BRISTOL HEALTH

Community Health Needs Assessment

Bristol Health

2022 FINAL SUMMARY REPORT – SUBMITTED BY HOLLERAN

HOLLERAN
COMMUNITY ENGAGEMENT RESEARCH & CONSULTING

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EXECUTIVE SUMMARY

The Patient Protection and Affordable Care Act of 2010 set forth new requirements for non-profit hospital organizations in order to maintain their tax-exempt status as a charitable hospital, 501(c)(3). One of the new regulations is a requirement that all non-profit hospitals must conduct a Community Health Needs Assessment (CHNA) and adopt an implementation strategy that meets the community health needs identified in the assessment every three years. Bristol Health has conducted previous CHNA's during the fiscal years 2013, 2016 and 2019 to identify needs and resources in the community.

Beginning in April 2022, Bristol Health undertook a comprehensive CHNA to evaluate the health needs of individuals living in the city of Bristol in Hartford County, Connecticut. The aim of the assessment is to reinforce Bristol Health's commitment to the health of residents and align its health prevention efforts with the community's greatest needs. Bristol Health contracted with Holleran Consulting, a research firm based in Wrightsville, Pennsylvania, to execute this project.

The completion of the CHNA will enable Bristol Health to take an in-depth look at its community. The findings from the assessment will be utilized by Bristol Health to prioritize public health issues and develop a community health implementation plan focused on meeting community needs. Bristol Health is committed to the people it serves and the communities where they reside. Healthy communities lead to lower health care costs, robust community partnerships, and an overall enhanced quality of life. This CHNA Final Summary Report serves as a compilation of the overall findings of each research component.

2022 CHNA Components

- Secondary Data Profile
- Key Informant Surveys
- Community Survey Interviews – data collected through the 2021 DataHaven Community Wellbeing Survey

Key Community Health Issues

Bristol Health, in conjunction with community partners, will examine the findings of the Secondary Data, Key Informant Surveys, and the Community Surveys to select Key Community Health Issues. The following issues were identified (presented in alphabetical order):

- Access to Care and Care Coordination
- Affordable Housing, Income and Poverty
- Chronic Disease Management
- Maternal and Child Health
- Mental and Behavioral Health and Substance Abuse
- Overweight/Obesity and Healthy Food Options
- Seniors' Health and Services
- Underserved Populations

Prioritized Community Health Issues

Based on feedback from community partners, including health care providers, public health experts, health and human service agencies, and other community representatives, Bristol Health plans to focus community health improvement efforts on the following health priorities over the next three-year cycle:

- Mental Behavioral Health and Substance Misuse
- Chronic Disease Management
- Access to Care and Care Coordination
- Seniors' Health and Services

Four key health issues were not selected as priorities for the following reasons.

- Maternal and Child Health – this issue will be addressed in the context of the Access to Care and Care Coordination priority
- Overweight/Obesity and Healthy Food Options – this issue will be addressed in the context of other priorities such as Chronic Disease Management. Also, this issue was addressed in the 2019 CHNA cycle and results are found in the bariatric services and pulmonary and cardiac rehab programs of Bristol Health.
- Underserved Populations – Bristol Health does not have a leading role in this health issue in the community however will participate with partners in joint efforts to impact these populations.
- Affordable Housing, Income and Poverty – Bristol Health does not have a leading role in this issue in the community but will participate with partners to provide health education that may be impactful.

Previous CHNA and Prioritized Health Issues

Bristol Health conducted a comprehensive CHNA in 2013, 2016 and 2019 to evaluate the health needs of individuals living in the city of Bristol. The purpose of the assessment was to gather information about local health needs and health behaviors. The assessment helped Bristol Health to identify health issues and develop community health implementation plans to improve the health of the surrounding community. The prioritized health issues that were originally identified in the 2013 CHNA were the continued focused in 2016.

Prioritized Health Issues in 2019:

- Mental Health and Substance/Alcohol Abuse
- Access to Care
- Overweight/Obesity
- Chronic Conditions

Prioritized Health Issues in 2013 and 2016:

- Mental Health and Substance/Alcohol Abuse
- Senior Support
- Access to Care
- Overweight/Obesity

Major Outcomes from the 2019 CHNA Priorities:

- The Bristol Health Counseling Center partnered with Bristol Health Primary Care Physicians to ensure they uphold the expectation that depression screenings are done at least annually on their patients.
- Bristol Health launched telehealth services through The Counseling Center to increase access to care for this service line.
- Integrated therapy professionals are also embedded in some Bristol Health Primary Care practices.
- The leadership of the Bristol Health Counseling Center serve on The Mayor's Opioid Task Force, The Community Care Team and City of Bristol Recovery Alliance (COBRA).
- COBRA has added multiple access points for referral to services including Bristol Health Emergency Medical Services (EMS), Bristol Police Department, Bristol Fire Department and community locations.
- Bristol Health Primary Care Physicians perform substance/alcohol screenings on their patients.

A full description of outcomes can be found in Appendix F.

Major Outcomes from the 2016 CHNA Priorities:

- Bristol Hospital opened a new Senior Behavioral Health In-patient Unit in 2018.
- The Bristol Health Counseling Center hosted a free monthly mental health and substance recovery educational series for the community from August 2017 to February 2018.
- The leadership of the Bristol Health Counseling Center were called upon to participate in the Mayor's Opioid Task Force, The Community Care Team and COBRA (City of Bristol's Recovery Alliance) and the State of Connecticut Health Partnership Oversight Council.
- The Counseling Center staff received a grant for free community programs and coordinated a QPR Suicide training.
- Bristol Health opened a new 60,000-square-foot medical office in downtown Bristol, housing an array of medical sub-specialties. 66 new providers have joined the medical staff of the Bristol Health Medical Group.
- From 2016 – 2019, the Bristol Health Public Relations Department has tripled the number of community events which offer screenings and educational outreach with more than 25,000 local resident attendees.
- The Bristol Health Medical Group's Center for Geriatric and Palliative Care —led by Dr. Margarita Reyes—offered a highly-successful dementia free education series.
- The Center for Geriatric and Palliative Care added geriatric two nurse practitioners.
- The Bristol Hospital Parent and Child Center continues its great success with obesity prevention efforts through its Family Wellness Programs.
- A video (which can be viewed at home) was produced that educates patients considering weight loss surgery about the program and the surgery options.
- The Bristol Hospital Weight Loss Surgery Program offers numerous support groups for its patients.

A full description of outcomes can be found in Appendix G.

Major Outcomes from the 2013 CHNA Priorities:

- Hosted a roundtable discussion in January 2014 with approximately 30 community leaders and stakeholders to discuss the issue of mental health and substance/alcohol abuse.
- Entered an agreement with the Wheeler Clinic in 2015 in which the Wheeler Clinic assumed responsibility for Bristol Hospital's Emergency Department Crisis Service from 8 a.m. to midnight, seven days a week, and provide immediate intervention and facilitation connections to community services and resources.
- Since 2013, Bristol Hospital and the Bristol Hospital Multi-Specialty Group have added 74 new medical staff and added 16 new medical offices throughout the community.
- Increased the number of free screenings offered throughout the community to include the senior center.
- Provided free educational seminar at senior center on topics such as dementia, living with diabetes, and nutrition and wellness.
- Since 2015, approximately 330 low-income families have participated in the Bristol Hospital Parent and Child Center Family Wellness Program's including "Gardening for Health", "Cooking Matters in the Store", and free Zumba and exercise programs.

A full description of outcomes can be found in Appendix H.

COMMUNITY HEALTH NEEDS ASSESSMENT BACKGROUND

Organization Overview

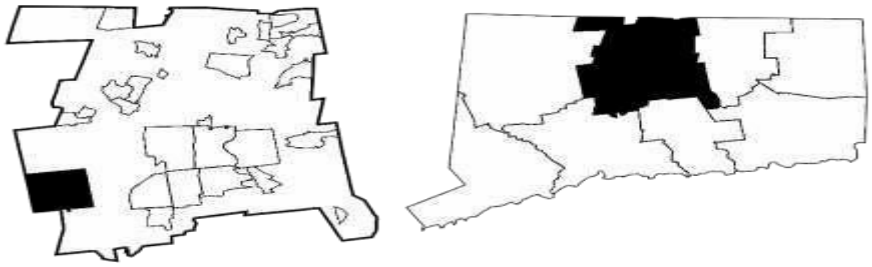
Founded in 1921, Bristol Health continues to be the leading health provider for people who live and work in the Greater Bristol area in Connecticut. Bristol Health has 154 licensed beds and offers a complete range of patient services including an emergency center that cares for more than 40,000 patients each year. Bristol Health has grown from a community hospital to an integrated network that provides a full continuum of services – both inpatient and outpatient. In 2019, Bristol Hospital and Healthcare Group became Bristol Health. The name change reflects an integrated network of providers and the full scope of care offered to the community. The organization remains committed to quality, compassionate and advanced care. Its mission "Caring today for your tomorrow" reflects this commitment. Bristol Health now has more than 20 locations throughout Central Connecticut and over 100 primary and specialty care providers. Services range from primary care to orthopedics; cardiology to physical therapy; and skilled nursing to a highly rated community hospital. It is ranked the No. 1 full-service hospital in Connecticut for preventing hospital-acquired infections.

Bristol Health offers a complete range of emergency, inpatient and outpatient services including the Beekley Center for Breast Health & Wellness, the Cancer Care Center, the Connecticut Gastrointestinal Institute, the Families Are First Birthing Center, the Center for Surgery and Endoscopy, the Sleep Center, the Wound Care Center and an Orthopedics and Joint Replacement Program. It also specializes in behavioral health, cardiac and pulmonary rehabilitation, diagnostic imaging/radiology, emergency care, and robotic surgery. Bristol Health Medical Group has physician practices located throughout the greater Bristol area including in Bristol, Burlington, New Britain, Plainville, Southington, Terryville and Wolcott.

Community Served

For purposes of this assessment, "community" is defined as the city of Bristol and geographical area in which the hospital facility is located including the community served by a hospital and those individuals residing within its hospital service area. The hospital service area is an analysis of the geographic area surrounding the hospital, which includes all residents, and does not exclude low-income or underserved individuals. For all demographic and health indicator statistics, data from the city of Bristol's geographical area were used to represent local level data unless otherwise noted. If data from the city of Bristol were not available, county level data for Hartford County was utilized.

A map of Bristol in Hartford County is shown on the left below and a map of Hartford County in the State of Connecticut is illustrated on the right.



Methodology

The CHNA was comprised of both quantitative and qualitative research components. A brief synopsis of the research components is included below with further details provided throughout the document.

- A Statistical Secondary Data Profile uses existing local-level data with state and national comparisons of demographic and health data, also known as "secondary data." The specific data sources depict population and household statistics, education and economic measures, morbidity and mortality rates, incidence rates, and other health statistics for the city of Bristol and were compiled and compared to state and national level data, where applicable. Demographic and health indicator statistics have been collated to portray the current health status of the city of Bristol. It should be noted that in some cases, local-level data may be limited or dated. This is an inherent limitation with secondary data. The most recent data were used whenever possible. When available, state and national comparisons were also provided as benchmarks for the regional statistics. National comparisons include United States data and Healthy People 2030 (HP 2030) goals when available.
- An online Key Informant Survey was conducted with 74 key informants to gather a combination of quantitative and qualitative feedback through closed and open-ended questions from June 6 to June 24, 2022. Key informants were defined as community stakeholders with expert knowledge, including public health and health care professionals, social service providers, non-profit leaders, business leaders, faith-based organizations, and other community leaders. The survey assessed key informant's views on the overall key health issues in Bristol, as well as asked questions related to health issues and barriers for people in the community, health care access, and underserved populations. The majority of key informants were affiliated with health care/public health organizations. A full list of key informants and their affiliations can be found in Appendix D.
- Community Surveys, on behalf of DataHaven, were conducted by the Siena College Research Institute (SRI) through a Community Wellbeing Survey of 9,139 randomly selected residents of the state of Connecticut, including 118 from Bristol. Surveys were conducted between June and December 2021, via landline or cell phone. Residents aged 18 and older were interviewed from all 169 towns in Connecticut and interviews were conducted in both English and Spanish. The survey assessed topics including health, employment, and neighborhood resources.

  Respondents spanned a broad range of ages, ethnicities, and socioeconomic statuses from every Connecticut zip code, and all results are based on weighting survey data to be representative of the entire adult population. The 2022 CHNA provides an overview of the analysis of the secondary data and key informant surveys, as well as the inclusion of data from DataHaven where applicable.

Research Partner

Bristol Health contracted with Holleran Consulting (Holleran), an independent research and consulting firm located in Wrightsville, Pennsylvania, to conduct research in support of the CHNA. Holleran has 30 years of experience in conducting public health research and community health assessments. The firm provided the following assistance:

- Collected and interpreted data from secondary data sources
- Collected, analyzed, and interpreted data from key informant surveys
- Analyzed and interpreted data from DataHaven Community Wellbeing Surveys
- Prepared all reports

Community Representation

Community engagement and feedback were an integral part of the CHNA process. Bristol Health sought community input through key informant surveys with community leaders and partners and will seek inclusion of community leaders in the prioritization and implementation planning process. Public health and health care professionals shared knowledge and expertise about health issues, and leaders and representatives of non-profit and community-based organizations provided insight about the community, including the medically underserved, low income, and minority populations.

Research Limitations

As with all research efforts, there are some limitations related to this study's research methods that should be acknowledged. Due to the availability of secondary data, some of the health indicator statistics represent counts or crude rates only. Crude rates are generally defined as the total number of cases or deaths divided by the total population at risk. A crude rate is generally presented as per populations of 1,000, 10,000 or 100,000 (which will be noted on each table). It is based on raw data and does not account for characteristics such as age, race, and gender.

In some instances, key informant survey participants may over or underreport behaviors and illnesses based on fear of social stigma depending on the health outcome of interest or misunderstanding the question being asked. In addition, respondents may be prone to recall bias where they may attempt to answer accurately but remember incorrectly.

In addition, timeline and other restrictions may have impacted the ability to survey all key community stakeholders. Bristol Health sought to mitigate limitations by including representatives of diverse and underserved populations throughout the research components.

Prioritization of Needs

Following the completion of the CHNA research, Bristol Health will prioritize community health issues in collaboration with community leaders and partners and developed an implementation plan to address prioritized community needs.

KEY HEALTH FINDINGS

All components of the CHNA come together to reveal a unique perspective of the health status of residents living in Bristol. A number of health issues were found in all three components and are worthy of attention by Bristol Health. The key findings represent themes which have been pulled from the Secondary Data Profile, the Key Informant Survey and the Community Survey and highlight the key takeaways that stand out across the research components, as found by the Holleran team.

It is worth noting that a very large number of key informants participated in the Key Informant Survey. The participants are from varied backgrounds, providing diverse perceptions related to key health issues, barriers, availability of resources and services, and underserved populations. Participants were effusive in their responses to the open-ended questions. This demonstrates a concern for and an active interest in the health of the community by its stakeholders. Several issues of concern were mentioned consistently including mental health and substance abuse, overweight/obesity and a lack of healthy food options, inability to meet basic needs, delayed physical and mental health care due to access issues, navigating the health care system, transportation, neighborhood safety/recreational space, and a need for increased coordination of services. These key informant perceptions seem invaluable in terms of bringing about meaningful improvements moving forward. Respondents offered positive feedback related to the work that Bristol Health is doing to improve health in the community. It is also worth noting that 88% of community members surveyed by DataHaven said the healthcare workers in Bristol are looking out for their best interests and they can trust them. Comments about these efforts follow.

Select Positive Feedback for Bristol Health:

- Bristol Health provides the highest quality care at one of the lowest costs in the state. That is a blessing in our community. The compassion and care delivered by our physicians and most notably nurses are exceptional, as it goes well beyond just the visit to the office for health screening, treatments, etc.
- Bristol Hospital does a good job in outreach.
- We have a hospital here that wants to provide high quality care, at affordable costs.
- Bristol Health, in conjunction with the City of Bristol and Bristol-Burlington Health District did an amazing job of navigating the Covid pandemic in terms of access to vaccinations, education and communications.
- BH thank you for being there for all of us!!!!
- We are extremely fortunate to have a hospital in our community…and to have the leadership at Bristol Hospital who are all truly focused on doing all they can for us. They should be getting more accolades!!!

Findings are presented alphabetically as follows. A summary of each issues follows and includes primary and secondary data as well as powerful comments by key informants and community members.

- Access to care and care coordination
- Affordable housing and poverty
- Chronic Disease Management
- Maternal and child health
- Mental and behavioral health and substance abuse

- Obesity/overweight and healthy food options
- Seniors' health and services
- Underserved populations

Access to Care and Care Coordination:

The ability to access affordable health care services is key to community health. Identifying and decreasing barriers which impede access can markedly improve the health and well-being of individuals and families. One factor in ensuring accessibility to health care and good health outcomes is whether or not families and individuals have health insurance coverage. Fortunately, a smaller percentage of Bristol residents are without health insurance (3.5%) than in the state (5.1%) and the nation (8.7%). In addition, almost half of key informants strongly agreed or agreed that there are a sufficient number of providers that accept Medicaid or Medical Assistance. Despite high levels of insurance coverage in Bristol, more than half (54.1%) of all key informants ranked access to care/uninsured as a key health issue. This is higher than 2019 when 48.9% ranked it as such.

A sufficient number of health providers such as primary care physicians and specialists is important to ensure adequate access to care in a community. Without sufficient providers, the waiting time to get an appointment may be long and some providers may not accept new patients. One respondent stated that "Patients have reported long wait times for appointments for specialty care." Accessible providers are important to ensuring the use of routine preventative health care which can produce better health outcomes. When there are insufficient providers in a community, routine, preventative health care is often delayed, increasing emergency room usage where individuals know they will receive care. In the past 12 months, 22% of Bristol community members reported postponing medical care and 14% reported not having a personal doctor or health care provider. Interestingly, 52% of community members reported having a telehealth appointment with their provider in the past 12 months and 21% reported visiting the hospital emergency room one to two times.

County Health Rankings measures the health of nearly all counties in each state for 2021. Receiving a rank of "1" is the best. Rankings are based on factors that, if improved, can help make communities healthier places to live, learn, work and play. Hartford County is ranked by County Health Rankings as 2 of 8 counties for Clinical Care which is favorable. Primary care physician, dentist and mental health provider densities in Hartford County are better than Connecticut and the National Benchmark.[1] The majority of key informants agreed that there are sufficient primary care providers in Bristol. In fact, 65% of community members have seen a dentist in the last year. While this seems positive, key informants consistently identified access to providers as a critical concern. One respondent stated, "We need easier access to specialists and mental health. Not enough providers to go around." Another said, "I do not believe that we have enough providers to care for our residents in a timely and meaningful way. There are many people who fall through the cracks." However, another individual noted some improvement. "I have seen efforts to increase access to care, i.e., more primary care providers at more accessible locations. "

[1] The National Benchmark represents counties that are in the 90th percentile of all counties.

Barriers to accessing care were identified by key informants and determined to significantly impact access to health care. These point to the need for critical resources as well as adequate coordination and dissemination of information about these resources. The most significant barrier selected by key informants is the inability to pay out of pocket expenses such as prescription costs and copays. 55.4% of key informants ranked prescription assistance as "lacking". Key informants found the ability to navigate the health care system to be the second most significant barrier. "Navigating the healthcare system is a widespread barrier for folks." "I believe those in our community that are financially distressed do not have complete information as to what medical services and options are available to them."

Accessing health care during the pandemic was particularly difficult, making a focus on general health and wellness less likely. Key informants shared concerns that the population in Bristol became more isolated as a result of Covid-19. "People started to disengage from care- stay at home- many preventive services were postponed." Also, "Folks (were) very leery on going to hospital for care."

Additionally, issues of transportation costs were highlighted. Among community members, 23% reported that they stayed home from a doctor's appointment because they did not have access to reliable transportation. **"**Transportation may be available, but it can be quite costly if not covered by a patient's insurance." One key informant had a recommendation to address this issue. "I consider accessing free transportation and prescription assistance with high-cost meds part of navigating the system as well." Technology requirements were also noted as reducing access to care. "Many individuals do not know how to utilize technology to assist to access their medical information, searching for prescriptions discounts, connect with providers, access applications to support disease management." Another pointed out that "There exists those who either do not have access to health care due to the lack of a primary care physician relationship, language barrier or social (family/friends) support group."

Positively, key informants did not identify many resources and issues as "missing' in the community. One proclaimed that there is "Wonderful collaboration between businesses and the city." It may be that resources and services are available in Bristol, yet community awareness around their availability as well as accessing them may need improving. Fifty percent of respondents stated that case management/ social services is "lacking" in Bristol. Key informants identified the need for community support services such as caseworkers to help mitigate access issues and reduce any inequity in the distribution of resources. "We need to find more ways to reach all in our community."

Key informants focused on the need to help individuals who cannot gain access to the health care system themselves. "There are a lot of resources in the community, but not enough to reach each person and assist each person individually." "I think the greatest challenge is making sure people know what resources are in the community and helping them get connected with those resources." Increased collaboration among organizations may enhance the distribution of information about resource availability and how to access these resources. Positively, one respondent mentioned, "We need to continue the good work being done by Bristol Health, the City (police department, fire department, and social services) to address substance abuse, mental health issues." Key informants made recommendations about improving the coordination of services. "Get all civic organizations, houses of

worship, health care entities involved in a coalition to advocate for care." And "(We need a) health van to go throughout the town and offer health screenings." Finally, one said, "I believe there should be a joint focus by business and city government in how they can help shape health care in our community."

Affordable Housing and Poverty:

Key demographic indicators for Bristol such as housing, income, family composition and employment are positive. In the county, these indicators portray individuals and families with sufficient financial resources, however Bristol also has high home and rent values, which create issues for those with limited means.

Housing is an important social determinant of physical and mental health. Research shows that affordable housing alleviates financial burden and makes more household resources available to pay for health care and healthy food, which lead to better health outcomes. Over one-third (36.6%) of residents in Bristol rent rather than own their homes, consistent with the percentage of renters reported in the Community Survey (33%). To assess the affordability of housing, 30% of a household's total income is considered the cut off for housing cost burdens and avoiding financial hardship. The percentage of households spending 30% or more of their income on rent in Bristol is higher (55.2%) than the state (51.4%) and the nation (49.1%). This suggests that living in the city can be costly for some residents. Renting an adequate home may be out of reach for some. Six percent of community members reported being behind in their rent payments in 2021 and 11% said that they did not have enough money to provide adequate shelter/housing for their family or themselves. Thirty-six percent of community member households surveyed said that they are "somewhat likely" to be evicted or foreclosed upon in the next two months. As it relates to homeowners, fewer households (24.5%) spend 30% or more on a mortgage.

The condition of housing stock is another important indicator and may have implications for community health. In 2021, County Health Rankings ranked the physical environment (including air pollution, drinking water and housing) for Hartford County. The county ranked 5 of 8 counties (with 1 being the best) as it relates to living conditions in the physical environment. In the county, 17% of the housing stock is noted to have severe problems and drinking water violations were found. Also, 38.6% of key informants selected "Don't Know" when describing their knowledge of housing assistance for residents of Bristol. One key informant called for "better affordable housing" for the citizens of Bristol.

Income is another important indicator of how healthy a community may be. The median income for households and families in the city of Bristol is $68,485 and $85,562 respectively. These incomes are higher in Bristol when compared to the nation ($64,994 and $80,069), but lower compared to Connecticut ($79,855 and $102,061). Fortunately, unemployment in Bristol is low (3.7%). While data on income seems positive, 9.6% of individuals in Bristol live below 100% of the poverty level. The federal poverty level represents the dollar amount below which a household has insufficient income to meet minimal basic needs. Twenty-two percent of Bristol community members said that they are "just getting by" and another 11% stated that they "find it difficult or very difficult" to manage financially these days. Key informants frequently mentioned that when individuals and families are focused on meeting their basic needs such as housing and nutrition, they are less likely to have the resources or the energy to attend to their medical needs. "Access to care is still an obstacle to care for those of less financial means."

Research demonstrates that female-headed households are much more likely to live in poverty. In Bristol, 19.6% of female-headed households (no husband present) live below the poverty level, however this is less than the state and the nation. Far fewer married couple families live below the poverty level. More households in the city of Bristol received food stamps/SNAP (supplemental nutrition assistance program)

(13.7%) in the past 12 months when compared to the state (11.6%) and the nation (11.4%). Fifteen percent of community members said that they did not have enough money to buy food and of those, 43% said it happens almost every month. Since February 2020, 22% of adult community members received groceries or meals from a food pantry, soup kitchen or other emergency food service. A key informant summed up the issue of poverty as it relates to health maintenance. "I have to assume that if people do not have their basic needs met such as food/shelter, accessing care is not a priority."

A distinction can be made between the availability of resources and their affordability. For instance, key informants agreed that medical specialty care and dental services are sufficient, however they also perceived them as unaffordable and therefore not accessed as much as possible. "High copays/deductibles (for those with high-deductible plans) are barriers to both medical care and medications." Another stated "The amount of copays are not working for some."

Chronic Disease Management:

Chronic diseases are among the leading cause of death and disability in the United States and include diseases of the heart, malignant neoplasms (cancer), chronic lower respiratory disease, diabetes and cerebrovascular diseases (stroke). The top two leading causes of death in Hartford County are heart disease and cancer (followed by accidents, chronic lower respiratory disease and stroke). Crude death rates for heart disease and cancer in the county are higher than Connecticut and the U.S. The overall

cancer mortality rate for Hartford County is 139.9, similar to the state (138.5) and much lower than the nation (152.4), but higher than the HP 2030 target (122.7). Although *mortality* rates are generally good, the age-adjusted *incidence* rate for all cancer sites in Hartford County (462.1) is higher than in the U.S. (448.6). The incidences of prostate cancer (male) and breast cancer (female) are similar or higher than the state and higher than in the nation. In addition, the incidence of sexually transmitted disease is higher in Bristol for all three types (chlamydia, gonorrhea, and syphilis) than in Connecticut (however is significantly lower than in the U.S.) This is consistent with the fact that a majority of key informants (60.7%) responded "Don't know" about the existence of sexual health care in the community. Either the unavailability or the lack of information about this resource may be directly impacting this health outcome. On a positive note, the percentage of residents receiving flu vaccinations each year is favorable (56%).

For overall Health Outcomes, Hartford County ranks 5 of 8 counties. The ranking includes an assessment of the number of years of potential life lost, which is significant in Hartford County (6,154). This compares unfavorably to the state (5,748) and the nation (5,400). Health Outcomes also measures self-assessed health status which is how an individual perceives his or her health. The gauge provides a strong predictive measure for overall health and tracks the average number of physically or mentally unhealthy days reported within the past 30 days. According to the rankings, 14% of residents in Hartford County are

in "poor or fair health" and averaged 3.4 poor health days each month. This is somewhat consistent with the DataHaven community survey results in which 76% of residents said they are in "good, very good or excellent" health (while 24% are in "fair or poor" health). According to community members, 29% have been told by a health professional that they have high blood pressure, 14% have been told they have asthma and 14% have diabetes.

Chronic disease management in the form of ongoing care, support and monitoring is imperative to healthy outcomes in a community. One indicator of the need for more ongoing care and management of chronic diseases is the number of preventable hospital stays. These are higher in Hartford County than in the state and as compared to the National Benchmark. Preventable hospital stays may be a result of a delay in seeking treatment or a lack of knowledge or understanding about the importance of managing the illness.

Social issues such as limited access or affordability may negatively impact disease management. "Many folks do not have support systems in place to ensure adequate management of chronic diseases." Key informants ranked healthy food options and home health care assistance as unaffordable resources. Nutritious eating and adequate care in the home are inaccessible to some. This may result in a lack of attention to daily medical needs, further reducing attention to chronic conditions. Key informants commented on the management of chronic diseases in Bristol. "Many people do not know how to go about accessing care. Limited health assessment leads to undiagnosed issues such as diabetes, cardiovascular disease, cancer, etc."

The pandemic is reported to have had an effect on health maintenance as "folks were leery of going to the hospital." One informant reported the following. "I have received feedback from patients that they did not physically visit a provider for an extended period of time during the pandemic. Patients have also verbalized the effects of social isolation, depression, loss of income, and an increase of high-risk behaviors as a result of the pandemic." Another key informant commented, "People started to disengage from care- stayed at home- many preventive services were postponed."

To aide in chronic disease management, many key informants called for more health education. One suggested, "A public education campaign would be helpful, featuring doctors and nurses." Others said, "Increase access to local farmers markets, increase mobile care services, redesign health education and distribution in the community." And "Mandatory health education for all students in all the schools."

Maternal and Child Health:

Maternal/infant health was selected by 12.9% of key informants as a key health issue. Addressing this issue requires a focus on fostering healthy behaviors and supportive environments to improve outcomes for mothers, infants and children. In Bristol, the live birth rate (per 1,000) for all ages is significantly lower (10.2) than in the U.S. (58.3), and only slightly higher than in Connecticut (9.7). However, for low-birth-weight births, the percent in Bristol (8.5%) is higher than Connecticut (7.6%) yet somewhat similar to the nation (8.3%).

Good birth outcomes and early identification and treatment of developmental delays can prevent death or disability and enable children to reach their full potential. Conversely, a lack of access to health care, health risk behaviors and socioeconomic and environmental conditions contribute to infant deaths and low birthweight infants. Healthy People 2030 (HP 2030) tracks measurable public health objectives that that are associated with evidence-based interventions. In 2030, the Maternal, Infant, and Child Health Leading Health objective is: Reduce the rate of infant deaths – MICH-02. The infant mortality rate in Bristol is 11.4 deaths per 1,000. This is much higher than Connecticut (4.4), the U.S. (5.7) and the HP 2030 target of 5.0. Neonatal and post-neonatal mortality rates are also higher than the state and nation. Provisional data for

2019 were released in March 2022 and reflect a decrease in the Bristol infant mortality rate to 8.2, however this is still higher than Connecticut which is 4.5 for the period. Increasing the availability and use of women's health services prior to, during and following pregnancy can lead to better overall outcomes and healthier babies and mothers.

According to the National Center for Health Statistics, births outside of marriage are often associated with disadvantages for children and their parents. Children born to unmarried parents are more likely to live in poverty and to have poor developmental outcomes. The teen birth rate (ages 15 to 19) in Bristol is 10.6 teen births per 1,000. This is higher than in the state (8.3), but much lower than the nation (17.5).

Key informants identified children/youth as an underserved population. This was selected by 19.4% of respondents. One individual commented, "Quality pediatric care in the community especially urgent care (is missing)". Also impacting family and community health is a lack of childcare which was selected by 13.7% of respondents as a barrier to receiving health care services.

Mental/Behavioral Health and Substance Abuse:

When asked to identify the key health issues facing the Bristol community, an overwhelming majority of key informants stated that Substance abuse/alcohol abuse (82.4%) is the most critical. Of all key health issues one key informant said, "Substance issues appear to be the most challenging at this time." Mental health/suicide was selected by 78.4% as the second key health issue. A majority of key informants also identified mental health and substance abuse resources as "lacking" in the community. These very high percentages speak to agreement among key informants about the most pressing issues in Bristol. "Access to mental health professionals is somewhat limited. Early recognition and treatment should be a focus for better community mental health." Also, 14% of D surveyed reported that they "rarely or never" get the support they need and 30% stated that they felt down, depressed or hopeless "several days, more than half the days or nearly every day" in the last two weeks.

Fortunately, the crude death rate by suicide (per 100,000) is 12.1 in Bristol. This is slightly lower than the target set by HP 2030 which is 12.8. The rate is also lower than in the U.S. (13.9), but similar to Connecticut. County Health Rankings found that Hartford County averaged 3.9 poor mental health days per month, slightly higher than the state and the nation. Thirty-four percent of community members reported being "somewhat, mostly or completely" anxious yesterday when surveyed.

Behavioral health risk factors such as tobacco use, physical inactivity, inadequate nutrition, unsafe sex, heavy alcohol consumption and low rates of immunizations and screenings can lead to poor health outcomes. Hartford County is ranked 5 of 8 counties (with "1" being the best) as it relates to health risk behaviors. Adult smoking, obesity (defined as BMI ≥ 30) and excessive drinking are somewhat higher than the state and the National Benchmark. Although similar to Connecticut (32%), alcohol impaired deaths in Hartford County (32%) are also significantly higher than the National Benchmark (13%). Twenty-five percent of community members report smoking "every day" and 7% have had 4 to 5 drinks on one occasion six or more times in the last 30 days. Also, 10% of community members smoked marijuana six or more days in the last month. A key informant remarked, "Opioid/fentanyl overdoses AND deaths are also on the rise." One-third of community members say that they know someone who struggled with an addiction to heroin or other opiates in the last three years. Respondents coupled the impact of Covid-19 with an increased need to address these issues. Eighteen percent of community members consumed more alcohol than usual since February 2020. "The impact of Covid seclusion and restrictions the past two years has exacerbated an already growing mental health epidemic." Luckily, one consequence of the pandemic seems to be a positive one. "There are many more options for behavioral health and substance misuse, including telehealth options where demographics no longer dictate where you can receive treatment."

On a positive note, mental health provider density is far better in Hartford County (with one provider to 187 individuals) than in Connecticut (242:1) or the U.S. (310:1). This finding seems to be in direct contrast to the high level of concern that key informants expressed when surveyed. One respondent has seen an "Increase in prevalence or severity of behavioral health needs with regard to anxiety and depression, lack of enough counselors and psychiatrists." It is possible that although there are sufficient mental health providers, some portion of the population is unable to access these counselors due to issues such as cost (or lack of insurance coverage), lack of awareness of services or the time and/or means to go to appointments. Respondents did note improvements since the survey in 2019. Some stated that more psychiatrists have been added. Another said that "Mental health and substance abuse resources have been expanded with programs and providers stepping up to meet crises as well as ongoing health maintenance needs."

When asked what is being done well in the community, participants reported that, "Bristol is a Recovery Friendly Community with programs in place to help those who are battling substance abuse through C.O.B.R.A., Wheeler Clinic services, and Bristol Health services and programs along with a few others." And "Program for substance abuse (i.e., naloxone) initiated through the ED has been helpful." However, others said they have not seen any changes to mental health/substance abuse access. One key informant noted the lack of services related to "Adolescent mental health."

Overweight/Obesity and Healthy Food Options:

Eating well and exercising are important in maintaining a healthy weight and reducing community obesity rates. They are also important in reducing preventable diseases. Key informants stated, "Obesity and poor diet are linked to many preventable diseases, including cancer." Also, "Many within the community are overweight/obese which is a huge driving cause of other diseases." The DataHaven survey found that 71% of community members have a BMI which indicates that they are overweight or obese.

The food environment index measures the proximity of one's home to a grocery store as well as food insecurity/income, both of which can impact healthy eating and weight management. A ranking of "10" on the index is the best. In Hartford County, the food environment index is 8.2, the same as Connecticut. However, this is lower than the National Benchmark of 8.7. Food insecurity refers to the lack of consistent access to enough food for an active, healthy life. Twenty-seven percent of community members responded that the availability of affordable high-quality fruits and vegetables is only "fair or poor". Thirty percent "somewhat or strongly disagree" that there are markets, banks and stores within easy walking distance of their home. A key informant mentioned how the pandemic brought to light food issues in Bristol. "COVID-19 revealed that there is a lot more food insecurity in the Bristol community than was realized before the pandemic."

Many key informants provided comments about challenges to healthy eating including a lack of education and support around nutrition, cultural norms, the high cost of food and access to fresh food. "Many are not educated on how to shop for healthy food on a budget or know how to make healthier food choices or have support to make changes". And "The cost of high-quality foods and access to food share and local farms makes eating well a challenge for folks on a limited income." The ready availability of fast-food impacts weight management and can lead to obesity. "There is a lack of affordable healthy food options, too many fast-food chains in the community, and the healthy quick/convenient places are overpriced for the majority of the community members."

A community's health and overall quality of life is also affected by Access to Exercise Opportunities. The measure, by County Health Rankings is based on the proportion of residents who live reasonably close to a physical activity location such as parks or facilities identified by the NAICS code 713940 (gyms, community centers, YMCAs, pools, etc.). In Hartford County, 97% have access to exercise opportunities. However, physical inactivity in the county is 21% which is higher than Connecticut (20%) and the nation (19%). Although there appear to be plenty of exercise opportunities, over one-fifth of residents in Hartford County are not accessing them. Almost one-third of community survey respondents do not share the opinion that there is sufficient access to exercise opportunities. Community members reported that they "somewhat or strongly disagree" that there are places to bicycle in their neighborhood that are safe from traffic (such as paths or trails). Twenty-six percent of community members responded that the condition of public parks and other recreational facilities are only fair or poor and 22% of community members strongly disagreed that there are several free or low-cost recreation facilities in their neighborhood (public parks, playgrounds and pools). In all, 30% of community members report that they do not exercise in an average week and 46% exercise less than 3 days per week.

Key informants identified some reasons for the inactivity including lack of time, lack of access and lack of safe spaces. One noted exercise as a challenge related to the "Lack of safe walking/biking/hiking trails." Thirty-eight percent of community members said that their neighborhood is safe to go walking at night. Another said, ""It's hard to expect someone working two jobs to 'exercise' and eat a perfectly manicured healthy diet." And "Although there are wonderful parks and fields in the city, many are occupied by homeless folks that can discourage others from using them. Bike routes or sidewalks are needed to access these parks."

Several other respondents were positive about improvements being made in Bristol related to these issues. One respondent said, "City Parks Department has been very aggressive in getting a message out that its programs are available to all, in your neighborhoods as well as in the parks and recreation facilities. It has encouraged more outdoor activity and well-being." Another commented, "SNAP/EBT was added to the Bristol Farmers Market for access to healthy food." Important recommendations were made about providing "Healthier and affordable food options. Create more walking trails. Create a food "farmacy" for hospital discharge patients who qualify."

Seniors' Health and Services:

According to the U.S. Census (2016 – 2020), almost a quarter (24.3%) of all residents in Bristol are over the age of 65. This is similar to Connecticut (24.0%), but higher than in the U.S. (22.3%). The percentage of 65+ householders who live alone in Bristol is 12.3%, about the same as Connecticut (12,2%) but slightly higher than the U.S. (11.3%).

In addition to the isolation and lack of social support that comes from living alone, a greater percent of seniors may be facing economic hardship. Fortunately, the poverty status of adults 65 years and over has improved since the 2019 study when it was 11.1%. In Bristol, it is now 7.9%, slightly above Connecticut (7.2%) and the nation (9.3%). However, there continues to be a notably higher proportion of households with one or more people 60 years and over receiving food stamps in Bristol (42.0%) when compared to Connecticut (39.9%), and the nation (35.5%). Additionally, there are almost 1,000 grandparents who live with their grandchildren under the age of 18 years. More than one-quarter are responsible for these grandchildren, which may worsen their economic picture. Marital status may also create financial difficulty for the older person. Research tells us that seniors who have never been married have the highest poverty rate among all age groups. This is followed by those who are divorced or widowed. A majority of Bristol residents (54.2%) are divorced, separated, widowed or never married while 45.8% are married.

Senior support was identified as a significant key health issue by 43.2% of key informants, a higher percentage than selected this issue three years ago. "The isolation that some seniors face impacts health outcomes according to some key informants. "Senior support and (being) underinsured are factors in our readmissions and barriers to timely discharge." "The need is to reach home-bound seniors even more, and offer transportation to doctors for seniors." The impact of the lack of social support and resources can be seen in mammography screenings in older woman in Hartford County. The percent of female Medicare enrollees ages 65 to 74 receiving mammography screening (48%) is lower than the National Benchmark (52%).

Key informants mentioned some improvement since the last survey was completed. "Senior Behavioral Health (was added) at the hospital (Bristol Health)." "The Senior Center has a plethora of programs to support the senior community." Yet, the sheer number of seniors requiring services is clear. "Senior support continues to require improvements due to the vast aging population." A recommendation was made related to providing "More home care services available that is affordable."

Underserved Populations:

Overall, a greater percentage of key informants (65.0%) in the 2022 survey identified the existence of underserved populations than in the 2019 survey (53.3%). In other words, key informants perceive there to be fewer resources and services reaching specific populations than there were three years ago. The identified populations include those experiencing homelessness, the uninsured/underinsured and low-income/poor. In 2022, key informants also chose seniors (36.1%) and Hispanic/Latino (27.8%) as underserved populations, more than chose these groups in 2019. The percentage of people who speak a language other than English at home in Bristol is 18.2%. Residents in Bristol who speak a language other than English at home are most likely to speak Spanish.

Key informants identified several common themes impacting these and other populations. Foremost is the mental health of individuals living in Bristol. Respondents noted that mental health and substance abuse issues seem to have been exacerbated during the pandemic, worsening in underserved populations including youth. Other underserved groups affected during the pandemic include seniors and individuals experiencing homelessness. "I do believe that the isolation (from Covid-19) has had a detrimental impact on the mental health of those most at risk in our community such as our seniors, those afflicted by substance and/or alcohol abuse, and those who live on the own (including the homeless)."

Interestingly, corporate health was identified as a "missing" resource in this survey, unlike 2019 when it was not mentioned. The pandemic seems to have had an impact on this as well. "EAP programs were a big part of corporations prior to the remote worker. Reaching the remote workforce is a challenge, especially as it continues to grow."

If the community cannot meet the demand for these services, residents may look for other ways of caring for themselves, such as seeking treatment through emergency services or self-medication. At the same time, chronic health conditions may develop and worsen and engagement in self-destructive behaviors may intensify. Several key informants identified a lack of health information as being at least partially responsible for underserved populations not receiving needed care. Inability to speak English (especially Hispanic/Latino residents) compounds this issue.

The need for outreach services was also noted by 50% of participants who chose case management services as a resource that is "lacking". "I think the greatest challenge is making sure people know what resources are in the community and helping them get connected with those resources." Also, direct contact with those who are underserved may increase the connection to critical resources. "Without one-on-one follow-up, it is hard to motivate community members to use resources."

Others shared positive comments as to what is being done well to meet the needs of the underserved populations. One respondent sees improvement in "The delivery of basic health care (wellness, Covid-19 testing and assorted vaccinations) and social service needs to our homeless and other vulnerable populations." Two others remarked about advancement in the equitable delivery of services. "There has been more recognition of the inequities." And "(There has been more) focusing on equity and equality of care with regard to people of different races, gender, sexual orientation."

Key informants had some recommendations about how to better reach these underserved populations. "Focus resources and support on those who are not able to help themselves (elderly, disabled, mentally ill, etc.)." "Direct those experiencing homelessness to a full-service program of housing, social services, vocational training, recovery and treatment services, mental health counseling and treatment and healthcare services to those enrolled."

BRISTOL HEALTH
2022 CHNA Report Card

HOLLERAN
COMMUNITY ENGAGEMENT RESEARCH & CONSULTING

DOMAIN	INDICATOR	MEASURE	BRISTOL	HARTFORD COUNTY	CONNECTI-CUT	U.S.
SOCIO-ECONOMIC FACTORS	LANGUAGE	Population 5 Years and Older who speak English less than "very well"	32.2%		36.8%	38.3%
	INCOME	Population below 100% of the poverty level	9.6%		10.0%	12.5%
		Households with Food Stamp/SNAP benefits	13.7%		11.6%	11.4%
		% of unemployed civilian labor force	3.7%		4.0%	3.4%
	EDUCATION	% of bachelor's degree or higher	26.5%		40.0%	32.9%
	AFFORDABLE HOUSING	Renter households spending more than 30% of their income on housing	55.2%		51.4%	49.1%
		Owner households spending more than 30% of their income on housing	24.5%		30.6%	27.4%
	SOCIAL SUPPORT	Non-family households	17.1%		17.3%	19.1%
		Householders living alone and 65 years and over	12.3%		12.2%	11.3%
	HEALTH CARE ACCESS	% of population without health insurance coverage	3.5%		5.1%	8.7%
		Primary care physicians to population ratio		1,031:1	1,183:1	1,050:1*
		Mental health providers to population ratio		187:1	242:1	310:1*
		Dentist to population ratio		919:1	1,139:1	1,260:1*
		Most prevalent barrier to accessing care cited by key informants: Inability to pay out of pocket expenses	68.5%			
		Most "lacking" healthcare service in the community cited by key informants: Transportation	59.6%			
		Most unaffordable health care resource/service in the community cited by key informants: Healthy food options	14.0%			
	BUILT ENVIRONMENT	Food environment index = food access and insecurity (ranking from 1 = worst to 10 = best)		8.2	8.2	8.7*
		Access to exercise opportunities		97%	94%	91%

= Areas of Greatest Strength = Areas of Moderate Need = Areas of Greatest Need

*National benchmark represents the 90th percentile, i.e., only 10% better across the nation.
**Healthy People 2030 Target

BRISTOL HEALTH
2022 CHNA Report Card

HOLLERAN
COMMUNITY ENGAGEMENT RESEARCH & CONSULTING

DOMAIN	INDICATOR	MEASURE	BRISTOL	HARTFORD COUNTY	CONNECTI-CUT	U.S.
HEALTH BEHAVIORS	PHYSICAL AND MENTAL HEALTH	Population reporting "fair" or "poor" overall health		14%	13%	12%*
		Poor physical health (average within past 30 days)		3.4	3.3	3.0*
		Poor mental health (average within past 30 days)		3.9	3.8	3.1*
		% of population with adult obesity (BMI ≥ 30)		27%	26%	26%*
		Top key health issue identified by key informants: Mental health/suicide	78.4%			
	TOBACCO USE/ SUBSTANCE USE	Adults who are current smokers		14%	13%	14%*
		Excessive drinking in adults		19%	20%	13%*
	PREVENTION	Mammography screening among female Medicare enrollees, ages 65 to 74		48%	46%	52%*
		Preventable hospital stays per 1,000 Medicare enrollees		4,201	4,041	2,765*
HEALTH OUTCOMES	CHRONIC CONDITIONS AND INFECTIOUS DISEASES	Overall cancer incidence rates per 100,000 in adults		462.1	465.1	448.6
		Incidence of chlamydia per 100,000		505.2	428.9	551.0
		Incidence of gonorrhea per 100,000		161.4	123.9	187.8
		Incidence of HIV per 100,000		9.8	7.0	13.2
		Incidence of tuberculosis per 100,000		1.3	1.9	2.7
	PREMATURE DEATH	Years of potential life lost (death before age 75) per 100,000 people		6,154	5,748	5,400*
	DEATH RATES	Overall cancer mortality rates per 100,000		139.9 122.7**	138.5	152.4
		Deaths due to intentional self-harm (suicide) per 100,000 (Age-adjusted)		12.1 12.8**	12.2	13.9
		Death by unintentional injury (accidents) per 100,000 (Age-adjusted)		44.8	58.3	52.7
		Infant mortality rate per 1,000 live births	11.4	5.0**	4.4	5.7

= Areas of Greatest Strength = Areas of Moderate Need = Areas of Greatest Need

*National benchmark represents the 90th percentile, i.e., only 10% better across the nation.
**Healthy People 2030 Target

COMMUNITY HEALTH NEEDS ASSESSMENT FINDINGS

For all demographic and health indicator statistics, data from the city of Bristol in Hartford County was incorporated as local-level data unless otherwise noted. When available, state, and national comparisons are provided as benchmarks for the regional statistics. A national comparison includes United States data, National Benchmarks from County Health Rankings and Healthy People 2030 (HP 2030) objectives when available. The primary data sources used consist of data from the U.S. Census Bureau, Centers for Disease Control and Prevention, Connecticut Department of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), and County Health Rankings.

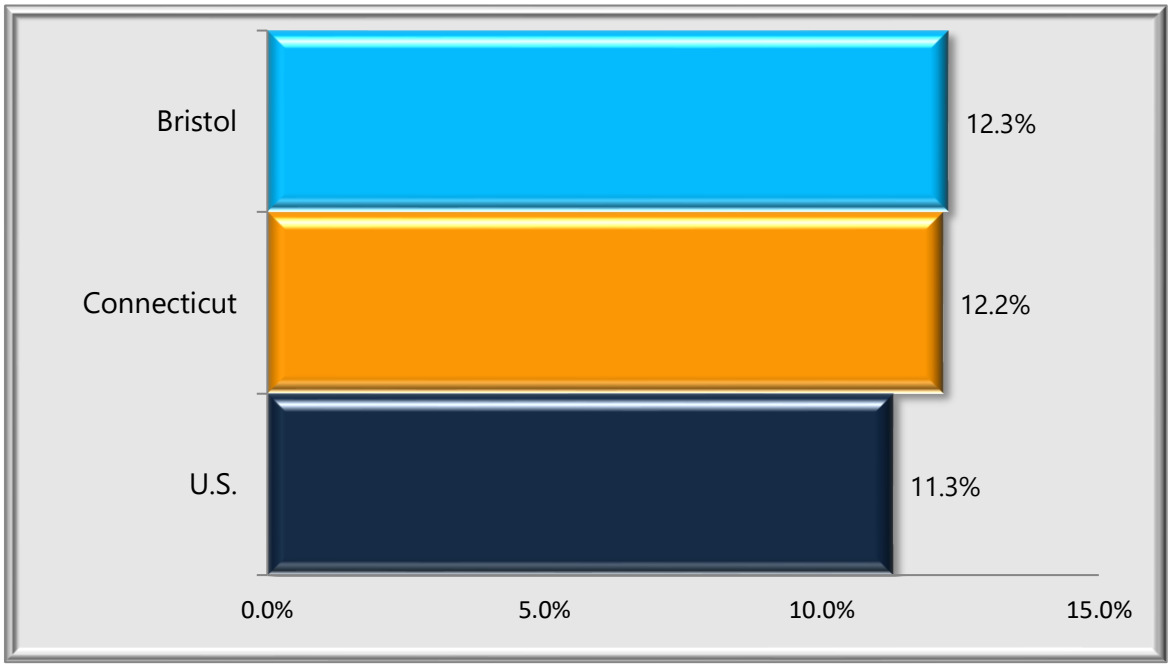
SECONDARY DATA PROFILE OVERVIEW

I. Socio-Demographic Statistics Overview

Demographics

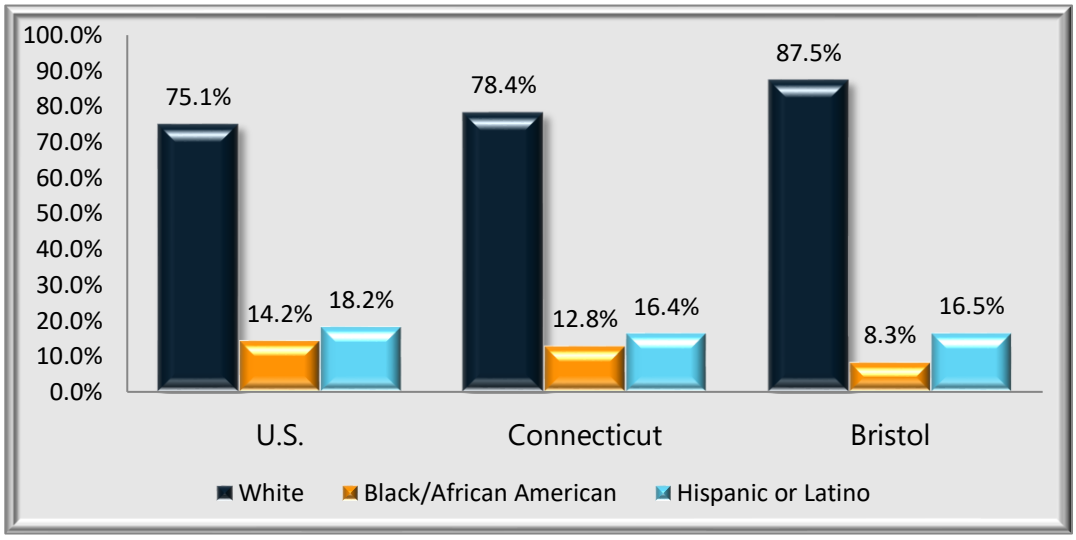
The population of the city of Bristol experienced a slight decline in population growth (-0.7%) between 2010 and 2020 5-year estimate when compared to Connecticut (0.7%) and the United States (7.4%). The city of Bristol also has a slightly older population (40.5) than in the U.S. (38.2) and slightly younger than Connecticut (41.1). A somewhat higher percent is widowed (7.1%) when compared to the state (5.7%) and nation (5.7%). Additionally, the percentage of households 65 years and older and living alone (12.3%) is similar to Connecticut (12.2%), but slightly higher than the U.S. (11.3%).

Figure 1. Householder living alone, 65 years and over (2016 – 2020)



Population in the city of Bristol is predominantly White (87.5%), which is much higher when compared to both Connecticut (78.4%) and the nation (75.1%). As well, the Black/African American population represents a smaller percentage in Bristol than in the state or nation.

Figure 2. Racial Breakdown of the Three Major Races (2016 – 2020)



Hispanic/Latino residents can be of any race, for example, White Hispanic or Black/African American Hispanic.

The percentage of people who speak a language other than English at home is lower in Bristol (18.2%) than in both the state (22.1%) and the nation (21.5%). Residents in Bristol who speak a language other than English at home are most likely to speak Spanish.

Table 1. Language Spoken at Home, 5 Years Old and Older (2016 – 2020)

	U.S.	Connecticut	Bristol
English only	78.5%	77.9%	81.8%
Language other than English	21.5%	22.1%	18.2%
Speak English less than "very well"	38.3%	36.8%	32.2%
Spanish	13.2%	11.9%	10.8%
Speak English less than "very well"	39.3%	39.8%	34.6%
Other Indo-European languages	3.7%	6.8%	5.5%
Speak English less than "very well"	30.4%	32.3%	26.9%
Asian and Pacific Islander languages	3.5%	2.3%	1.3%
Speak English less than "very well"	45.2%	39.7%	37.1%
Other languages	1.1%	1.1%	0.7%
Speak English less than "very well"	30.2%	24.5%	26.1%

Source: U.S. Census Bureau

There are almost 1,000 grandparents who live with their grandchildren under the age of 18 years. More than one-quarter (27.8%) are responsible for these grandchildren.

Table 2. Grandparents Responsible for Grandchildren (2016 – 2020)

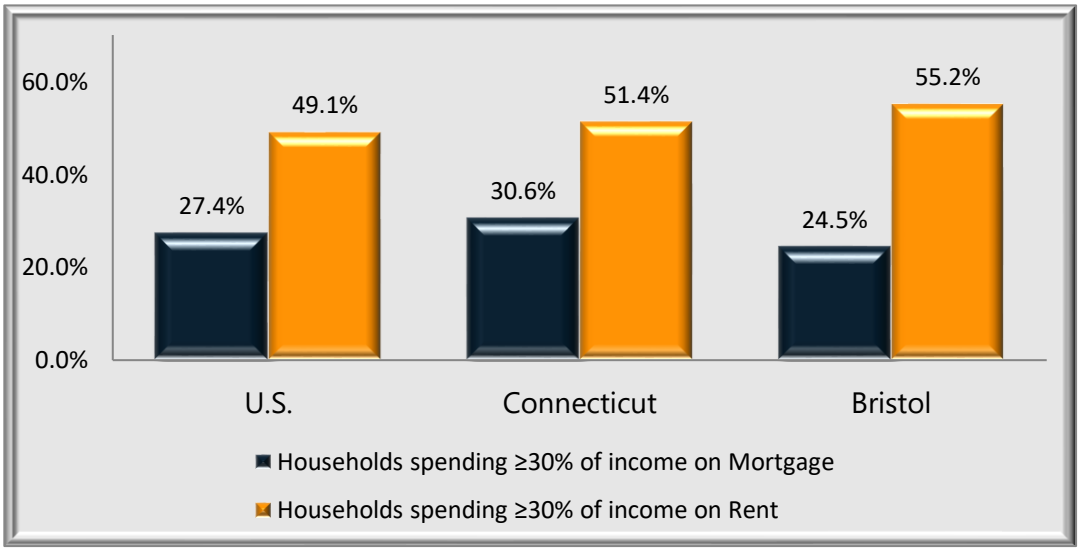
	U.S.	Connecticut	Bristol
Number of grandparents living with own grandchildren under 18 years	7,187,524	61,217	985
% of grandparents responsible for grandchildren	33.4%	28.1%	27.8%

Source: U.S. Census Bureau

Affordable Housing

A review of U.S. Census data shows specific community needs related to housing, education and poverty in Bristol. Housing is an important social determinant of physical and mental health. Research demonstrates that affordable housing alleviates financial burden and makes more household resources available to pay for health care and healthy food, which lead to better health outcomes. When looking at housing costs in the city of Bristol, the percentage of households spending 30% or more of their income on rent is higher (55.2%) than the state (51.4%) and the nation (49.1%). However, households spending 30% or more on a mortgage is lower in comparison. Thirty-percent of a household's total income is considered the cut off for housing-cost burden and avoiding financial hardship.

Figure 3. Households Spending More Than 30% of Income on Housing (2016 – 2020)



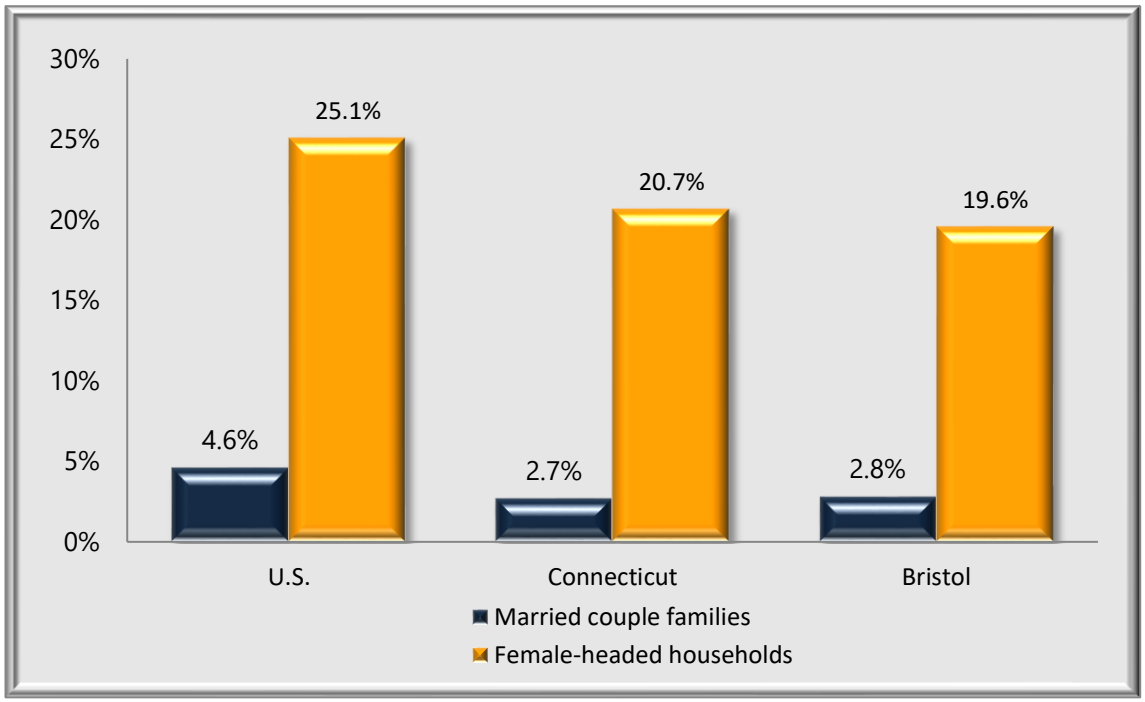
Poverty

Another contributor to health outcomes is household income, as it provides a foundation for determining the ability to afford health services. The median income for households and families in Bristol is $68,485 and $85,562 respectively. Both the median income for households and families are higher in Bristol when compared to the nation ($64,994 and $80,069 respectively), but lower compared to Connecticut ($79,855 and $102,061 respectively). Fortunately, unemployment in Bristol is low (3.7%).

Positively, the population below the poverty level in Bristol is 9.6%, lower when compared to the state (10.0%) and the nation (12.5%). The federal poverty level represents the dollar amount below which a household has insufficient income to meet minimal basic needs. Households that are below 100% of the poverty level have an income less than the amount deemed necessary to sustain basic needs.

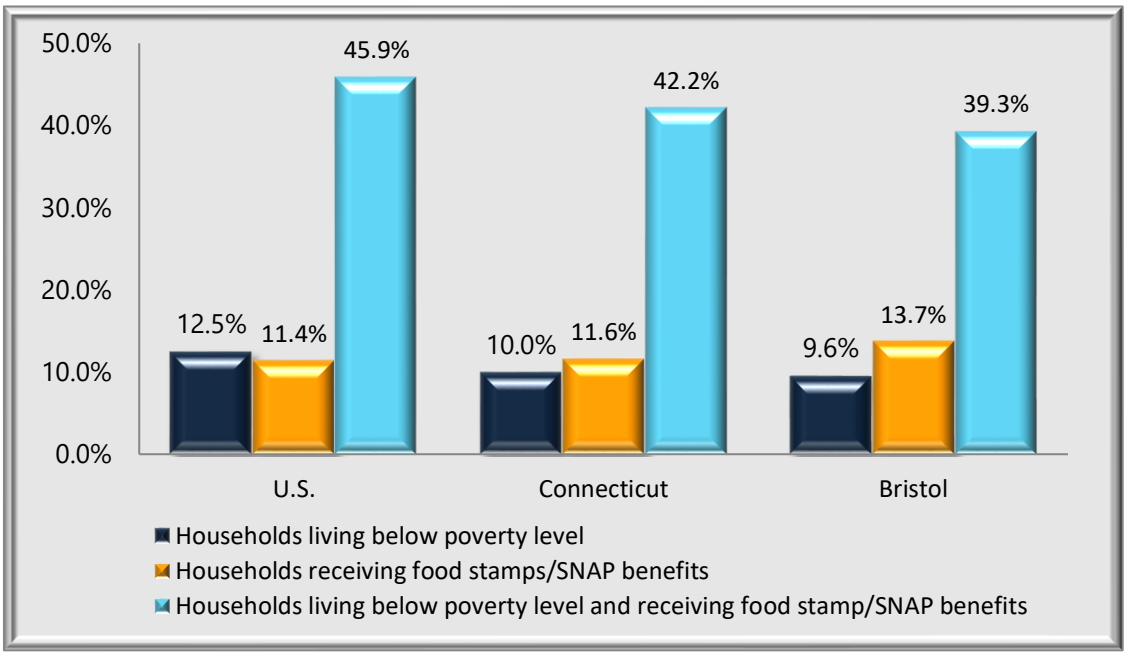
Interestingly, the poverty status of adults 65 years and over has improved since the 2019 CHNA when it was 11.1% (2013-2017 5-year estimates). Currently in Bristol, it is 7.9%, slightly above Connecticut (7.2%) and but less than in the U.S. (9.3%). 19.6% of female-headed households (no husband present) live below the poverty level, however this is less than the state and the nation. Far fewer married couple families are below the poverty level.

Figure 4. Percentage of families below the poverty level by household type (2016 – 2020)



A larger share of households in Bristol received food stamps/SNAP (supplemental nutrition assistance program) benefits (13.7%) in the past 12 months when compared to the state (11.6%) and the nation (11.4%). As there was in 2019, there continues to be a notably higher proportion of households with one or more people 60 years and over receiving food stamps in Bristol (42.0%) when compared to Connecticut (39.9%), and the U.S. (35.5%). Additionally, a lower percentage of households lives below the poverty level and receives food stamps in Bristol when compared to the state and nation.

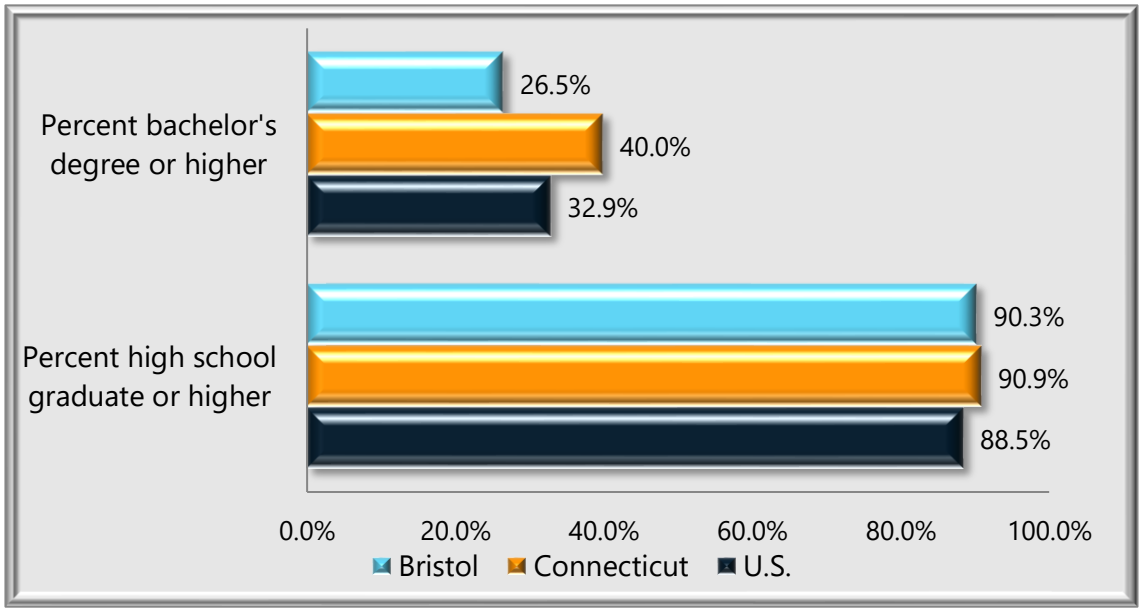
Figure 5. Households Below Poverty Level and Receiving Food Stamps (2016 – 2020)



Education

Education is an important social determinant of health. Evidence indicates that individuals who are less educated tend to have poorer health outcomes. The city of Bristol has a lower percentage of residents with a bachelor's degree or higher (26.5%) when compared to the state (40.0%) and the nation (32.9%). These figures have increased slightly for Bristol (26.4% in 2013-2017), the state (35.8% in 2013-2017) and the nation (28.2% in 2013-2017) in the years since the data was last collected.

Figure 6. Population with a high school diploma or bachelor's degree or higher (2016 – 2020)

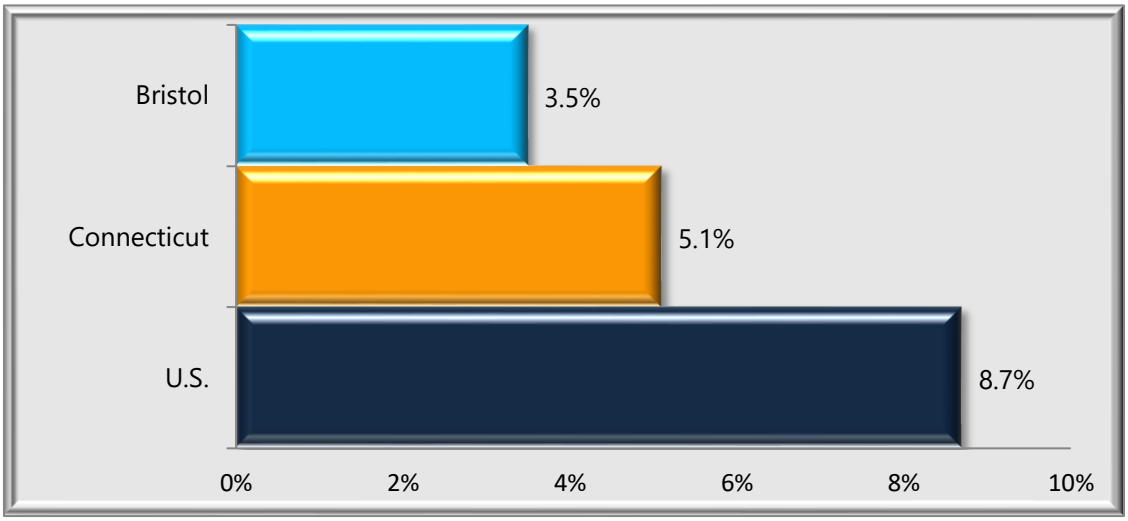


II. Health Statistics

Health Care Access

Health insurance coverage can have a significant influence on health outcomes. Fortunately, a smaller percentage of Bristol residents are without health insurance (3.5%) than in the state (5.1%) and the nation (8.7%).

Figure 7. Civilian non-institutionalized population without health insurance (2016 – 2020)



Mortality & Leading Causes of Death

The crude death rate for all leading causes of death combined per 100,000 people in Harford County is 907.0, somewhat higher than Connecticut (891.2) and the nation (869.7). In 2019, heart disease was the leading cause of death in Harford County as well as in Connecticut and the U.S. - followed by cancer. The crude death rate of heart disease and cancer are higher in the county than in both the state and the nation. Other leading causes of death including accidents, chronic lower respiratory diseases and stroke.

Table 3. Crude Death Rates by Selected Causes, All Ages per 100,000 (2019)

	U.S.	Connecticut	Hartford
Diseases of heart	200.8	201.4	231.6
Malignant neoplasms (Cancer)	182.7	181.8	198.4
Accidents	52.7	58.3	44.8
Chronic lower respiratory disease	47.8	39.9	41.2
Cerebrovascular diseases (Stroke)	45.7	38.6	35.3
Alzheimer's Disease	37.0	28.1	26.9
Diabetes mellitus	26.7	20.0	21.4
Influenza and pneumonia	15.2	18.4	16.4
Nephritis, nephrotic syndrome, and nephrosis	15.7	16.8	21.5

Source: Centers for Disease Control and Prevention (U.S. and Hartford) & Connecticut Department of Public Health (CT). Crude death rate data for Bristol is no longer collected.

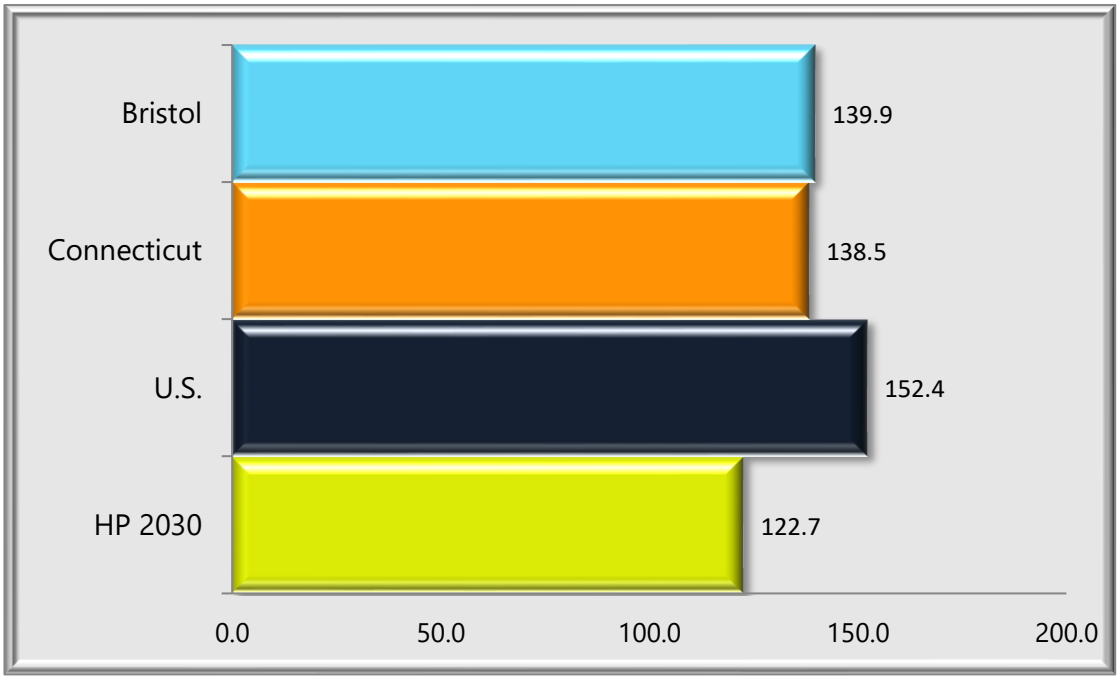
HP 2030 identified objectives for the overall cancer rate per 100,000 and several cancer sites including female breast, colorectal, lung and prostate. The overall cancer mortality rate for Hartford County is 139.9, similar to the state (138.5), much lower than the nation (152.4), but higher than the HP 2030 target (122.7). In general, this is true for identified sites as well.

Table 4. Average Annual Cancer Mortality Rates by Cancer Site, All Stages, per 100,000 (2015-2019)

	HP 2030	U.S.	Connecticut	Hartford County
Breast (female)	15.3	19.9	17.3	17.4
Colorectal	8.9	13.4	10.5	10.4
Bronchus & Lung	25.1	36.7	31.5	30.4
Prostate	16.9	18.9	18.0	19.4
All sites	**122.7**	**152.4**	**138.5**	**139.9**

Sources: Centers for Disease Control State Cancer Profiles and Healthy People 2030. Data for Bristol no longer collected.

Figure 8. Cancer mortality for all sites per 100,000 (2015 - 2019)



However, the age-adjusted *incidence* rate for all cancer sites in Hartford County (462.1) is higher than in the U.S. (448.6). The incidence of prostate cancer (male) and breast cancer (female) is similar or higher than the state and higher than in the nation.

Table 5. Age-adjusted Cancer Incidence by Site, per 100,000 (2014-2018)

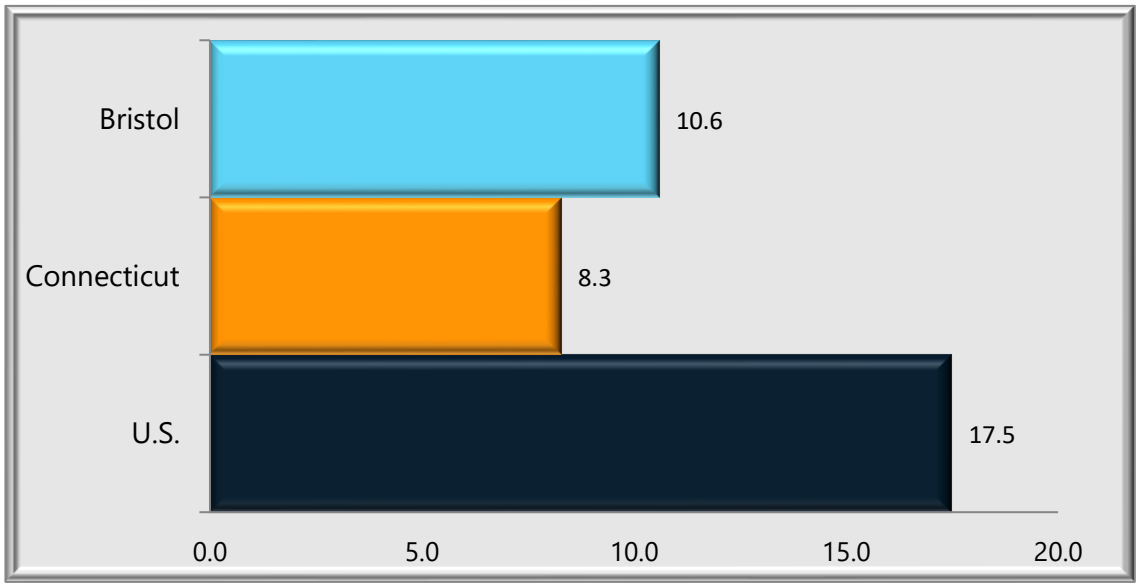
	U.S.	Connecticut	Hartford County
Breast (female)	126.8	140.2	139.5
Colorectal	38.0	35.0	37.8
Lung	57.3	57.7	56.7
Prostate (male)	106.2	114.4	125.6
All sites	**448.6**	**465.1**	**462.1**

Sources: National Cancer Institute SEER & Connecticut Department of Public Health. Data no longer collected for Bristol. *Rates based on 2010 population counts

Maternal and Child Health

The live birth rate (per 1,000) for all ages is significantly lower in Bristol (10.2) and in Connecticut (9.7) than in the U.S. (58.3). Bristol is similar to the nation in percentage of very low birth weight infants. However, Bristol has higher percentages than Connecticut of low-birth-weight births and teen births. The low-birth-weight percentage in Bristol is 8.5% while Connecticut is 7.6%. The teen birth rate (ages 15 to 19) in Bristol (10.6 per 1,000) is much higher than in the state (8.3) but much lower than in the nation as a whole (17.5).

Figure 9. Live birth rate per 1,000 for mothers 15-19 years of age (2018)



Healthy People 2030 tracks 355 measurable public health objectives that have 10-year targets and are associated with evidence-based interventions. There is one HP 2030 Maternal, Infant, and Child Health Leading Health objective: Reduce the rate of infant deaths – MICH-02. The infant mortality rate in Bristol (11.4) is much higher than Connecticut (4.4), the U.S. (5.7) and the HP 2030 target 5.0. Provisional data for 2019 was released in March 2022 and reflects a decrease in the Bristol infant mortality rate to 8.2, however this is still higher than Connecticut which is 4.5 in 2019 according to the Connecticut Department of Health.

Table 6. Infant Mortality Rate per 1,000 Live Births (2018; Provisional 2019)

	HP 2030	U.S.	Connecticut	Bristol	Connecticut Provisional	Bristol Provisional
Infant	5.0	5.7	4.4	11.4	4.5	8.2
Neonatal	--	3.8	3.2	8.2	3.0	3.3
Post-neonatal	--	1.9	0.9	3.3	1.5	4.9

Sources: Centers for Disease Control & Prevention (U.S.) & Connecticut Department of Public Health (CT & Bristol) and Healthy People 2020.

Communicable Disease

The incidence of sexually transmitted illness is higher in Bristol for all three types (chlamydia, gonorrhea and syphilis) than in Connecticut, however it is significantly lower than in the U.S.

Table 7. Sexually Transmitted Illness Incidence Rates per 100,000 (2019)

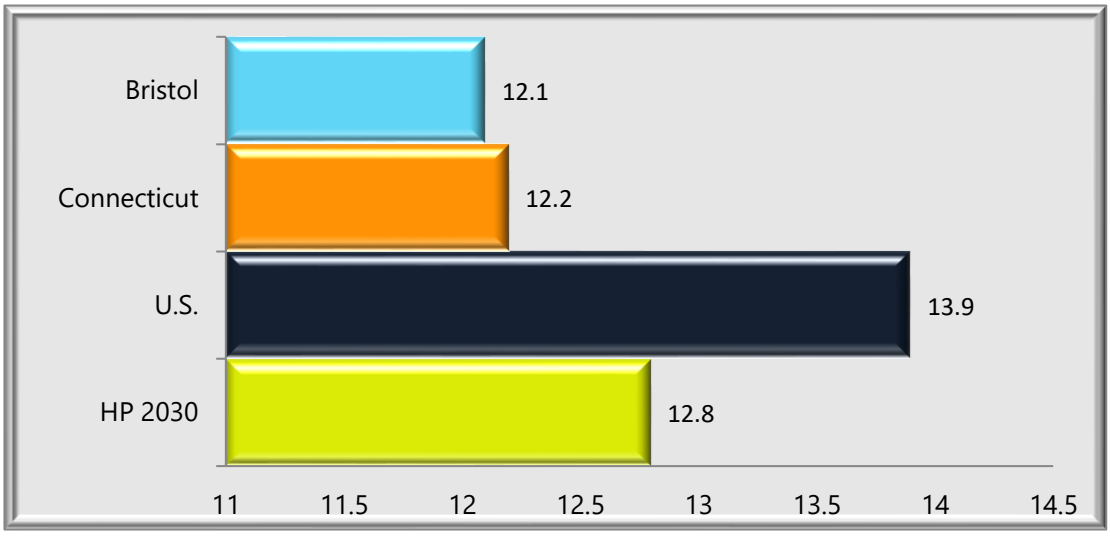
	U.S.	Connecticut	Hartford County
Chlamydia	551.0	428.9	505.2
Gonorrhea	187.8	123.9	161.4
Syphilis (primary and secondary)	11.9	5.9	6.1

Sources: Centers for Disease Control & Prevention AtlasPlus. Data for Bristol no longer collected.

Mental Health

The HP 2030 objective to reduce the rate of suicide is 12.8 per 100,000. The crude death rate by suicide per 100,000 people is 12.1 in Bristol, lower than the target set by HP 2030. The rate is lower than in the U.S. (13.9), and similar to Connecticut.

Figure 10. Crude Death Rate Due to Suicide per 100,000 (2019)



County Health Rankings

County Health Rankings measures the health of nearly all counties in each state for 2021. The rank of "1" is the best. Rankings are based on factors that, if improved, can help make communities healthier places to live, learn, work and play. For overall health outcomes, Hartford County ranks 5 of 8 counties. The ranking may be due to the measure of potential years of life lost which is 6,154 in Hartford County. In comparison the measure is 5,748 years of life lost in Connecticut and 5,400 years in the National Benchmark (which represents the 90th percentile of counties in the U.S.). Fourteen percent of residents are in "poor or fair health" in Hartford County, with somewhat higher poor physical and mental health in the past 30 days.

Table 8. Health Outcome Rankings [a] (2021)

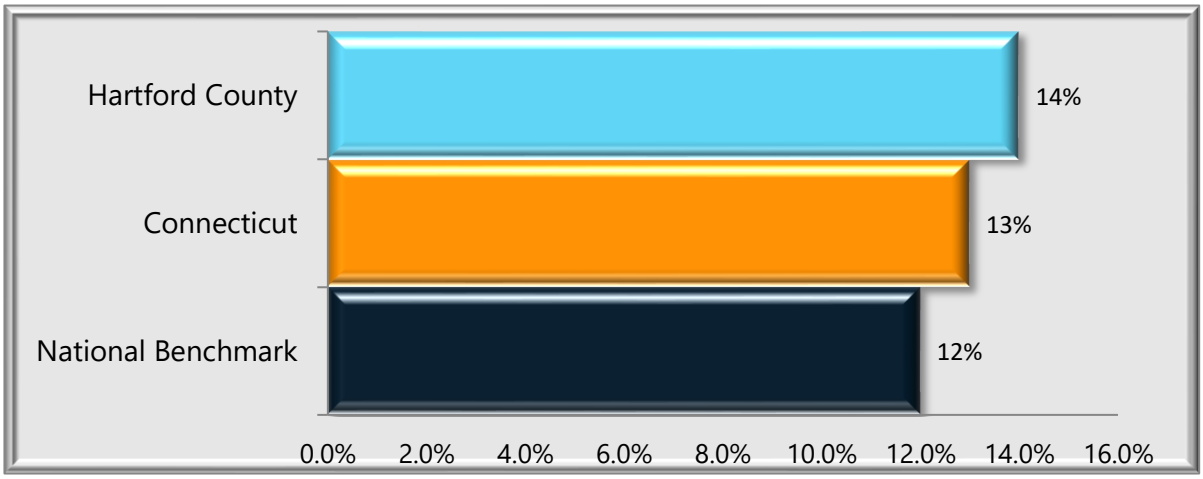
	National Benchmark[b]	Connecticut	Hartford County
Health Outcomes Rank			**5**
Length of Life Rank			**4**
Premature death (Years of potential life lost before age 75 per age-adjusted 100,000)	5,400	5,748	6,154
Quality of Life Rank			**6**
Poor or fair health	12%	13%	14%
Poor physical health in past 30 days (Average number of days)	3.0	3.3	3.4
Poor mental health in past 30 days (Average number of days)	3.1	3.8	3.9

Source: County Health Rankings

[a] Rank is based on all 8 counties within Connecticut. A ranking of "1" is considered to be the healthiest.

[b] National benchmark represents the 90th percentile, i.e., only 10% are better.

Figure 11. Percent of adult population with poor or fair health (2021)



Tobacco use, physical inactivity, inadequate nutrition, unsafe sex, heavy alcohol consumption and low rates of immunizations and screenings are all risky behaviors that can lead to poor health outcomes. Hartford County is ranked 5 of 8 counties as it relates to health risk behaviors. Adult smoking, obesity (BMI ≥ 30) and excessive drinking are each somewhat higher than the state and the National Benchmark. Although similar to Connecticut (32%), alcohol impaired deaths in Hartford County (32%) are significantly higher than the National Benchmark (13%).

Although access to exercise opportunities is 97%, physical inactivity in Hartford County (21%) is higher than Connecticut (20%) and the nation (19%). The food environment index measures both proximity to healthy food options and income and a ranking of "10" is the best. In Hartford County, the food environment index is 8.2, the same as Connecticut. However, this is lower than the National Benchmark which is 8.7.

Table 9. Health Factors and Behaviors Rankings [a] (2021)

	National Benchmark[b]	Connecticut	Hartford County
Health Factors Rank			**5**
Health Behaviors Rank			**5**
Adult smoking	14%	13%	14%
Adult obesity (BMI ≥ 30)	26%	26%	27%
Food environment index	8.7	8.2	8.2
Physical inactivity (Adults aged 20 years+)	19%	20%	21%
Access to exercise opportunities	91%	94%	97%
Excessive drinking	13%	20%	19%
Alcohol-impaired driving deaths	13%	32%	32%

Source: County Health Rankings

[a] Rank is based on all 8 counties within Connecticut. A ranking of "1" is considered to be the healthiest.

[b] National benchmark represents the 90th percentile, i.e., only 10% are better.

Hartford County is ranked 2 of 8 counties for Clinical Care. One of the factors that makes up this ranking is provider density which describes access to routine preventative health care which can produce better health outcomes. Primary care physician, dentist and mental health provider densities in Hartford County are better than Connecticut and the National Benchmark. The percentage of residents receiving flu vaccinations is also positive (56%). However, the percent of female Medicare enrollees ages 65 to 74 receiving mammography screening (48%) is lower than the National Benchmark (52%).

Preventable hospital stays, which may be an indicator of the utilization of early intervention and preventative care, are higher in the county than in the state and nation. This less-than-optimal result may be related to delays in seeking treatment or a lack of knowledge or understanding about the importance of managing chronic illness.

Table 10. Clinical Care Rankings [a] (2021)

	National Benchmark[b]	Connecticut	Hartford County
Clinical Care Rank			**2**
Primary care physician density	1,050:1	1,183:1	1,031:1
Dentist density	1,260:1	1,139:1	919:1
Mental health provider density	310:1	242:1	187:1
Preventable hospital stays per 1,000 Medicare enrollees	2,765	4,041	4,201
Flu Vaccinations	52%	56%	56%
Mammography screening among female Medicare enrollees ages 65 to 74	52%	46%	48%

Source: County Health Rankings

[a] Rank is based on all 8 counties within Connecticut. A ranking of "1" is considered to be the healthiest.

[b] National benchmark represents the 90th percentile, i.e., only 10% are better.

KEY INFORMANT SURVEY RESULTS

Participation in the key informant survey was high and demonstrates the commitment that the community has to being part of Bristol Health's endeavor to improve the health of residents and to align its health prevention efforts with the community's greatest needs. A large percentage of key informants are members of the public health and health care professions in Bristol. Others include community members and business, government and non-profit professionals. These individuals are able to lend insight, experience and knowledge to the discussion of key health issues impacting the Bristol population.

I. Key Health Issues

A. Identified Health Issues

Key informants were asked to determine the top five health issues in their community from a list of 14 focus areas identified in the survey. The majority of respondents stated that Substance misuse/alcohol misuse (82.4%), Mental health/suicide (78.4%), Access to care/uninsured (54.1%) and Overweight/obesity (54.1%) are major health issues. Cancer rounds out the top five, with 44.6% selecting this as a top health issue.

In both the 2019 key informant survey and the 2022 survey, participants selected Substance misuse/alcohol misuse and Mental health/suicide as the top 2 key health issues. However, Senior support moved up in selection in 2022, garnering 43.2% as opposed to 36.2% previously. The percentage of participants selecting heart disease is lower in 2022 (32.4%) than in 2019 when it was 38.3%.

Interestingly, 84.5% of key informants selected both Substance misuse/alcohol misuse and Mental Health/suicide in their top five health issues. This could be in relation to the co-morbidity of these disorders.

Figure 12. Ranking of key health issues in the community

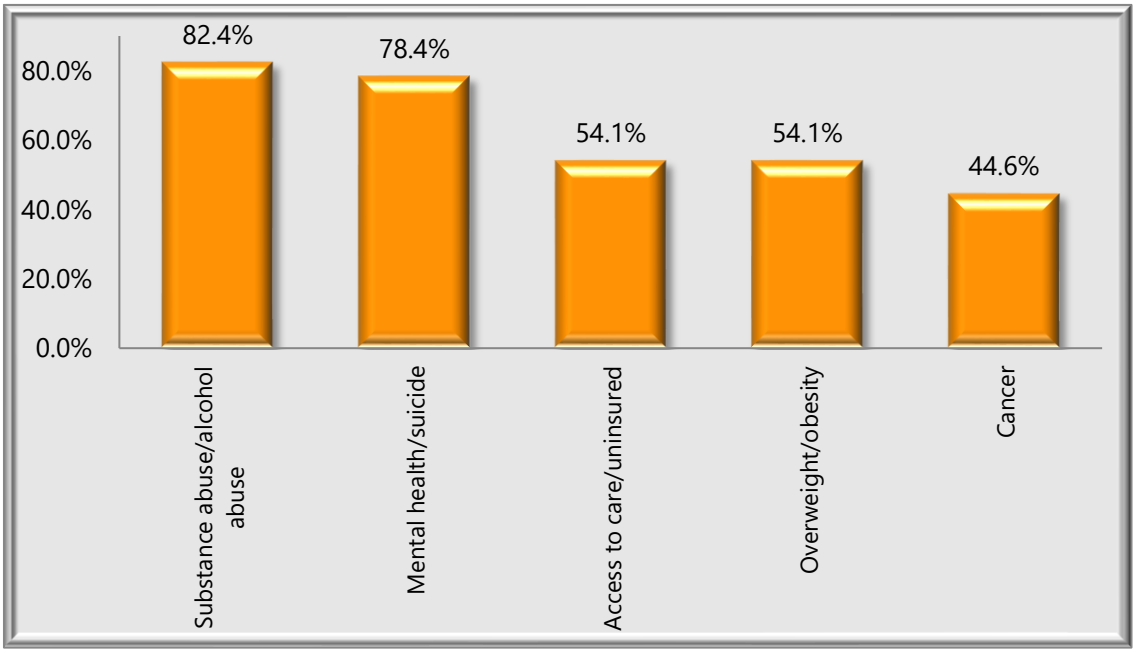


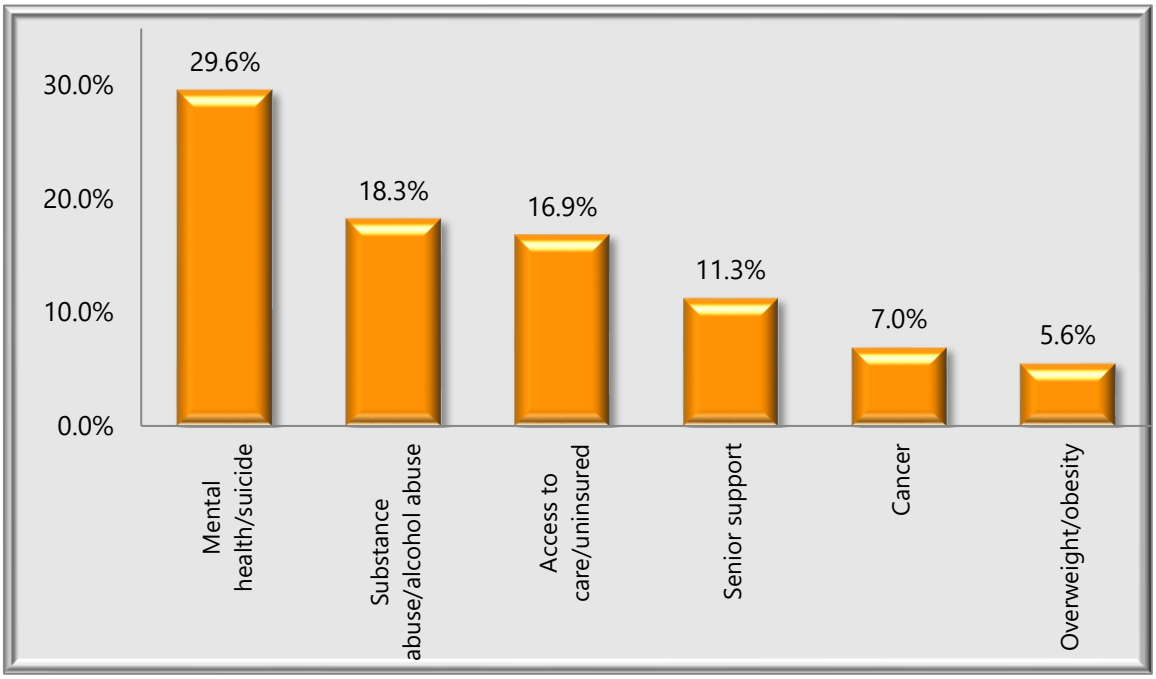
Table 11: Comparison ranking of Key Health Issues (2022 and 2019)

Key Health Issue	2022 Count	2022 Percent of respondents who selected the issue*	2019 Count	2019 Percent of respondents who selected the issue*
Substance misuse/alcohol misuse	61	82.4%	38	80.9%
Mental health/suicide	58	78.4%	35	74.5%
Access to care/uninsured	40	54.1%	23	48.9%
Overweight/obesity	40	54.1%	32	68.1%
Cancer	33	44.6%	19	40.4%
Senior support	32	43.2%	17	36.2%
Diabetes	29	39.2%	16	32.7%
Heart disease	24	32.4%	16	34.0%
Maternal/infant health	9	12.2%	8	17.0%
Dental health	8	10.8%	5	10.6%
Tobacco	8	10.8%	3	6.1%
Other	5	6.8%	4	8.5%
Stroke	4	5.4%	2	4.3%
Sexually transmitted diseases	1	1.4%	3	6.4%

*Respondents could select more than one option therefore the percentages may sum to more than 100.0%.

When asked to determine which health issue is the most significant, the highest percentage of key informants selected Mental Health/suicide (29.6%). About 18% of respondents selected Substance Misuse/Alcohol Misuse. Access to care/uninsured was the third most significant with almost 17% of key informants selecting it.

Figure 13. Ranking of most significant health issues in the community



Respondents were also asked to share information regarding these key health issues and their reasons for ranking them this way. The majority of these comments focus on mental health and substance misuse as the top key health issues. Others mentioned the uninsured, senior and pediatrics populations as well as nutrition and access to care issues. Select responses are listed below.

Select Comments Regarding Key Health Issues:

- Substance issues appear to be the most challenging at this time.
- The impact of Covid seclusion and restrictions the past two years has exacerbated an already growing mental health epidemic.
- Quality pediatric care in the community especially urgent care.
- Obesity and poor diet are linked to many preventable diseases, including cancer.
- Senior support and underinsured are factors in our readmissions and barriers to timely discharge. Many folks do not have support systems in place to ensure adequate management of chronic diseases.
- Many within the community are overweight/obese which is a huge driving cause of other diseases. Many are not educated on how to shop for healthy food on a budget or know how to make healthier food choices or have support to make changes.
- Many people do not know how to go about accessing care. Limited health assessment leads to undiagnosed issues such as diabetes, cardiovascular disease, cancer, etc.
- I actually believe that mental health and substance misuse go hand-in-hand.

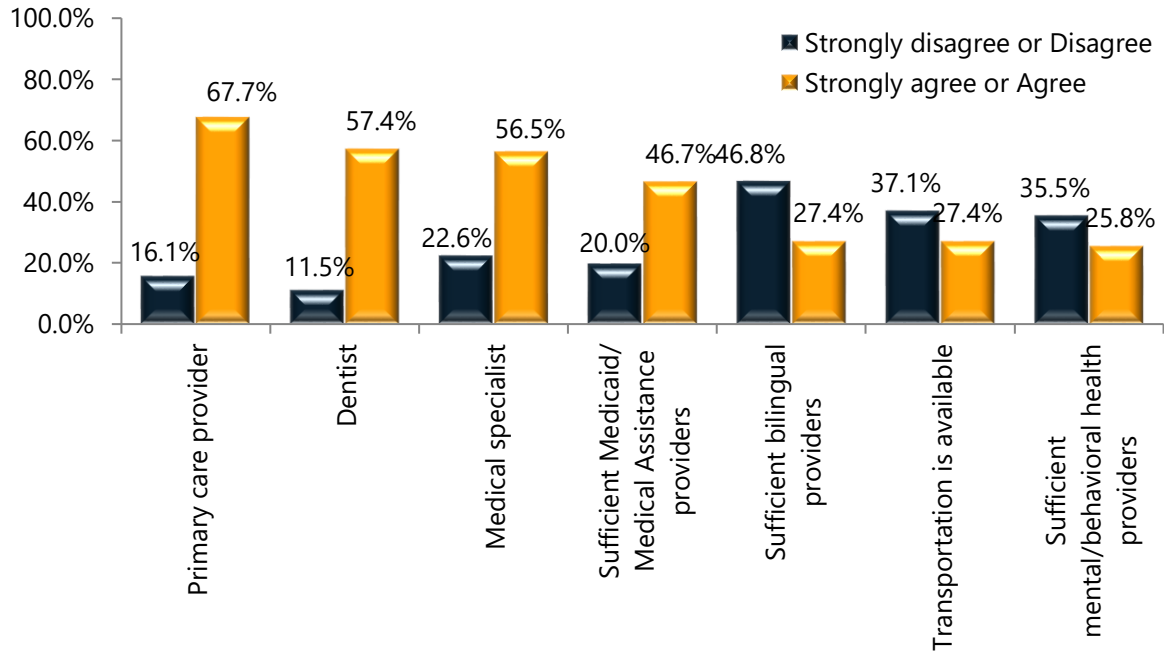
- There remains a percent of the population who still are not covered by some form of health insurance. That coupled with limits on transportation and/or (lack of) technology to set up appointments makes this an important issue.
- Opioid/fentanyl overdoses AND deaths are also on the rise.
- Access to mental health professionals is somewhat limited. Early recognition, and treatment should be a focus for better community mental health.

B. Access to Care & Barriers

The next set of questions relates to Health Care Access. Key informants were asked to rate specific statements regarding access to care on a five-point scale of Strongly Disagree to Strongly Agree. On a positive note, the majority of key informants strongly agree or agree that there are sufficient primary care providers, dentists and specialists as well as providers who accept Medicaid/Medical Assistance. However, consistent with the top key health issues findings, over one-third of respondents strongly disagree or disagree that there are sufficient mental/behavioral health providers or enough transportation or bilingual providers.

Fortunately, there are only three areas where more respondents disagreed with the statement than agreed. These are whether or not there are sufficient mental/behavioral health providers, sufficient bilingual providers, and available transportation. This is consistent with the 2019 findings, and these appear to be persistent key health issues.

Figure 14. Percentage of respondents who selected "Strongly agree" or "Agree" as compared to those who selected "Strongly disagree" or "Disagree" with the Health Care Access factors. *



*See Appendix c: Key Informant Survey Tool for full factor phrasing.

Respondents were also asked to share information regarding access to care issues in the community. Interestingly, the comments did not echo the results of the Health Care Access survey questions. There may be sufficient doctors, however, many respondents emphasized the difficulty accessing doctor's appointments, particularly specialists, due to long waiting times, insurance coverage issues or trouble navigating the system. Transportation issues were highlighted as well. Select responses are listed below.

Select Comments Regarding Access to Care Issues:

- Access to care is still an obstacle to care for those of less financial means.
- High copays/deductibles (for those with high-deductible plans) are barriers to both medical care and medications.
- Cost of transportation is prohibitive.
- I do not believe that we have enough providers to care for our residents in a timely and meaningful way. There are many people who 'fall through the cracks '.
- Not all mental health care providers accept Medicaid which is a real shame.
- Patients have reported long wait times for appointments for specialty care.
- There needs to be more transportation for anyone who needs it. Dental care is very important.
- Transportation may be available, but it can be quite costly if not covered by a patient's insurance.
- We need easier access to specialists and mental health. Not enough providers to go around.
- There exists those that either do not have access to health care due to lack of social media, marketing or tele-communications capabilities, lack of primary care physician relationship, language barrier or social (family/friends) support group.

When asked to select the barriers that most impact health care access, key informants selected the inability to pay out of pocket expenses 68.5% of the time. When asked to select one barrier as the most significant, inability to pay out of pocket expenses was once again selected as the top response (31.7%) followed by the inability to navigate the health care system (30.0%) and lack of health insurance coverage (10.0%). Transportation, which is mentioned frequently in key informant comments was selected by 42.5% as a key barrier, however not ranked as significant as other issues (3.3%).

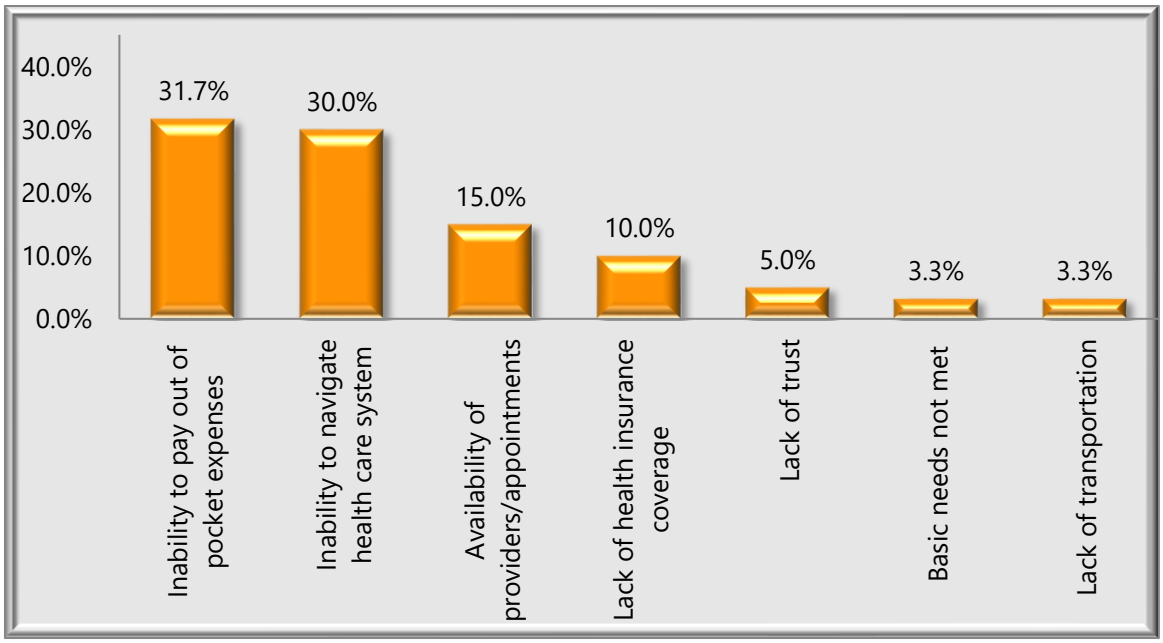
The availability of providers/appointments was chosen as a significant barrier by 15.0% of respondents. In 2019, availability of appointments was lower on the list of barriers. It is possible that the pandemic made access to providers more difficult during this 3-year study period.

Table 12: Most significant barriers selected by respondents

Key Health Barrier	Percent of respondents who selected the issue*	Percent of respondents who selected the issue as the most significant*
Inability to pay out of pocket expenses (co-pays, prescriptions, etc.)	68.5%	31.7%
Inability to navigate health care system	54.8%	30.0%
Lack of health insurance coverage	45.2%	10.0%
Lack of transportation	42.5%	3.3%
Availability of providers/appointments	39.7%	15.0%
Time limitations (long wait times, limited office hours, time off work)	37.0%	0.0%
Language/cultural barriers	27.4%	1.7%
Basic needs not met (food/shelter)	20.5%	3.3%
Lack of trust	15.1%	5.0%
Lack of childcare	13.7%	0.0%
None/no barriers	1.4%	0.0%
Other	1.4%	0.0%

*Respondents could select more than one option therefore the percentages may sum to more than 100.0%.

Figure 15. Most significant barriers keeping people in the community from accessing health care



Additionally, respondents were asked to share information regarding these barriers to health care. Navigating the health care system, the high cost of prescriptions, financial concerns, appointment waiting times and overprescribing medication were reiterated. Select responses are listed below.

Select Comments Regarding Barriers to Health Care:

- Co-pays for prescriptions are out of control!
- I have to assume that if people do not have their basic needs met such as food/shelter, accessing care is not a priority.
- I believe those in our community that are financially distressed do not have complete information as to what medical services and options are available to them.
- Issues with making with appointments.
- Navigating the healthcare system is a widespread barrier for folks. I consider accessing free transportation and prescription assistance with high-cost meds part of navigating the system as well. Many individuals do not know how to utilize technology to assist to access their medical information, searching for prescriptions discounts, connect with providers, access applications to support disease management.
- Sometimes the wait time is longer than expected. The amount of copays are not working for some.

C. Underserved Populations

Key informants were asked a series of questions related to underserved populations. More than 65.0% of key informants stated there are specific underserved populations in the community. This increased since 2019 when 53.3% identified underserved populations. The majority stated that homeless (69.4%), uninsured (52.8%) and low-income/poor (47.2%) are underserved. This is similar to those mentioned in 2019, however a larger percentage chose seniors (36.1%) and Hispanic/Latino (27.8%) in 2022.

Table 13. Underserved populations ranked by key informants who answered "Yes"*

Population	Count	Percentage of respondents*
Homeless	25	69.4%
Uninsured/underinsured	19	52.8%
Low-income/poor	17	47.2%
Seniors/aging/elderly	13	36.1%
Hispanic/Latino	10	27.8%
Disabled	9	25.0%
Black/African American	8	22.2%
Children/youth	7	19.4%
Immigrant/refugee	7	19.4%
Young adults	5	13.9%
None	0	0.0%
Other	0	0.0%

*Respondents could select more than one option; therefore, the percentages may sum to more than 100.0%.

Respondents were asked to share additional information regarding the underserved populations. They noted a lack of financial resources, communication about existing resources, a lack of urgent care for children and a lack of adolescent mental health services as important issues effecting underserved populations. Select responses are listed below.

Select Comments Regarding Underserved Populations:

- Without one-on-one follow-up, it is hard to motivate community members to use resources. We would need a health van to be driven around town to do screenings and engage community members.
- I think the greatest challenge is making sure people know what resources are in the community and helping them get connected with those resources. Access to primary care is very open- CHC (Community Health Center) has access, but people don't know about it. Specialty care and radiology services can be very expensive and not affordable to patients.
- No urgent care for pediatrics in the community.

II. Health Care Resources/Services

Respondents were asked to identify key health care services in the community as "Missing", "Lacking", "Not affordable", "Need being met", or "Don't know". By living and working in the community, key informants provide valuable, first-hand insight into the community's health care resources. A number of resources and services were selected frequently by participants as not available to some degree including transportation, access to specialists, mental health/substance misuse services and healthy food options.

Health Care Resources/Services Meeting the Need

A large majority of respondents identified emergency care, home health care services and primary care services as the top "Needs being met". This is similar to the result in 2019. However, less than half (45.6%) perceived that the need is being met for specialty care services, preventative health screenings and Federally Qualified Health Centers (FQHCs). This is consistent with the earlier finding that respondents perceive there to be sufficient primary care providers, however, this is inconsistent with the finding that there are a sufficient number of medical specialists.

Table 14. Top Five Health Care Resources/Services "Being Met" in the community

Health Care Resource/Service	Count	Percentage of respondents that selected service as "Need being met"
Emergency care	45	78.9%
Home health care services	31	54.4%
Primary care services	30	52.6%
Specialty care services	26	45.6%
Preventative health screenings	25	43.9%
Federally qualified health centers (FQHCs)	24	43.6%

*Respondents could select more than one option therefore the percentages may sum to more than 100.0%.

Lacking Health Care Resources/Services

Transportation was selected by 59.6% of respondents as "Lacking" in the community. This was also identified as an access issue by key informants. In both 2022 and 2019, mental health services were the second most often selected service. Substance misuse services were selected by fewer respondents (50.9%) than those who selected mental health services (58.9%). Prescription assistance and case management/social services are new to the top 5 services identified as lacking in 2022.

Table 15. Top Five Health Care Resources/Services "Lacking" in the community

Health Care Resource/Service	Count	Percentage of respondents that selected service as "Lacking"
Transportation	34	59.6%
Mental health services	33	58.9%
Prescription assistance	31	55.4%
Substance misuse services	29	50.9%
Case management/social services	28	50.0%

Unknown Areas of Health Care Resources/Services

A majority of respondents (60.7%) are unaware or "Don't know" about the existence of sexual health care in the community. Fewer respondents (although still a concerning percentage) don't know about the availability of free/low-cost dental care, bilingual services, FQHCs, and housing assistance. This may speak to a need for more dissemination of health information and outreach in the community and greater collaboration among community partners. These responses were similar in 2019.

Table 16. Top Five Health Care Resources/Services "Don't Know" in the community

Health Care Resource/Service	Count	Percentage of respondents that selected service as "Don't know"
Sexual health care	34	60.7%
Free/low-cost dental care	25	43.9%
Bilingual services	22	40.0%
Federally qualified health centers (FQHCs)	22	40.0%
Housing assistance	22	38.6%

Unaffordable Health Care Resources/Services

A smaller percentage of key informants identified unaffordable health care resources and services in the community in comparison to the categories discussed above. Healthy food options were selected by the highest percentage of key informants (14.0%) as unaffordable followed closely by home health care services (12.3%). Free and low cost medical and dental care were also chosen however, it is not clear whether these are considered unaffordable despite being free or low cost or if respondents are

commenting generally about the high cost of medical and dental care. Specialty services, although found to be sufficient earlier in this report, are identified as too expensive by 7.0% of respondents.

Table 17. Top Five Health Care Resources/Services "Not Affordable" in the community

Health Care Resource/Service	Count	Percentage of respondents that selected service as "Not affordable"
Healthy food options	8	14.0%
Home health care services	7	12.3%
Emergency care	5	8.8%
Free/low-cost medical care	4	7.1%
Free/low-cost dental care	4	7.0%
Specialty care services	4	7.0%

Missing Health Care Resources/Services

More respondents are likely to identify a resource or service as "Lacking" rather than "Missing". At the top of the list as "Missing" is corporate health screening and education programs, chosen by 7.3%. Healthy food options (noted as unaffordable by 14.0%) were found missing by 7.0%. Mental health and substance misuse, free and low cost medical and dental care and transportation are once again chosen. In 2022, corporate health screenings/education programs moved to the top of the list.

Table 18. Top Five Health Care Resources/Services "Missing" in the community

Health Care Resource/Service	Count	Percentage of respondents that selected service as "Missing"
Corporate health screenings/education programs (on-site for	4	7.3%
Healthy food options	4	7.0%
Substance misuse services	3	5.3%
Free/low-cost dental care	3	5.3%
Mental health services	2	3.6%
Free/low-cost medical care	2	3.6%
Transportation	2	3.6%

Respondents were asked to share additional information regarding the need and accessibility of health care resources and services in the community. Only a few participants responded, discussing unhealthy food choices as well as employee assistance programs. These responses are provided below.

Select Comments Regarding the Need and Accessibility of Health Care Resources:

- There is a lack of affordable healthy food options, too many fast-food chains in the community, and the healthy quick/convenient places are overpriced for the majority of the community members.
- There are a lot of resources in the community, but not enough to reach each person and assist each person individually.
- EAP programs were a big part of corporations prior to the remote worker. Reaching the remote workforce is a challenge, especially as it continues to grow.

III. Open-Ended Comments

Finally, key informants were given the opportunity to provide additional feedback in the form of open-ended comment fields. Many respondents took this chance to voice their concerns, while also providing valuable information and insights into the community that they serve. They also offered positive feedback related to the work that Bristol Health is doing to improve health in the community. Comments related to the work of Bristol Health follow.

Select Comments about the Work of Bristol Health:

- Bristol Health provides the highest quality care at one of the lowest costs in the state. That is a blessing in our community. The compassion and care delivered by our physicians and most notably nurses is exceptional, as it goes well beyond just the visit to the office for health screening, treatments, etc.
- Bristol Hospital does a good job in outreach.
- We have a hospital here that wants to provide high quality care, at affordable costs.
- Bristol Health, in conjunction with the City of Bristol and Bristol-Burlington Health District did an amazing job of navigating the Covid pandemic in terms of access to vaccinations, education and communications.
- BH thank you for being there for all of us!!!!
- We are extremely fortunate to have a hospital in our community...and to have the leadership at Bristol Hospital who are all truly focused on doing all they can for us. They should be getting more accolades!!!

Key informants were asked, "What challenges do people in the community face in trying to maintain healthy lifestyles like exercising, eating healthy and/or trying to manage chronic conditions like diabetes or heart disease?" A large number of comments were received, and an overwhelming majority described the difficulty of eating healthy foods in the face of the rising cost of food, a lack of education around eating nutritiously and access to safe exercise space.

Select Comments Regarding Challenges for People in the Community Trying to Maintain a Healthy Lifestyle:

- Affordable food, medications, and motivational supports.
- We need to find more ways to reach all in our community.
- Cost and availability of healthy, culturally diverse, food options.
- Cost and lack of transportation make it difficult to make healthy food choices.
- Education and knowledge.
- Exercise - Lack of safe walking/biking/hiking trails.
- It's hard to expect someone working 2 jobs to 'exercise' and eat a perfectly manicured healthy diet.
- Lack of awareness to long term effects of bad choices. Culture encourages obesity and alcoholism.
- Lack of support, too many fast-food, low-quality food options, unhealthy portion sizes.
- Not enough healthy food restaurants or education on foods to eat versus foods to stay away from as well as the benefits of different healthy foods.
- The cost of high-quality foods and access to food share and local farms makes eating well a challenge for folks on a limited income. There is also easy access to a large number of fast food and package stores in urban communities.
- Although there are wonderful parks and fields in the city, many are occupied by homeless folks that can discourage others from using them. Bike routes or sidewalks are needed to access these parks.

Next, key informants were asked, "In your opinion, what is being done well in the community in terms of health and quality of life?" Several noted increased collaborations among community agencies, municipal departments and health care organizations which is leading to health improvements. Increased communication around health information and programming through social media is also noted.

Select Comments Regarding What is Being Done Well in the Community:

- City Parks Department has been very aggressive in getting message out that its programs are available to all, in your neighborhoods as well as in the parks and recreation facilities. It has encouraged more outdoor activity and well-being.
- Community support of non-profits whose mission it is to serve the health needs of the community.
- Focusing on equity and equality of care with regard to people of different races, gender, sexual orientation.
- Providing health related information through various social mediums.
- Health department is accessible, Bristol Cares group, library is a great resource, good programs for homeless, CHC.
- Marketing including strong social media presence of some of the services and community outreach events.
- Outreach and education and ER support.
- Programs that are offered at Bristol Health (education).
- Public transportation. Plenty of urgent care. Dental.
- Telehealth during COVID.
- The delivery of basic healthcare (wellness, COVID-19 testing and assorted vaccinations) and social

service needs to our homeless and other vulnerable populations.
- SNAP/EBT added to the Bristol Farmers Market for access to healthy food. Bristol is a Recovery Friendly Community with programs in place to help those who are battling substance misuse through C.O.B.R.A., Wheeler Clinic services, and Bristol Health services and programs along with a few others.
- There are plenty of walk-in medical centers.
- There has been more recognition of the inequities.
- Wonderful collaboration between businesses and the city.

Key informants were then asked, "What recommendations or suggestions do you have to improve health and quality of life in the community?" Respondents call for ways to assist residents to have their basic needs met. Several suggestions involve creating community partnerships to reach more needy individuals as well as to bring resources where those who need them are living.

Select Comments Regarding Recommendations and Suggestions:

- A public education campaign would be helpful, featuring doctors and nurses.
- Better affordable housing and access to transportation to get seniors to their doctors.
- Better transportation through the entire City, not just in the downtown area.
- Continue educating and marketing to the community as to what is available. Something like the old welcome wagon that gives new arrivals information on Bristol.
- Expanding Medicaid to more people.
- Focus resources and support those who are not able to help themselves (elderly, disabled, mentally ill, etc.).
- Get all civic organizations, houses of worship, healthcare entities involved in a coalition to advocate for care.
- Health van to go throughout the town and offer health screenings. Healthier and affordable food options. Create more walking trails. Create a food "farmacy" for hospital discharge patients who qualify. More home care services available that is affordable.
- I believe there should be a joint focus by business and city government in how they can help shape health care in our community.
- Increase access to local farmers markets, increase mobile care services, redesign health education and distribution in the community.
- Mandatory health education for all students in all the schools.
- Direct those experiencing homelessness to a full-service program of housing, social services, vocational training, recovery and treatment services, mental health counseling and treatment and healthcare services to those enrolled.
- We need to continue the good work being done by Bristol Health, the City (police department, fire department, and social services) to address substance misuse, mental health issues.
- The need is to reach home-bound seniors even more and offer transportation to doctors for seniors.

A question was added in this CHNA about the effect COVID-19 had on the health needs of the community. "Did COVID-19 highlight any specific gaps/barriers in community health services?" Misinformation and confusion are mentioned as well as fear and isolation, all leading to a reduction in health care sought out and received as well as an increase in mental health issues.

Select Comments Regarding the Impact of COVID-19 on Community Health Needs:

- Allowed more telehealth which is good.
- Access to vaccinations was available to all regardless of ethnicity, financial standing, etc. I do believe that the isolation has had a detrimental impact on the mental health of those most at risk in our community such as our seniors., those afflicted by substance and/or alcohol misuse, and those who live on their own (including the homeless).
- Caused an increase in mental health issues.
- COVID-19 affected everything. The healthcare system was overloaded, and healthcare suffered.
- COVID-19 has put a strain on the mental health of the community. Efforts are focused on survival rather than thriving and maintaining a healthy lifestyle.
- COVID-19 revealed that there is a lot more food insecurity in the Bristol community than was realized before the pandemic, also the lack of accessible transportation to these services, need for more mental health services, and the need for more affordable services to the community.
- Folks very leery on going to hospital for care.
- I have received feedback from patients that they did not physically visit a provider for an extended period of time during the pandemic. Patients have also verbalized the effects of social isolation, depression, loss of income, and an increase of high-risk behaviors as a result of the pandemic.
- Increase in prevalence or severity of behavioral health needs with regard to anxiety and depression, lack of enough counselors and psychiatrists.
- It made arranging medical visits and treatment more difficult, especially for those uneasy/unfamiliar with online appointments, telemedicine chats with doctors, etc.
- Joblessness.
- Lack of housekeeping/ companion services/aides at an affordable rate.
- Loneliness.
- Patient's hesitation towards accessing healthcare due to fear, sometimes even in the setting of medical emergencies.
- People started to disengage from care- stay at home- many preventive services were postponed.

Key informants were asked to comment on any improvements they have seen in the priority health issues identified in 2019. These are

-Mental health and Substance/alcohol misuse
-Access to care
-Overweight/obesity
-Chronic conditions

Some respondents noted improvement in the expansion of mental health programs, psychiatrists, emergency room care, senior resources and treatment for obesity. However, others perceive there to be little improvement since these priorities were established. There are calls for their continued attention.

Select Comments Regarding Improvements in Priority Health Issues:

- A variety of resources and free education, training, access to meals, and exercise instruction through local VNA and senior center. Mobile care that offers communities access and free or reduced cost healthcare services.
- Added more psychiatrists. Senior Behavioral health at the hospital.
- Bristol Health has expanded and modernized the ER.
- I have seen efforts to increase ACCESS TO CARE, i.e., more primary care providers at more accessible locations. I have not seen much to address substance and alcohol misuse.
- I do not see many changes to obesity/overweight or mental health/substance/alcohol misuse access.
- Issues remain similar, although it seems that a greater number of younger people are dealing with the issues.
- Mental health and substance misuse resources have been expanded with programs and providers stepping up to meet crises as well as ongoing health maintenance needs.
- More options for obesity.
- Program for substance misuse (i.e., naloxone) initiated through the ED has been helpful. Expansion of Palliative Care program. Still need more resources regarding overweight/obesity (other than just bariatric surgery) and mental health.
- The Senior Center has a plethora of programs to support the senior community.
- There are many more options for behavioral health and substance misuse, including telehealth options where demographics no longer dictate where you can receive treatment. Senior support continues to require improvements due to the vast aging population.

Lastly, key informants were asked to provide any additional feedback that might be helpful to Bristol Health in their ongoing efforts to improve the health of the community. Select responses are provided here. Comments touched on increasing the involvement of Bristol Health in the work of its community partners, increasing its visibility, creating a "one-stop shop" with primary care, specialties and ancillary services, engaging employees in the community where they work and fostering trust.

Select General Feedback for Bristol Health:

- Strong community needs focused health care delivered in its most vulnerable areas. BH needs to become part of a network that allows it to care for this community.
- Bristol Health and its partners could be more personally visible in the community: recognizable faces, names, background information and personal touches. This might help the community choose doctors at BH first rather than others in nearby cities.
- Bristol hospital MUST market its services more. General surgery, urology services, orthopedics, breast care, plastics and GYN services. Many residents do not know all these services exist.
- Focus on centralizing care (i.e., 'one stop shop', so to speak) for patients with regard to not only various specialists and PCPs in one building (as in the MCC) but also providing adjunct services (nutritionists, therapists/behavioral health, social workers, etc.).
- In order to compete with other quickly growing health care facilities in the state, Bristol Health might consider engaging its employees more in the communities it serves.
- Increase TRUST and foster CIVIC ENGAGEMENT.

COMMUNITY HEALTH IMPLEMENTATION PLAN

Strategies to Address Community Health Needs

Bristol Health will develop an Implementation Strategy to illustrate the hospital's specific programs and resources that support ongoing efforts to address the identified community health priorities. This work is supported by community-wide efforts and leadership from the Executive Team and Board of Directors. The goal statements, suggested objectives, key indicators, intended outcomes and initiatives, and inventory of existing community assets and resources for each of the priority areas are listed below.

Bristol Health Implementation Plan

Priority Area #1: Mental and Behavioral Health and Substance Misuse

Goal	Objective	Key Indicators	Outcome Measure
Address the prevention of MBHSM	Enhance our partnerships with the community to prevent MBHSM		
Increase initiatives for early recognition	Increase outreach and education surrounding MBHSM in schools by establishing more group interventions rather than one on one and including parents		
	Increase awareness of services when children present in the ED		
	Establish a referral system in order to make appropriate referrals when necessary and a way to confirm that the referral and appointment has been made		
	Create a Bristol Health Navigator to manage the referral process and follow-through		

Note: Treatment and health equity to be addressed

Priority Area #2: Chronic Disease Management

Goal	Objective	Key Indicators	Outcome Measure
Increase the early detection of chronic diseases and provide education throughout the Bristol community	Share healthy metrics like blood pressure with patients and residents		
	Connect more residents with Primary Care Physicians at health fairs and other community outreach events		
	Provide screening services to residents in the community		
	Reach out to Municipal Employees and other large employers to educate them about Bristol Health Services		
	Create a partnership with The Health District to address heart disease, asthma and cancer diagnoses connecting them with services and departments at Bristol Health, The Health District and other community providers		
	Utilize Department of Health data to drive initiatives and outreach		

Priority Area #3: Access to Care and Care Coordination

Goal	Objective	Key Indicators	Outcome Measure
Increase education to the public about what healthcare resources are available in the community	Outreach to community residents about services and community events		
	Create a process to connect case management resources with patients		
	Increase awareness of the specialists available and their areas of expertise and credentials (update and include bios)		
	Continue to address technology challenges for patients		
	Look into hosting a local TV channel or show		
	Educate patients about insurance - coverages and how to get insurance and what they need to pay		

Goal	Objective	Key Indicators	Outcome Measure
Focus on recruitment of specialists to assure there are sufficient patient to physician ratios	Create a workgroup to identify hiring need for specialists		
Increase involvement in high school(s) to educate about birth control and pregnancy and post-partum	Establish educational sessions within the local high school(s) related to teen pregnancy prevention, birth and parenthood.		
Continue to troubleshoot transportation issues and identify alternative solutions	Share information about the bus lines available		
	Hospital staff will inquire if there is a transportation issue when making appointments		

Priority Area #4: Seniors' Health and Services

Goal	Objective	Key Indicators	Outcome Measure
Increase visibility of hospital services to seniors	Present a series of topics to seniors at the senior center and the library and share information about the hospital there or wherever seniors gather		
Identify homebound seniors and bring supportive services to them	Partner with home care agencies to provide additional resources for them to share with seniors. Can also assess the needs of seniors		
	Partner with the senior center to identify and provide support services for seniors		
Provide support to grandparents that are raising grandchildren	Identify resources available to support seniors who are parenting grandchildren in the community		
	Provide education about parenting at their stage in life		
	Collaborate with high school and Bristol Boys and Girls Clubs for respite and support		
Collaborate with existing and new senior living communities	Share information about Bristol Health resources Offer programming and services (immunizations, screenings etc.)		

Appendix A. Secondary Data Sources

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Appendix B. Secondary Data Terminology

Definitions

Age-Adjusted Rate: Age-adjustment is a statistical process applied to rates of disease, death, injuries or other health outcomes, which allows populations with different age structures to be compared.

Behavioral Risk Factor Surveillance System (BRFSS): Ongoing surveillance system with the objective to collect uniform, state-specific data from surveys on adults' health-related risk behaviors, chronic health conditions, and use of preventive services.

Crude Rate: Expresses the frequency in which a disease or condition occurs in a defined population in a specified period of time, without regard to age or sex.

Determinants of Health: The personal, social, cultural, economic and environmental factors that influence the health status of individuals or populations.

Family: Defined as a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption.

Frequency: Often denoted by the symbol "n," and referred to the number of occurrences of an event.

Health: A state of complete physical, mental, and social well-being and not just the absence of disease or infirmity.

Health Disparities: Indicate the difference in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exists among specific population groups.

Health Outcomes: A medical condition or health status that directly affects the length or quality of a person's life. These are indicators of health status, risk reduction, and quality of life enhancement.

Housing Unit: A house, an apartment, a mobile home, a group of rooms, or a single room occupied (or if vacant, intended for occupancy) as separate living quarters.

Household: All the people who occupy a housing unit, including related family members and all the unrelated people who may be residing there. Examples include college students sharing an apartment or a single male living alone.

Householder: One person in each household is designated as the householder. In most cases, the householder is the person, or one of the people, in whose name the housing unit is owned or rented (maintained). The two major categories of householders are "family" and "nonfamily."

Incidence: Refers to the number of individuals who develop a specific disease or experience a specific health-related event during a particular time period.

Infant Mortality Rate: Number of live-born infants who die before their first birthday per 1,000 live births in a given year.

Low Birth Weight (LBW): A birthweight less than 2,500 grams (5 pounds, 8 ounces).

Morbidity: Refers to the state of being diseased or unhealthy within a population.

Mortality: Number of deaths occurring in a given period in a specified population.

Neonatal Mortality Rate: Defined as the number of infant deaths from birth up to but not including 28 days of age per 1,000 live births per year.

Post-Neonatal Mortality Rate: Defined as the number of infant deaths occurring from 28 days up to but not including 1 years of age per 1,000 live births per year.

Poverty: When a person or group of individuals lack human needs because they cannot afford them. Human needs include clean water, nutrition, health care, education, clothing, and shelter.

Preterm: Births delivered less than 37 completed weeks of gestation based on obstetric estimate of gestation.

Prevalence: The total number of individuals in a population who have a disease or health condition at a specific period of time, usually expressed as a percentage of the population.

Quality of Life: Degree to which individuals perceive themselves as able to function physically, emotionally, and socially.

Rate: A measure of the intensity of the occurrence or frequency with which an event occurs in a defined population. Rates are generally expressed using a standard denominator such as per populations of 1,000, 10,000 or 100,000.

Size of Household: Includes all the people occupying a housing unit.

Size of Family: Includes the family householder and all other people in the living quarters that are related to the householder by birth, marriage, or adoption.

Socioeconomic Status (SES): A composite measure that typically incorporates economic, social, and work status. Examinations of socioeconomic status often reveal inequalities in access to resources.

Very Low Birth Weight (VLBW): Indicates a birth weight less than 1,500 grams (3 pounds, 5 ounces).

Vital Statistics: Systematically tabulated data derived from certificates and reports of births, deaths, fetal deaths, marriages, and divorces, based on the registration of these vital events.

Years of Potential Life Lost (YPLL): A measure of premature mortality or death on a population, calculated as deaths that occur before some predetermined minimum or desired life span (usually age 75, which is the average life span).

Appendix C. Key Informant Survey Tool

HOLLERAN

Community Health Needs Assessment
Key Informant Online Questionnaire

INTRODUCTION

As part of its ongoing commitment to improving the health of the communities it serves, Bristol Health is spearheading a comprehensive Community Health Needs Assessment.

You have been identified as an individual with valuable knowledge and opinions regarding community health needs, and we appreciate your willingness to participate in this survey.

The survey should take about 10 to 15 minutes to complete. Please be assured that all of your responses will go directly to our research consultant, Holleran Consulting, and will be kept strictly confidential. Please note that while your responses, including specific quotations, may be included in a report of this study, your identity will not be directly associated with any quotations.

When answering the questions, please consider the community and area of interest to be the City of Bristol.

KEY HEALTH ISSUES

1. What are the top **5** health issues you see in the community? (Choose 5)

☐ Access to care/uninsured	☐ Overweight/obesity
☐ Cancer	☐ Senior support
☐ Dental health	☐ Sexually transmitted diseases
☐ Diabetes	☐ Stroke
☐ Heart disease	☐ Substance misuse/alcohol misuse
☐ Maternal/infant health	☐ Tobacco
☐ Mental health/suicide	☐ Other (specify):

2. Of those health issues mentioned, which **1** is the most significant? (Choose 1)

☐ Access to care/uninsured	☐ Overweight/obesity
☐ Cancer	☐ Senior support
☐ Dental health	☐ Sexually transmitted diseases
☐ Diabetes	☐ Stroke
☐ Heart disease	☐ Substance misuse/alcohol misuse
☐ Maternal/infant health	☐ Tobacco
☐ Mental health/suicide	☐ Other (specify):

3. Please share any additional information regarding these health issues and your reasons for ranking them this way in the box below:

ACCESS TO CARE

4. On a scale of strongly disagree through strongly agree, please rate each of the following statements about **Health Care Access** in the area.

Strongly disagree ← → Strongly agree

Residents in the area are able to access a primary care provider when needed. (Family Doctor, Pediatrician, General Practitioner)	☐	☐	☐	☐	☐
Residents in the area are able to access a medical specialist when needed. (Cardiologist, Dermatologist, Neurologist, etc.)	☐	☐	☐	☐	☐
Residents in the area are able to access a dentist when needed.	☐	☐	☐	☐	☐
There are a sufficient number of providers accepting Medicaid and Medical Assistance in the area.	☐	☐	☐	☐	☐
There are a sufficient number of bilingual providers in the area.	☐	☐	☐	☐	☐
There are a sufficient number of mental/behavioral health providers in the area.	☐	☐	☐	☐	☐
Transportation for medical appointments is available to area residents when needed.	☐	☐	☐	☐	☐

5. Please share any additional information regarding access to care issues in your community in the box below:

6. What are the most significant barriers that keep people in the community from accessing health care when they need it? (Select all that apply)

- ☐ Availability of providers/appointments
- ☐ Basic needs not met (food/shelter)
- ☐ Inability to navigate health care system
- ☐ Inability to pay out of pocket expenses (co-pays, prescriptions, etc.)
- ☐ Lack of childcare

☐	Lack of health insurance coverage
☐	Lack of transportation
☐	Lack of trust
☐	Language/cultural barriers
☐	Time limitations (long wait times, limited office hours, time off work)
☐	None/no barriers
☐	Other (specify):

7. Of those barriers mentioned, which **1** is the most significant? (Choose 1)

☐	Availability of providers/appointments
☐	Basic needs not met (food/shelter)
☐	Inability to navigate health care system
☐	Inability to pay out of pocket expenses (co-pays, prescriptions, etc.)
☐	Lack of childcare
☐	Lack of health insurance coverage
☐	Lack of transportation
☐	Lack of trust
☐	Language/cultural barriers
☐	Time limitations (long wait times, limited office hours, time off work)
☐	None/no barriers
☐	Other (specify):

8. Please share any additional information regarding barriers to health care in the box below:

9. For each **Healthcare Resource/Service** listed, please select whether you think it is missing (not available), lacking (available but not enough to meet needs) or not affordable (price may be a barrier in accessing service) within the community. If you think the service is available and affordable, please select the need being met.

Healthcare Resources/Services	Missing	Lacking	Not Affordable	Need Being Met	Don't Know
Advocacy for social needs (food security, housing, education, employment, etc.)					
Bilingual services					
Case management/social services					
Corporate health screenings/education programs (on-site for employees)					
Emergency care					
Federally qualified health centers (FQHCs)					
Food distribution					
Free/low-cost dental care					
Free/low-cost medical care					
Health education/information/outreach					
Healthy food options					
Home health care services					
Housing assistance					
Prescription assistance					
Mental health services					
Multicultural/bilingual healthcare providers					
Preventive health screenings (blood pressure, diabetes, stroke, etc.)					
Primary care services					
Specialty care services (cardiologist, neurologists, etc.)					
Substance misuse services					
Support group services					
Senior support					
Sexual health care					
Transportation					

10. Please share any additional information regarding the need and accessibility of healthcare resources and/or services for individuals living in the community in the box below:

11. Are there specific populations in this community that you think are not being adequately served by local health services?

- ☐ Yes
- ☐ No

12. **If yes**, Which populations are underserved? (Select all that apply)

☐	Black/African American
☐	Children/youth
☐	Disabled
☐	Hispanic/Latino
☐	Homeless
☐	Immigrant/refugee
☐	Low-income/poor
☐	Seniors/aging/elderly
☐	Uninsured/underinsured
☐	Young adults
☐	None
☐	Other (specify):

13. Please share any additional information regarding underserved populations in the box below:

CHALLENGES & SOLUTIONS

14. What challenges do people in the community face in trying to maintain healthy lifestyles like exercising and eating healthy and/or trying to manage chronic conditions like diabetes or heart disease?

15. What effect has COVID-19 had on the health needs of the community? Did COVID-19 highlight any specific gaps/barriers in community health services?

16. In your opinion, what is being done ***well*** in the community in terms of health and quality of life? (Community Assets/Strengths/Successes)

17. What recommendations or suggestions do you have to improve health and quality of life in the community?

18. In 2019, Bristol Health and its partners identified the following areas as priorities:

-Mental Health and Substance/Alcohol Misuse
-Access to Care
-Overweight/Obesity
-Chronic Conditions

In your community, what changes have you seen in these areas since 2019?

DEMOGRAPHICS

19. Which one of these categories would you say **BEST** represents your community affiliation? (Choose 1)

☐ Business sector
☐ Community member
☐ Education/youth services
☐ Faith-based/cultural organization
☐ Government/housing/transportation sector
☐ Health care/public health organization
☐ Mental/behavioral health organization
☐ Non-profit/social services/aging services
☐ Other (specify):

CLOSING

20. Bristol Health and its partners will use the information gathered through this survey in guiding their community health improvement activities. Please share any other feedback you may have for them below:

Thank you! That concludes the survey.

Appendix D. Key Informant Participants

Name	Agency
Michael Adams	Bristol Health Board of Directors
Dr. Cathryn Addy	Bristol Health Board of Directors
Tim Ajayi	Bristol Health
Richard Alden	Bristol Health Corporator
Michael Aldieri	Bristol Health Corporator
Louis Auletta	Bristol Health Board of Directors
Thomas Barnes	Bristol Health Board of Directors
Patricia Bentley	Bristol NAACP
Christina Benvenuto	Bristol Health
Dr. Liran Blum	Bristol Health Board of Directors
Bob Boudreau	Bristol Health Corporator
Nancy Brault	Bristol Health Corporator
Traci Brown	Bristol Health
Lisa Casey	Bristol Health Board of Directors
Caren Chalfant	Bristol Health
Rebecca Colasanto	Bristol Health
Barbara Coleman-Hekeler	Southington Chamber of Commerce
Dr. Mary Ann Cordeau	Bristol Health Board of Directors
Katie D'Agostino	Central Connecticut Chambers of Commerce
Brian Dehm	Bristol Health Corporator
Lisa DeMelis	Bristol Health
Douglas Devnew	Bristol Health Board of Directors
Dr. Dennis Ferguson	Bristol Health Corporator
Brian Gould	City of Bristol
Michael Heimbach	Bristol Health Board of Directors
Glenn Heiser	Bristol Health Board of Directors
Andrew Howe	City of Bristol
Fawaad Kazi	Bristol Health
Jason Kruger	Bristol Senior Center
John Lodovico	Tunxis Community College
Jolene Lusitani	City of Bristol
Chris Ann Meaney	Bristol Health
Dawn Nielson	City of Bristol
Marie O'Brien	Bristol Health Corporator
Nancy O'Donnell	Central Connecticut Chambers of Commerce
Jacqueline Olsen	City of Bristol
Marco Palmeri	Bristol/Burlington Health District
Rep. Dr. William Petit	Connecticut General Assembly

Name	Agency
David Preleski	Bristol Health Corporator
Dr. Margarita Reyes	Bristol Health
Jessica Richardson	Bristol Health
Karen Roy	Bristol Health
Barry Simon	
Alexis Steele	Bristol-Burlington Health District
Amy Taylor	CHC
Cheryl Thibeault	City of Bristol
William Waseleski	Central Connecticut Chambers of Commerce
Ellen Zoppo-Sassu	City of Bristol

Appendix E. 2022 Prioritization Session (Board Meeting) and Implementation Plan Session Attendees

CHNA Board Meeting Attendance:

- Ysmael Albert Peguero, Director Strategy and Business Development
- Kaitlyn Pratt, Associate Director Foundation and Public Relations
- Nancy LaMonica, VP and Chief Nursing Officer
- Ed Henry, VP Ambulatory Services, Executive Director of Bristol Health Medical Group
- Chris Ann Meaney, SVP Chief Operating Officer, President of Bristol Health Medical Group
- Jennifer McCallister, Bristol Health Board of Directors
- Jarre Betts, Bristol Health Board of Directors
- Glenn Heiser, Bristol Health Board of Directors
- Tim Ajayi, VP and Chief Finance Officer
- Michele Normandin, President of Bristol Health Medical Staff
- Yong-Sung Chyun, Bristol Health Board of Directors
- Mike Heimbach, Bristol Health Board of Directors
- Katarzyna Lessard, Bristol Health Board of Directors
- Christine Laprise, VP Operations
- John Lodovico, Bristol Health Board of Directors Chair
- Irene Bassock, Bristol Health Board of Directors

CHNA Implementation Meeting Attendance:

- Ysmael Albert Peguero, Director Strategy and Business Development
- Kaitlyn Pratt, Associate Director Foundation and Public Relations
- Laura Libby, Strategic Planning Specialist
- Taylor Pollock, Marketing and Creative Manager
- Lisa Coates, Director of Practice Administration for Bristol Health Medical Group
- Rebecca Colasanto, System Director of Behavioral Health
- Andrew Lim, Medical Director of Bristol Health Medical Group
- Nancy LaMonica, VP Chief Nursing Officer
- Ed Henry, VP Ambulatory Services, Executive Director of Bristol Health Medical Group
- Chris Ann Meaney, SVP Chief Operating Officer, President of Bristol Health Medical Group
- Christine Laprise, VP Operations
- Andy Adams, Patient Experience and Customer Relations Supervisor
- Theresa Sprague, Manager Patient Access
- Nnamdi Ezebube, System Director of Finance
- Chief Brian Gould (Bristol Police Department)
- Deputy Chief Mark Morello (Bristol Police Department)
- Deputy Chief Matthew Mozkowicz (Bristol Police Department)
- Marco Palmeri, Director of Health for Bristol Burlington Health District
- Sabrina Trocchi, President and CEO Wheeler Clinic

Appendix F. 2019 Implementation Strategy Outcomes

2019 Implementation Strategy Outcomes

Mental Health

Bristol Health has continued work on its 2019 goal of improving mental health to protect the health, safety and quality of life of Bristol residents. The Bristol Health Counseling Center partnered with Bristol Health Primary Care Physicians to ensure they uphold the expectation that depression screenings are done at least annually on their patients. Kate Maldonado, Bristol Health Medical Group Director of Quality, reports a snapshot of the data received through these depression screenings as part of Bristol Health's Patient-Centered Medical Home (PCMH) applications. Integrated therapy professionals are also embedded in some Bristol Health Primary Care practices. Bristol Health has also launched telehealth services through The Counseling Center to increase access to care for this service line.

Substance Abuse/Alcohol Abuse

The leadership of the Bristol Health Counseling Center serve on and lead numerous committees that address mental health and substance misuse issues in the Bristol community. These include:

- The Mayor's Opioid Task Force
- The Community Care Team which addresses issues and options for patients who frequent the Emergency Department at Bristol Hospital.
- City of Bristol's Recovery Alliance (COBRA) which is a collaboration between Bristol Health, the Bristol/Burlington Health District and numerous local agencies.

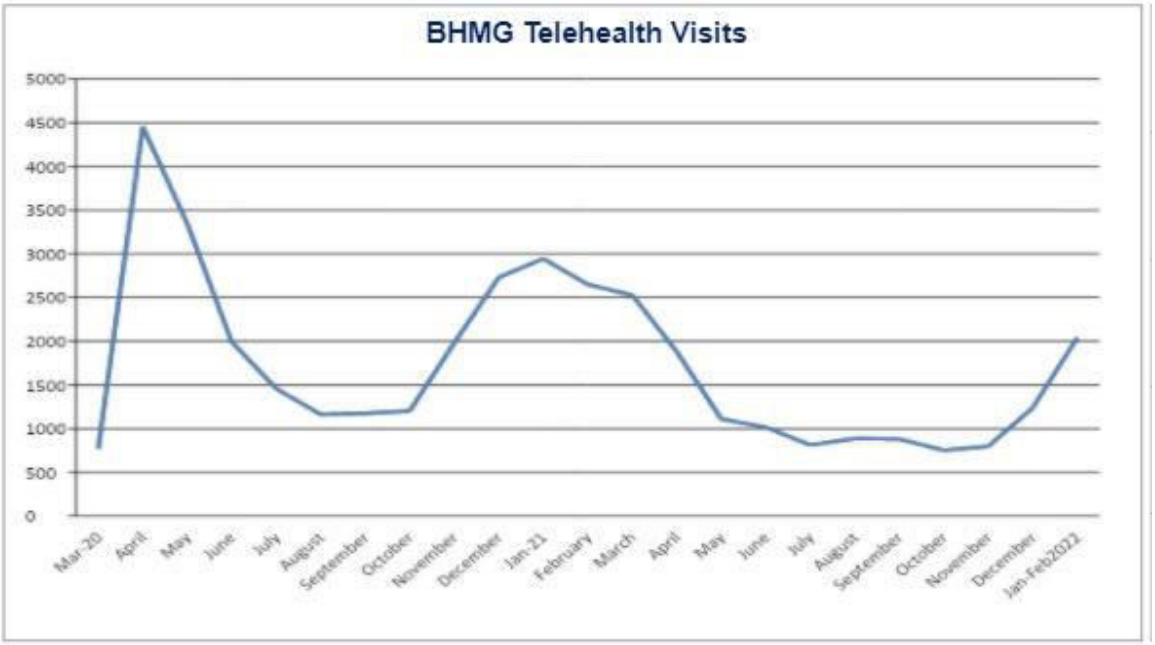
Since 2019, COBRA has added multiple access points for referral to services including Bristol Health Emergency Medical Services (EMS), Bristol Police Department, Bristol Fire Department and community locations. Bristol Health Primary Care Physicians also perform substance/alcohol screenings on their patients.

Crisis evaluations performed in Bristol Hospital's Brault Emergency Department are not separated by substance/psych. Most pertinent would be crisis data which shows some increase from 2019-2021 but not supported by overall Emergency Department visits for substance/psych reasons.

Access to Care

Bristol Health adopted numerous approaches to increase access to care for the community. Bristol Health was one of the first healthcare organizations in the nation to adopt telehealth services in the Emergency Department. Since adoption, the ED has seen over 1,200 patients virtually from over 60 towns in Connecticut. In 2021, Bristol Health opened the first half of the Brault Emergency Care Center, which features a 12,500-square-foot state-of-the-art addition. The new Emergency Care Center will be completely finalized in 2022 and will include a more comfortable setting for young patients with a dedicated pediatric and behavioral health area.

Bristol Health also leveraged telemedicine through the Bristol Health Medical Group, with nearly 40,000 telehealth appointments completed. The top five telehealth visits included behavioral health, primary care, neurology, pulmonology, and geriatrics.



Since 2019, Bristol Health has intentionally focused on making virtual seminars available to the community. This strategic initiative allowed access to care during the COVID-19 pandemic when live in-person gatherings were not an option. This included bariatric informational seminars, orthopedic surgery classes, COVID vaccine town halls, COVID vaccine registration events, and more. Through this innovative approach, Bristol Health was able to reach over 1,500 community residents per event.

Bristol Health has also consolidated primary care physician offices into a centrally located 60,000-square-foot medical office building in downtown Bristol. This allows patients to have access to primary and specialty care in one convenient location. Since 2019, over 20 providers have joined the medical staff of the Bristol Health Medical Group.

Bristol Health further expanded access to care in our secondary service area, including opening a state-of-the-art medical office building in Southington, Connecticut, that offers primary and specialty care services.

Bristol Health also approached patient barriers for access to care with innovative solutions. For example, the Bariatrics Department created ease of access to care by offering Lyft rides for patients with transportation barriers, the organization provided free valet parking service outside of medical offices, and created templated office schedules that allow for greater flexibility to fill vacant appointment slots and work with the patients on their convenience for visits.

Bristol Health further supported efforts in increasing the proportion of persons with health insurance, including an update of our Financial Assistance Policy. Since 2019, we have worked closely with patients to offer financial counseling. We have seen an increase of 4.04% of patients between 2019 and 2021 who have managed Medicare insurance and a rise of 2.06% of patients who have Medicaid insurance.

Overweight/ Obesity

The Bristol Hospital Weight Loss Surgery Program offers numerous support groups for its patients on such subjects as portion control, getting through the holidays, and making good eating choices. During difficult times of quarantining during the COVID-19 pandemic, the Weight Loss Surgery Team offered telehealth visits for nutrition counseling, behavioral health screenings, and bariatric office visits.

As a result, surgical case volume increased since elective surgeries were paused in 2020, and program intake volume saw a dramatic increase of 127 patients since 2020. Bariatric Surgery maintained quality care to offer patients this positive lifestyle healthcare service.

Initiatives since 2019 include the addition of a virtual pre-operative patient education class, virtual support groups, and the addition of a 1-week post-operation appointment with a provider.

In 2020, Bristol Health developed a Bariatric Surgery Exercise Program on our campus in our Bernie Guida Cardiac Rehab facility. This program offers patients to participate in an evidence-based bariatric exercise class.

Additionally, many strategies have been implemented by our Clinical Nutrition team. Despite a national decrease in volumes of patients seeking this type of care, our Clinical Nutrition Department met the community in outpatient settings and was able to keep volumes above 1,000 visits annually, in addition to virtual telephone and telehealth encounters. Since 2019, bariatric and outpatient nutrition materials have been updated and distributed to patients, offering up-to-date nutritional information and guidance.
During this time, the Bristol Health Public Relations Department in partnership with Clinical Nutrition, published over 40 articles in local media newspapers to support ongoing community education.

Appendix G. 2016 Implementation Strategy Outcomes

Mental Health and Substance/Alcohol Misuse

Bristol Hospital opened a new Senior Behavioral Health Unit in 2018. The 6,150-square-foot, 15-bed inpatient unit—which includes private and semi-private rooms—is built on Level F of the hospital. The new unit includes a team of behavioral health professionals who assess, diagnose and treat adults aged 65 and older with acute psychiatric and behavioral disorders. Inpatient care of this population is provided on a 24/7 basis in a safe, comfortable and secure environment. The team treats patients suffering from such conditions as dementia, depression, severe anxiety, bipolar disorder and psychosis. The team also addresses medications, dietary needs, family issues and social concerns.

The Bristol Health Counseling Center hosted a free monthly mental health and substance recovery educational series for the community from August 2017 to February 2018. Each session covered a particular subject ranging from depression and anxiety to substance misuse and LGBTQ issues. Additionally, the Counseling Center social worker who coordinated the series, previewed each session in a live, in-studio interview on the local FOX affiliate morning show each month.

The leadership of the Bristol Health Counseling Center—Systems Director of Behavioral Health Rebecca Colasanto, LCSW and Operations Manager Lisa Coates, LCSW—are being called upon by the Mayor's office and other local officials to serve on and lead numerous committees that address mental health and substance misuse issues. These include:

- The Mayor's Opioid Task Force
- The Community Care Team which addresses issues and options for patients who frequent the Emergency Center of Bristol Hospital
- The newly formed COBRA (City of Bristol's Recovery Alliance), which is a collaboration between Bristol Health, the Bristol/Burlington Health District and numerous local agencies including the Bristol Police Department. The concept of COBRA is to offer treatment options for those struggling with substance misuse as an alternative to arrest and incarceration.

The Counseling Center staff also received a grant for free community programs that address suicide prevention and Narcan training. Since 2018, the Counseling Center team has coordinated a QPR Suicide training for the community and Bristol Health employees.

In 2019, Rebecca Colasanto, LCSW, was appointed to serve on the State of Connecticut Behavioral Health Partnership Oversight Council. The council is led by the Connecticut General Assembly Speaker House Joe Aresimowicz.

Access to Care

Bristol Health opened a new 60,000-square-foot medical office building at 15 Riverside Ave in downtown Bristol. The building houses an array of medical sub-specialties of the Bristol Health Medical Group including cardiology, endocrinology, neurology, orthopedics, rheumatology and urology. Additionally, there is dedicated space for laboratory, and physical and occupational therapy services

Since 2016, 66 new providers have joined the medical staff of the Bristol Health Medical Group.

From 2016 – 2019, the Bristol Health Public Relations Department has tripled the number of community events and seminars which offer numerous screenings and educational outreach to the Greater Bristol Community. More than 25,000 local residents have attended these events which include screenings for blood pressure, pulse oxygen, blood sugar, smoking cessation and foot and ankle pain.

Senior Support

In addition to the new Senior Behavioral Health Unit, the Bristol Health Medical Group's Center for Geriatric and Palliative Care —led by Dr. Margarita Reyes—has offered a highly-successful dementia free education series to the community. The monthly six-part series takes place in the summer and fall. Additionally, Dr. Reyes has appeared in a monthly live in-studio interview on the local FOX affiliate in which she previews each session.

To keep pace with a very busy patient roster, the Center for Geriatric and Palliative Care, has added geriatric two nurse practitioners.

Dr. Reyes has formed a palliative care program and team with the ability to see patients across health care setting including the hospital, office, home, assisted living and nursing homes. The Bristol home care palliative "special touch" program and hospice team continues to grow in number of patients, social workers and nurses.

Overweight/Obesity

The Bristol Hospital Weight Loss Surgery Program offers numerous support groups for its patients on such subjects as portion control, getting through the holidays and making good eating choices. The Weight Loss Surgery team also produced and distributed a cookbook that featured dozens of healthy recipes.

As part of a mandatory information session for all patients considering weight loss surgery, a video was produced that educates patients about the program and the surgery options. The video serves as an alternative to the in-person information session and has been tremendously successful. Patients can view the video in their home and at their own convenience.

The Bristol Hospital Parent and Child Center continues to have has had great success with its obesity prevention efforts through its set of Family Wellness Programs. The Family Wellness Program's goal is to prevent childhood obesity by promoting family nutrition and healthy physical activity for low-income families with such programs as "Gardening for Health," and "Cooking Matters in the Store." The Parent and Child Center also offers free Zumba and exercise programs for parents and children. Since 2015, more than 500 low-income families have participated in these programs.

Appendix H. 2013 Implementation Strategy Outcomes

Mental Health and Substance/Alcohol Misuse

The Behavioral Health Team at Bristol Hospital hosted a roundtable discussion in January 2014 with approximately 30 community leaders and stakeholders to discuss the issue of mental health and substance/alcohol misuse and how Bristol Hospital can better serve the community. Also in 2014, Bristol Hospital hosted another meeting with numerous stakeholders to address the growing concern of the lack of response, care and resources, and the difficulties associated with getting hospital patients to the lead mental health authority in the area, which is located in New Britain, Connecticut.

In 2015, Bristol Hospital and Wheeler Clinic reached an agreement to further improve behavioral health crisis services for children, adults and families in the Greater Bristol region. Under the agreement, Wheeler will assume responsibility for Bristol Hospital's Emergency Department Crisis Service from 8 a.m. to midnight, seven days a week, and provide immediate intervention and facilitated connections to community services and resources, including primary and behavioral health care. The Bristol Hospital/Wheeler Clinic partnership continued in 2016 with a community forum on the opioid epidemic in which approximately 75 members of the community attended. Bristol Hospital and Wheeler Clinic also hosted two successful Mental Health First Aid presentations. The eight-hour certification course is designed to help individuals better understand mental health challenges and recovery, and to help respond in appropriate ways to provide help and support. Bristol Hospital also hosted a community event with the Connecticut Department of Mental Health and Addiction Services on the subject of Naloxone.

Access to Care

Since 2013, Bristol Hospital and the Bristol Hospital Multi-Specialty Group have added 74 new medical staff and added 16 new medical offices throughout the community. New service lines have been cultivated to address medical needs within the community, including vascular surgery, wound care, rheumatology, cardiology, orthopedics, spine surgery and sports medicine, and neurology.

Senior Support

Bristol Hospital has increased the number of free screenings offered throughout the community (including the senior center). Free screenings include blood pressure clinics, balance screenings, blood sugar screening, foot screening and nail clinics. The hospital also provides free educational seminars at senior centers on topics such as dementia, living with diabetes, and nutrition and wellness.

Overweight/Obesity

The Bristol Hospital Weight Loss Surgery Program offers numerous support groups for its patients on such subjects as portion control, getting through the holidays and making good eating choices. In 2014, the Weight Loss Surgery program launched its own Facebook page within the Bristol Hospital main Facebook page. This is a members-only page for patients who can share stories, recipes and advice to their fellow patients, but in a private setting.

The Bristol Hospital Parent and Child Center has had great success since 2013 in its obesity prevention efforts through its set of Family Wellness Programs. The Family Wellness Program's goal is to prevent childhood obesity by promoting family nutrition and healthy physical activity for low-income families with such programs as "Gardening for Health," and "Cooking Matters in the Store." The Parent and Child Center also offers free Zumba and exercise programs for parents and children. Since 2015, approximately 330 low-income families have participated in these programs.