2022 Community Health Needs Assessment
Northern Dutchess Hospital
Vassar Brothers Medical Center
Putnam Hospital

A collaborative effort with the Dutchess County Department of Behavioral & Community Health and the Putnam County Department of Health
A letter from Nuvance Health


These are essential elements for improving population health in our communities.

Nuvance Health is pleased to present our 2022 CHNA findings. This report includes a review and analysis of health and socio-economic data that impact the health of people across our service area. The purpose of this assessment is to identify the area’s health needs so we may better align with stakeholders, such as public health and healthcare providers, about opportunities for improving the health of our region. These results allow Nuvance Health, state and county public health departments, our community partners, and other providers to set priorities, develop interventions, and commit the appropriate resources to our region more strategically.

Our workforce of more than 15,000 compassionate caregivers provides high-quality care through our six nonprofit hospitals on seven campuses, multiple outpatient care sites, numerous primary care and specialty provider locations, and increasing set of virtual healthcare services. Across the system, we offer state-of-the-art facilities, technology and a breadth of clinical services.

The staff of Nuvance Health are dedicated to the health and well-being of everyone in our region, regardless of race, ethnicity, age, gender, religion, sexual orientation, gender identity, gender expression, disability, economic status and other diverse backgrounds. This is our promise to the more than 1.5 million children and adults we serve in western Connecticut and the Hudson Valley of New York.

To ensure our services are aligned with the healthcare needs of our community, we complete a Community Health Needs Assessment (CHNA) every three years for each hospital community, and it was conducted January to September 2022. This helps us better serve our community by measuring the health status of residents, gathering community input on health concerns, and identifying opportunities to collaborate. With the help of many state, county and community partners, we had strong participation in our surveys, and we value this feedback and recognize all community stakeholders who play an integral part in advancing the health of our region.

And this is only the beginning. We continually assess how we serve our region so we can provide outstanding care, as well as education and outreach activities that meet priority needs. In doing so, we will continue to collaborate with our partners, educate our policy makers, and engage community residents to promote health for all residents of our region.

We look forward to our continued work together and thank you for putting your trust in us. At Nuvance Health, we are not only your caregivers—we are also your friends, family and neighbors. Through our community benefit initiatives, we aim to increase well-being for everyone.

With gratitude,

[Signature]

John M. Murphy, MD
President and CEO
# Table of Contents

OUR COMMITMENT TO COMMUNITY HEALTH ................................................................. 3
EXECUTIVE SUMMARY .................................................................................................. 4
  CHNA LEADERSHIP ....................................................................................................... 4
  RESEARCH PARTNERS ................................................................................................. 5
  METHODOLOGY AND COMMUNITY ENGAGEMENT .................................................. 6
  COMMUNITY HEALTH PRIORITIES ............................................................................ 7
  BOARD APPROVAL ....................................................................................................... 7
NUVANCE SERVICE AREA .............................................................................................. 8
SOCIAL DETERMINANTS OF HEALTH AND HEALTH EQUITY .................................... 17
COMMUNITY FEEDBACK ................................................................................................. 25
MID-HUDSON REGIONAL CHNA ..................................................................................... 28
  DUTCHESS COUNTY HEALTH SUMMARY ............................................................. 28
  PUTNAM COUNTY HEALTH SUMMARY .................................................................. 31
EVALUATION OF IMPACT FROM 2019-2021 CSP .................................................... 36
NEXT STEPS .................................................................................................................... 37
Our Commitment to Community Health

Where some see impossible, we see what’s possible. At Nuvance Health, we continually strive for progress and push past the status quo in all aspects of what we do. We are Nuvance Health!

Nuvance Health is an integrated health system offering convenient, accessible, and affordable care to community members. We’re here for you—whenever and wherever you need us. Our talented team of more than 15,000 compassionate caregivers provides high-quality care through:

- Community hospitals
- Primary care and specialty practice locations
- Outpatient settings
- Home care services
- A skilled nursing and rehabilitation facility
- Telehealth visits

Our network also includes a well-known research institute, which brings breakthroughs from the lab directly to the bedside. We take research to heart and focus on treatments and cures that will benefit our community.

Improving the health of the community is essential to enhancing its residents’ quality of life and supporting its future economic and social wellbeing. To effectively improve health, communities must address social, environmental, and behavioral factors in addition to ensuring access to medical services. Nuvance Health participated in the Mid-Hudson Regional Community Health Needs Assessment (CHNA), led by seven health departments and area health systems. The participating health departments are listed below:

- Dutchess County Department of Behavioral & Community Health
- Orange County Department of Health
- Putnam County Department of Health
- Rockland County Department of Health
- Sullivan County Public Health Services
- Ulster County Department of Health and Mental Health
- Westchester County Department of Health

Nuvance Health operates three hospitals in the Mid-Hudson Region: Northern Dutchess Hospital, Putnam Hospital, and Vassar Brothers Medical Center. The Regional CHNA comprised seven counties. For purposes of Nuvance Health’s service area, this CHNA report focuses on Dutchess and Putnam counties.

This report provides an overview of key findings from the CHNA and the priority elements that will be used to develop the three-year Community Service Plan to guide our community benefit and community health improvement efforts.
2022 CHNA Executive Summary

CHNA Leadership
The 2022 CHNA was conducted collaboratively with health departments and health systems serving the Mid-Hudson Region and was overseen by Community Health Committees of the Board of Directors of Nuvance Health. The Committees include representations of the hospital communities, including hospital Board leadership, administrative leadership from the Nuvance Health network, local health department directors, community stakeholders, and other key hospital stakeholders.

Northern Dutchess Hospital Community Health Committee
- James Wing, MD, Co-Chair – Board Member
- Paul King, Co-Chair – NDH Director of Diagnostic Services
- Christy Caridi – Board Member
- Elizabeth Connolly – Community (Department of Health)
- Denise George – NDH President
- Douglas Hart, DVM – Board Member
- Allison Gould – Community (Center for Healthy Aging)
- Nina Lynch – Community (Rhinebeck at Home)
- Marion Power – Community (Geriatric Navigator)
- Lauren Scelia – Community (Family Services, Inc.)
- Allison Smith – Community (Department of Health)
- Nina Van Erk – Community (Retired School Educator)

Professional Staff
- Rowena Bergmans – Nuvance VP Strategic Payer and Community Partnerships
- Sarah Colomello – NDH Manager of Public/Community Affairs
- Katherine Fuller – NDH Director of Quality & Performance Improvement
- Catherine Leonard – NDH Director of Therapy Services
- Allison Morris – Nuvance/NDH Foundation Major Gifts Officer
- Trista Parker – Nuvance Manager Strategic Business/Planning
- Ildiko Rabinowitz – Nuvance AVP of Health Equity, Diversity & Inclusion
- Pam Rhodes – NDH Chief Nursing Officer
- Andy Wilson, MD – NDH Vice President of Medical Affairs

Putnam Hospital Community Health Committee
- Loretta Molinari - Chair – Board Member
- Marjorie Nichols Keith – Board Member
- Keiren Farquhar – Community (former PH Board Member)
- Mike Piazza – Community (Putnam County Commissioner Mental Health)
- Shanna Siegel – Community (Putnam County Department of Health)

Professional Staff
- Rowena Bergmans – Nuvance VP Strategic Payer and Community Partnerships
- Sarena Chisick – PH/Community Education
- Mark Hirko, MD – PH President
- Mindy Jackson – PH Blood Management Clinical Coordinator
- Lisa Lombardo – Nuvance Foundation
Nuvance Health 2022 CHNA

- Steve Meth – Nuvance Chief Experience Officer
- Laura Muscari - PH Director of Mental Health Services
- Trista Parker – Nuvance Manager Strategic Business/Planning
- Keith Prazeres - PH Mental Health Educator
- Ildiko Rabinowitz – Nuvance AVP of Health Equity, Diversity & Inclusion
- Pam Marcela Rojas – PH Manager Public and Community Affairs

**Vassar Brothers Medical Center Community Health Committee**

- Ronald Tatelbaum, MD, Chair – Board Member
- Brenda Ayers, MD, Co-Chair – VBMC Assistant VPMA
- Sarah Levine – Board Member – VBMC Foundation Board Chair
- Elizabeth Connolly – Community (Department of Health)
- Bintou Hinds– Community (Nutrition Advisory Committee-Department of Health)
- Whitney Humphrey – Community (Family Services, Inc.)
- Livia Santiago, MD – Community (Department of Health)
- Mary Ritter– Community (family Foundation Board)
- Allison Smith – Community (Department of Health)

**Professional Staff**

- Rowena Bergmans – Nuvance VP Strategic Payer and Community Partnerships
- Ali Hussain – VBMC High Risk Navigator
- Stephen Meth – Nuvance Chief Experience Officer
- John Nelson– Nuvance AVP Community Govt PR
- Trista Parker – Nuvance Manager Strategic Business/Planning
- Anne Rabbitt – Nuvance Chief Clinical Dietitian
- Ildiko Rabinowitz – Nuvance AVP of Health Equity, Diversity & Inclusion
- Lorraine Sautner – Nuvance Director Grants & Principal Gifts Engagement

**Our Research Partners**

Nuvance Health contracted with Community Research Consulting to compile the CHNA reporting and guide the development of the Community Health Improvement Plan. CRC is a woman-owned business that specializes in conducting stakeholder research to illuminate disparities and underlying inequities and transform data into practical and impactful strategies to advance health and social equity. Our interdisciplinary team of researchers and planners have worked with hundreds of health and human service providers and their partners to reimagine policies and achieve measurable impact. Learn more about our work at buildcommunity.com.

Siena College Research Institute conducted a random-digit dial Regional Community Health Survey. The survey was designed to supplement the Regional CHNA and to gauge residents’ perception of the health and resources in their communities. Founded in 1980 at Siena College in New York’s Capital District, the Siena College Research Institute (SCRI) conducts regional, statewide, and national surveys on business, economic, political, voter, social, academic, and historical issues. The surveys include both expert and public opinion polls.
The Greater New York Hospital Association (GNYHA) conducted the 2022 GNYHA CHNA Survey of adults aged 18 or older who live in a zip code or county served by the hospital. The survey was intended to garner resident input on community health priorities based on perceived importance and satisfaction. The survey used a non-probability convenience sample. A web-based survey tool and a paper-based tools were used to collect the survey data. Surveys were available in a variety of languages. The GNYHA CHNA questionnaire was translated from English into Spanish, Chinese, Russian, Yiddish, Bengali, Korean, Haitian Creole, Italian, Arabic, and Polish.

Methodology and Community Engagement
The 2022 CHNA included quantitative research methods and community conversations to determine health trends and disparities affecting the Mid-Hudson Region. Community engagement was an integral part of the 2022 CHNA. In assessing community health needs, input was solicited and received from persons who represent the broad interests of the community, as well as underserved, low-income, and minority populations. These individuals provided wide perspectives on health trends, expertise about existing community resources available to meet those needs, and insights into service delivery gaps that contribute to health disparities and inequities.

The following research methods were used to determine community health needs:

- **Analysis of Health and Socioeconomic Data**: Public health statistics, demographic and social measures, and healthcare utilization data were collected and analyzed to develop a comprehensive community profile that illuminated health disparities and underlying inequities.

- **Community Surveys of Lived Experiences**: As part of the Siena College Research Institute Regional Community Health Survey, a statistical telephone survey was conducted with households in the Mid-Hudson Region to gather information on wellbeing and quality of life.

- **Community Perception Surveys**: As part of the Greater New York Hospital Association CHNA Survey, a web- and paper-based convenience survey was conducted with nearly 1,000 households in the Nuvance Health service area to garner perceptions on community health priorities.

- **Input from Experts and Key Stakeholders**: Health and social service providers, public health experts, and representatives from a wide range of community-based organizations participated in the CHNA to guide the process and provide insights on community health needs.
Community Health Priorities
To work toward health equity, Nuvance Health commits to ensuring hospital resources and activities build upon existing priorities and collaborative activities, while ensuring responsiveness to emergent needs. Determination of priorities made by leadership of Nuvance Health included review of existing commitments, new research findings, and community feedback.

Nuvance Health will focus efforts on the following community health priorities as part of its 2022-2024 Community Service Plan (CSP):

- Prevent Chronic Diseases
- Promote Well-Being and Prevent Mental and Substance Use Disorders

Nuvance Health is committed to continuing its collaboration with the Community Health Committees and other stakeholders to further refine focus areas within the identified health priorities. Together with these partners and stakeholders, Nuvance Health will create a CSP that reflects collective health impact strategy and the many strengths and assets of our community partners to address these needs.

The identified priorities align with and advance the New York State Prevention Agenda. In accordance with the Prevention Agenda, the Nuvance Health 2022-2024 CSP will prioritize evidence-based strategies to address disparities and promote optimal health improvement outcomes.

Board Approval
The 2022 CHNA was conducted in a timeline to comply with both New York State Department of Health and federal IRS Tax Code 501(r) requirements to conduct an assessment every three years and develop a corresponding health improvement plan.

The 2022 CHNA report was presented to the Nuvance Health Board of Directors and approved in September 2022. The CSP report will be presented to the Nuvance Health Board of Directors and approved in December 2022.

Following the Board’s approval, the CHNA report was made available to the public via the Nuvance Health website at Nuvance Health.
Nuvance Health Service Area

The 2022 CHNA provides local level data for Dutchess and Putnam counties in New York, served by Nuvance Health’s three hospitals within the Mid-Hudson Region: Northern Dutchess Hospital, Putnam Hospital, and Vassar Brothers Medical Center.

About Northern Dutchess Hospital
Northern Dutchess Hospital (NDH) is located in Rhinebeck, New York in Dutchess County. The hospital primarily serves residents of 25 zip codes along the Hudson River, stretching from Catskill in the north to Hyde Park in the south. The NDH Service Area population is projected to increase +6,615 people or 4.4% from 2022 to 2027, although consistent with New York state trends, this growth will occur largely among older adult populations. The population aged 65 or older will increase by +5,520 people or 15% from 2022 to 2027, while the child population under age 18 will increase by +14 people or 0.1%.

The NDH Service Area is less racially and ethnically diverse than New York overall, although consistent with statewide trends, people of color are the fastest growing populations within the service area. Between 2022 and 2027, the white population within the NDH Service Area is projected to grow 1.9%, while all other racial and ethnic groups are projected to grow 10.9% or more. The Asian population is projected to be one of the fastest growing demographics at +11.8%.

Northern Dutchess Hospital is an 84-bed acute care, community hospital providing a comprehensive range of emergency, medical, and surgical services offered through various specialty departments, including the Bone and Joint Center, Neugarten Family Birth Center, emergency department, Dyson Center for Women’s Imaging, Center for Healthy Aging, Wound Care and Hyperbaric Therapy Center, Cardio-Diagnostic Center, outpatient nutrition department, Sleep Disorders Center, Paul Rosenthal Rehabilitation Center, and outpatient rehabilitation services.
Northern Dutchess Hospital Total Population and Population Change by Age Group

<table>
<thead>
<tr>
<th></th>
<th>2022 Population</th>
<th>2027 Population Projection</th>
<th>Projected Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern Dutchess Hospital Service Area</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Ages</td>
<td>152,184</td>
<td>158,799</td>
<td>+6,615</td>
</tr>
<tr>
<td>Children under age 18</td>
<td>26,064</td>
<td>26,078</td>
<td>+14</td>
</tr>
<tr>
<td>Adults 18-44</td>
<td>46,502</td>
<td>47,794</td>
<td>+1,292</td>
</tr>
<tr>
<td>Adults 45-64</td>
<td>42,807</td>
<td>42,596</td>
<td>-211</td>
</tr>
<tr>
<td>Adults 65 or over</td>
<td>36,811</td>
<td>42,331</td>
<td>+5,520</td>
</tr>
</tbody>
</table>

Source: Claritas

Projected Change in Population 2022-2027, Children, Adults and Total Population by Geography

<table>
<thead>
<tr>
<th></th>
<th>All Ages</th>
<th>Children under age 18</th>
<th>Adults 18-44</th>
<th>Adults 45-64</th>
<th>Adults 65 or over</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NDH Service Area</strong></td>
<td>4.4%</td>
<td>0.1%</td>
<td>2.8%</td>
<td>-0.5%</td>
<td>15.0%</td>
</tr>
<tr>
<td><strong>New York</strong></td>
<td>4.9%</td>
<td>3.9%</td>
<td>2.0%</td>
<td>1.4%</td>
<td>16.9%</td>
</tr>
</tbody>
</table>

Source: Claritas
# Northern Dutchess Hospital Population Change by Race and Ethnicity

<table>
<thead>
<tr>
<th>Northern Dutchess Hospital Service Area</th>
<th>2022 Population</th>
<th>Projected Change 2022-2027</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Share of Population</td>
</tr>
<tr>
<td>Asian &amp; Pacific Islander Non-Hispanic</td>
<td>3,263</td>
<td>2.1%</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>9,903</td>
<td>6.5%</td>
</tr>
<tr>
<td>Latinx</td>
<td>13,364</td>
<td>8.8%</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>120,839</td>
<td>79.4%</td>
</tr>
<tr>
<td>All Others</td>
<td>4,815</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Source: Claritas

### Projected Change in Population 2022-2027, by Race and Ethnicity and Geography

<table>
<thead>
<tr>
<th>Race and Ethnicity</th>
<th>NDH Service Area</th>
<th>New York</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian &amp; Pacific Islander Non-Hispanic</td>
<td>11.8%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>10.9%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Latinx</td>
<td>17.1%</td>
<td>9.9%</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>1.9%</td>
<td>1.7%</td>
</tr>
<tr>
<td>All Others</td>
<td>12.8%</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

Source: Claritas
About Putnam Hospital

Putnam Hospital (PH) is located in Carmel Hamlet, New York in Putnam County. The hospital primarily serves residents of nine zip codes along the New York and Connecticut state borders. The PH Service Area population is projected to increase +5,767 people or 5.3% from 2022 to 2027, although consistent with New York state trends, this growth will occur largely among older adult populations. The population aged 65 or older will increase by +4,303 people or 18.9% from 2022 to 2027, while the child population under age 18 will decrease by -261 people or -1.3%.

The PH Service Area is less racially and ethnically diverse than New York overall, although consistent with statewide trends, people of color are the fastest growing populations within the service area. Between 2022 and 2027, the white population within the PH Service Area is projected to grow 1.1%, while all other racial and ethnic groups are projected to grow 11.4% or more. The Latinx population is projected to be one of the fastest growing demographics at +19.9%.

Putnam Hospital is a 164-bed, acute care hospital offering medical, surgical, psychiatric, and 24-hour emergency services. As the only hospital in Putnam County, Putnam Hospital has been serving the needs of Putnam, northern Westchester, and southern Dutchess counties since 1964.

Putnam Hospital provides a comprehensive range of inpatient and outpatient services offered through various specialty departments that include advanced orthopedic, robotic, and bariatric surgeries; neurosciences, including minimally invasive spinal surgeries, stroke care, and a blood management program; psychiatric care including a partial-hospitalization program; a comprehensive cancer program; 24/7 emergency care; the Center for Wound Healing; the Sleep Disorders Center; and four outpatient physical rehabilitation satellite facilities.
## Putnam Hospital Total Population and Population Change by Age Group

<table>
<thead>
<tr>
<th>Putnam Hospital Service Area</th>
<th>2022 Population</th>
<th>2027 Population Projection</th>
<th>Projected Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Ages</td>
<td>109,625</td>
<td>115,392</td>
<td>+5,767</td>
</tr>
<tr>
<td>Children under age 18</td>
<td>19,457</td>
<td>19,196</td>
<td>-261</td>
</tr>
<tr>
<td>Adults 18-44</td>
<td>34,426</td>
<td>36,312</td>
<td>+1,886</td>
</tr>
<tr>
<td>Adults 45-64</td>
<td>32,930</td>
<td>32,769</td>
<td>-161</td>
</tr>
<tr>
<td>Adults 65 or over</td>
<td>22,812</td>
<td>27,115</td>
<td>+4,303</td>
</tr>
</tbody>
</table>

Source: Claritas

### Projected Change in Population 2022-2027, Children, Adults and Total Population by Geography

<table>
<thead>
<tr>
<th></th>
<th>All Ages</th>
<th>Children under age 18</th>
<th>Adults 18-44</th>
<th>Adults 45-64</th>
<th>Adults 65 or over</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH Service Area</td>
<td>5.3%</td>
<td>-1.3%</td>
<td>5.5%</td>
<td>-0.5%</td>
<td>18.9%</td>
</tr>
<tr>
<td>New York</td>
<td>4.9%</td>
<td>3.9%</td>
<td>2.0%</td>
<td>1.4%</td>
<td>16.9%</td>
</tr>
</tbody>
</table>

Source: Claritas
### Putnam Hospital Population Change by Race and Ethnicity

<table>
<thead>
<tr>
<th>Putnam Hospital Service Area</th>
<th>2022 Population</th>
<th>Projected Change 2022-2027</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Share of Population</td>
</tr>
<tr>
<td>Asian &amp; Pacific Islander Non-Hispanic</td>
<td>2,553</td>
<td>2.3%</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>4,391</td>
<td>4.0%</td>
</tr>
<tr>
<td>Latinx</td>
<td>18,707</td>
<td>17.1%</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>82,251</td>
<td>75.0%</td>
</tr>
<tr>
<td>All Others</td>
<td>1,723</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Source: Claritas

#### Projected Change in Population 2022-2027, by Race and Ethnicity and Geography

<table>
<thead>
<tr>
<th></th>
<th>PH Service Area</th>
<th>New York</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian &amp; Pacific Islander Non-Hispanic</td>
<td>11.4%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>14.2%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Latinx</td>
<td>19.9%</td>
<td>9.9%</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>1.1%</td>
<td>1.7%</td>
</tr>
<tr>
<td>All Others</td>
<td>12.7%</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

Source: Claritas
About Vassar Brothers Medical Center

Vassar Brothers Medical Center (VBMC) is located in Poughkeepsie, New York in Dutchess County. The hospital primarily serves residents of 25 zip codes along the Hudson River, stretching from Hyde Park in the north to Newburgh in the south along the New York and Connecticut state borders. The VBMC Service Area population is projected to increase +18,398 people or 5.4% from 2022 to 2027, although consistent with New York state trends, this growth will occur largely among older adult populations. The population aged 65 or older will increase by +11,412 people or 19.1% from 2022 to 2027, while the child population under age 18 will increase by +873 people or 1.3%.

The VBMC Service Area is slightly less racially and ethnically diverse than New York overall, although consistent with statewide trends, people of color are the fastest growing populations within the service area. Between 2022 and 2027, the white population within the VBMC Service Area is projected to grow 1.3%, while all other racial and ethnic groups are projected to grow 8% or more. The Latinx population is projected to be one of the fastest growing demographics at +14.3%.

Vassar Brothers Medical Center Service Area

Vassar Brothers Medical Center is a 350-bed facility that has served New York’s Mid-Hudson Valley since 1887. The facility has established Centers of Excellence in cardiac services, cancer care, and women and children’s health services. As a regional medical center, VBMC houses the area’s first and only cardiothoracic surgery program between Westchester and Albany, and the only Level III Neonatal Intensive Care Unit (NICU) in the region for premature, underweight, and critically ill infants. Innovative procedures and services are integrated into the VBMC campus, including a Level II Trauma Center, robotic orthopedic surgery, liver surgery, interventional neuroradiology, thoracic surgical oncology, and transcatheter aortic valve replacement (TAVR), negating the need to travel for this care. The Dyson Center for Cancer Care, located on the VBMC campus, is designed to accommodate patients and their families while providing radiation therapy, stereotactic radiosurgery and a wide variety of support groups.
VBMC opened its new 696,000-square-foot, seven-level patient pavilion with 264 private medical/surgical patient rooms and 30 critical care rooms in early 2021, solidifying VBMC’s position as the destination of choice for patients in the region.

### Vassar Brothers Medical Center Total Population and Population Change by Age Group

<table>
<thead>
<tr>
<th>Vassar Brothers Medical Center Service Area</th>
<th>2022 Population</th>
<th>2027 Population Projection</th>
<th>Projected Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Ages</td>
<td>342,049</td>
<td>360,447</td>
<td>+18,398</td>
</tr>
<tr>
<td>Children under age 18</td>
<td>67,505</td>
<td>68,378</td>
<td>+873</td>
</tr>
<tr>
<td>Adults 18-44</td>
<td>122,067</td>
<td>126,522</td>
<td>+4,455</td>
</tr>
<tr>
<td>Adults 45-64</td>
<td>92,772</td>
<td>94,430</td>
<td>+1,658</td>
</tr>
<tr>
<td>Adults 65 or over</td>
<td>59,705</td>
<td>71,117</td>
<td>+11,412</td>
</tr>
</tbody>
</table>

Source: Claritas

### Projected Change in Population 2022-2027, Children, Adults and Total Population by Geography

<table>
<thead>
<tr>
<th></th>
<th>All Ages</th>
<th>Children under age 18</th>
<th>Adults 18-44</th>
<th>Adults 45-64</th>
<th>Adults 65 or over</th>
</tr>
</thead>
<tbody>
<tr>
<td>VBMC Service Area</td>
<td>5.4%</td>
<td>1.3%</td>
<td>3.7%</td>
<td>1.8%</td>
<td>19.1%</td>
</tr>
<tr>
<td>New York</td>
<td>4.9%</td>
<td>3.9%</td>
<td>2.0%</td>
<td>1.4%</td>
<td>16.9%</td>
</tr>
</tbody>
</table>

Source: Claritas
# Vassar Brothers Medical Center Population Change by Race and Ethnicity

## 2022 Population

<table>
<thead>
<tr>
<th>Vassar Brothers Medical Center Service Area</th>
<th>2022 Population</th>
<th>2022-2027 Projected Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian &amp; Pacific Islander Non-Hispanic</td>
<td>12,592</td>
<td>+1,013</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>44,387</td>
<td>+4,451</td>
</tr>
<tr>
<td>Latinx</td>
<td>64,025</td>
<td>+9,136</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>211,632</td>
<td>+2,679</td>
</tr>
<tr>
<td>All Others</td>
<td>9,413</td>
<td>+1,119</td>
</tr>
</tbody>
</table>

Source: Claritas

## Projected Change in Population 2022-2027, by Race and Ethnicity

![Projected Change in Population 2022-2027, by Race and Ethnicity and Geography](chart)

### Source: Claritas
Social Determinants of Health and Health Equity: A closer look at factors that influence well-being

Social determinants of health (SDoH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health risks and outcomes. Healthy People 2030, the CDC’s national benchmark for health, outlines five key areas of SDoH: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context.

While health improvement efforts have historically targeted health behaviors and clinical care, public health agencies, including the US Centers for Disease Control and Prevention (CDC), widely hold that at least 50% of a person’s health profile is determined by SDoH.
Addressing SDoH is a primary approach to achieving health equity. Health equity can be simply defined as “a fair and just opportunity for every person to be as healthy as possible.” To achieve health equity, we need to look beyond the healthcare system to dismantle systematic inequities born through racism and discrimination like power and wealth distribution, education attainment, job opportunities, housing, and safe environments, to build a healthier community for all people now and in the future.

Life Expectancy
Life expectancy is an overall measure of health and social equity within a community. Structural factors, including housing quality and affordability, environmental conditions, employment, education, transportation, food security, and experience of racism, all play a role in impacting the quality and length of lives. Consistent with New York overall, Dutchess and Putnam County residents have high average life expectancy of 80 years or higher.

The Community Need Index (CNI) is a zip code-based index of community socioeconomic need. The CNI is strongly linked to variations in community healthcare needs, and as such, represents a useful planning tool for prioritization of geographic interventions. The CNI scores zip codes on a scale of 1.0 to 5.0, with 1.0 indicating a zip code with the least need and 5.0 indicating a zip code with the most need compared to the US national average of 3.0. The CNI weights, indexes, and scores zip codes by socioeconomic barriers, including income, culture, education, insurance, and housing.

<table>
<thead>
<tr>
<th>Average Life Expectancy (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutchess County</td>
</tr>
<tr>
<td>80.1</td>
</tr>
</tbody>
</table>

Source: National Center for Health Statistics, 2018-2020

The following sections depict average life expectancy and CNI scores for each of the Nuvance Health hospital service areas, illustrating the connection between health and social determinants of health.
Northern Dutchess Hospital Service Area

Within the NDH Service Area, community socioeconomic barriers are most evident in northern communities. Catskill zip code 12414 has the highest CNI score in the service area of 4.0. The areas around Hudson, Kingston, and Hyde Park also have high CNI scores of 3.4 to 3.8. These findings are consistent with lower average life expectancy relative to other neighboring communities. Of note, in communities located directly along the Hudson River, average life expectancy may be less than 75 years.

2010-2015 Life Expectancy by Census Tract and 2021 Community Need Index by Zip Code
Putnam Hospital Service Area
Consistent with reporting overall positive socioeconomic indicators, communities across the PH Service Area generally report high average life expectancy of 80 years or more. Community socioeconomic barriers are most evident in Brewster and Pawling. In downtown Pawling, this finding correlates with the lowest average life expectancy in the service area of approximately 75 years.

2010-2015 Life Expectancy by Census Tract and 2021 Community Need Index by Zip Code
Vassar Brothers Medical Center Service Area
Community socioeconomic barriers within the VBMC Service Area are most evident in Poughkeepsie zip code 12601 (CNI score of 4.2) and Newburgh zip code 12550 (CNI score of 4.0). These findings are consistent with significant differences in average life expectancy, with as much as an 8-10 year difference for select Poughkeepsie and Newburgh communities relative to neighboring areas.

2010-2015 Life Expectancy by Census Tract and 2021 Community Need Index by Zip Code
COVID-19 Impact
The COVID-19 pandemic both highlighted and deepened socioeconomic and health inequities and exposed disparities within the health and social services systems. COVID-19 has not impacted all people equally. Rather, certain structural issues—population density, low income, crowded workplaces, etc.—contribute to higher levels of spread and worse outcomes from COVID-19, and potentially other infectious diseases.

The graph below shows that while overall life expectancy decreased nationally from 2019 to 2020, it decreased by more than 3 years for Black/African American and Latinx residents compared to 1.4 years for white residents. This finding is also reflected in disproportionately higher death rates due to COVID-19 among people of color.

Source: Centers for Disease Control and Prevention
United Way 211 is a 24/7 go-to resource that helps people across the nation find local resources they need. 211 is the most comprehensive source of information about local resources and services in the country. The following graph depicts the top 211 service requests by Dutchess and Putnam county residents during the COVID-19 pandemic.

The COVID-19 pandemic had deep economic impacts. In 2020, two-thirds of 211 requests by Dutchess County residents were for employment and income services. Putnam County differed from Dutchess County with the largest proportion of requests related to healthcare and COVID-19, followed by food, and employment and income. It is worth noting that in 2021, housing and shelter-related requests nearly doubled for Dutchess County residents. In Putnam County in 2021, employment and income-related requests also nearly doubled, and mental health and addiction service requests more than tripled.
Top 211 Service Requests by County, 2020

Mental Health & Addiction
- Putnam County: 4.5%
- Dutchess County: <1%

Food
- Putnam County: 20.4%
- Dutchess County: 4.0%

Other
- Putnam County: 10.3%
- Dutchess County: 4.6%

Housing & Shelter
- Putnam County: 7.5%
- Dutchess County: 2.4%

Healthcare & COVID-19
- Putnam County: 43.4%
- Dutchess County: 10.3%

Employment & Income
- Putnam County: 18.3%
- Dutchess County: 66.6%

Top 211 Service Requests by County, 2021

Mental Health & Addiction
- Putnam County: 17.8%
- Dutchess County: 5.6%

Government & Legal
- Putnam County: 4.0%
- Dutchess County: 6.9%

Healthcare & COVID-19
- Putnam County: 33.8%
- Dutchess County: 22.8%

Other
- Putnam County: 9.0%
- Dutchess County: 6.6%

Housing & Shelter
- Putnam County: 13.7%
- Dutchess County: 5.6%

Employment & Income
- Putnam County: 63.4%

Source: United Way 211
Community Feedback

To determine community health priorities, we must consider what the data are telling us, and more importantly, what our community sees as the most pressing health concerns.

Community engagement was a central part of the CHNA. We invited wide participation from community stakeholders and organizations, including experts in health, social service representatives, advocates, community champions, policy makers, and lay community residents. These stakeholders were asked to weigh in on data findings, share their perspectives on challenges facing our community, and provide input on collaborative solutions.

The following graphs depict community feedback garnered from the GNYHA 2022 Community Health Survey, including perceived importance of community health conditions and satisfaction with current neighborhood services to address these conditions. Results are presented as aggregate importance and satisfaction scores on a scale of 1 (not at all) to 5 (extremely). The “Gap” represents the difference between importance and satisfaction scores.

Northern Dutchess Hospital Service Area
The survey results demonstrated high perceived importance for issues like mental health and violence. These issues were further prioritized based on lower perceived satisfaction in available services to address them. It is worth noting that the gap in perceived importance and satisfaction scores for mental health/depression and violence were higher among NDH Service Area respondents than PH or VBMC Service Area respondents.

What you told us: Northern Dutchess Hospital Service Area Community Feedback, Health Needs Importance & Satisfaction

<table>
<thead>
<tr>
<th>Condition</th>
<th>Importance Score</th>
<th>Satisfaction Score</th>
<th>Gap*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health/depression</td>
<td>4.34</td>
<td>2.27</td>
<td>2.07</td>
</tr>
<tr>
<td>Violence (domestic, gun)</td>
<td>4.34</td>
<td>2.48</td>
<td>1.86</td>
</tr>
<tr>
<td>SUD, Alcohol</td>
<td>3.91</td>
<td>2.51</td>
<td>1.40</td>
</tr>
<tr>
<td>Obesity in children, adults</td>
<td>3.94</td>
<td>2.62</td>
<td>1.32</td>
</tr>
<tr>
<td>Cancer</td>
<td>4.33</td>
<td>3.04</td>
<td>1.30</td>
</tr>
<tr>
<td>Dental care</td>
<td>4.39</td>
<td>3.25</td>
<td>1.14</td>
</tr>
<tr>
<td>Falls, Elderly</td>
<td>4.06</td>
<td>2.98</td>
<td>1.08</td>
</tr>
<tr>
<td>Women’s Maternal Health</td>
<td>4.09</td>
<td>3.02</td>
<td>1.07</td>
</tr>
<tr>
<td>Adolescents, child health</td>
<td>3.94</td>
<td>2.91</td>
<td>1.03</td>
</tr>
<tr>
<td>Heart disease</td>
<td>4.29</td>
<td>3.41</td>
<td>0.89</td>
</tr>
<tr>
<td>Access to healthy/nutritious foods</td>
<td>4.32</td>
<td>3.46</td>
<td>0.86</td>
</tr>
<tr>
<td>COVID-19</td>
<td>4.26</td>
<td>3.45</td>
<td>0.81</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>4.04</td>
<td>3.48</td>
<td>0.56</td>
</tr>
</tbody>
</table>

*Difference between Importance Score and Satisfaction Score

Source: Greater New York Hospital Association CHNA Survey, 2022
Putnam Hospital Service Area

The survey results demonstrated high perceived importance for a number of health concerns, and general satisfaction in available services to address them. In contrast to NDH Service Area results, the largest gap in perceived importance and satisfaction scores was 1.14 for cancer. Overall, dental care received the highest importance score, followed closely by cancer and access to healthy/nutritious foods.

| Source: Greater New York Hospital Association CHNA Survey, 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gap* | 1.14 | 1.11 | 1.00 | 0.88 | 0.87 | 0.84 | 0.76 | 0.68 | 0.61 | 0.58 | 0.41 | 0.34 |
Vassar Brothers Medical Center Service Area

The survey results demonstrated high perceived importance for issues like violence and mental health. These issues were further prioritized based on lower perceived satisfaction in available services to address them. Overall, access to healthy/nutritious foods received the highest importance score, followed closely by dental care and cancer.

<table>
<thead>
<tr>
<th>Gap*</th>
<th>1.72</th>
<th>1.42</th>
<th>1.25</th>
<th>1.06</th>
<th>0.98</th>
<th>0.94</th>
<th>0.86</th>
<th>0.80</th>
<th>0.68</th>
<th>0.62</th>
<th>0.61</th>
</tr>
</thead>
</table>

Source: Greater New York Hospital Association CHNA Survey, 2022

*Difference between Importance Score and Satisfaction Score
Mid-Hudson Regional CHNA

Nuvance Health participated in the Mid-Hudson Regional CHNA, led by seven health departments and area health systems. The Mid-Hudson Region, located in the southern part of New York State, encompasses the seven counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester. The Mid-Hudson Region is also often referred to as the Hudson Valley. Split into east and west by the Hudson River, the Region is bordered by Connecticut to the east; New Jersey and Pennsylvania to the west; Delaware, Greene, and Columbia Counties to the north; and New York City to the south. The Mid-Hudson Region is a mixture of urban, suburban, and rural areas, including, waterfront cities, farmland, forests, and multiple water sheds.

The full Mid-Hudson Regional CHNA can be found at NuvanceHealth.org/community. For purposes of this report, the following sections summarize key CHNA findings for Dutchess and Putnam counties.

Dutchess County Health Summary
Dutchess County is in the center of the Hudson Valley, midway between New York City and New York State’s 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 aged 35-64 years old. In Dutchess County 11.7% of adults report having poor physical or mental health (BRFSS, 2018).

Areas of Focus
In Dutchess County, there is a strong need to focus on factors of chronic disease and mental and behavioral health. At least 40% of Dutchess County adults are estimated to have a chronic health condition - including but not limited to diseases such as hypertension, diabetes, high cholesterol, asthma, arthritis, or obesity. Those with a mental health condition (including but not limited to depression, anxiety, other mood disorder, or substance or alcohol use disorder) are also more likely to have a chronic health condition than those without. Due to the interrelatedness of both physical and mental well-being, it is important to focus not only on physical health but mental health as well.

Within both sectors, there are several disparities that 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 who have disabilities health and those who do not. These disparities can be seen in the rates of preventable hospitalizations, premature death, opioid overdose and participation in primary care, and provision of mental health services. In order to combat these issues, it is important that the residents of Dutchess County have the access to and support from sufficient, competent health providers to manage their health.
Areas of focus should include (but not be limited to):
- Preventable hospitalizations for chronic conditions
- Cardiovascular disease
- Respiratory disease (asthma, chronic lower respiratory disease)
- Obesity
- Poor mental health
- Opioid overdose
- Behavioral health (including diet/exercise, smoking, alcohol and drug use)

Emerging Issues
While not affecting as a large a population as the issues mentioned above, sexually transmitted infection (STI) rates continue to steadily increase in Dutchess County. Although numbers are smaller compared to more longstanding chronic diseases, Dutchess County (with other counties in the Hudson Valley) is seeing a significant increase in the rate of primary syphilis diagnoses. The rates of chlamydia and gonorrhea infection have also risen in recent years. Similarly, as aforementioned, these increases can be tied to behavioral health practices. When reviewing communicable diseases, it is important to address the preventive immunity that vaccines can provide. With more frequent outbreaks of vaccine-preventable disease in the Hudson Valley, it is critical to emphasize the maintenance of immunity through the recommended vaccine schedule for both children and adults.

Like much of New York State and its neighboring counties, Dutchess County has endured a significant number of COVID-19 cases and associated fatalities. As of July 31, 2022, Dutchess County had a cumulative total of 73,637 individual positive results and 678 fatalities with a weekly incidence rate of 196 per 100,000. At its peak in January 2022, Dutchess County received over 6,000 new case reports within 1 week at a rate of 2,086 cases per 100,000. In Spring of 2022, 36% of respondents to the Mid-Hudson Regional Health Survey stated that they had ever had COVID-19. Dutchess County residents also acknowledged the toll that COVID-19 on their health with 29% saying their physical health worsened and 34% saying their mental health worsened over the course of the pandemic. While not explicitly included in the 2019-2024 NYSDOH Prevention Agenda, the COVID-19 pandemic highlights the need for competent public health emergency preparedness and response.

Additionally, as seen in the US and NYS, the rate of suicide deaths and intentional self-harm has been increasing steadily within Dutchess County. This reflects the poor mental health of Dutchess County residents and the need for stronger mental and behavioral health resources such as providers and services, as well as a need for increased social capital.

Emerging issues include:
- STIs (syphilis, chlamydia, gonorrhea)
- Immunizations
- COVID-19 and other emerging, infectious diseases
- Suicide and self-harm
Community Survey Points of Note

- The self-reported physical health status of Dutchess County citizens mirrors that of the greater Hudson Valley Region with 73% and 76% reporting excellent or good physical health, respectively. In Dutchess County, unemployed individuals, households with disabled persons and low-income individuals reported poorer overall physical health compared to their peers.

- The self-reported mental health status of Dutchess County citizens is also similar to the Region overall, with 69% and 73% reporting excellent or good mental health, respectively. Young adults (<35), Non-White individuals, households with disabled persons and low-income individuals reported poorer mental health than their peers. Those under the age of 55 reported feeling more stressed than those aged 55 and older.

- Individuals in households with incomes greater than $100,000 per year reported higher alcohol use in 2021-2022. 18% of Dutchess respondents stated that their alcohol consumption increased compared to habits prior to the pandemic, while 17% stated that their non-medical use of drugs increased.

- Respondents with a person with a disability in the household were noted to have had a more difficult time obtaining basic necessities when they were really needed- including food, utilities, healthcare, medicine, phone or internet service, childcare, transportation, or housing.

- 22% of Dutchess County respondents said that they have not been to a primary care provider for a routine physical in the last 12 months. The most common reasons for people not visiting a primary care provider for a physical exam were not having time to go or choosing not to go. Inability to get an appointment and concerns over COVID were also reasons for 20% of those respondents.

- The proportion of Dutchess County residents reporting visiting an emergency room for a non-emergency issue is similar to that of the Hudson Valley overall. The most common reason for visiting an emergency room instead of regular doctor’s office was thinking that the non-emergency condition was an actual emergency and that the emergency room’s hours of operation were more convenient than a traditional doctor’s office.

- Those on the Eastern side of the County reported that they were less likely to get where they needed to using public transportation.

Assets and Resources

Through the CHA Collaborative between the local health departments of the Hudson Valley, a Regional Community Health Survey of the Hudson Valley for the 2022-2024 cycle was conducted to assess various topics related to health and priorities put forward by NYS including healthy aging, health across all policies and items from the Prevention Agenda. In addition to the Regional Community Health Survey, discussion groups with providers that serve underrepresented populations were held. These groups consisted of agencies that provide services such as mental health support, vocational programs, or household resources to individuals belonging to LGBTQ, low-income, veteran, senior, homeless, or other niche populations. The purpose of the discussions was to collect information on the issues specific to individuals who may be dealing with more complex health issues than the general population.
Putnam County Health Summary
Putnam County is located approximately 58 miles north of New York City and is bordered by the Hudson River to the west, the State of Connecticut to the east, Dutchess County to the north, and Westchester County to the South. The county’s 230 square miles consist of a mix of rural and suburban communities interspersed with reservoirs, parks, and farmland divided up into six towns, three villages, and no cities. More than a third of the population resides in the Town of Carmel which occupies the central southern portion of the county.\(^1\)

For the past 10 years Putnam County has consistently ranked amongst the top five healthiest counties in the state in the University of Wisconsin’s annual County Health Rankings & Roadmaps report, and in the 2022 edition Putnam ranked first in the state for the index measure of health outcomes and 3rd for the health factors index.\(^2\) While these rankings represent a significant accomplishment, they do not diminish the importance of identifying gaps and areas for improvement through the Mid-Hudson Regional CHNA process as detailed in the following sections.

Areas of Focus
Putnam County Department of Health (PCDOH) conducted a systematic review of Putnam data for all the indicators included in the Regional CHNA and any additional indicators included on the NYS Prevention Agenda (PA) Dashboard, the Health Status and Social Determinants of Health section of the NYS Community Health Indicator Reports (CHIRS) Dashboard and/or the NYS County Health Indicators by Race/Ethnicity (CHIRE) Dashboard. Indicators were flagged if they met any of the following criteria: PA objective not met; county dial position at high risk; performance worse than the Mid-Hudson Region, NYS, or 5 or more counties in the Mid-Hudson Region; indicator performance worsening over time; or disparities on the CHIRE. 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, major areas of focus identified include transportation (determinant of health), disparities in birth-related indicators, obesity, early childhood immunization, and tickborne disease. Data points in this summary are footnoted if they are not found in the Regional CHA.

Transportation is a fundamental social determinant of health because it influences the ability to access employment and meet other basic needs such as accessing healthy food. Putnam is heavily dependent on cars which carry a high-cost burden and contribute to pollution. Compared to other counties in the region Putnam County has the highest mean travel time to work. When examining 4-year rates posted on CHIRS, both the mean travel time to work and the percentage of workers commuting alone are increasing while the percentage of workers using public transportation is decreasing.\(^2\) On the Regional Community Health Survey, only 36% of Putnam respondents agreed that people can get where they need to go using public transportation, a decrease from 40% in 2018, and lower than the regional proportion of 56%.

The health and well-being of pregnant people and infants directly impacts the health of the next generation. Although Putnam County generally performs well in birth-related indicators as

---

\(^1\) U.S. Census Bureau QuickFacts, [https://www.census.gov/programs-surveys/sis/resources/data-tools/quickfacts.html](https://www.census.gov/programs-surveys/sis/resources/data-tools/quickfacts.html), accessed July 2022

\(^2\) University of Wisconsin Population Health Institute, [https://www.countyhealthrankings.org/app/new-york/2022/downloads](https://www.countyhealthrankings.org/app/new-york/2022/downloads), accessed July 2022
compared to other counties in the region, like NYS, disparities can be seen when these indicators are examined by race and ethnicity from 2017-2019. When examining the percentage of births with 1st trimester prenatal care and adequate prenatal care (APNCU), the percentages were lower in Asian/Pacific Islander (78.6%, 83.8%), Hispanic (80.5%, 84.9%), and Non-Hispanic Black (84.5%, 84.6%) births than White births (90.1%, 89.8%). There was a higher percentage of premature births in Non-Hispanic Black (16.9%) and Asian Pacific Islander (10.0%) births than White (8.2%) and Hispanic births (7.6%). The percentage of low birthweight births was much higher in Non-Hispanic Black (15.5%) births than Hispanic (6.7%), White (6.0%) and Asian/Pacific Islander births (5.7%).

Obesity puts individuals at greater risk of developing a whole host of chronic diseases, including heart disease which was the leading cause of death in Putnam County in all years from 2010-2019 except for 2016. In 2018 Putnam had the second highest percentage of adults overweight or obese in the region and the percent obese increased from 21% in 2016 to 27% in 2018. Putnam also had the second highest percent of adults consuming one or more sugary beverages in the region in 2018 (25.6%), up from 22.9% in 2016. When looking at school-age children, the percent overweight or obese is also increasing, as is the percent obese when stratified by elementary and middle/high school age students.

High childhood vaccination rates are critical to maintaining community level protection against diseases that were commonplace before the advent of vaccines, as highlighted by a recent case of poliomyelitis in the Hudson Valley Region. In 2020, 61.9% of Putnam children 24-35 months of age had completed a 4:3:1:3:3:1:4 immunization series. While this rate is higher than the region, it is lower than the state, lower still than the PA 2024 goal of 70.5%, and represents a dramatic decrease from 70.8% in 2019. There is evidence the diseases prevented by these vaccines are increasing in incidence in Putnam County. The Incidence of pertussis is higher than that for the state and increased from 2018 to 2019. Mumps incidence also increased from 2018 to 2019. Incidence of Haemophilus influenza is higher than that both for the region and the state and three-year rates have been trending up over the past decade.

Putnam County bears a disproportionally high burden of tickborne disease. New York is amongst 14 states and the District of Columbia considered to be a high incidence for Lyme disease, and Putnam consistently is one of the counties with the highest incidence in the state. While Lyme disease is most common, the second and third most common tickborne diseases, anaplasmosis and babesiosis, have a similar geographic distribution because they are all transmitted by the same tick, Ixodes scapularis. Putnam had the highest incidence of Lyme in the region from 2011-2020, the

---

third highest rate of anaplasmosis from 2014-2019 and the highest rate in 2020, and the first or second highest rate of babesiosis every year since 2010. When we include preliminary data from recent years (only available for anaplasmosis and babesiosis) we see that reported cases of babesiosis in Putnam doubled in 2021 as compared to 2020 and reported cases of anaplasmosis nearly tripled.\textsuperscript{11} While not included in the NYS Prevention Agenda, tickborne disease remains an important focus for Putnam County.

**Emerging Issues**

For this report, emerging issues are defined as health problems that did not flag based on the methodology described above but were instead identified based on other data sources or preliminary county data for 2020/2021 not included in NYS dashboards. Emerging issues include COVID-19 and other emerging infectious diseases (EID), sexually transmitted infections (STIs), opioid misuse, and harmful algal blooms (HABs).

Similar to the nation, state, and neighboring counties, Putnam has been hit hard by COVID-19 for more than two years. The cumulative count of Putnam residents with positive test results reported through June of 2022 is 26,535, and the cumulative count of reported COVID-19 related deaths is 125. Weekly incidence has continued to exceed 200 cases in the summer of 2022.\textsuperscript{12} We are only now starting to understand and contend with impacts on the community that extend far beyond summary statistics, as evidenced by differences in results between the 2018 and 2022 Regional Community Health Surveys summarized below. The pandemic also put a spotlight on long recognized deficits in the structure and capacity of the public health system to respond to pandemics and other EIDs that has in turn generated long lists of recommendations for change.\textsuperscript{13,14} Yet, change doesn’t happen overnight, and infections continue to emerge as is evidenced by the recent State Disaster Emergency Declaration made in response to the Monkeypox outbreak.\textsuperscript{15} While not included in the NYS Prevention Agenda, preparedness and response to COVID-19 and other emerging infections is an important priority for Putnam County.

There has been a general upward trend in STIs in the Mid-Hudson Region since 2014. While Putnam has not been as severely impacted as other counties in the region, upward trends are evident for chlamydia, gonorrhea, and syphilis in Putnam data, particularly when preliminary case counts for 2021 are considered.\textsuperscript{12} It should be noted that there may be aberrations in 2020 data related to decreased health care seeking behavior during the COVID-19 pandemic. This is particularly evident with chlamydia which is often diagnosed by screening asymptomatic patients. Stemming increasing rates of STIs remains an important priority for Putnam County.

In the United States, drug overdose deaths are rising, and opioids are the leading cause of drug overdoses. Similar to STIs, in many measures related to opioids Putnam has fared better than other

\textsuperscript{11} PCDOH, unpublished data from the NYS Communicable Disease Electronic Surveillance System, accessed July 2022

\textsuperscript{12} PCDOH, 2022, https://www.putnamcountyny.com/health/covid19/coronavirus/, accessed August 2022


counties in the region. However, when data presented in the Regional CHA is supplemented with data available in the NYS Opioid Annual Data Report 2021, we see an increase from 2019 to 2020 in the rate of overdose deaths involving any opioid, heroin, and opioid pain relievers. Putnam will continue to prioritize harm reduction efforts to decrease mortality and morbidity due to opioid misuse.

New York State data shows an increasing trend in frequency and duration of HABs at New York beaches. PCDOH tracks HAB detections and associated beach closures at the 32 public bathing beaches under its regulatory authority. In 2021 Putnam County had the highest number of times beaches closed (27), number of beaches closed (13), and number of lost beach days due to harmful blue-green algae blooms (314) of any County in New York State. From 2020 to 2021 HAB detections at regulated bathing beaches in Putnam increased 115% and number of lost swimming days increased by 183%. Weather patterns influence year to year fluctuation in HABs and the ongoing educational efforts of PCDOH Environmental Health Services may in part contribute to a high level of awareness and thus reporting of HABs in Putnam. Nonetheless, the frequency and duration of HABs in Putnam as compared to other counties is also likely related to the high density of housing with residential septic systems surrounding lakes. Recreational water bodies provide opportunities for physical activity and improve the quality of life for Putnam residents. Addressing issues with septic systems and preventing illnesses related to exposure to HABs is an important priority for Putnam County.

Community Survey Points of Note
Major findings from the 777 Putnam County responses to the Mid-Hudson Region Community Health Survey:

- Except for access to public transportation, there is a more favorable opinion of community quality-of-life measures than in the region overall. However, declines in favorability from 2018 to 2022 were seen for ability to access to healthy and nutritious food, childcare, mental health providers, and transportation.

- There is a lower opinion of quality of information received from county agencies during public emergencies than in the region overall.

- Self-reported ratings for physical and mental health were better than the region overall, but mental health ratings declined from 2018. Those living in a household with a disabled person, a person with long-COVID, or income less than $50,000 had lower ratings for both physical and mental health.

- Self-reported health behaviors were better than the region overall, but declines were seen from 2018 to 2022 in healthy eating, getting adequate sleep, and having quality social encounters.

- Seventeen percent of respondents who drink alcohol reported increased frequency of consumption during the pandemic. Increased drug use during the pandemic was also reported by 17% of respondents who ever use recreational drugs.

---

19 PCDOH, Unpublished data accessed July, 2022
The level of stress reported on an average day increased from 2018 to 2022. Stress levels were higher in females, those 35-54 years of age, employed persons, and those in households with children, a disabled person, a person with long-COVID or income greater than $150,000 per year.

As compared to the region overall, a lower proportion had trouble meeting basic needs such as food and housing in the past year, but there were disparities across demographic groups. A higher proportion of those who are age 18-34 years, non-white, renting their home, or that live in a household with a disabled person, or in a household with income below $50,000 per year had trouble meeting four or more basic needs.

When asked to consider if various aspects of their lives had gotten better or worse over the course of the pandemic, the highest impact was seen in mental health (27% worsened) and the ability to obtain affordable, nutritious food (26% worsened). A higher proportion of those who have had long-COVID or have a household member that has had long-COVID, reported worsened physical health, mental health, ability to obtain healthy food, ability to afford housing, and ability to care for a household member with a disability or chronic illness.

Amongst respondents who were initially hesitant to receive a vaccination for COVID-19, the most common reason reported for eventually deciding to be vaccinated was learning more about the vaccine (36%).

PCDOH also conducted a Community Priority Poll (CPP) to assess residents’ opinions on health priorities and where resources should be focused to improve quality of life. The CPP was administered over social media and by paper ballot at PCDOH community engagement activities. The 135 respondents to the poll showed a preference for prioritization of health issues related to mental health and suicide (19%) and substance misuse (19%), with alignment of prioritization of resources for mental and social support services (16%). Aging and disability related issues was also commonly selected as a health priority (16%). The second and third most common choices for prioritization of resources were access to healthcare and preventative medicine (14%) and access to affordable housing (13%). Community health improvement planners should consider results of the CPP with the understanding that Spanish speakers were over-represented (27%) and that the small sample size is not generalizable to the whole population.

**Assets and Resources**

The Community Partner Resources survey was conducted to compile a directory of population health program resources available to county residents and facilitate matching of priorities identified in the CHNA to resources that could be leveraged in the CSP. Resources were categorized by the priority areas, focus areas, and goals outlined in the NYS Prevention Agenda.

The survey found that services exist for all segments of the population, though the largest number of responding organizations provide services for the general population, adults, and adolescents. Population health activities have largely returned to pre-pandemic status, but some changes made in response to COVID-19, such as offering programs online rather than in person, have endured beyond the end of mandated restrictions. Resources exist in all NYS Prevention Agenda priority and focus areas but are not evenly distributed. The highest number of respondent organizations are working to prevent chronic disease.
Evaluation of Impact from 2019-2021 Community Service Plan

Each Nuvance Health hospital has a Community Health Committee (CHC) with representatives from the board, the executive team, hospital staff, community members and local health departments and community agencies. The CHCs at Vassar Brothers Medical Center, Northern Dutchess Hospital, and Putnam Hospital convened workgroups at each hospital to review the findings of the Regional Community Health Needs Assessment and review the local health department priority areas to determine the hospitals’ prevention agenda priorities for the 2019-2021 period.

Vassar Brothers Medical Center, Northern Dutchess Hospital, and Putnam Hospital identified the following two priorities that align with local health department priorities:

- Prevent chronic diseases.
- Promote well-being and prevent mental and substance use disorders.

The workgroups developed goals, objectives, strategies, action steps, and metrics to measure success for these priority areas.

Due to the COVID-19 pandemic, many of the planned community health programming and activities related to the prevention agenda priorities and implementation plan outlined in the 2019-2021 plan were put on-hold or scaled back due to social distancing and hospital visitation policies. At Putnam Hospital, programs like the Farmer’s Market, Tai Chi for Arthritis, and in-person classes like Postvention and SafeTalk were paused. At Northern Dutchess Hospital, the SilverPlates Program for senior meals was not started due to the closure of the cafeteria to the public. At Vassar Brothers Medical Center, development of a chronic disease food pantry was put on hold during the planning stage due to COVID response.

Where possible programs were moved to an online platform like Zoom. The CDC National Diabetes Prevention Program at Northern Dutchess Hospital ended in 2021 with 36 people participating online. Events like the National Drug Take-Back Day were not held as often over the last three years, but the hospitals were able to participate in 2021. The hospitals were able to partner with the NYSDOH to offer Medication-Assisted Treatment (MAT) training to physicians online during the pandemic, however participation was lower than originally anticipated due to competing priorities with COVID and vaccine rollouts.

As a result of the pandemic Vassar Brothers Medical Center, Northern Dutchess Hospital, and Putnam Hospital pivoted their community programming to focus on COVID-19 education, testing, and vaccinations. In 2020, the hospitals partnered with the local health departments to quickly stand-up, coordinate, and staff drive-up specimen collection sites for the local community, collecting almost 20,000 COVID-19 tests. The hospitals helped staff a community hotline for information and questions in the early pandemic. Additionally, from 2020 to 2022, there was a regular cadence of Facebook Live Q&A and informational sessions in English and Spanish, with over 35,000 views.
When schools were set to resume in-person, the hospitals partnered with the local school districts, health departments, and community agencies to offer Zoom townhall-style meetings and Q&A sessions on safe return to school and vaccinations. Hospital staff and physicians were frequently featured on local radio and news outlets to discuss the pandemic and vaccinations – with an increased focus on vaccine hesitancy in the community.

Next Steps

The CHCs are tasked with the review and oversight of the CHNA and CSP in support of the organization’s mission and population health initiatives. Additionally, representatives from all hospitals participate in community boards and task forces that keep the hospitals in regular touch with community partners.

Community Health Committee responsibilities and scope of activities

- Monitor assessments of population health status and social determinants that impact health
- Guide priority issues for action to improve community health
- Monitor implementation of approved work plans to address identified priority issues
- Help inform, guide, share and link successful programs and strategies that address health and wellness throughout the network’s service areas
- Support community health programs that are accountable and continuously measured to improve
- Health outcomes and reduce inefficiencies in delivery of programs and services

Progress on the 2022 CSP and implementation strategies will continue to be monitored at routine workgroup meetings and will be reported regularly to the CHCs. The CHCs, made up of community members and representatives from community health organizations, will meet on a quarterly basis, and report at least annually to the hospital boards and the network Strategic Planning Committee.

The work of the various task forces, workgroups, and committees follows a collective impact model, which has proven to be an effective approach when addressing entrenched social and community issues. Collective impact begins with the idea that large-scale social change requires broad cross-sector coordination and occurs when organizations from different sectors agree to solve a specific social problem. The key elements of collective impact include:

- Creating and following a common agenda
- Aligning and coordinating efforts to ensure that they are mutually reinforcing
- Using common measures of success
- Maintaining excellent communication among partners
- Facilitating through “backbone” support organizations

Dissemination to the Public

Nuvance Health will make the Regional Community Health Needs Assessment and 2022-2024 Community Service Plan available on the website at Nuvance Health. In addition, printed copies of these documents will be made available to the public (free of charge) in the administrative offices at Northern Dutchess Hospital, Putnam Hospital, and Vassar Brother Medical Center.