,V06841,V06851,V06861,V06871,V06881,V06891,V06911,V06921,V06931,V06941,V06951,V06961,V06971,V06981,V06991,V07011,V07021,V07031,V07041,V07051,V07061,V07071,V07081,V07091,V07111,V07121,V07131,V07141,V07151,V07161,V07171,V07181,V07191,V07211,V07221,V07231,V07241,V07251,V07261,V07271,V07281,V07291,V07311,V07321,V07331,V07341,V07351,V07361,V07371,V07381,V07391,V07411,V07421,V07431,V07441,V07451,V07461,V07471,V07481,V07491,V07511,V07521,V07531,V07541,V07551,V07561,V07571,V07581,V07591,V07611,V07621,V07631,V07641,V07651,V07661,V07671,V07681,V07691,V07711,V07721,V07731,V07741,V07751,V07761,V07771,V07781,V07791,V07811,V07821,V07831,V07841,V07851,V07861,V07871,V07881,V07891,V07911,V07921,V07931,V07941,V07951,V07961,V07971,V07981,V07991,V08011,V08021,V08031,V08041,V08051,V08061,V08071,V08081,V08091,V08111,V08121,V08131,V08141,V08151

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Counties. Higher rates among non-Hispanic Black residents were observed in Orange, Sullivan, Westchester, and Ulster Counties Figure 13.10.

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Figure 13.10: Falls Hospitalization, Rate per 10,000 Population 65 Years and Older by Race and Ethnicity, 2020–2022

Table 13.10: Falls Hospitalization, Rate per 10,000 Population 65 Years and Older by Race and Ethnicity, 2020–2022

Table 13.10							
Group	Three-Year Average						
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester
Non-Hispanic White	205.3	22.8	156.0	191.7	192.9	210.6	181.1
Non-Hispanic Black	48.3	112.7	s	71.1	134.7	129.9	100.0
Non-Hispanic Asian or Pacific Islander	48.6	78.1	93.8*	46.3	s	61.2*	55.0
Hispanic	82.6	106.8	54.2	93.3	97.6	88.1	73.5
Total	205.8	212.8	155.9	171.6	188.1	210.9	196.1

i Source

Source: NYS County Health Indicators by Race and Ethnicity Dashboard, May 2025 sourced from NY Statewide Planning and Research Cooperative System https://www.health.ny.gov/community/health_equity/reports/county/

i Note

*: The rate is unstable. s: Data are suppressed due to not meeting confidentiality criteria. Note: Three-year average is used for this indicator. This indicator includes deaths with falls as the primary cause of death. The ICD-10 codes for falls are: V00111,V00121,V00131,V00141,V00151,V00181,V00211,V00221,V00281,V00311,V00321,V00381,V00811,V00821,V00831,V00841,V00851,V00861,V00871,V00881,V00891,V00901,V00911,V00921,V00931,V00941,V00951,V00961,V00971,V00981,V00991,V01001,V01011,V01021,V01031,V01041,V01051,V01061,V01071,V01081,V01091,V01101,V01111,V01121,V01131,V01141,V01151,V01161,V01171,V01181,V01191,V01201,V01211,V01221,V01231,V01241,V01251,V01261,V01271,V01281,V01291,V01301,V01311,V01321,V01331,V01341,V01351,V01361,V01371,V01381,V01391,V01401,V01411,V01421,V01431,V01441,V01451,V01461,V01471,V01481,V01491,V01501,V01511,V01521,V01531,V01541,V01551,V01561,V01571,V01581,V01591,V01601,V01611,V01621,V01631,V01641,V01651,V01661,V01671,V01681,V01691,V01701,V01711,V01721,V01731,V01741,V01751,V01761,V01771,V01781,V01791,V01801,V01811,V01821,V01831,V01841,V01851,V01861,V01871,V01881,V01891,V01901,V01911,V01921,V01931,V01941,V01951,V01961,V01971,V01981,V01991,V02001,V02011,V02021,V02031,V02041,V02051,V02061,V02071,V02081,V02091,V02101,V02111,V02121,V02131,V02141,V02151,V02161,V02171,V02181,V02191,V02201,V02211,V02221,V02231,V02241,V02251,V02261,V02271,V02281,V02291,V02301,V02311,V02321,V02331,V02341,V02351,V02361,V02371,V02381,V02391,V02401,V02411,V02421,V02431,V02441,V02451,V02461,V02471,V02481,V02491,V02501,V02511,V02521,V02531,V02541,V02551,V02561,V02571,V02581,V02591,V02601,V02611,V02621,V02631,V02641,V02651,V02661,V02671,V02681,V02691,V02701,V02711,V02721,V02731,V02741,V02751,V02761,V02771,V02781,V02791,V02801,V02811,V02821,V02831,V02841,V02851,V02861,V02871,V02881,V02891,V02901,V02911,V02921,V02931,V02941,V02951,V02961,V02971,V02981,V02991,V03001,V03011,V03021,V03031,V03041,V03051,V03061,V03071,V03081,V03091,V03101,V03111,V03121,V03131,V03141,V03151,V03161,V03171,V03181,V03191,V03201,V03211,V03221,V03231,V03241,V03251,V03261,V03271,V03281,V03291,V03301,V03311,V03321,V03331,V03341,V03351,V03361,V03371,V03381,V03391,V03401,V03411,V03421,V03431,V03441,V03451,V03461,V03471,V03481,V03491,V03501,V03511,V03521,V03531,V03541,V03551,V03561,V03571,V03581,V03591,V03601,V03611,V03621,V03631,V03641,V03651,V03661,V03671,V03681,V03691,V03701,V03711,V03721,V03731,V03741,V03751,V03761,V03771,V03781,V03791,V03801,V03811,V03821,V03831,V03841,V03851,V03861,V03871,V03881,V03891,V03901,V03911,V03921,V03931,V03941,V03951,V03961,V03971,V03981,V03991,V04001,V04011,V04021,V04031,V04041,V04051,V04061,V04071,V04081,V04091,V04101,V04111,V04121,V04131,V04141,V04151,V04161,V04171,V04181,V04191,V04201,V04211,V04221,V04231,V04241,V04251,V04261,V04271,V04281,V04291,V04301,V04311,V04321,V04331,V04341,V04351,V04361,V04371,V04381,V04391,V04401,V04411,V04421,V04431,V04441,V04451,V04461,V04471,V04481,V04491,V04501,V04511,V04521,V04531,V04541,V04551,V04561,V04571,V04581,V04591,V04601,V04611,V04621,V04631,V04641,V04651,V04661,V04671,V04681,V04691,V04701,V04711,V04721,V04731,V04741,V04751,V04761,V04771,V04781,V04791,V04801,V04811,V04821,V04831,V04841,V04851,V04861,V04871,V04881,V04891,V04901,V04911,V04921,V04931,V04941,V04951,V04961,V04971,V04981,V04991,V05001,V05011,V05021,V05031,V05041,V05051,V05061,V05071,V05081,V05091,V05101,V05111,V05121,V05131,V05141,V05151,V05161,V05171,V05181,V05191,V05201,V05211,V05221,V05231,V05241,V05251,V05261,V05271,V05281,V05291,V05301,V05311,V05321,V05331,V05341,V05351,V05361,V05371,V05381,V05391,V05401,V05411,V05421,V05431,V05441,V05451,V05461,V05471,V05481,V05491,V05501,V05511,V05521,V05531,V05541,V05551,V05561,V05571,V05581,V05591,V05601,V05611,V05621,V05631,V05641,V05651,V05661,V05671,V05681,V05691,V05701,V05711,V05721,V05731,V05741,V05751,V05761,V05771,V05781,V05791,V05801,V05811,V05821,V05831,V05841,V05851,V05861,V05871,V05881,V05891,V05901,V05911,V05921,V05931,V05941,V05951,V05961,V05971,V05981,V05991,V06001,V06011,V06021,V06031,V06041,V06051,V06061,V06071,V06081,V06091,V06101,V06111,V06121,V06131,V06141,V06151,V06161,V06171,V06181,V06191,V06201,V06211,V06221,V06231,V06241,V06251,V06261,V06271,V06281,V06291,V06301,V06311,V06321,V06331,V06341,V06351,V06361,V06371,V06381,V06391,V06401,V06411,V06421,V06431,V06441,V06451,V06461,V06471,V06481,V06491,V06501,V06511,V06521,V06531,V06541,V06551,V06561,V06571,V06581,V06591,V06601,V06611,V06621,V06631,V06641,V06651,V06661,V06671,V06681,V06691,V06701,V06711,V06721,V06731,V06741,V06751,V06761,V06771,V06781,V06791,V06801,V06811,V06821,V06831,V06841,V06851,V06861,V06871,V06881,V06891,V06901,V06911,V06921,V06931,V06941,V06951,V06961,V06971,V06981,V06991,V07001,V07011,V07021,V07031,V07041,V07051,V07061,V07071,V07081,V07091,V07101,V07111,V07121,V07131,V07141,V07151,V07161,V07171,V07181,V07191,V07201,V07211,V07221,V07231,V07241,V07251,V07261,V07271,V07281,V07291,V07301,V07311,V07321,V07331,V07341,V07351,V07361,V07371,V07381,V07391,V07401,V07411,V07421,V07431,V07441,V07451,V07461,V07471,V07481,V07491,V07501,V07511,V07521,V07531,V07541,V07551,V07561,V07571,V07581,V07591,V07601,V07611,V07621,V07631,V07641,V07651,V07661,V07671,V07681,V07691,V07701,V07711,V07721,V07731,V07741,V07751,V07761,V07771,V07781,V07791,V07801,V07811,V07821,V07831,V07841,V07851,V07861,V07871,V07881,V07891,V07901,V07911,V07921,V07931,V07941,V07951,V07961,V07971,V07981,V07991,V08001,V08011,V08021,V08031,V08041,V08051,V08061,V08071,V08081,V08091,V08101,V08111,V08121,V08131,V08141,V08151,V08161,V08171,V08181,V08191,V08201,V08211,V08221,V08231,V08241,V08251,V08261,V08271,V08281,V08291,V08301,V08311,V08321,V08331,V08341,V08351,V08361,V08371,V08381,V08391,V08401,V08411,V08421,V08431,V08441,V08451,V08461,V08471,V08481,V08491,V08501,V08511,V08521,V08531,V08541,V08551,V08561,V08571,V08581,V08591,V08601,V08611,V08621,V08631,V08641,V08651,V08661,V08671,V08681,V08691,V08701,V08711,V08721,V08731,V08741,V08751,V08761,V08771,V08781,V08791,V08801,V08811,V08821,V08831,V08841,V08851,V08861,V08871,V08881,V08891,V08901,V08911,V08921,V08931,V08941,V08951,V08961,V08971,V08981,V08991,V09001,V09011,V09021,V09031,V09041,V09051,V09061,V09071,V09081,V09091,V09101,V09111,V09121,V09131,V09141,V09151,V09161,V09171,V09181,V09191,V09201,V09211,V09221,V09231,V09241,V09251,V09261,V09271,V09281,V09291,V09301,V09311,V09321,V09331,V09341,V09351,V09361,V09371,V09381,V09391,V09401,V09411,V09421,V09431,V09441,V09451,V09461,V09471,V09481,V09491,V09501,V09511,V09521,V09531,V09541,V09551,V09561,V09571,V09581,V09591,V09601,V09611,V09621,V09631,V09641,V09651,V09661,V09671,V09681,V09691,V09701,V09711,V09721,V09731,V09741,V09751,V09761,V09771,V09781,V09791,V09801,V09811,V09821,V09831,V09841,V09851,V09861,V09871,V09881,V09891,V09901,V09911,V09921,V09931,V09941,V09951,V09961,V09971,V09981,V09991,V10001,V10011,V10021,V10031,V10041,V10051,V10061,V10071,V10081,V10091,V10101,V10111,V10121,V10131,V10141,V10151,V10161,V10171,V10181,V10191,V10201,V10211,V10221,V10231,V10241,V10251,V10261,V10271,V10281,V10291,V10301,V10311,V10321,V10331,V10341,V10351,V10361,V10371,V10381,V10391,V10401,V10411,V10421,V10431,V10441,V10451,V10461,V10471,V10481,V10491,V10501,V10511,V10521,V10531,V10541,V10551,V10561,V10571,V10581,V10591,V10601,V10611,V10621,V10631,V10641,V10651,V10661,V10671,V10681,V10691,V10701,V10711,V10721,V10731,V10741,V10751,V10761,V10771,V10781,V10791,V10801,V10811,V10821,V10831,V10841,V10851,V10861,V10871,V10881,V10891,V10901,V10911,V10921,V10931,V10941,V10951,V10961,V10971,V10981,V10991,V11001,V11011,V11021,V11031,V11041,V11051,V11061,V11071,V11081,V11091,V11101,V11111,V11121,V11131,V11141,V11151,V11161,V11171,V11181,V11191,V11201,V11211,V11221,V11231,V11241,V11251,V11261,V11271,V11281,V11291,V11301,V11311,V11321,V11331,V11341,V11351,V11361,V11371,V11381,V11391,V11401,V11411,V11421,V11431,V11441,V11451,V11461,V11471,V11481,V11491,V11501,V11511,V11521,V11531,V11541,V11551,V11561,V11571,V11581,V11591,V11601,V11611,V11621,V11631,V11641,V11651,V11661,V11671,V11681,V11691,V11701,V11711,V11721,V11731,V11741,V11751,V11761,V11771,V11781,V11791,V11801,V11811,V11821,V11831,V11841,V11851,V11861,V11871,V11881,V11891,V11901,V11911,V11921,V11931,V11941,V11951,V11961,V11971,V11981,V11991,V12001,V12011,V12021,V12031,V12041,V12051,V12061,V12071,V12081,V12091,V12101,V12111,V12121,V12131,V12141,V12151,V12161,V12171,V12181,V12191,V12201,V12211,V12221,V12231,V12241,V12251,V12261,V12271,V12281,V12291,V12301,V12311,V12321,V12331,V12341,V12351,V12361,V12371,V12381,V12391,V12401,V12411,V12421,V12431,V12441,V12451,V12461,V12471,V12481,V12491,V12501,V12511,V12521,V12531,V12541,V12551,V12561,V12571,V12581,V12591,V12601,V12611,V12621,V12631,V12641,V12651,V12661,V12671,V12681,V12691,V12701,V12711,V12721,V12731,V12741,V12751,V12761,V12771,V12781,V12791,V12801,V12811,V12821,V12831,V12841,V12851,V12861,V12871,V12881,V12891,V12901,V12911,V12921,V12931,V12941,V12951,V12961,V12971,V12981,V12991,V13001,V13011,V13021,V13031,V13041,V13051,V13061,V13071,V13081,V13091,V13101,V13111,V13121,V13131,V13141,V13151,V13161,V13171,V13181,V13191,V13201,V13211,V13221,V13231,V13241,V13251,V13261,V13271,V13281,V13291,V13301,V13311,V13321,V13331,V13341,V13351,V13361,V13371,V13381,V13391,V13401,V13411,V13421,V13431,V13441,V13451,V13461,V13471,V13481,V13491,V13501,V13511,V13521,V13531,V13541,V13551,V13561,V13571,V13581,V13591,V13601,V13611,V13621,V13631,V13641,V13651,V13661,V13671,V13681,V13691,V13701,V13711,V13721,V13731,V13741,V13751,V13761,V13771,V13781,V13791,V13801,V13811,V13821,V13831,V13841,V13851,V13861,V13871,V13881,V13891,V13901,V13911,V13921,V13931,V13941,V13951,V13961,V13971,V13981,V13991,V14001,V14011,V14021,V14031,V14041,V14051,V14061,V14071,V14081,V14091,V14101,V14111,V14121,V14131,V14141,V14151,V14161,V14171,V14181,V14191,V14201,V14211,V14221,V14231,V14241,V14251,V14261,V14271,V14281,V14291,V14301,V14311,V14321,V14331,V14341,V14351,V14361,V14371,V14381,V14391,V14401,V14411,V14421,V14431,V14441,V14451,V14461,V14471,V14481,V14491,V14501,V14511,V14521,V14531,V14541,V14551,V14561,V14571,V14581,V14591,V14601,V14611,V14621,V14631,V14641,V14651,V14661,V14671,V14681,V14691,V14701,V14711,V14721,V14731,V14741,V14751,V14761,V14771,V14781,V14791,V14801,V14811,V14821,V14831,V14841,V14851,V14861,V14871,V14881,V14891,V14901,V14911,V14921,V14931,V14941,V14951,V14961,V14971,V14981,V14991,V15001,V15011,V15021,V15031,V15041,V15051,V15061,V15071,V15081,V15091,V15101,V15111,V15121,V15131,V15141,V15151,V15161,V15171,V15181,V15191,V15201,V15211,V15221,V15231,V15241,V15251,V15261,V15271,V15281,V15291,V15301,V15311,V15321,V15331,V15341,V15351,V15361,V15371,V15381,V15391,V15401,V15411,V15421,V15431,V15441,V15451,V15461,V15471,V15481,V15491,V15501,V15511,V15521,V15531,V15541,V15551,V15561,V15571,V15581,V15591,V15601,V15611,V15621,V15631,V15641,V15651,V15661,V15671,V15681,V15691,V15701,V15711,V15721,V15731,V15741,V15751,V15761,V15771,V15781,V15791,V15801,V15811,V15821,V15831,V15841,V15851,V15861,V15871,V15881,V15891,V15901,V15911,V15921,V15931,V15941,V15951,V15961,V15971,V15981,V15991,V16001,V16011,V16021,V16031,V16041,V16051,V16061,V16071,V16081,V16091,V16101,V16111,V16121,V16131,V16141,V16151,V16161,V16171,V16181,V16191,V16201,V16211,V16221,V16231,V16241,V16251,V16261,V16271,V16281,V16291,V16301,V16311,V16321,V16331,V16341,V16351,V16361,V16371,V16381,V16391,V16401,V16411,V16421,V16431,V16441,V16451,V16461,V16471,V16481,V16491,V16501,V16511,V16521,V16531,V16541,V16551,V16561,V16571,V16581,V16591,V16601,V16611,V16621,V16631,V16641,V16651,V16661,V16671,V16681,V16691,V16701,V16711,V16721,V16731,V16741,V16751,V16761,V16771,V16781,V16791,V16801,V16811,V16821,V16831,V16841,V16851,V16861,V16871,V16881,V16891,V16901,V16911,V16921,V16931,V16941,V16951,V16961,V16971,V16981,V16991,V17001,V17011,V17021,V17031,V17041,V17051,V17061,V17071,V17081,V17091,V17101,V17111,V17121,V17131,V17141,V17151,V17161,V17171,V17181,V17191,V17201,V17211,V17221,V17231,V17241,V17251,V17261,V17271,V17281,V17291,V17301,V17311,V17321,V17331,V17341,V17351,V17361,V17371,V17381,V17391,V17401,V17411,V17421,V17431,V17441,V17451,V17461,V17471,V17481,V17491,V17501,V17511,V17521,V17531,V17541,V17551,V17561,V17571,V17581,V17591,V17601,V17611,V17621,V17631,V17641,V17651,V17661,V17671,V17681,V17691,V17701,V17711,V17721,V17731,V17741,V17751,V17761,V17771,V17781,V17791,V17801,V17811,V17821,V17831,V17841,V17851,V17861,V17871,V17881,V17891,V17901,V17911,V17921,V17931,V17941,V17951,V17961,V17971,V17981,V17991,V18001,V18011,V18021,V18031,V18041,V18051,V18061,V18071,V18081,V18091,V18101,V18111,V18121,V18131,V18141,V18151,V18161,V18171,V18181,V18191,V18201,V18211,V18221,V18231,V18241,V18251,V18261,V18271,V18281,V18291,V18301,V18311,V18321,V18331,V18341,V18351,V18361,V18371,V18381,V18391,V18401,V18411,V18421,V18431,V18441,V18451,V18461,V18471,V18481,V18491,V18501,V18511,V18521,V18531,V18541,V18551,V18561,V18571,V18581,V18591,V18601,V18611,V18621,V18631,V18641,V18651,V18661,V18671,V18681,V18691,V18701,V18711,V18721,V18731,V18741,V18751,V18761,V18771,V18781,V18791,V18801,V18811,V18821,V18831,V18841,V18851,V18861,V18871,V18881,V18891,V18901,V18911,V18921,V18931,V18941,V18951,V18961,V18971,V18981,V18991,V19001,V19011,V19021,V19031,V19041,V19051,V19061,V19071,V19081,V19091,V19101,V19111,V19121,V19131,V19141,V19151,V19161,V19171,V19181,V19191,V19201,V19211,V19221,V19231,V19241,V19251,V19261,V19271,V19281,V19291,V19301,V19311,V19321,V19331,V19341,V19351

either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation,” and further subdivides violence into types including self-directed violence (self-harm), interpersonal violence, and collective violence (violence committed by large groups of individuals). Interpersonal violence refers to all violence between individuals, including that which takes place within a family or between intimate partners, and community violence, which may take place between acquaintances or strangers (208).

During 2019–2021, nationwide an average of 1.5 million people per year received emergency treatment for nonfatal assault-related injuries (209). In 2023, homicides claimed over 19,482 lives nationwide, marking an 11% decrease from 2022 levels (210). While this decline offers hope, crime statistics tend to be volatile. Despite improvements in recent data, more research is needed to better understand the root causes behind these fluctuations in rates (211).

In 2022, New York recorded 853 homicides, which translates to a mortality rate of 4.5 deaths per 100,000 population and the 14th lowest homicide rate among states (212). While annual homicide mortality rates climbed from 2018 to 2021 in both NYS as a whole and NYS excluding New York City, three-year average mortality rates in M-H Region Counties remained relatively stable during this period. Sullivan County consistently reported the highest rate among the counties, with increasing three-year average rates. Putnam County stood out with the region’s lowest rate for 2020–2022 at 0.7 per 100,000 Figure 13.11.

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Figure 13.11: Homicide Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 13.11: Homicide Mortality, Age-Adjusted Rate per 100,000 Population, 2018–2021

Table 13.11									
Period	Three-Year Average			Rockland	Sullivan	Ulster	Westchester	Single-Year NYS excl NYC	NYS
	Dutchess	Orange	Putnam						
2018	1.9	2.5	1.0*	1.7	2.4*	1.5*	2.4	2.9	3.2
2019	2.4	2.7	0.5*	2.4	2.6*	2.1	2.6	2.7	3.1
2020	2.4	2.8	0.5*	2.3	4.6	2.2	2.8	3.8	4.5
2021	2.5	2.6	0.7*	2.2	5.5	2.6	2.9	4.1	4.8

i Note

*: Data are unstable due to fewer than 10 events in the numerator. Note: Three-year averages were used for counties, while single-year estimates were

used for NYS and NYS excluding NYC. The ICD-10 codes for homicide are: X85-Y09, Y87.1.

There was variation between M-H Region Counties in three-year average age-adjusted assault-related hospitalization rates from 2017 to 2022, but county rates were almost all lower than one-year rates for NYS excluding NYC. Most counties experienced relatively stable rates during the period, with rates ranging between 0.9 and 2.6 per 10,000 population for 2020–2022. Among the region’s counties, Dutchess County recorded the highest rates, increasing from 2.2 per 10,000 population for 2017–2019 to 2.6 per 10,000 for 2020–2022. In contrast, Putnam County maintained consistently low rates throughout the period, ranging from 0.6 to 0.9 per 10,000 population, far below the statewide rate. Sullivan County saw the most pronounced decline, with rates dropping from 2.6 per 10,000 for 2017–2019 to 2.0 per 10,000 for 2020–2022 Figure 13.12.

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Figure 13.12: Assault Hospitalization, Age-Adjusted Rate per 10,000 Population, 2018–2021

Table 13.12: Assault Hospitalization, Age-Adjusted Rate per 10,000 Population, 2018–2021

Period	Table 13.12 Three-Year Average							Single-Year	
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	2.2	1.9	0.6	1.2	2.6	1.6	2.2	2.3	3.3
2019	2.4	2.1	0.6	1.3	2.3	1.7	2.1	2.4	3.3
2020	2.6	2.1	0.7	1.2	1.8	1.7	2.2	2.7	3.7
2021	2.6	2.1	0.9	1.0	2.0	1.8	2.0	2.5	3.6

i Note

Note: Three-year averages were used for counties, while single-year estimates were used for NYS and NYS excluding NYC. The ICD-10 codes for assault are: X92–Y09.

Domestic violence, also known as intimate partner violence (IPV), is a pattern of abusive behavior in relationships designed to control or dominate an intimate partner through physical, sexual, emotional, economic, psychological, or technological means. These abusive behaviors include intimidation, manipulation, humiliation, isolation, threats, blame, injuries, or other coercive tactics that instill fear and compliance (213).

IPV can lead to severe injury, chronic health conditions, and mental health struggles like depression or PTSD. Survivors may engage in risky behaviors such as smoking, binge drinking, or unsafe sexual practices. Marginalized communities, particularly youth, face disproportionate risks tied to systemic inequities, with higher rates of sexual or dating violence. Approximately 16 million women and 11 million men who reported experiencing IPV in their lifetimes first experienced it before age 18 (214).

Reported domestic violence victimization rates trended up in both NYS and NYS excluding NYC from 2020 to 2023. Across the Mid-Hudson (M-H) Region, rates also generally trended upward. Orange County consistently had the highest rate among the counties and outpaced NYS excluding New York City, though there was a notable decline from a 2021 peak of 512 reported domestic violence victims per 100,000 population to 470 per 100,000 population in 2023. Putnam County, meanwhile, maintained the region’s lowest rates, ranging from 48 to 108 per 100,000 population during the four-year period from 2020 to 2023 Figure 13.13.

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Figure 13.13: Domestic Violence Victims Reported, Rate per 100,000 Population, 2020–2023

Table 13.13: Domestic Violence Victims Reported, Rate per 100,000 Population, 2020–2023

Table 13.13									
Period	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS excl NYC	NYS
2018	292.0	448.0	108.0	249.0	162.0	295.0	178.0	423.0	402.0
2019	285.0	512.0	53.0	204.0	180.0	297.0	181.0	428.0	422.0
2020	305.0	483.0	48.0	229.0	182.0	294.0	173.0	437.0	451.0
2021	363.0	470.0	93.0	288.0	256.0	362.0	230.0	464.0	484.0

i Note

Note: Rates calculated using population estimates from the U.S. Census Bureau’s 2023 American Community Survey (ACS) 5-Year Estimate, Table B01003. Police agencies in New York State collect data on the number of individuals victimized during domestic incidents involving members of the same family, including but not limited to parents, children, and siblings, and intimate partners. These individuals may or may not live together at the time of the incident. Victim counts are reported for the following offenses: aggravated assault, simple assault, sex offenses, and violation of protective orders.

Chapter 14

County Health Summaries

14.1 Dutchess County Health Summary

14.1.1 Demographics

Dutchess County is in the center of the Hudson Valley, midway between New York City (NYC) and New York State's (NYS) capital, Albany. The western border includes 30 miles of Hudson River shoreline with Connecticut forming the eastern border. Dutchess County is 825 square miles, made up of 30 municipalities, consisting of 20 towns, 8 villages, and two cities, Poughkeepsie (the county seat) and the city of Beacon. The southwestern region of Dutchess County is the most densely populated part of the county and includes the cities of Beacon and Poughkeepsie. The rest of the county is predominantly suburban and rural. Dutchess County has a population of almost 300,000 with a majority of residents between 35 and 64 years old. In Dutchess County 8.3% of adults report having poor physical health and 11.7% of adults report having poor mental health (215).

14.1.2 Community Survey Findings

14.1.2.1 Mid-Hudson Regional Community Health Survey 2025

As a primary data collection method, Dutchess County collaborated with Putnam County on the third iteration of the Mid-Hudson Regional Community Health Survey Section [15.12](#). The 66-question survey, administered by Siena Research Institute (SRI), asked 500 Dutchess County residents about overall quality of life, social determinants of health, perceptions of health and well-being, health behaviors, and access to and utilization of health services. By administering a revised version of the 2018 and 2022 iterations of the Mid-Hudson Regional Community Health Survey (216), Dutchess and Putnam Counties were able to analyze changes in responses over time.

The survey was fielded from May 1 to June 3, 2025, and was open to residents of Dutchess and Putnam Counties aged 18 years and older. Respondents were contacted via landline and cell phone. Telephone sampling was conducted via a stratified dual-frame probability sample of landline and cell phone numbers. County samples were weighted by age, gender, reported race and ethnicity, and income using American Community Survey population estimates to ensure statistical representativeness. A total of 500 residents of Dutchess County completed the survey. The margin of error (MOE), including design effects resulting from weighting, with a 95% confidence interval for the Dutchess County sample, was +/- 6.4%.

The self-reported physical health status of Dutchess County residents increased from 2022 to 2025, with 73% and 78% reporting excellent or good physical health, respectively. In 2025, individuals who rent their home, are unemployed, live in households with disabled persons, or are low-income reported poorer overall physical health compared to their peers. Residents of the western portion of Dutchess County also reported poorer overall physical health compared to those residing in the eastern portion of the county.

Similarly, the self-reported mental health status of Dutchess County residents increased from 2022 to 2025, with 69% and 75% reporting excellent or good mental health, respectively. In 2025, individuals who are non-White, rent their home, and live in households without children or households with disabled persons reported poorer overall mental health compared to their peers. Self-reported mental health status also appeared to correlate with age, with individuals 18–34 years old having poorer mental health compared to those 35–54 and 55+.

Respondents were asked a series of questions regarding psychological distress. According to the Kessler Score, the summation of responses to those questions, 46% of Dutchess County residents reported moderate or severe mental distress. Moderate or severe mental distress was more commonly reported by individuals residing in the eastern portion of the county, residents aged 18–54 years, non-White individuals, those who rent their home, employed residents, and households with disabled persons.

When asked about their ability to get basic necessities, such as food, housing, utilities, transportation, and access to a phone and internet, Dutchess County residents reported having less trouble accessing these necessities in 2025 compared to 2022. In 2025, some groups more frequently reported trouble accessing these necessities compared to their peers. In general, this included those residing in the western portion of the county, non-White residents, households with disabled persons, individuals who rent their home, and lower-income individuals.

Self-reported ability to get health care, including physical, mental, and dental care, varied by demographic group. Individuals residing in the eastern portion of the county reported worse access to physical and mental health care, but better access to dental care, compared to those residing in the western portion. Non-White individuals, those who rent their home, and households with dis-

abled persons reported more trouble accessing all health care compared to their counterparts.

Twenty-five percent of Dutchess County residents said they had not been to a primary care physician for a routine physical checkup in the last 12 months. This is an increase from 2022 and 2018, when 22% and 16%, respectively, reported not visiting a primary care physician in the last year. The most common reasons for not visiting a primary care provider in the past year included not having time (37%), choosing not to go for another reason (31%), not having enough money (24%), or not having insurance (23%).

In 2025, 6% of Dutchess County residents reported visiting the emergency room in the last year for a non-emergent issue. This is similar to 2022 (8%) and 2018 (7%). The most common reason for visiting the emergency room for a non-emergency issue was the convenience of emergency room operating hours, accounting for nearly 50% of responses in 2025.

More information regarding the methodology, design, and results is available in Dutchess County’s report.

14.1.2.2 Dutchess County Resident Priority Voting

In addition to the phone-based survey, DCDOH also gathered input from residents at community events. Attendees were given two stones and asked to place them in a flowerpot labeled with the Prevention Agenda 2025–2030 priority areas. A total of 830 Dutchess County residents participated in six events during summer 2025. As shown in Figure 14.1, the most common priority area selected was Mental Wellbeing and Substance Use, followed by Health Insurance Coverage and Access to Care and Healthy Children.

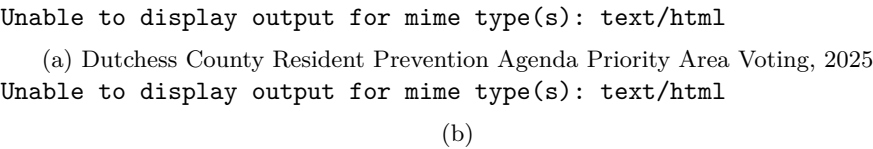


Figure 14.1

Table 14.1: Dutchess County Resident Prevention Agenda Priority Area Voting, 2025

Table 14.1		
Mental Wellbeing & Substance Use	Health Insurance Coverage & Access to Care	Safe & Healthy Communities
412	324.0	265.0

14.1.3 Areas of Focus

In Dutchess County, there is a strong need to focus on chronic disease factors and mental and behavioral health. Cardiovascular disease is the leading cause of death in Dutchess County, and other chronic health conditions, such as hypertension, diabetes, and obesity, can contribute to and exacerbate cardiovascular disease. Those with a mental health condition, including but not limited to depression, anxiety, other mood disorders, or substance or alcohol use disorder, are also more likely to have a chronic health condition than those without one.

Due to the interrelatedness of physical and mental well-being, it is important to focus not only on physical health but on mental health as well. Within both sectors, disparities exist between the more urban-suburban western side of the county and the rural eastern side; between White non-Hispanic residents and Black non-Hispanic and Hispanic residents; and between those with disabilities and those without disabilities. These disparities can be seen in rates of preventable hospitalizations, premature death, opioid overdose, participation in primary care, and provision of mental health services. To combat these issues, residents of Dutchess County need access to and support from sufficient, competent health providers to manage their health.

Areas of focus should include, though not be limited to: - Cardiovascular disease, the leading cause of death in the county - Cancer, including screening rates - Respiratory diseases, including asthma and chronic lower respiratory disease (CLRD) - Other chronic diseases, such as diabetes, hypertension, and obesity - Childhood immunizations - Mental health and well-being - Suicide and self-harm - Opioid overdose - Behavioral health, including diet and exercise, smoking, and alcohol and drug use

14.1.4 Assets and Resources

Dutchess County Department of Health (DCDOH) works closely with a variety of organizations, including academic institutions (public schools and colleges), community-based organizations (CBOs), hospitals and other medical facilities, federally qualified health centers, and governmental departments. DCDOH also has a Mobile Health Unit that is deployed to community events and areas of high need to provide clinical services (immunizations, sexual health) and public health education.

Additionally, Department of Health employees participate in an array of coalitions and workgroups aimed at improving Dutchess County residents' health, including Eastern Dutchess Rural Health Network, Bringing Agencies Together, Poughkeepsie Healthy Black and LatinX Coalition, Fit Dutchess, the Dutchess County Food Security Council, and Vassar Brothers and Northern Dutchess Hospital's Community Health Committee Meetings, fostering collaboration between DCDOH and other participating organizations.

14.2 Orange County Health Summary

14.2.1 Demographics

Orange County is in the southeastern area of NYS, bounded on the east by the Hudson River and on the west by the Delaware River. It is located approximately 40 miles north of NYC with 43 municipalities. Orange County is the second most populous in the M-H Region with approximately 403,840 residents Table 6.1. Of Orange County residents, 50.1% are male, 59.2% are non-Hispanic White, 10.5% are non-Hispanic Black, and 23.2% are Hispanic Table 6.2, Table 6.4, Table 6.5. Orange County is both racially and ethnically diverse, with the second highest percentage of Hispanic persons in the M-H Region and 17.5% of individuals identifying as a race other than non-Hispanic White [Table 5]. Twenty-nine percent of people living in Orange County speak a language other than English at home, third highest in the M-H Region next to Westchester and Rockland counties [Table 6]. Nearly 30% of Orange County residents are 19 years or younger, the second highest percentage among M-H counties Table 6.3. Nearly half (49.5%) of Orange County students are considered economically disadvantaged, which ranks second in the M-H region Figure 7.12 and Table 7.15. Although 89% of students graduate with a high school diploma, third highest in M-H Region, only 14.1% of residents hold a graduate or professional degree, the second worst among M-H Region counties Figure 7.13 and Table 7.16. Unemployment has remained steady in the last three years of data available around 5.4% Figure 7.2 and Table 7.2 and the percentage of the population under poverty has been 13% since 2022 Figure 7.7 and Table 7.9. In Orange County, 20% of households spent half or more of their income on housing, which is the second highest in the M-H Region and higher than the NYS average of 19% Figure 7.6 and Table 7.6.

Orange County is a mix of urban, suburban, farmland, and rural areas. Agriculture is a leading industry in Orange County and constitutes more than half of the county's open space. The availability of multiple modes of transportation, including bus, train, and major highways, allows residents to travel to NYC, New Jersey, and Southern NYS for employment. Orange County also contains New York Stewart International Airport in Newburgh, NY, West Point Military Academy in Highland Falls, NY, and major tourist attractions such as LEGOLAND New York and the Woodbury Commons Premium Outlets.

14.2.2 Community Survey Findings

14.2.2.1 Orange County Community Health Survey

As part of the CHA process, the Orange County Department of Health (OCDOH), in partnership with Siena Research Institute, collected primary data through the Orange County Community Health Survey Section 15.13 to better characterize community needs. The 63-question survey, administered by Siena Research Institute (SRI), asked residents about overall quality of life, social determinants

of health, perceptions of health and well-being, health behaviors, and access to and utilization of health services.

Orange County conducted this survey in coordination with the M-H Region in 2018 and 2022 and unilaterally in 2023 and 2024. By administering the survey over time, OCDOH was able to analyze response changes. The survey was fielded from May 20 to June 26, 2024, and was open to Orange County residents aged 18 years and older. Respondents were contacted via landline and cell phone. There were 800 respondents who completed the survey through a dual-frame (landline and cell phone) mode and 100 who completed the survey via the online panel (Lucid). The county-wide sample of 900 was weighted by age, gender, reported race and ethnicity, income, and county using the 2015–2020 American Community Survey 5-year estimates to ensure statistical representativeness. The margin of error (MOE), including design effects resulting from weighting with a 95% confidence interval for the sample, was +/- 3.8%.

More information regarding the methodology, design, and results is available in the Orange County Community Health Survey Report (217) on the OCDOH website. Overall, Orange County residents with an income under \$25,000 (\$25K) had worse health outcomes and reported struggling to obtain basic needs such as food, housing, and transportation.

Below are several data points of note:

- Overall, 74% of respondents rated their physical health as excellent or good, compared to 79% in 2018. By comparison, only 60% of those making <\$25K per year reported excellent or good physical health.
- The percentage of respondents reporting excellent mental health declined significantly since 2018 (52% vs. 37% in 2024).
- Forty-seven percent of Orange County respondents aged 18–34 reported moderate or serious mental (psychological) distress, compared to 25% of those aged 55 and over.
- Eighty-nine percent of Orange County respondents aged 55 and older reported visiting a primary care physician for a routine physical or checkup in the last 12 months, compared to 69% of those aged 18–34.
- Nineteen percent of Orange County respondents aged 18–34 reported that they, or a member of their household, had trouble obtaining housing when it was really needed at some point in the last 12 months. This compares to 10% of Orange County respondents aged 55+.
- Over 20% of respondents reported being unable to get any health care (including dental or vision) when it was really needed, compared to 14.7% in 2018.
- Fifteen-point-three percent of respondents reported being unable to access food when needed in 2024, which is similar to 2023 (15.5%) but significantly higher than in 2018 and 2022 (9.8% and 12.4%, respectively).
- Thirty percent of respondents with <\$25K yearly income were unable to get transportation when needed in the previous 12 months, compared to 17% of all Orange County respondents.

- Twenty-seven percent of Orange County respondents making <\$25K per year reported they were unable to access the internet, compared to 18% of all respondents.

14.2.2.2 Orange County Community Asset Survey

In addition to the Orange County Community Health Survey conducted in 2024, OCDOH conducted the Community Asset Survey Section 15.14 from April 25 to September 4, 2025. This convenience sample survey asked residents about the community's greatest strengths, where efforts should be focused to improve quality of life, and the most important health issues. Over 800 residents participated in the convenience sample survey.

The greatest strengths of the community were identified as:

- Access to good education
- Parks and recreation
- Access to basic health care

The top three areas identified to improve quality of life were:

- More affordable housing
- Better jobs and economy
- Improving public transportation

The top three important health issues identified by respondents were:

- Mental health, including depression and anxiety
- Drug use
- Aging problems (Alzheimer's disease, arthritis, hearing/vision loss, etc.)

14.2.3 Areas of Focus

Premature death for those less than 65 years is the 2nd worst in the M-H Region and worse than the NYS rate Figure 10.1 and Table 10.2. Heart disease and cancer are the leading causes of death and premature death (death before age 75) by a large margin. These margins are larger for those among racial and ethnic lines, with Orange County have the second highest percentage difference between Black Non-Hispanics and White Non-Hispanics, in the M-H Region Figure 10.2. Obesity is a leading contributor to these top causes of death, as well as cancer, diabetes, stroke, and hypertension, all of which can lead to premature death. Orange County's percentage of adults overweight or obese is the highest in the M-H Region 75% Figure 10.33 and Table 10.34. Over the past ten years, the rates of obesity have continually grown, as well as the subsequent morbidity of cardiovascular disease, prediabetes, and hypertension. Orange County's age-adjusted all cancer mortality is the highest in the M-H Region at 155.5 per 100,000 residents, and 1.4 times higher than the NYS rate based on the latest available data Figure 10.38 and Table 10.39. Within these preventable causes of death, there are disparities among racial and ethnic minorities. These disparities

can be seen in the rates of premature deaths, food insecurity, infant mortality, asthma hospitalizations, hospitalizations and mortality due to heart disease, breast cancer mortality, colorectal cancer mortality, and premature births. Many of these health outcomes are influenced by the social determinants of health, conditions where systems and policies determine the environments in which people live. Given the connectivity between physical health and mental health, it is important to focus on both physical health and mental health. In 2024, 36% of Orange County adults 18 years and older reported they experience either moderate or serious psychological distress. However, 47% of adults with income less than \$25K per year reported moderate or serious psychological distress. This highlights the role poverty plays in impacting residents' well-being.

Where data are available across the M-H Region from 2019–22, Orange County ranks fourth in the M-H Region in overdose deaths involving any opioid and is higher than the NYS excluding NYC rate. However, strides have been made in addressing substance use in Orange County, including a 45.5% reduction in overdose deaths from 2021 to 2024 (218).

Other health areas where Orange County falls behind NYS or has worsened since the last assessment include:

- Food insecurity
- Severely cost-burdened households
- Cardiovascular disease hospitalization rate
- Adults with prediabetes
- Asthma hospitalization rate among adults
- Emergency department visits for asthma in children 17 years and younger
- Stroke hospitalization rate
- Cancer mortality, including all cancer, female breast cancer, lung and bronchus, and colorectal cancer
- Childhood immunization rates among children 24–35 months of age
- Percentage of births with late or no prenatal care
- Percentage of women age 50–74 years receiving breast cancer screening based on recent guidelines
- Early syphilis case rate

14.2.4 Assets and Resources

OCDOH has strong community partnerships with hundreds of organizations serving residents, including five area hospitals, federally qualified health centers (FQHCs), private medical providers, school districts, two-year and four-year colleges, a medical school, community-based organizations (CBOs), and governmental departments serving a broad variety of community needs.

OCDOH has established multiple coalitions, including Chronic Disease Coalition (Healthy Orange), Orange County Breastfeeding Coalition, Food Insecurity

Workgroup, Orange County Cancer Screening Collaborative, Orange County Infection Control Committee, the Healthcare Coalition, and the Hudson Valley Public Health Collaborative.

OCDOH also co-leads and participates in many countywide coalitions aimed at improving residents' health, including Changing the Orange County Addiction Treatment Ecosystem, Orange County Community Alliance for Prevention, Middletown Cares Coalition, Perinatal Infant Family Health Collaborative, Newburgh Healthy Black and LatinX Coalition, Hudson Valley Health Coalition, Head Start Health Advisory Committee, RECAP Health Services Advisory Committee, System of Care 0–5 Infant and Early Childhood Mental Health Collaborative, System of Care Children Youth and Families, Orange County Suicide Task Force, Hudson Valley Waterworks Conference, Orange County Water Authority, Team Newburgh, Child Fatality Review Board, WELCOME Orange, and the Orange County Resilience Project.

14.3 Putnam County Health Summary

14.3.1 Demographics

Putnam County is located approximately 60 miles north of NYC and is bordered by the Hudson River to the west, Connecticut to the east, Dutchess County to the north, and Westchester County to the south. NYC is accessible by Metro-North rail lines running on the eastern and western sides of the county. With just 230 square miles of land area, Putnam is the third smallest county in NY, excluding the five boroughs of NYC (219). Putnam's terrain includes a mix of rural and suburban areas with numerous lake communities, parklands, and reservoirs. The county is divided into six towns with three villages and no urban centers (220). More than a third of the population resides in the town of Carmel (221), which occupies the southern-central portion of the county (219).

With an estimated 2023 population of 97,988, Putnam is the second least populous county in the M-H Region, constituting 4.1% of the region's population and 0.5% of the population of NYS Table 6.1. The county's population decreased by 2% between the 2010 and 2020 census, but American Community Survey population estimates have been relatively stable from 2021–2023 (222), and the three-year average birth rate is trending up (223).

Putnam's age distribution, with 19.6% under age 18 years and 26.5% age 60 and older, is slightly older than that of the M-H Region (22.6% < 18 and 24.1% ≥ 60), and more similar to NYS excluding NYC (20.9% < 18 and 25.6% ≥ 60) Table 6.3. By race and ethnicity, the county is comparatively homogenous, with a greater majority non-Hispanic White population (72.4%) than both the M-H Region (58.5%) and NYS (53.4%). Approximately 19% of the population is Hispanic, and all other racial and ethnic groups combined make up only 8.6% of the population Table 6.1, Table 6.5. The majority of the population (79%) speaks only English at home, with Spanish (12.6%) being the most common

non-English language spoken at home Table 6.6. A little more than 4% of Putnam’s population are veterans, slightly higher than that for the M-H Region (3.9%), but lower than that for NYS excluding NYC (5.3%) Table 6.10. Putnam has a slightly lower disabled population (9.6%) compared to the M-H Region (10.2%) and NYS (11.6%). Ambulatory difficulty is the most common type of disability in Putnam (5.4%), as well as in the M-H Region (5.2%) and NYS (6.6%) Table 6.11.

Putnam is a well-educated and affluent county. Over 90% of the population has a high school degree or higher, and nearly 44% have a bachelor’s degree or higher Table 6.7. The median annual household income has trended up in the last decade and in 2022 was the third highest in the state (222); however, median household income is lower in Asian and Hispanic populations (224).

14.3.2 Community Survey Findings

14.3.2.1 Mid-Hudson Regional Community Health Survey

Alongside Dutchess, Putnam County participated in the third iteration of the Mid-Hudson Regional Community Health Survey (MHRCHS) (225), a broad-based assessment designed to enhance understanding of local health status, quality of life, and factors that impact health for Putnam County residents. As in 2018 and 2022, when all seven M-H Region counties were able to participate, the MHRCHS was administered by Siena Research Institute (SRI). In 2025, the 50+ question survey instrument included both new questions and many of the same questions offered in previous surveys to allow for assessment of change over time Section 15.12.

The survey was fielded from May 1 to June 3, 2025, and was open to residents of Dutchess and Putnam counties aged 18 years and older. Respondents were contacted via landline telephone and cell phone. Telephone sampling was conducted via a stratified dual-frame probability sample of landline and cell phone numbers. County samples were weighted by age, gender, reported race and ethnicity, and income using American Community Survey population estimates to ensure statistical representativeness. A total of 602 residents of Putnam County completed the survey. The margin of error (MOE), including the design effects resulting from weighting with a 95% confidence interval for the Putnam County sample, was +/- 5.5%.

Notable findings include:

- Overall, Putnam County performed similarly or favorably compared to Dutchess County, and there were few differences outside the MOE when comparing Putnam results from previous surveys.
- The vast majority of Putnam residents have a positive impression of overall quality of life (84%) and safety (97%) in their communities. About two-thirds think their communities are

good places to live as they age and that there are safe places to walk or bike. However, residents with a disabled household member have a lower opinion of their community as a place to age and of safety for walking and biking. Women and residents of the western side of the county also have a lower opinion of safety for walking and biking in their communities.

- Compared to previous surveys, overall improvement was seen in the ability of Putnam County residents to access needed resources such as housing, childcare, and transportation in the last year. Notably, inability to maintain employment that pays a living wage, a new addition in the series of questions, emerged as the most commonly unmet need at 19% of the population. For all other resources, the proportion of the population with an unmet need in the last year ranged from 4%-9%.
- Difficulties accessing health care in the last year were similar across different types of care, ranging from 10% having difficulty getting mental health care to 14% having difficulty getting dental care and physical health care. Inability to get care to meet the needs of household members with disabilities was more common (29% of those with a disabled household member).
- Similar to past surveys, utilization rates were high for routine physical exams (82%) and dental check-ups (80%), and inappropriate use of emergency departments for non-emergencies was low (6%). Outside of being too busy and choosing not to go, lack of money and insurance were the common barriers to getting routine dental care, and inability to get an appointment was the most common barrier to getting a routine physical.
- The K6 Index, a series of questions that provides a standardized measure of prevalence of mental distress in the population, was added to the 2025 survey. The K6 Index proved to be more sensitive than self-reported ratings of mental health, with K6 scores of 9% for severe mental distress and 29% for moderate mental distress, as compared to self-reported mental health ratings of 5% poor and 18% fair. K6 and self-reported ratings yielded similar results in distribution of mental health concerns in the population, with higher distress/poorer ratings seen in younger adults, renters, those with a disabled household member, and those with household income less than \$50,000 per year.
- The most notable finding related to potentially harmful behaviors is the decreasing proportion of residents who never use drugs for non-medical purposes (75% in 2025 as compared to 80% in 2022 and 90% in 2018), alongside a cannabis consumption rate of 26%. Frequency of cannabis consumption was newly added to the 2025 survey to facilitate tracking of cannabis utilization rates since legalization in New York State, so we can only hypothesize that increasing cannabis consumption may be

contributing to the overall rise in drug use for non-medicinal purposes.

14.3.2.2 Community Health Experience Survey

Putnam also participated in the Community Health Experience Survey (CHES) (226), a public survey conducted by Nuvance Health in support of its Community Health Needs Assessment. The survey instrument was designed to collect information to assess resident perception of health and well-being, health behaviors, health concerns, and community needs [see Appendix O]. Promotion of this self-administered online survey in the community and through local partners resulted in 267 responses from adult residents of Putnam County. The survey population skewed heavily toward female and older age groups, and results were not considered generalizable to the entire population of Putnam County.

Nonetheless, consistent with MHRCHS findings, mental health and health care access (particularly primary care) emerged as top concerns in this survey. Affordable housing was also a chief concern, with the highest proportion of respondents selecting affordable housing as an area of need to improve health in the community, and more than half of respondents anticipating that housing affordability will be worse in five years. Concern regarding health care access, mental health, and affordable housing was also supported by findings of the Community-based Organization Survey, detailed earlier in the M-H Regional CHA.

14.3.3 Areas of Focus

Areas of focus were identified through a systematic review of primary data collected in community surveys and secondary data indicators included in the M-H Regional CHA, the 2025–2030 NYSPA (227), and/or the NYS County Health Indicators by Race/Ethnicity (CHIRE) Dashboard. Indicators were flagged if they met any of the following criteria: prevention agenda objective not met; performance worse than the M-H Region, NYS, or five or more counties in the M-H Region; indicator performance worsening over time; or disparities between sub-groups within the county. Flagged indicators were then examined for patterns, and determinants of health or health issues with two or more flags were given consideration as an area of focus. On this basis, areas of focus include decreasing economic stability; access to healthy food and healthy eating; mental health and suicide; alcohol and tobacco use; health care access; childhood preventive services; maternal-child health; and tick-borne disease. Data points in this summary are linked and/or footnoted if they are not otherwise found in the M-H Regional CHA.

While Putnam is a comparatively affluent county, CHA data show signs of decreasing economic stability and disparities that could have downstream impacts on health and well-being. Putnam has the lowest poverty rate in the M-H Region, but the percentage of the population in poverty ticked up from 2021 (6.0%) to 2022 (6.3%) and again in 2023 (6.5%) Figure 7.7, with higher rates seen

in the Hispanic population Table 6.7. Similarly, in the 2023–2024 school year, Putnam had the lowest proportion of economically disadvantaged students enrolled in schools in the M-H Region (32.5%), but this too rose from 2021–2022 (28.5%) and 2022–2023 (32.1%) Table 6.8. Putnam enjoys a low and decreasing unemployment rate (4.1% in 2023) Table 6.2, but at 6.6%, rates are higher in the Black population (224). In spite of high employment rates, income may not be sufficient for the cost of living, as evidenced by 19% of MHRCHS respondents stating they were unable to maintain employment that pays a living wage in the past year. Imbalance between income and the cost of living, in particular the cost of housing, is further reflected in an increasing percentage of cost-burdened renter-occupied units (56.5% in 2023) Table 6.5 and severely cost-burdened households (17% in 2019–2023) Table 6.6. These findings are reinforced by high levels of concern regarding the cost of housing seen in both the Community Health Experience Survey and the Community-based Organization Survey.

Access to healthy food is essential to healthy eating habits, which in turn are essential to maintaining overall health. While in 2023 Putnam County had the lowest rates among M-H Region counties of food insecurity in both the overall population (8.9%) and in children 18 years and younger (6.6%), rates have increased since 2021 Figure 7.3 and Table 7.4. In 2019, 6.7% of Putnam’s population was considered to have limited access to healthy foods (low income and do not live close to a grocery store). Although there was improvement from 2015 to 2019, Putnam’s rate was still the highest among M-H Region counties Table 7.32. Difficulties accessing healthy foods may contribute to an increasing percentage of Putnam adults consuming less than one fruit and less than one vegetable daily (30.1% in 2021) Figure 9.2, and increasing proportions of both children (34.7% from 2021–2023) and adults (65.1% in 2021) who are overweight or obese Figure 10.33, Figure 10.34, and Figure 10.35. Obesity puts individuals at greater risk of developing a whole host of chronic diseases (228), including heart disease and cancer, which were the top two leading causes of death in Putnam County in all years from 2013–2022 (114).

There is consistent evidence across component CHA assessments for a need to focus on mental health and suicide prevention in Putnam County. In 2021, Putnam had the highest proportion of adults reporting poor mental health for 14 or more days in the last month among M-H Region counties (17.4%), a considerable jump from 10% in 2018 Figure 11.1. The percentage of adults reporting a depressive disorder also increased sequentially from 2016 to 2018 and 2021 Figure 11.2. While the rate of suicide in Putnam County is lower than most other counties in the region and NYS, the three-year average suicide mortality rate increased from 4.6 per 100,000 population for 2019–2021 to 7.3 per 100,000 for 2020–2022 Table 11.17. These secondary data indicators are supported by findings of high levels of community concern about mental health in both the Community Health Experience Survey and the Community-based Organization Survey, as well as K6 index scores of 9% for severe mental distress and 29% for moderate mental distress on the MHRCHS, with higher distress/poorer ratings seen in younger adults, renters, those with a disabled household member, and

those with household income less than \$50,000 per year.

CHA data reveal comparatively high rates of smoking and binge drinking in Putnam County adults. The percentage of adults who are current smokers jumped from 9% in 2018 to 16.7% in 2021, exceeding rates in the M-H Region (11.1%) and NYS excluding NYC (14.1%) Figure 11.4. High prevalence of smoking could be contributing to Putnam 2018–2022 lung and bronchus cancer incidence (57.6 per 100,000 population) and mortality (27.7 per 100,000) rates that exceed those of NYS (52.4 and 26.5 per 100,000 population, respectively) Figure 10.44. Similarly, the percentage of adults binge drinking during the past month increased from 14.1% in 2018 to 18.7% in 2021, exceeding rates in the M-H Region (13.1%) and NYS excluding NYC (16.1%), and giving Putnam the highest rate among M-H Region counties Figure 11.5.

Excessive use of alcohol could be contributing to mortality from cirrhosis, which is trending up and, at 8.3 per 100,000 population in 2021, exceeded the NYS rate of 8.2 per 100,000 population Figure 10.37. Unfortunately, there is evidence that high prevalence of smoking and drinking is continuing in younger residents of Putnam County. The Prevention Needs Assessment (PNA), a survey administered every other year to Putnam public school students in 8th, 10th, and 12th grades, demonstrates a downward trend in the percentage of survey respondents who have used alcohol in the last month (18.9% in 2024), and the percentage who have engaged in binge drinking (7.8% in 2024); however, both of these numbers still exceed the national benchmark (14.3% and 5.7%, respectively). PNA results also show increasing proportions of students engaging in drinking and driving (1.7% in 2024) and riding with a drinking driver (13.4%), with both rates exceeding national benchmarks (1.5% and 11.4%, respectively). PNA results are mixed for tobacco use, with cigarette (1.5% in 2024) and e-cigarette (7.7% in 2024) use in the last thirty days decreasing and below the national benchmark (2.1% and 11.8%, respectively), but an increasing proportion of students smoking 1/2 pack of cigarettes daily (0.4% in 2024), which is just below the national benchmark of 0.5% (229).

Access to health care services plays a critical role in achieving optimal health outcomes through disease prevention, timely diagnosis and treatment, and appropriate management of chronic conditions. Secondary data indicators related to health care access are mixed for Putnam County. Compared to other counties in the M-H Region, Putnam has the lowest rate of uninsured children (2.4% in 2023) and the highest rate of insured adults (94.9% in 2023) (49) Figure 7.18 and Figure 7.19, but health insurance may not always alleviate cost barriers to getting care. Among the M-H Region counties in 2021, Putnam had the highest proportion of adults who were not able to receive medical care due to cost (9.9%) Table 7.20. Access to care may also be impacted by deficits in providers per capita. While Putnam had the second-best ratio of residents to mental health providers among the M-H Region counties in 2024 (210:1), it had the second-worst ratio of residents to dentists in 2022 (1610:1) and the second-worst ratio of residents to primary care providers in 2021 (1880:1) Figure 7.20, Figure 7.21, Figure 7.22.

In spite of concerning per capita ratios, Putnam had the highest percentage of adults with a regular primary care provider (90.5%) among the M-H Region counties in 2021 Figure 7.23. MHRCHS 2025 findings are also mixed for health care access in Putnam County. A high proportion of residents received routine annual dental (80%) and primary care (82%); however, substantial proportions of the population report difficulty getting mental (10%), dental (14%), and physical (14%) health care in the past year when it was really needed. Inability to meet care needs for family members with disabilities was even more common (29% of those with a disabled household member). MHRCHS data indicate cost is a bigger limiting factor for dental care, while availability of providers is a bigger limiting factor for routine primary care. Community Health Experience and Community-based Organization Survey results corroborate high levels of community concern about access to health care.

Prenatal and infant health are the foundation for a healthy future in Putnam County. Although Putnam County performs well in both the percentage of births with early prenatal care (84%, 2020–2022 three-year average) and the percentage of births with late or no prenatal care (3.1%, 2020–2022 three-year average) as compared to other counties in the M-H Region Figure 10.66 and Figure 10.67, disparities can be seen when these indicators are examined by race and ethnicity. As compared to births to non-Hispanic White Putnam residents (89%), lower proportions of births to Hispanic (74.6%), non-Hispanic Asian/Pacific Islander (79.2%), and non-Hispanic Black (86.4%) residents had early prenatal care Figure 10.68. Findings are similar for birth outcomes, with both the 2020–2022 three-year average percentages for preterm births (9.1%) Figure 10.74 and babies born at a low birthweight (7.3%) Figure 10.75 in Putnam falling below those for NYS excluding NYC, but disparities are seen by race and ethnicity. A higher proportion of births to Hispanic residents were premature (10.0%), as compared to births to non-Hispanic White residents (8.7%) (224). When looking at birthweight outcomes, there was a higher percentage of low-birthweight births in Hispanic (7.6%) and non-Hispanic Black (10.2%, unstable rate) populations as compared to non-Hispanic White (7.1%) Figure 10.76. Similar to NYS excluding NYC, and all other M-H Region counties besides Ulster, Putnam has seen a concerning downtrend in babies who are exclusively breastfed in the hospital. In 2022, only 38.5% of Putnam infants were exclusively breastfed in the hospital, well below the 2025–2030 NYSPA objective of 48.2% Figure 10.78

Preventive services for children, including immunizations and health care screenings, are key to ensuring that Putnam's youngest residents have the opportunity to achieve optimal health. While improvements have been made in early childhood vaccination rates, and Putnam now performs well in comparison to both NYS and other M-H Region counties Figure 10.52, the same cannot be said for HPV vaccination rates or lead screening. The percentage of 13-year-olds with a completed HPV vaccine series has trended down in Putnam since 2019, and in 2024 Putnam joined Ulster County in having the lowest percentage (14.5%) among M-H Region counties. This is considerably lower than the percentage in NYS excluding NYC (24.4%) and the 2025–2030 NYSPA objective of 28.7%

Figure 10.54. Regarding lead screening, data included in the M-H Regional CHA demonstrates a decline in the percentage of children tested at least twice for lead before 36 months of age from 2013 (61.3%) to 2019 (58%) Figure 7.31. This finding is supported by data included in the 2025–2030 NYSPA, which demonstrates a decline in four-year averages of the percentage of Putnam children with two lead tests before 36 months of age from 62.5% for 2014–2017 to 59.4% for 2018–2021, which is well below the NYSPA objective of 70% (227).

Putnam County bears a disproportionately high burden of tick-borne disease. The geographic distribution of tick-borne disease in the United States is highly concentrated in Upper Midwestern and Northeastern states, and within NYS some of the highest concentrations of disease are seen in the M-H Region (230). The most common tick-borne diseases seen in Putnam County are Lyme disease, anaplasmosis, and babesiosis. Increases were seen in all three of these diseases in Putnam County from 2020 to 2023 Figure 10.62, Figure 10.63, and Figure 10.64. Lyme disease rates rose each year, and the 2023 rate (351.9 cases per 100,000 population) was higher than that of NYS (109 cases per 100,000 population) and the fourth highest among M-H Region counties [see Figure 147]. Rates of anaplasmosis and babesiosis were more volatile, and displayed alternating year peaks and troughs related to the two-year lifecycle of the blacklegged tick vector (231). Putnam’s 2023 anaplasmosis (96.6 cases per 100,000 population) and babesiosis (61 cases per 100,000 population) were by far the highest in the M-H Region, and approximately ten times higher than those for NYS (10.3 and 5.9 cases per 100,000 population, respectively) Figure 10.63 and Figure 10.64. ### Assets and Resources The Putnam County Department of Health (PCDOH) has strong community partnerships that operate through a variety of channels:

- Live Healthy Putnam (LHP) is a coalition of community organizations whose mission is to improve individual and community health and well-being for all residents by addressing social determinants of health through education, advocacy, and collaboration. LHP meets quarterly and works to achieve its mission by acting as the primary forum for collaborative development and implementation of a comprehensive Community Health Improvement Plan (CHIP). NYS Prevention Agenda priorities are well represented within the coalition, with eight organizations working on priorities within the Economic Stability Domain; 14 working within the Social and Community Context Domain; 10 working within the Neighborhood and Built Environment Domain; and nine working within the Education Access and Quality Domain.
- PCDOH participates in a variety of other coalitions and task forces, including the Communities that Care Coalition (adolescent substance misuse prevention), Suicide Prevention Task Force, the Co-Occurring System of Care Coalition, the BR;DGE Alliance (harm reduction and overdose prevention), the Putnam Hospital Community Health Committee, Tri-County Steering

Committee (HIV prevention), and the Mid-Hudson Adult Immunization Coalition.

- PCDOH partners closely with Putnam-Westchester Board of Cooperative Educational Services (BOCES) on various school-based initiatives, as well as directly with school districts and The Prevention Council of Putnam on harm reduction programming.
- Restaurants, camps, and recreational areas work closely with the Environmental Health Services Division to distribute health information and maintain safe environments.
- Putnam County has a robust Medical Reserve Corps (MRC) with over 100 volunteers and an active partnership with Putnam County Bureau of Emergency Services.
- Putnam County's bilingual health education team has an active presence in Spanish-speaking communities throughout the county. Community connections are maintained through strong partnerships with community leaders and delivery of person-centered, culturally informed health education and communication.

The Putnam Community Resource Guide, a publication of the Putnam Community Action Partnership (CAP), provides a central location for residents to find local resources to meet their needs. The guide includes 191 service listings from approximately 120 unique organizations. Organizations listed in the guide serve a broad range of populations, including children and youth, senior citizens, veterans, immigrants, and people with disabilities. A wide variety of services are offered in areas such as housing, food and nutrition, legal aid, mental health, alcohol and substance use, educational resources, and youth services. Language support is common, with more than half of listed organizations specifying services offered in Spanish, and another 15 organizations offering translation in languages such as Italian, Portuguese, Hungarian, and Chinese (232).

14.4 Rockland County Health Summary

14.4.1 Demographics

Rockland is the sixth smallest county by land area in NYS and the smallest in the M-H Region. Despite its size, Rockland County has the third-highest population in the M-H Region, and its population is growing at the fastest rate of any county in the region Table 6.1. Rockland County's population is also the youngest in the region, with the highest percentage of residents below age 20 (32%) Table 6.3.

Rockland County is among the most diverse counties in the region regarding race and ethnicity, with the third-highest percentage of Hispanic residents in the region, the third-highest percentage of non-Hispanic Black residents in the region, and the second-highest percentage of non-Hispanic Asian residents in

the region Table 6.4 and Table 6.5. Linguistically, Rockland County is also very diverse, with the highest percentage of languages other than English spoken in the region, at 43.6% Table 6.6.

Educational attainment for people aged 25 or older is highly variable in Rockland County. For those with degrees beyond high school, Rockland County has the second-lowest percentage of those achieving an Associate degree in the region (7.8%), the third-highest percentage of those achieving a Bachelor's degree in the region (23.2%), and the third-highest percentage of those achieving a graduate or professional degree in the region (18.9%). Rockland County also has a relatively high percentage of residents with low educational attainment, with the highest percentage of people with less than a 9th grade education in the region (5.7%), the second-highest percentage of those with 9th-12th grade education without a diploma in the region (6.6%), and the second-lowest percentage of those achieving a high school degree or equivalent in the region (21.6%) Table 6.7.

Household income, like educational attainment, is also relatively variable in Rockland County. Rockland County has the second-highest percentage of households with an income greater than \$200,000 at 24.6%, as well as the second-lowest percentage of households with an income less than \$10,000 and between \$10,000 and \$14,999 in the region (3.7% and 2.1%, respectively). For the remaining Census income ranges, Rockland County occupies a relative middle position with regard to the other counties and differs from the regional average by no more than a few tenths of a percent, with the exception of the \$75,000-\$99,999 income range, where Rockland is third lowest in the region (10.0%) and eight tenths of a percent below the regional average (10.8%) Table 6.9.

14.4.2 Community Survey Findings

The main source of primary data for Rockland County was the inaugural Rockland County Community Health Assessment Survey Section 15.16. The survey was held from May 28, 2025, through July 31, 2025, and was made available digitally via Jotform in English, Spanish, and Creole (paper versions were also made available). The survey was extensive and encompassed each of the five domains of the 2025-2030 NYSPA.

Limitations: This survey format qualifies as a convenience sample. Therefore, conclusions derived from this data cannot be generalized to the population of Rockland County as a whole. Rather, the conclusions based on the data collected from the survey are confined to the pool of survey respondents.

Methods: The survey consisted of a maximum of 50 questions. The survey was only available to people who were aged 18 years or older and who resided in Rockland County during the survey period. The specific type and number of questions available to be answered varied depending on the demographics of the survey-taker (such as zip code, sex, child < 6 years old in household, and pregnant or planning to become pregnant), as well as their choices for the top three Priorities for Community Health and Wellbeing question [see Appendix P].

The survey's primary format was digital, but paper versions in all three languages were made available at multiple publicly accessible locations throughout the county (three public libraries, a town hall, a community center, and a church). Paper versions had directions that differed slightly from those of the Jotform version of the survey, due to logical differences between digital and paper formats. Paper surveys were hand-entered by RCDOH staff. When the answers on a paper survey came into conflict with the logic of the Jotform version, the Jotform logic was adhered to.

The survey was promoted via Rockland County's social media accounts, the county website, the placement of flyers and palm cards throughout the county, and promotion by county agencies (such as the Office of the Aging, Department of Social Services, and Department of Mental Health), town governments, and community partners (such as the Haverstraw, Spring Valley, and Western Ramapo Collaboratives, WMC Health, Montefiore Nyack, and individual community leaders). The survey was also promoted at public events by RCDOH staff and by an outreach worker in zip codes where survey response rates were relatively low.

Incentives for the survey included the ability to enter a sweepstakes for one of several \$50 gift cards upon completion of the survey. An additional limited promotion was vouchers for free NY Boulders tickets. This promotion was organized with the help of the Town of Ramapo and NY Boulders Baseball. Vouchers were made available (to those who completed the survey) at four Boulders games during the survey period and by the RCDOH outreach worker in the aforementioned zip codes.

Results of Note: > - The RCDOH received 603 responses to the survey. Sixty-eight percent of respondents were female, compared to 29.9% male (and 2.2% prefer not to answer). The majority of respondents identified as White/Caucasian (55.2%), followed by Hispanic/Latino (14.1%) and Black/African American (12.7%) Table 14.2. > - The three most well-represented zip codes among survey responses were 10977, 10956, and 10901 (at 14.43%, 12.44%, and 11.44% of total survey responses, respectively) Figure 14.2. > - A majority of survey respondents rated their quality of life in Rockland County as either good (51.2%) or excellent (21.6%) Figure 14.3. > - Safe neighborhoods (61.5%), opportunities for outdoor recreation/physical activity (41%), and good schools (35%) were selected as the top three factors that make a positive contribution to healthy living in Rockland County Figure 14.4. > - The vast majority of respondents found that the top three areas that need improvement in Rockland County are Economic Wellbeing (73.3%), Safe and Healthy Communities (71.5%), and Education (49.8) Figure 14.5. > - According to survey respondents, the area most in need of improvement in the category of Economic Wellbeing was Affordable Housing Figure 14.6. > - According to survey respondents, Traffic Safety was the area most in need of improvement in the category of Safe and Healthy Communities [@ > - For the category of Educational Priorities, survey respondents selected the three sub-categories Vocational Programs, Options for Continuing Education, and Health and Wellness Programs in Schools with relative parity in terms of

what needs the most improvement Figure 14.8.

Table 14.2: Rockland County Community Health Assessment Demographics

Table 14.2		
	Count	Percent
Sex		
Male	180	29.90
Female	410	68.00
Age		
18-29	90	14.90
30-39	122	20.20
40-49	104	17.20
50-59	102	16.90
60+	185	30.70
Race and Ethnicity		
White or Caucasian	344	55.20
Black or African American	79	12.70
Hispanic or Latino or Latinx	88	14.10
Asian or Asian American	25	4.00
American Indian or Alaskan Native	2	0.30
Native Hawaiian or Other Pacific Islander	0	0.00
2 or more selected	10	1.60
Other	16	2.60
Income		
0-29,999	71	11.80
30,000-69,999	98	16.00
70,000-109,999	116	19.00
110,000-140,999	86	14.00
150,000-189,999	46	7.50
190,000-229,999	37	6.00
230,000+	50	8.00
Household Size		
1	75	12.50
2	164	27.00
3	107	17.50
4	126	20.50
5+	117	19.00

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Figure 14.2: Respondents by Zip Code

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Figure 14.3: Respondents' Ratings of Quality of Life in Rockland County

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Figure 14.4: Top 3 Factors that Make a Positive Contribution to Healthy Living in Rockland County

14.4.3 Areas of Focus

Rockland continues to struggle with chronic diseases as previously reported in prior community health assessments. This can be seen in the 2022 top five leading causes of death for Rockland County, which include three chronic conditions: heart disease, cancer, and cerebrovascular disease. During the previous cycle, it was an expressed goal to look at the core issues driving these trends. While progress was made, this issue requires continued attention and adaptation to changing populations and needs. Specifically, disparities across racial and ethnic lines continue to be reflected in chronic disease outcomes. For example, between 2020–2022, cerebrovascular disease mortality for non-Hispanic Black and Hispanic populations was higher than for the non-Hispanic White population. Culturally competent programs and interventions are key to helping address this issue.

In addition to chronic disease, communicable disease prevention is also a key issue. Specifically, vaccine-preventable diseases continue to be a concern in Rockland County. In 2022, a polio outbreak was declared in Rockland County after a case of paralytic polio was reported. Rockland County has also struggled with other vaccine-preventable diseases such as measles and pertussis. A contributing factor to the prevalence of these diseases in Rockland is low childhood vaccination rates. Rockland has the lowest on-time childhood vaccination rates in the region. This low rate leaves the population more vulnerable to the spread of these diseases. Continuous work has been devoted to improving these numbers, but more needs to be done to appropriately address this complex, ongoing issue.

Poor socioeconomic conditions continue to be a significant barrier to health for a number of Rockland County communities. Many communities in Rockland County are poor or otherwise struggle to meet basic needs such as food and housing. Additionally, lower educational achievement and language barriers mean that individuals who may be struggling to meet basic needs may not be aware of, or may otherwise have trouble accessing, available services to help them meet those needs. Poor socioeconomic conditions (such as those mentioned above) are not evenly distributed throughout the population of Rockland County. Communities in Rockland County that experience limitations in education,

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Figure 14.5: Top Selected Areas the Need Improvement

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Figure 14.6: Economic Priorities that Need Improvement

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Figure 14.7: Safe and Healthy Communities Priorities that Need Improvement

language, wealth, and housing (among other factors) are sharply contrasted by other communities in Rockland that experience little or no limitations in those factors. The causes of poor socioeconomic conditions, as well as their unequal distribution across local communities, exist largely upstream of the interventions that are typically employed by local health departments. As such, the actions of any particular local health department are limited in their ability to improve these factors. That said, the RCDOH is committed to utilizing its own resources and to working with partners in the community to mitigate the effects that poor socioeconomic conditions have on local health outcomes.

The following are areas that the RCDOH is committed to improving by its own means and through collaboration with partners:

- > - The lowest childhood immunization rates in the region, increasing the risk of outbreaks of vaccine-preventable diseases.
- > - Some of the most severe housing problems in the region, both in terms of housing quality and cost; residential segregation rates are among the highest in region.
- > - Racial and ethnic disparities in mortality from diabetes and cardiovascular disease.
- > - A recent increase in both overall food insecurity and childhood food insecurity.
- > - Screening rates for colorectal cancer and cervix uteri cancer remain low.
- > - The highest suicide mortality rate in the region.
- > - Decreasing percentage of adults with health insurance in recent years.
- > - The incidence of gonorrhea has been steadily increasing since 2020.
- > - Lead screening rates for children younger than 36 months have decreased.
- > - An increase in the percentage of adults who are current smokers in recent years.
- > - Linguistic, cultural, and educational barriers to health care, and a need for improved health literacy among the population.

14.4.4 Assets and Resources

Rockland is a resource-rich county, considering that it is dense and in the heart of the New York Metropolitan Area. Local stakeholders in the county have historically been eager, focused, and engaged. This was clearly demonstrated in the assessment process for this document. The RCDOH was able to work with established and new partners to complete this assessment. Plans are in place to reestablish the Public Health Priorities Group, which is a partnership between

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Figure 14.8: Education Priorities the Need Improvement

the RCDOH and various stakeholders to highlight different areas of health that may be of concern or need. This group will be utilized to help establish priorities for community health improvement interventions and strategies.

Rockland County has an abundance of partners and facilities to provide assistance and resources to accomplish community health improvement goals. Good Samaritan Hospital and Montefiore Nyack Hospital are the county's hospital partners that help support community health improvement strategies. Support in these efforts is also expected from the FQHCs (Sun River Health and Refuah Health), other county departments (Mental Health, Youth Bureau, Office of the Aging, Social Services, and Planning), as well as from the various CBOs that have assisted in developing this assessment. Several active village collectives (notably the Spring Valley Collaborative, the Haverstraw Collaborative, and the Western Ramapo Collaborative) meet regularly in Rockland and provide opportunities for community-based networking, intervention deployment, and resident-level feedback. A variety of smaller cultural associations also exist in the county. Increasing inclusivity of these groups to better support the health needs of the entire population is an expressed goal in this improvement cycle. In addition to supporting previous community health improvement interventions, these partners have provided assistance in times when urgent response is needed, such as disease outbreaks.

All of the organizations and collaborative groups mentioned above were critical in conducting this assessment, as they were the partners who provided critical input during the community health partner survey. Their feedback on the factors most influencing health and the leading barriers to care at the neighborhood level allowed for a unique health perspective tailored to the local community. Soliciting survey responses from the groups listed above provided a means of gathering information on subpopulations that otherwise may not have been captured in the Community Health Assessment Survey. It is expected that the partners engaged during the assessment process will contribute a portion of their assets and resources to countywide community health improvement efforts as needed.

14.5 Sullivan County Health Summary

14.5.1 Demographics

Sullivan County is a geographically large, rural county located in the northwestern part of the M-H Region, approximately 90 miles northwest of New York City in the Catskill Mountains. Bordered by Delaware County to the north, Ulster County to the east, Orange County to the south, and Pennsylvania to the west, the county covers 997 square miles and includes 15 towns, seven incorporated villages, seven public school districts, and one two-year college (SUNY Sullivan).

Home to approximately 80,000 residents, Sullivan County has one of the lowest population densities in the region. The area is characterized by small rural

communities, agricultural land, and seasonal tourism tied to its natural beauty, including lakes, rivers, and mountains. The county has a rich history in recreation and tourism as a Catskills vacation destination and contains more than 100 summer camps that draw tens of thousands of visitors. During the summer months, the year-round population increases to nearly 300,000 as seasonal residents, visitors, and members of the Orthodox Jewish community temporarily reside in the area. Because many are not year-round residents, their associated health needs may not be fully reflected in county-level data.

The majority of Sullivan County residents are non-Hispanic White (67.1%), followed by Hispanic (18.4%) and non-Hispanic Black or African American (7.9%) populations. About 20 percent of residents speak a language other than English at home [see Table 6]. Sullivan County also has the highest percentages of civilian veterans (6.0%) and residents with disabilities (15.9%) among the M-H counties [see Tables 11 and 12]. Health indicators reflect rural disparities, including higher rates of chronic disease, maternal and child health challenges, transportation barriers, and limited access to specialty care. These characteristics shape the county's public health priorities and emphasize the importance of community-based outreach, education, and preventive services.

14.5.2 Community Survey Findings

Sullivan County participated in primary data collection through participation in the Greater New York Hospital Association 2025 Community Health Needs Assessment Survey Section 15.17. Input was also collected from residents and health care providers at various events within the county, where attendees voted for two Prevention Agenda 2025–2030 priority areas. The results were used to inform the Community Health Improvement Plan and can also be found in the Sullivan County Community Health Assessment on the Sullivan County Department of Public Health website.

14.5.3 Areas of Focus

Sullivan County residents are greatly affected by chronic illness and unintentional injury. The leading causes of death in 2022 were heart disease, cancer, unintentional injury, COVID-19, and chronic lower respiratory disease (CLRD) Table 10.1. In general, Sullivan County had the highest overall mortality rate in the M-H Region, as well as the highest mortality rates of CLRD, congestive heart failure, and cardiovascular disease. Despite having a lower rate of physician-diagnosed diabetes than NYS, Sullivan County had the highest diabetes hospitalization rate in the region in 2021 Figure 10.27 and Figure 10.28. Overweight and obesity remain common; the percentage of school-aged children and adolescents who were overweight or obese was 41.6% in 2021–2023 Figure 10.35. Additionally, the rate of asthma emergency department visits among individuals aged 0–17 years old more than doubled from 2021 to 2023, surpassing pre-COVID-19 rates Figure 10.11.

Economic wellbeing factors were identified in the provider survey as impactful on the health of Sullivan County residents. The unemployment rate has been decreasing since 2021, falling to 6.1% in 2023 Figure 7.2. However, there has also been an increase in food insecurity and poverty, a decreasing high school graduation rate, and an increase in the percent of disconnected youth. Regarding housing, the percent of cost burdened renter occupied units was 48.7 (2023) and the percent of households with severe housing problems was 16% (2017-2021) Figure 7.5 and Figure 7.32. These rates are lower than other M-H counties and NYS but represent a sizeable percent of the population. The rural landscape is another factor that influences the health factors and outcomes in Sullivan County. Large areas of the county are remote and lack access to public transportation, and in 2023, 8.8% of households in Sullivan County had no vehicles available Figure 7.33.

Health care access is another major issue in Sullivan County. Sullivan County has higher ratios of residents to primary care providers, residents to dentists, and residents to mental health providers when compared to other M-H counties and the state Figure 7.20 through Figure 7.22. There are also low rates of preventive care and screenings:

- Sullivan County had the lowest percentage of children tested for lead before 36 months of age (36.6% in 2019) compared to other M-H counties and New York Figure 7.20.
- Sullivan County has the lowest rate of prenatal care (61.3%) and highest rate of late or no prenatal care (8.0%) in the region Figure 10.66 and Figure 10.67
- Only 29.1% of Medicaid enrollees had at least one dental visit in the last year (2021–2023) Figure 10.80.
- Screening rates for colorectal cancer, cervical cancer, and breast cancer remain below the rates of NYS and some other M-H counties Figure 10.80, Figure 10.49, Figure 10.50.

Other noted concerns are rising rates of reported poor mental health, early syphilis incidence, rabies treatments, and Lyme disease and other tick-borne illnesses.

These data reinforce the county’s priority areas of chronic disease prevention, maternal and child health, behavioral health, and access to care, while emphasizing the importance of addressing the underlying social determinants that shape health outcomes. Addressing these issues will require cross-sector collaboration to improve access to care, strengthen prevention and early intervention efforts, and expand community-based resources that promote health equity and well-being across all populations.

14.5.4 Assets and Resources

Sullivan County Department of Public Health has strong community partnerships with organizations serving residents across the county. These include the local

hospital, Federally Qualified Health Centers (FQHCs), urgent care centers, schools, and numerous community-based organizations. The Department also leads the Sullivan County Rural Health Network and participates in the Sullivan County Substance Use Task Force. In addition, the county collaborates with Unite Us Sullivan, a coordinated care network that connects health and social service providers to better address residents' social determinants of health. Sullivan County government continues to expand the Move Sullivan program, improving access to affordable public transportation for residents.

Together, these partnerships are leveraged to address priority health areas and emerging public health needs identified through the Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP).

14.6 Ulster County Health Summary

14.6.1 Demographics

Ulster County is located in the southeastern part of NYS, south of Albany and immediately west of the Hudson River. According to the US Census Bureau, the county has a total area of 1,161 square miles, which is approximately the size of Rhode Island. Much of Ulster County can be characterized as suburban and semi-rural, with only one major urban area, the city of Kingston, which is in the east-central portion of the county and encompasses just 7.4 square miles of the county's total area. Ulster County is part of the Kingston Metropolitan Statistical Area.

According to the latest estimates available from the US Census Bureau, Ulster County's population was 182,109 in 2023. The total number of households was 73,105, and the household median income was approximately \$85,878.

14.6.2 Areas of Focus

The data analyzed point to several areas of focus for Ulster County. Ulster County has an exceptionally high suicide mortality rate Figure 11.16, including among teens and older adults; a high percentage of children and adolescents who are overweight or obese Figure 10.35; and opioid fatality Figure 11.9 and emergency department visit rates Figure 11.6 that are well above the M-H Region and NYS averages.

Other areas of concern include the following:

- The leading cause of death is heart disease Table 10.1; Ulster County has the second-highest rate in the region for cardiovascular disease mortality Figure 10.12.
- Ulster County is among the counties in the region with the highest percentages reporting food insecurity Figure 7.31, as well as population at

poverty level or below Figure 7.7. In addition, a high percentage of people report living with a disability Table 6.11.

- The Community Partner Survey indicated that access to mental health providers is a challenge Figure 8.34, which aligns with the high percentage of adults reporting poor mental health for 14 or more days in the last month Figure 11.1, as well as those reporting a depressive disorder Figure 11.2.
- Ulster County has the highest three-year average rate for alcohol-related motor vehicle injury and fatality in the region Figure 13.5.
- Disparities persist among all indicators where data is available, especially among the non-Hispanic Black population.

Finally, the housing crisis in Ulster County continues to persist. The Community Partner Survey reported that access to affordable, decent, and safe housing is the leading issue that affects health in Ulster County Figure 8.34. This problem can be attributed to the limited construction of new, affordable rental and ownership units and the associated inflated costs of building materials and labor. In addition, the post-pandemic influx of NYC Metropolitan area individuals and families seeking weekend and permanent residences has increased demand and prices for affordable housing. The expanding tourism industry in Ulster County has also resulted in many previously available and affordable housing units being converted into short-term rentals. Affordable, healthy, and safe housing is the foundation upon which individuals, families, and the community build their strength, wellness, and resiliency, and county leadership from every sector has recognized the urgency of immediate action in this area.

14.6.3 Assets and Resources

UCDOH has strong community partnerships with hundreds of organizations serving its residents, including two area hospitals, FQHCs, private medical providers, local two-year and four-year colleges, CBOs, and regional organizations serving a broad variety of community needs. UCDOH and the Ulster County Department of Mental Health have established multiple coalitions, including Healthy Ulster Council, Integrated Ulster, Ulster County Human Services Coalition, Ulster County Suicide Prevention Coalition, Ulster County Opioid Prevention Strategic Action Leadership Team, and Ulster County Public Health Preparedness Task Force. In addition to participating in numerous public health-focused coalitions, UCDOH serves with Live Well Kingston, Ellenville Rural Health Network, Mano-a-Mano, Bringing Agencies Together, Ulster County Healthy Families, Maternal Infant Services Network, Ulster Prevention Council, and Tobacco Free Action Communities, among others. The coalitions' partners and others are mobilized to address the health areas of focus and emerging issues of the 2025–2030 CHA/CHIP cycle.

14.6.4 Efforts Moving Forward

- Ulster County continues to make significant improvements in the built environment through a combination of federal, state, and local funds. These include ongoing development of a world-class rail trail system throughout the county, pedestrian- and bike-friendly complete street initiatives, safe routes to schools, and others. All are designed to encourage physical activity, improve access to fresh and healthier foods, and increase social engagement to help prevent chronic diseases. This will also continue to reduce carbon footprint while reducing air pollution.
- Ulster County will continue to build on a strong foundation of tobacco prevention policy change by updating legislation to further strengthen regulations designed to protect youth and low-income and minority populations from the impacts of tobacco marketing and increasing awareness of the risks of tobacco and vaping products.
- Ulster County has strengthened the availability of and access to mental health services with the establishment of a walk-in mental health clinic and a crisis stabilization center.
- There are many other health initiatives that Ulster County will be involved with to monitor and enhance public health progress.

More details are available in the Ulster County CHIP (233).

14.7 Westchester County Health Summary

14.7.1 Demographics

With an area of about 450 square miles, Westchester County is located just north of New York City. It is bordered on the west by the Hudson River, on the north by Putnam County, and on the east by the Long Island Sound and Connecticut's Fairfield County. With its six cities, 19 towns, and 23 villages, Westchester is home to a mix of urban and suburban communities.

According to the 2023 American Community Survey, the total population residing in Westchester is 996,888, with 48.4% males and 51.6% females. Among them, 50% are non-Hispanic White, 12.9% non-Hispanic Black, 6.0% non-Hispanic Asian or Pacific Islander, and 11.7% are of some other race. Just under a quarter of the population is of Hispanic origin, and 25.4% of the population is foreign born. About one-third of residents speak a non-English language at home.

The majority of Westchester residents over the age of 25 have received a high school diploma/GED, and almost a quarter have obtained a college and/or beyond-college education. The median household income is estimated at \$118,411.

While an affluent county in general, there are pockets of communities living in less desirable conditions. About 8.88% of the population lives in poverty, with higher poverty rates among non-Hispanic Black and Hispanic populations.

About 4.98% of the population are uninsured, and about 3.9% of residents are living in overcrowded housing.

Rather than driving alone, 48.6% of the population uses an alternative mode of transportation for the commute to work, including carpooling, public transportation, walking, bicycling, or telecommuting.

In summary, Westchester is a diverse and prosperous county, yet socioeconomic and health disparities continue to impact segments of its population. The data point toward an ongoing need for targeted interventions to address disparities and ensure that all residents benefit from the county's overall affluence.

14.7.2 Area of Focus and Efforts Moving Forward

Given the complexity of Westchester County's geographic, demographic, and socioeconomic composition, and based on the Mid-Hudson Regional Community Partner Survey, Westchester County will work to improve communication about existing resources and help residents navigate complex health insurance plans. Addressing health literacy through plain language will be one of the county's priorities. Information gathered by the survey will help guide the Health Department and its partners in focusing services on the county's current and emerging health issues to enhance community wellness.

Based on the striking findings from the regional community survey, the need for increased mental health services, specialty services, and access to affordable and safe housing were generally top concerns of providers in the community.

14.7.3 Assets and Resources

Westchester County has a rich supply of assets and resources that support the health and well-being of its residents. Some examples include:

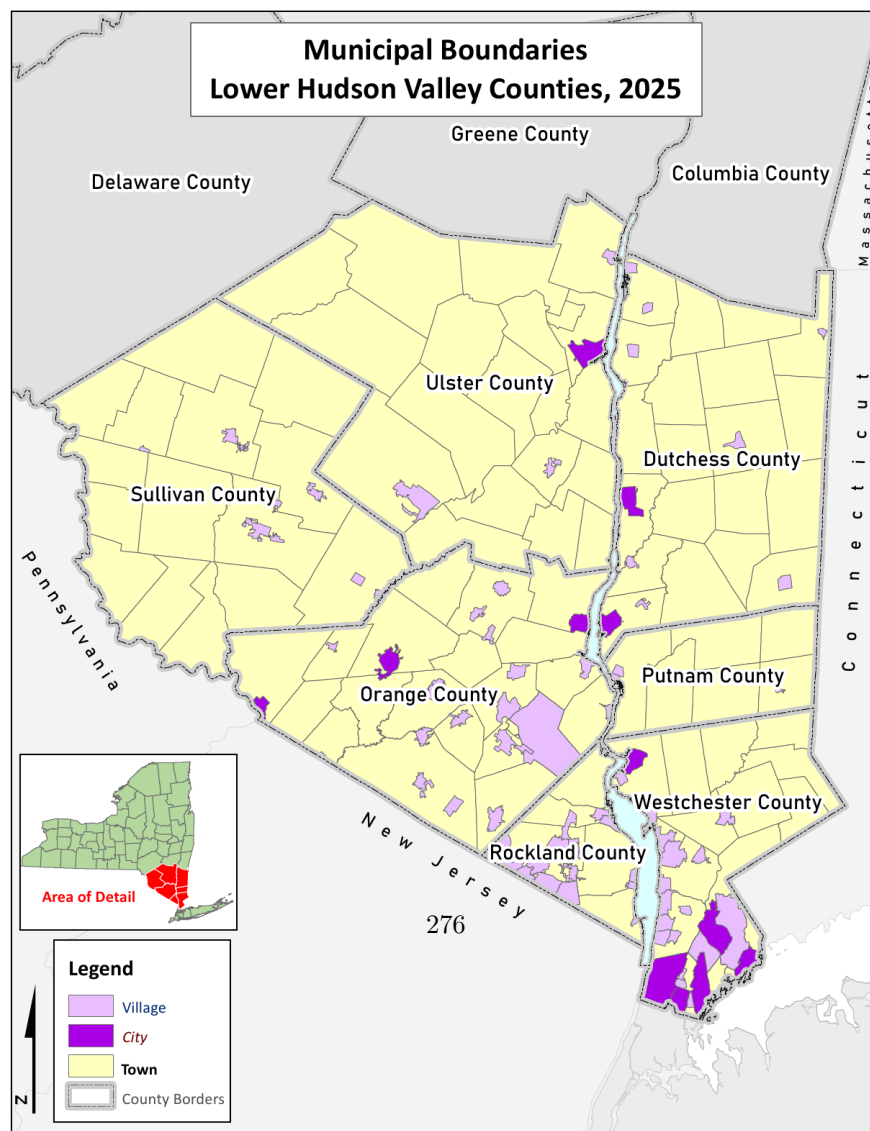
- Ample green spaces as well as county and state parks provide about 98% of the population with access to outdoor recreation and exercise opportunities.
- Extensive health care systems, including hospitals, federally qualified health cares, urgent care centers, and laboratories operating within the county, provide timely and state-of-art direct health care.
- Healthcare facilities Dashboard Westchester (234).
- A large number of colleges and universities located within the county provide opportunities for health education.
- The extensive Bee-Line bus system serves over 27 million passengers annually, providing transportation services to over 65% of all Westchester County residents and workplaces within walking distance to a Bee-Line bus route, making the bus both close and convenient.

- United Way's 211 information and referral system contains information on non-profit organizations for many communities in Westchester.
- A variety of community organizations, task forces, coalitions, and other agencies work on providing direct services as well as policy and structural change within the county.

Chapter 15

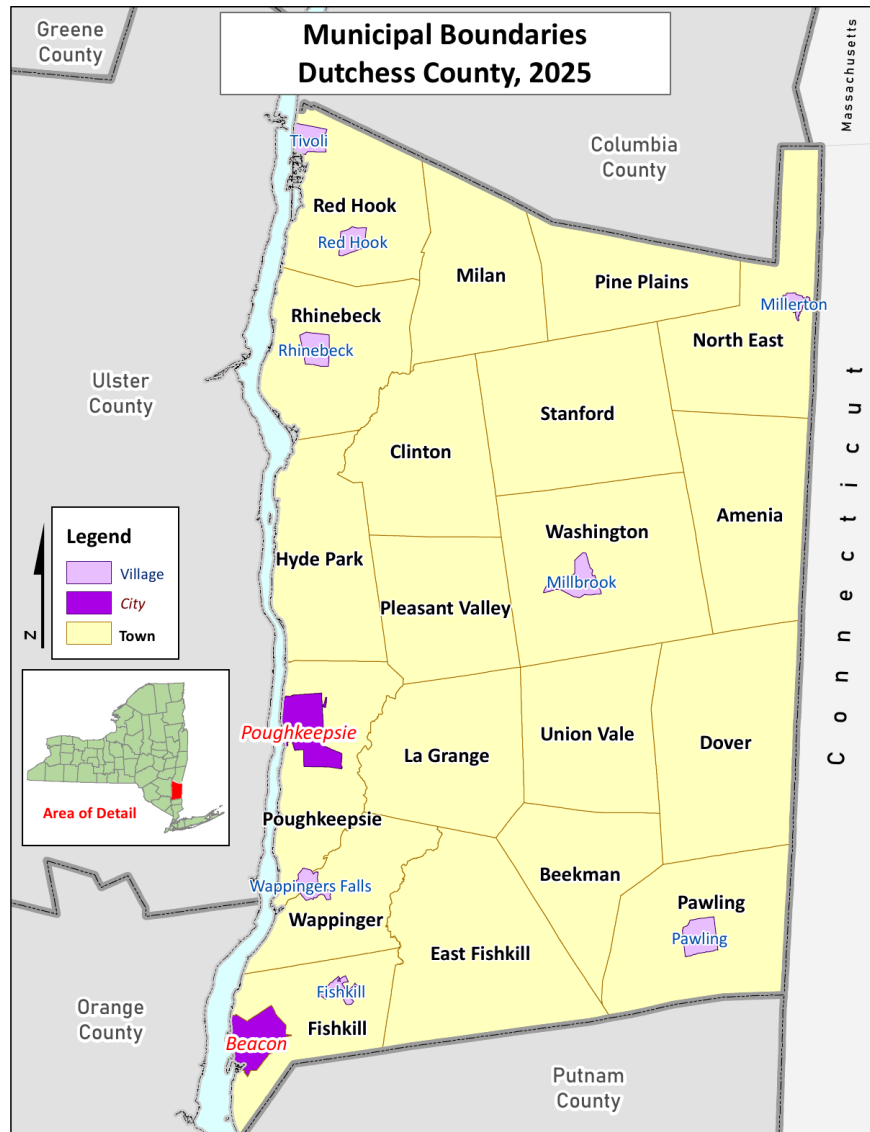
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15.1 Appendix A - Mid-Hudson Region Map



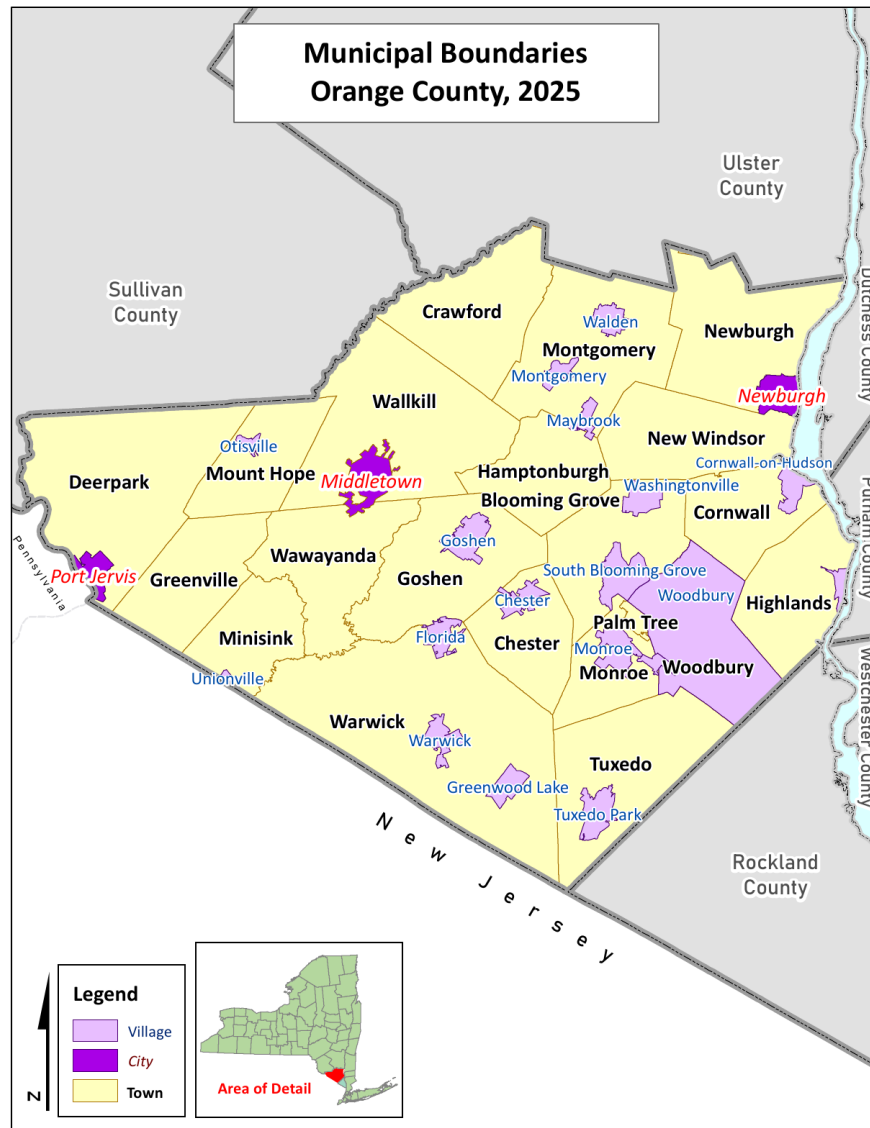
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15.2 Appendix B - Dutchess County Map



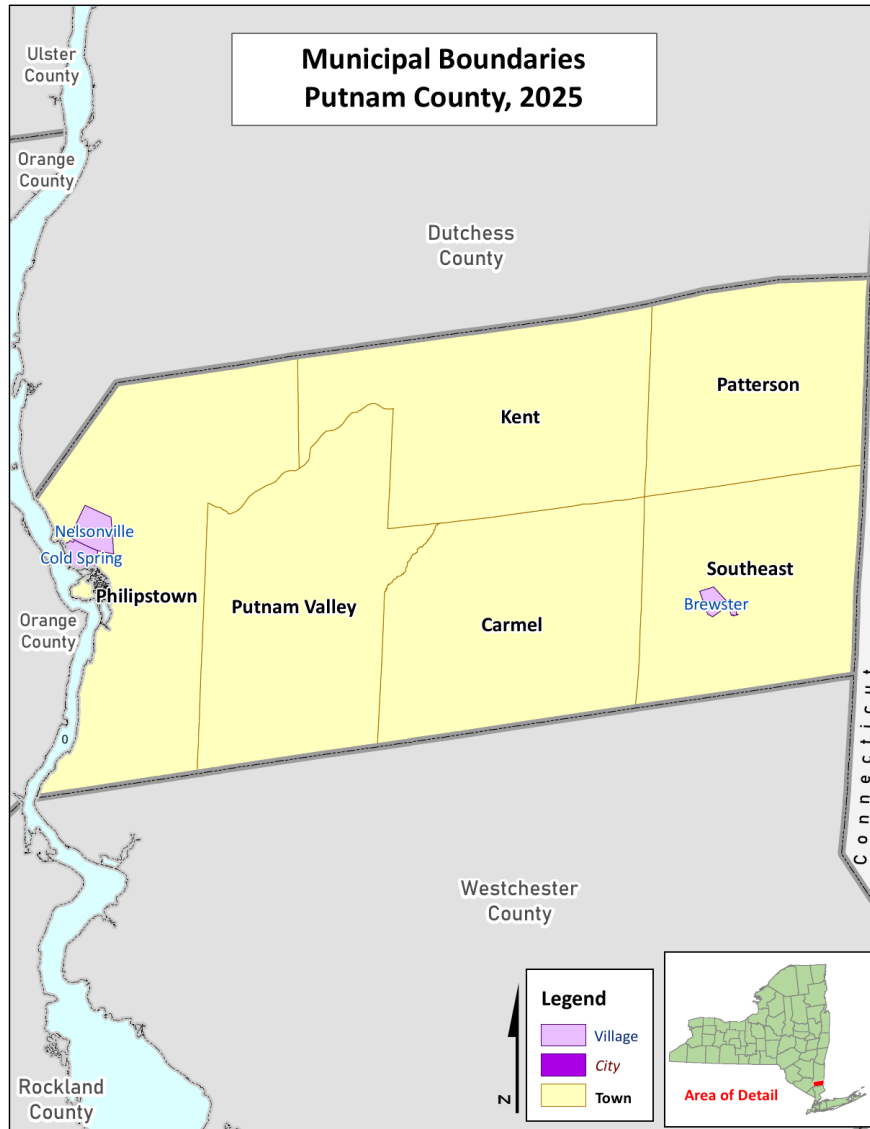
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15.3 Appendix C - Orange County Map



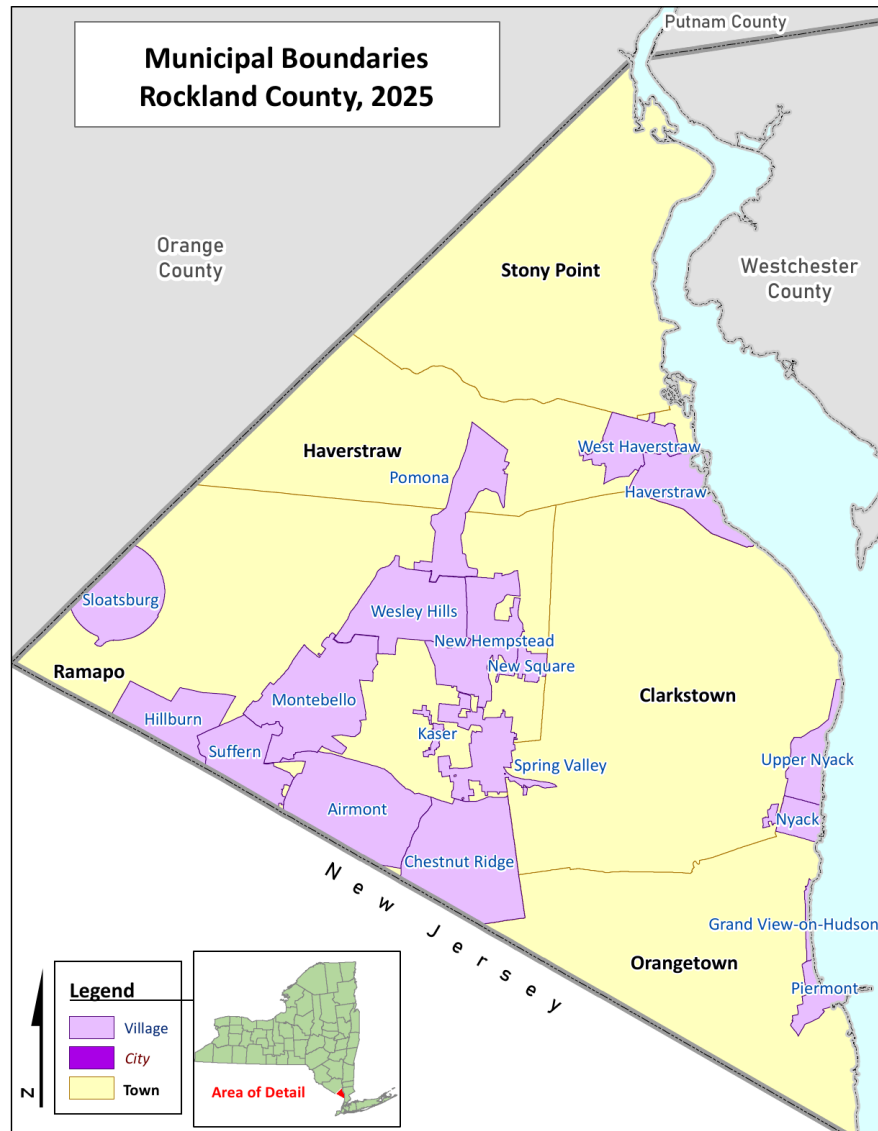
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15.4 Appendix D - Putnam County Map



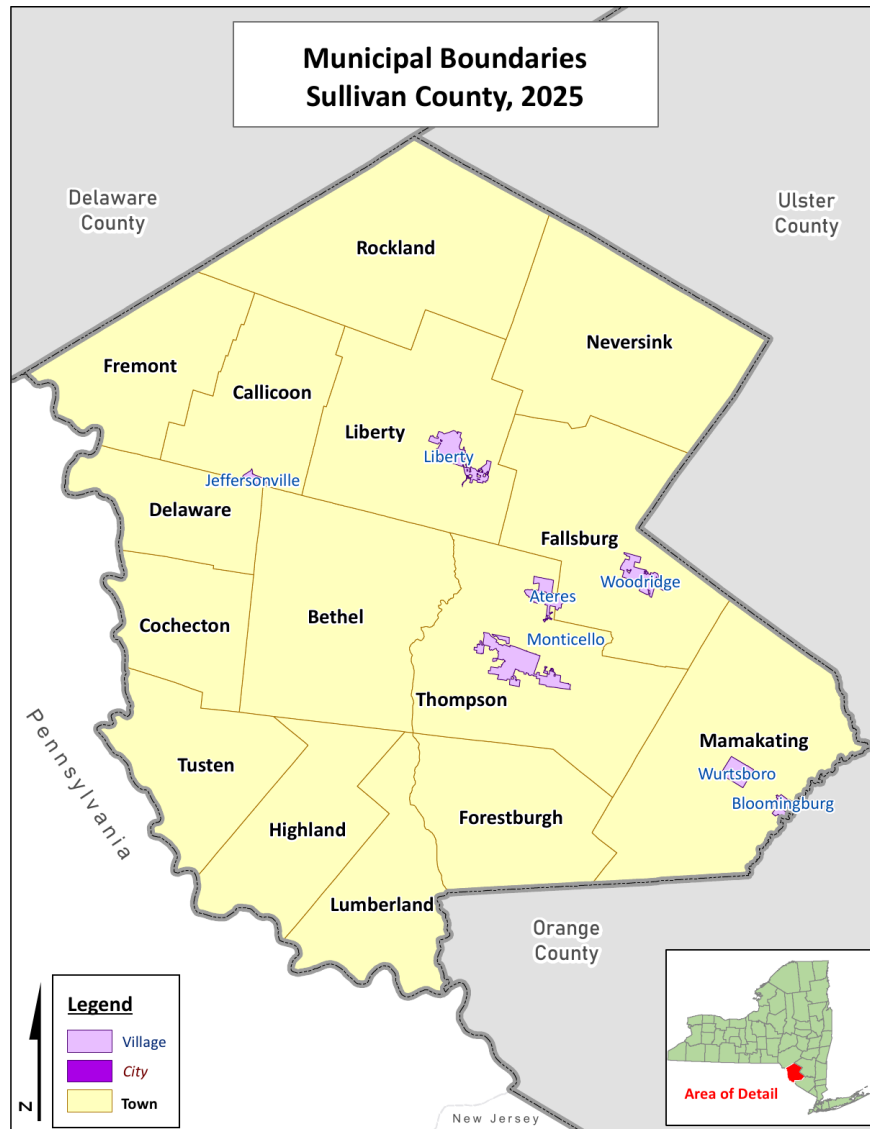
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15.5 Appendix E - Rockland County Map



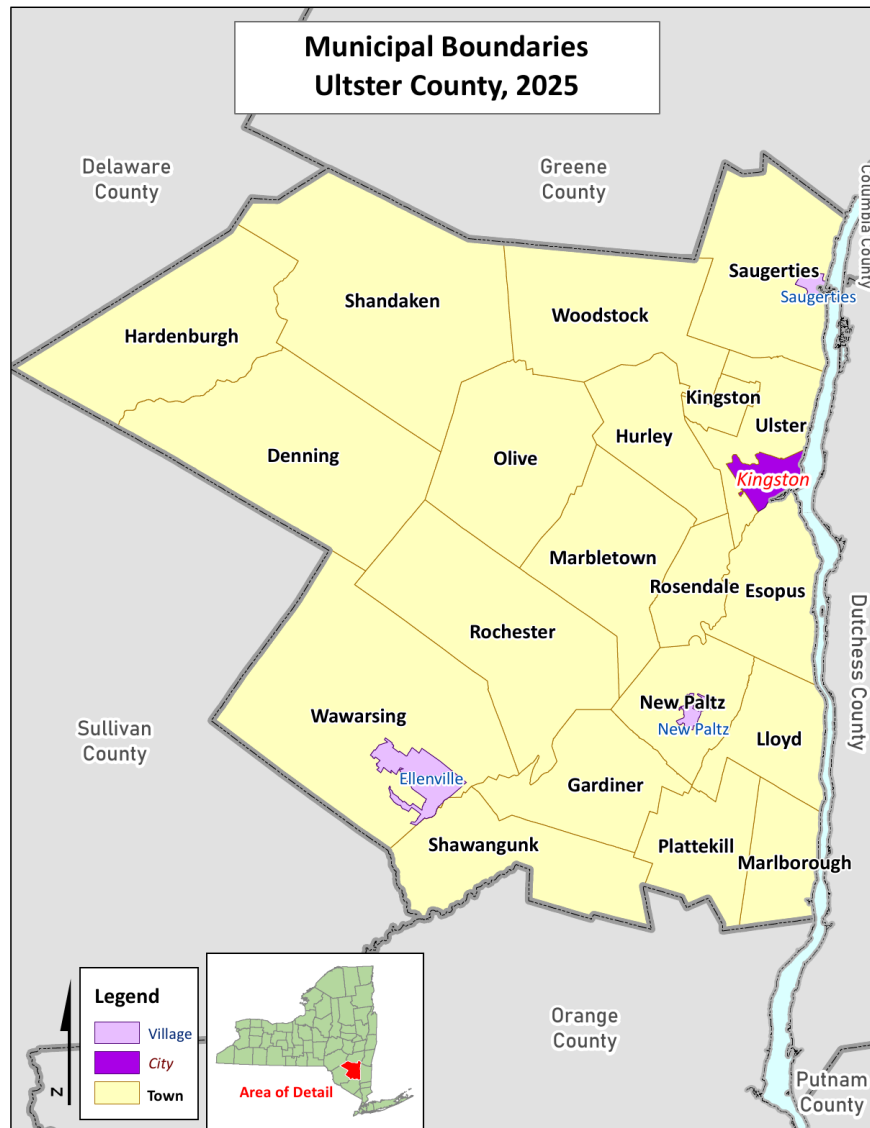
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15.6 Appendix F - Sullivan County Map



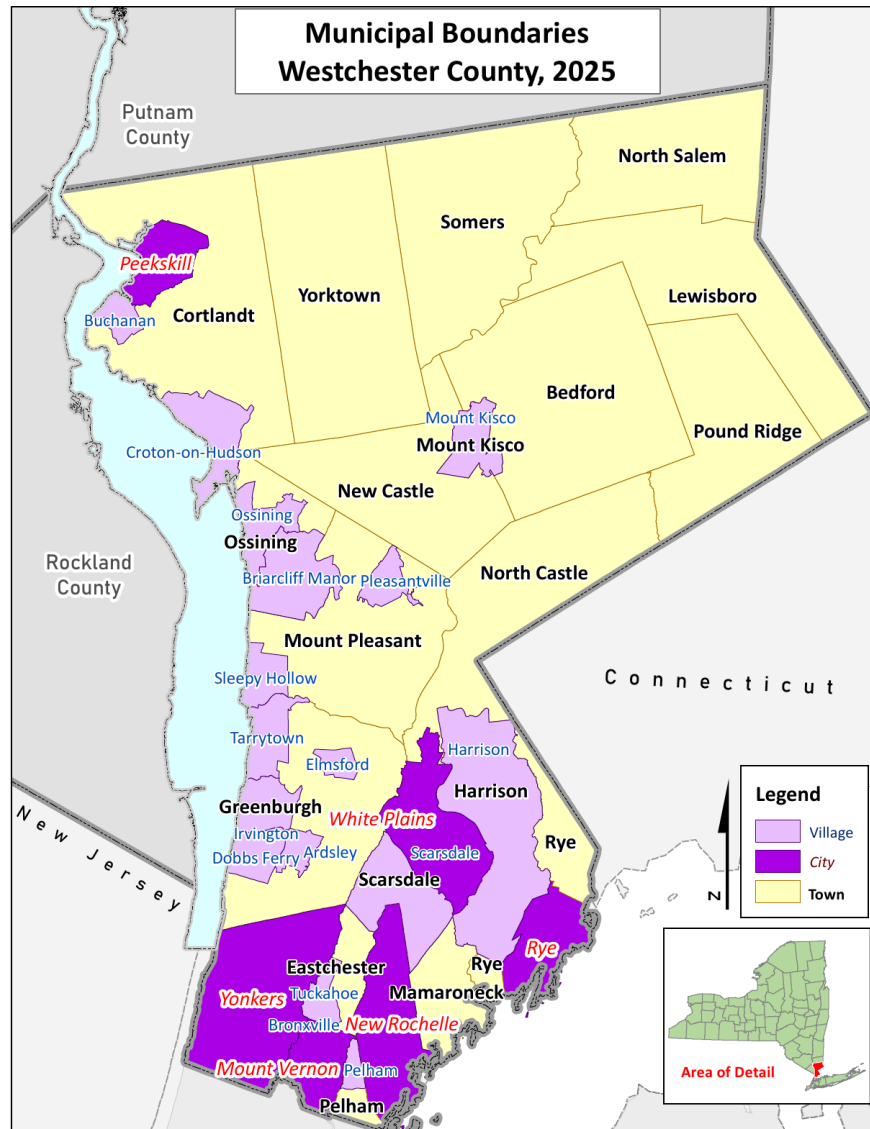
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15.7 Appendix G - Ulster County Map



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15.8 Appendix H - Westchester County Map



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15.9 Appendix I - Mid-Hudson Region Community Partner Survey

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15.11 Appendix K - Putnam County and Nuvance CBO and Partner Survey

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15.12 Appendix L - Mid-Hudson Regional Community Health Survey

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15.13 Appendix M - Orange County Community Health Survey

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15.14 Appendix N - Orange County Community Asset Survey

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15.15 Appendix O - Putnam County and Nuvance Community Health Experience Survey

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15.16 Appendix P - Rockland County Community Health Assessment Survey

Click to view: [Rockland County Community Health Assessment Survey](#)

15.17 Appendix Q - Greater New York Hospital Association 2025 Community Health Needs Assessment Survey

Click to view: [Greater New York Hospital Association 2025 Community Health Needs Assessment Survey](#)

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