Community Benefits Report

Fiscal Year 2019

Beth Israel Lahey Health
Lahey Hospital & Medical Center

Table of Contents

Section I: MISSION STATEMENT

Summary and Mission

Lahey Clinic Hospital, Inc., includes both Lahey Hospital & Medical Center (LHMC) and Lahey Medical Center – Peabody (LMCP). Together, they are referred to as LHMC/LMCP throughout this report. Both hospitals are part of Beth Israel Lahey Health (BILH). BILH was established with an appreciation for the importance of caring for patients and communities in new and better ways. BILH brings together an exceptional array of clinical organizations spanning the full continuum of health care delivery – academic and teaching hospitals, community hospitals, ambulatory and urgent care centers, behavioral health programs, and home care – in a shared mission to expand access to great care and advance the science and practice of medicine through groundbreaking research and education.

At the heart of BILH is the belief that everyone deserves high-quality, affordable health care, and this belief is what drives us to work with community partners across the region to promote health, expand access, and deliver the best care in the communities BILH serves. BILH's Community Benefits staff are committed to working collaboratively with BILH's communities to address the leading health issues and create a healthy future for individuals, families, and communities.

At LHMC/LMCP, our mission guides us toward success. We're committed to providing superior health care leading to the best possible outcomes for every patient, exceeding our patients' high expectations for service each day, advancing medicine through research and the education of tomorrow's health care leaders, and promoting health and wellness in partnership with the diverse communities we serve.

LHMC/LMCP affirms its commitment to identifying and serving the health and wellness needs of its community through a Community Benefits Program. The foundation of this program is a collaborative initiative between colleagues, community leaders, representatives of community agencies and community residents. Through collaborative planning and coalition building, LHMC/LMCP serves as a catalyst and community leader striving to improve the health status of community members.

The following annual report provides specific details on how LHMC/LMCP is honoring its commitment and includes information on LHMC/LMCP's Community Benefits Service Area (CBSA), community health priorities, target populations, and community partners, as well as detailed descriptions of its community benefits programs and their impacts.

More broadly, LHMC/LMCP's Community Benefits mission is fulfilled by:

- **Involving the LHMC/LMCP's staff**, including its leadership, and dozens of community partners in the community health assessment process as well as in the development, implementation, and oversight of the Implementation Strategy;

- **Engaging and learning from residents** throughout LHMC/LMCP's service area in all aspects of the community benefits process, including assessment, planning, implementation, and evaluation. In this regard, special attention is given to engaging diverse perspectives from those who are not patients of LHMC/LMCP and those who are often left out of these assessment, planning, and program implementation processes;

- **Assessing unmet community need** by collecting primary and secondary data (both quantitative and qualitative) to identify unmet health-related needs and to characterize those in the community who are most vulnerable and face disparities in access and outcomes;

- **Implementing community health programs and services** in LHMC/LMCP's CBSA that are geared toward improving the current and future health status of individuals, families, and communities by removing barriers to care, addressing social determinants of health, strengthening the health care system, and working to decrease the burden of leading health issues; and

- **Facilitating collaboration and partnership** within and across sectors (e.g., public health, health care, social services, business, academic, and community health) to advocate for, support, and implement effective health policies, community programs, and services.

Name of Target Population

LHMC/LMCP's CBSA includes eight communities: Arlington, Bedford, Billerica, Burlington, Lexington, Lowell, Lynnfield, and Peabody. Given that LHMC/LMCP operates multiple buildings under a single state license and serves different geographic areas and populations, the communities that are part of the CBSA are an aggregate of these areas and populations. The CBSA does not exclude medically underserved, low-income, or minority populations. For this assessment, LHMC/LMCP made every effort to identify the health needs of all residents.

To target Community Benefits efforts and to comply with Commonwealth and federal guidelines, there was an effort to prioritize segments of the population that have complex health needs or that face significant barriers to care. With this in mind, four population segments were prioritized within LHMC/LMCP's CBSA: low-resource individuals and

families, older adults, youth/adolescents, and individuals and families with chronic/complex conditions, regardless of whether they use or have used services at its facilities.

Basis for Selection

Community Health Needs Assessments (CHNAs), public health data available from the government, the Community Benefits Advisory Committee (CBAC), community partners, and LHMC/LMCP's areas of expertise.

Key Accomplishments of Reporting Year

While LHMC/LMCP's most recent CHNA was completed during FY 19, the accomplishments highlighted in this report are based on priorities identified and programs contained in LHMC/LMCP's FY 2017-2019 Implementation Strategy.

- LHMC provided a medication disposal box on-site at our pharmacy for use by community residents and collected and disposed of over 470 pounds of unwanted and unused medications.
- LHMC provided breast cancer risk assessments for over 25,000 people to identify those at high risk for the disease.
- LHMC partnered with Mill City Grows to support a community garden program in Lowell that reached over 7,000 people and provided education and support for low- to moderate-income residents.
- The LHMC Interpreter Services Department provided support and assistance during more than 82,000 encounters in FY 19 in over 60 different languages.
- LHMC improved the built environment by partnering with the Burlington Recreation Department to provide a free outdoor fitness court for the community. In FY 19, it is estimated that 3,500 people used the equipment.
- LHMC continued our partnership with the Arlington Housing Corporation's social worker program. This program was able to serve 123 households in FY 19 and provide stabilized housing for 23 households that faced economic challenges.
- LHMC provided 26 internships for students at surrounding universities to strengthen the local workforce.
- LHMC provided 63 grants for people with cancer and their caregivers to help alleviate the financial burden of at-home or hospice care.
- LHMC continued our extremely successful and impactful A Matter of Balance program. In FY 19, this program was able to serve over 70 area residents and 17 individuals were trained to be coaches.
- LHMC continued to partner with the New Entry Sustainable Farming Project to provide weekly farmers markets at the Arlington, Burlington and Billerica Councils on Aging. This program provides free, fresh produce every week to over 200 seniors at those locations.
- LHMC partnered with the Arlington Council on Aging to provide support for its transportation project, which provided over 1,200 Arlington residents at Arlington Senior Housing Authority sites with free rides.
- LHMC supported the Youth Risk Behavior Survey for 11 school districts within its service area, surveying over 16,500 middle and high school youth.
- LHMC helped support the Peabody Veterans Memorial High School Student Health Center, which provided 932 medical visits and 1,284 behavioral health visits to 352 students.

Plans for Next Reporting Year

In FY 19, LHMC/LMCP conducted a comprehensive and inclusive CHNA that included qualitative and quantitative data collection, robust community engagement activities, and an inclusive prioritization process. These activities were in full compliance with the Commonwealth's updated Community Benefits Guidelines for FY 19. In response to the FY 19 CHNA, LHMC/LMCP will focus its FY 2020-2022 Implementation Strategy on the following three priority areas, which collectively address the broad range of health and social issues facing residents living in LHMC/LMCP's CBSA who face the greatest health disparities:

1) Chronic/complex conditions and risk factors
2) Mental health disorders and substance use disorders
3) Social determinants of health and access to care

It should also be noted that these priority areas are aligned with the statewide health priorities identified by the Executive Office of Health and Human Services (EOHHS) in 2017 (i.e., chronic disease, housing stability/homelessness, mental illness and mental health, and substance use disorders). LHMC/LMCP's priorities are also aligned with the priorities identified by the Massachusetts Department of Public Health (MDPH) to guide the Community-based Health Initiative investments funded by the Determination of Need (DoN) process, which underscore the importance of investing in social determinants of health (i.e., built environment, social environment, housing, violence, education, and employment).

The FY 19 CHNA provided new guidance and invaluable insight on quantitative trends and community perceptions that are being used to inform and refine LHMC/LMCP's efforts. In completing the FY 19 CHNA and FY 2020-2022 Implementation Strategy, LHMC/LMCP, along with its other health, public health, social service, and community partners, is committed to improving the health status and well-being of all residents living throughout its CBSA. As discussed above, based on the assessment's quantitative and qualitative findings, including discussions with a broad range of community participants, there was an agreement that LHMC/LMCP's FY 2020-2022 Implementation Strategy should prioritize certain demographic, socioeconomic and geographic population segments that have complex needs and face barriers to care and service gaps, as well as other adverse social determinants of health. These factors put these segments at greater risk, limit their access to needed services, and can often lead to disparities in health outcomes. More specifically, the FY 19 CHNA identified the importance of supporting initiatives that targeted low-resource individuals and families, older adults, youth/adolescents, and individuals and families with chronic and complex conditions.

LHMC/LMCP partners with community-based organizations and service providers, including public agencies, social service providers, community health organizations, academic organizations, and businesses, to execute its Implementation Strategy. In FY 20, LHMC/LMCP plans to continue and enhance our valuable community benefits programs offered in collaboration with community partners, including:

- Working with the Peabody YMCA, Burbank YMCA, and North Suburban YMCA to continue to increase access for vulnerable populations to opportunities for evidence-based physical fitness programs.
- Working with the Housing Corporation of Arlington to continue and expand its social worker program that provides resources, information, and counseling for low- to moderate-income residents.
- Continuing to provide clinically based education opportunities done in collaboration with colleges to help strengthen the local workforce.
- Supporting the Serving Health Information Needs of Everyone program in collaboration with Minuteman Senior Services to provide no-cost insurance benefits counseling to members of the community to promote access to care. In FY 19, there was a 40% increase in the number of people who received counseling at our locations over FY 18.
- Supporting the New Entry Sustainable Farming Project and LHMC/LMCP's extremely successful farmers market program, which provides free, community-based produce for seniors, increasing access and reducing the barrier of cost to healthy eating. In FY 19, 90% of participants reported that they ate healthier as a result of the program.
- Continuing to provide our Medication Disposal Box to provide a safe and convenient way for community residents to dispose of unwanted or unused medications.

Self-Assessment Form

Working with its Community Benefits Leadership team and CBAC, the LHMC/LMCP Community Benefits team completed a self-assessment form (Section VII). Additionally, the LHMC/LMCP Community Benefits team shared the Community Representative Feedback Form with and solicited responses from many CBAC and community stakeholders who participated in LHMC/LMCP's CHNA.

Section II: Community Benefits Process

Community Benefits Leadership/Team and CBAC

Lahey Hospital & Medical Center Community Benefits Advisory Committee 2019
Stathis Antoniades, Chief Operating Officer, Lahey Hospital & Medical Center
Michael Bonfanti, J.B. Thomas Lahey Foundation
Eric Conti, Superintendent, Burlington Public Schools; President, Middlesex League
Randi Epstein, Coordinator, Community Health Network Area 15
Christine Healey, Director, Community Relations, Beth Israel Lahey Health
Peter Kilcommons, Corporate Controller, Lahey Health
Bruce MacDonald, Executive Director, Metro North YMCA
Linda McGoldrick, Lahey Hospital & Medical Center Board of Trustees
Lisa Neveling, Vice President, Business Development, Beth Israel Lahey Health
Michelle Snyder, Regional Manager, Community Relations, Lahey Hospital & Medical Center
Andy Villanueva, MD, Chief Quality Officer, Lahey Hospital & Medical Center
Kelly Magee Wright, Executive Director, Minuteman Senior Services

The membership of LHMC/LMCP's CBAC aspires to be representative of the constituencies and priority populations of LHMC/LMCP's programmatic endeavors, including those from diverse racial and ethnic backgrounds and a population diverse in age, gender, sexual orientation and gender identity, as well as those from corporate and nonprofit community organizations. Senior management is actively engaged in the development and implementation of the Community Benefits plan, ensuring that hospital policies and resources are allocated to support planned activities.

It is not only the Board of Trustees and senior leadership that are held accountable in fulfilling LHMC/LMCP's Community Benefits mission. Consistent with LHMC/LMCP's core values is the recognition that the most successful community benefits programs are those that are implemented organization wide and integrated into the very fabric of LHMC/LMCP's culture, policies and procedures. It is not a stand-alone effort that is the responsibility of one staff or department, but rather an orientation and value manifested throughout LHMC/LMCP's structure, reflected in how it provides care at LHMC/LMCP and in affiliated practices in urban neighborhoods and rural areas.

LHMC/LMCP is a member of BILH. While LHMC/LMCP oversees local community benefits programming and community engagement efforts, Community Benefits is under the purview of the BILH chief strategy officer. This structure ensures that Community Benefits efforts, prioritization, planning and strategy align and/or are integrated with local and system strategic and regulatory priorities.

The LHMC/LMCP Community Benefits Program is spearheaded by Michelle Snyder, regional manager, Community Benefits/Community Relations. The regional manager, Community Benefits/Community Relations, has direct access and is accountable to the LHMC/LMCP president and the BILH vice president of Community Benefits/Community Relations, the latter of whom reports directly to the BILH chief strategy officer. It is the responsibility of these senior managers to ensure that Community Benefits is addressed by the entire organization and that the needs of the underserved populations are considered every day in discussions on resource allocation, policies, and program development.

This is the structure and methodology employed to ensure that Community Benefits is not the purview of one office alone and to maximize the extent to which efforts across the organization are fulfilling the mission and goals of community benefits.

Community Benefits Committee Meetings

May 6, 2019
June 25, 2019
August 5, 2019

Community Partners

LHMC/LMCP recognizes its role as a tertiary/academic resource in a larger health system and knows that to be successful it needs to collaborate with its community partners and those it serves. LHMC/LMCP's CHNA and the associated Implementation Strategy were completed in close collaboration with LHMC/LMCP's staff, its health and social service partners, and the community at large. LHMC/LMCP's Community Benefits Program exemplifies the spirit of collaboration that is such a vital part of LHMC/LMCP's mission.

LHMC/LMCP serves and collaborates with all segments of the population. However, in recognition of its long-standing ties to specific communities and the health disparities that exist for these communities, LHMC/LMCP focuses its Community Benefits efforts on low-resource individuals and families, older adults, youth/adolescents, and individuals and families with chronic/complex conditions living in its CBSA.

LHMC/LMCP currently supports dozens of educational, outreach, community health improvement, and health system strengthening initiatives within the Commonwealth. In so doing, LHMC/LMCP collaborates with many leading health care, public health, and social service organizations.

LHMC/LMCP is also an active participant in Community Health Network Area 15 and Community Health Network Area 13/14. Joining with such grassroots community groups and residents, LHMC/LMCP strives to create a vision for health improvement in its CBSA. Another important partnership is LHMC/LMCP's involvement with the Metro North YMCA Association and Greater Boston YMCA Association on programs to address chronic disease and provide resources for cancer survivors through PINK and LIVESTRONG.

LHMC/LMCP's Board of Trustees along with its clinical and administrative staff is committed to improving the health and well-being of residents throughout its service area and beyond. World-class clinical expertise, education and research along with an underlying commitment to health equity are the primary tenets of its mission.

LHMC/LMCP's Community Benefits Department, under the direct oversight of LHMC/LMCP's Board of Trustees, is dedicated to collaborating with community partners and residents and will continue to do so in order to meet its Community Benefits obligations.

The following is a comprehensive listing of the community partners with which LHMC/LMCP joins in assessing community need as well as in planning, implementing, and overseeing its Community Benefits Implementation Strategy. The level of engagement of a select group of community partners can be found in the Self-Assessment (Section VII).

A Healthy Lynnfield Coalition
American Cancer Society
Arlington Housing Corporation
Burbank YMCA
Burlington Recreation Department
Burlington School Department
Community Health Network Area 13/14
Community Health Network Area 15
City of Peabody
Lynnfield Public Schools
Merrimack Valley Food Bank
Metro North YMCA
Mill City Grows

Minuteman Senior Services
New Entry Sustainable Farming Project
North Shore Community Health
North Suburban YMCA
Town of Arlington
Town of Bedford
Town of Billerica
Town of Burlington
Town of Lexington
Town of Lynnfield

Section III: Community Health Needs Assessment

Date Last Assessment Completed and Current Status

The FY 19 CHNA along with the associated FY 2020-2022 Implementation Strategy was developed over a 10-month period from October 2018 to August 2019. These community health assessment, planning, and implementation efforts fulfill the Commonwealth of Massachusetts Attorney General's Office and federal Internal Revenue Service's requirements. More specifically, these activities fulfill LHMC/LMCP's need to conduct a community health needs assessment, engage the community, identify priority health issues, inventory community assets, assess impact, and develop an implementation strategy. However, these activities are driven primarily by LHMC/LMCP's dedication to its mission, its covenant to the underserved, and its commitment to community health improvement.

As mentioned above, LHMC/LMCP's most recent CHNA was completed during FY 19, but its FY 19 community benefits program was informed by the FY 16 CHNA and aligns with LHMC/LMCP's FY 2017-2019 Implementation Strategy. The following is a summary description of the FY 19 CHNA approach, methods, and key findings.

Approach and Methods

The assessment began with the creation of a Steering Committee composed of representatives from the former Lahey Health system, including LHMC/LMCP, Winchester Hospital, and Beverly Hospital-Addison Gilbert Hospital. The hospital hired JSI, a public health research and consulting firm in Boston, to complete the CHNA and Implementation Strategy. The Steering Committee provided vital oversight of the CHNA approach, methods, and reporting process. This committee met monthly, in person and via conference call, to review project activities, vet preliminary findings, address challenges, and ensure alignment in CHNA approach and methods across the BILH system.

LHMC/LMCP engaged its CBAC, made up of hospital leadership and clinical staff, local service providers, and key community stakeholders, extensively throughout this process. This group met three times over the course of the assessment and provided input on the assessment approach, vetted preliminary findings, and helped prioritize community health issues and vulnerable populations. The CBAC also reviewed and provided feedback on the associated Implementation Strategy.

Finally, the Project Advisory Committee (PAC) was convened to provide input and feedback from a systemwide perspective. The PAC was composed of representatives from clinical and administrative leadership and local public health officials, along with Community Relations staff. The PAC met three times over the course of the project, provided broad-based feedback on the approach, and vetted preliminary findings relative to priority community health issues and vulnerable populations.

Quantitative data from a broad range of sources was collected and analyzed to characterize communities in LHMC/LMCP's CBSA, measure health status, and inform a comprehensive understanding of the health-related issues. Sources included:

- U.S. Census Bureau, American Community Survey 5-Year Estimates (2013-2017)
- Massachusetts Department of Elementary and Secondary Education: School and District Profiles (2017 and 2018-2019)
- FBI Uniform Crime Reports (2017)
- MDPH, Registry of Vital Records and Statistics (2015)
- MDPH, Bureau of Substance Abuse Services (2017)
- MDPH, Annual Reports on Births (2016)
- Massachusetts Bureau of Infectious Disease and Laboratory Sciences (2017)
- Massachusetts Center for Health Information Analysis (CHIA) Hospital Profiles (FY 2013-2017)

- Massachusetts CHIA Hospital Discharges (2017)
- Massachusetts Healthy Aging Collaborative, Community Profiles (2018)
- Youth Risk Behavior Surveys (2017 and 2018)

JSI, working in collaboration with staff from BILH and CHIA, obtained federal FY 17 hospital discharge data for municipalities within the Commonwealth. JSI analyzed the discharge data for the hospital's CBSA based on patient residence. JSI also developed statewide averages for comparative purposes. CHIA aggregates hospital discharge data from all hospitals in Massachusetts and makes it available to hospitals and researchers to evaluate morbidity, access to care, and health services utilization trends.

The data allowed for hospital-specific analyses based on where the patient was hospitalized within Massachusetts and patient origin analyses based on the patient's address of residence. Related to the CHNA activities, this data was used to:

- Measure hospitalization rates for major health issues as identified by stakeholders in the qualitative research
- Gauge access to high-quality primary and outpatient services for residents within the CBSA using the Agency for Health Research and Quality's Prevention Quality Indicators (PQIs) software

PQI rates were developed for eight chronic PQI measures, four of which are related to diabetes. PQIs use data from hospital discharges to identify admissions that might have been avoided through access to high-quality primary or outpatient care. The PQIs are population based and, therefore, can help public health agencies, health care systems, and others interested in improving health care quality in their communities.

JSI compared municipal-level PQI rates with Massachusetts' statewide average.

Relative to most states, Massachusetts does an exemplary job at making comprehensive data available at the Commonwealth, county, and municipal levels through the MDPH. Historically, this data has been made available through the Massachusetts Community Health Information Profile (MassCHIP) data system, an automated and interactive resource provided by MDPH; MassCHIP is no longer being updated. To replace this system, MDPH is creating the Population Health Information Tool (PHIT), which will include municipal-level data stratified by demographic and socioeconomic variables (e.g., gender/sex, age, race/ethnicity, poverty level). At the time this report was produced, community profiles were not available via the PHIT. The most significant limitation this caused was the availability of timely data related to morbidity, mortality, and service utilization. The data sets used in this report are the most up to date provided by MDPH. This data was still valuable and allowed for identification of health needs relative to the Commonwealth and specific communities; however, these data sets may not reflect recent trends in health statistics.

Additionally, quantitative data was not stratified by age, race/ethnicity, income, or other characteristics, which limited the ability to identify health disparities in an objective way. Qualitative activities allowed for exploration of these issues, but the lack of objective quantitative data constrained this effort.

LHMC/LMCP recognizes that authentic community engagement is critical to assessing community needs, identifying health priorities and vulnerable populations, and creating a robust implementation strategy. The hospital was committed to engaging the community throughout this process. Using the community engagement continuum included in MDPH's Community Engagement Standards for Community Health Planning as a guide, LHMC/LMCP employed a variety of approaches to ensure that community members were informed, consulted, and involved throughout the assessment process, and that they were collaborators in ensuring that the Implementation Strategy addressed priority issues and vulnerable populations.

Summary of Key Health-Related Findings from FY 19 CHNA

Below is a high-level summary of health-related findings that were identified after a comprehensive review of all the quantitative and qualitative information that was collected as part of the CHNA. A detailed and in-depth discussion of key findings is included in the full CHNA report.

- Social determinants of health (e.g., transportation, economic stability, access to care, housing, food insecurity) affect many segments of the population. A key theme from the assessment's key informant interviews, focus groups, listening sessions, and Community Health Survey was the continued impact that social determinants of health have on residents of LHMC/LMCP's service area, especially those who are low to moderate income, are frail or homebound, have mental health or substance use issues, or lack a close support system.
- Certain populations are more vulnerable to health care disparities and barriers to care. Despite the fact that Massachusetts has one of highest rates of health insurance enrollment and the communities that make up LHMC/LMCP's service area have strong, robust safety-net systems, there are still substantial numbers of low-income, Medicaid-covered, uninsured, and otherwise vulnerable individuals who face health disparities and are not engaged in essential medical and behavioral services. Efforts need to be made to expand access, reduce barriers to care, and improve the quality of primary medical care, medical specialty, and behavioral health services.
- Mental health issues (e.g., depression, anxiety/stress, access to treatment, stigma) underlie many health and social concerns. Nearly every key informant interview, focus group, and listening session included discussions on the impact of mental health issues. A review of the quantitative and qualitative information indicated that depression, anxiety/stress, and social isolation were the leading concerns. There were particular concerns about the impact of depression, anxiety, and e-cigarettes/vaping on youth and social isolation among older adults.
- Substance dependency continues to affect individuals, families, and communities. The opioid epidemic continues to be an area of focus. Beyond opioids, key informants were also concerned about alcohol misuse, changing community norms in light of the legalization of recreational marijuana use, and e-cigarettes/vaping among adolescents.
- Chronic diseases (e.g., cardiovascular disease, cancer, diabetes, asthma) require more education, screening/early intervention, and management – and a focus on risk factors. Although there was major emphasis on behavioral health issues, many key informants, focus group participants, and listening session participants identified a need to address the many risk factors associated with chronic and complex health conditions. Physical inactivity and poor nutrition/lifestyle were discussed by many, with some of these issues being associated with age (mobility issues among older adults), education/health literacy (lack of understanding about healthy eating), and socioeconomic status (fresh foods being expensive and gyms and health centers being unaffordable). Addressing the leading risk factors is at the root of many chronic disease prevention and management strategies.

Section IV: Community Benefits Programs

Wellness, Prevention and Chronic Disease Management

Injury Prevention: Community-Based Trauma Support and Education

Brief Description/Objective: LHMC's Trauma Department provides numerous programs within its surrounding communities and is committed to educating the community about preventable causes of injury and death. Department staff also regularly work with area first responders and businesses on trainings and regularly participate in drills, task forces, and simulations for widespread disasters. In FY 19, LHMC collaborated with partners on three drills/exercises.

LHMC has also chosen to focus its community-based education efforts on providing hemorrhage control trainings. According to the World Health Organization, uncontrolled post-traumatic bleeding is the leading cause of potentially preventable death among trauma patients. LHMC joined the Department of Homeland Security's Stop the Bleed

program in FY 17 and has provided education to local law enforcement, first responders, schools, and community groups on how to apply tourniquets. Instructors provided hands-on teaching to non-health care workers on the various ways to control bleeding, whether using only their hands or a full trauma first aid kit. In FY 19, LHMC was able to provide 14 trainings in our surrounding communities.

To enhance our trauma program offerings, in FY 19, LHMC also began to offer a free support group for survivors of trauma. The program is designed to help survivors and their family members navigate their recovery to minimize psychosocial distress and optimize positive behavioral outcomes. A survey tool has been developed to identify improvement in psychosocial aspects such as depression, alcohol use, tobacco use and PTSD in a pre/post format. There were seven sessions held in FY 19.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: English
- Environment Served: All

Additional Target Population Status: None

Program Type: Community Clinical Linkages

Program Description Tags: Community Education, Health Professional/Staff Training

DoN Health Priorities: None

EOHHS Focus Issues: Additional Health Needs as Defined by Community

Health Issues: Social Determinants of Health—Public Safety; Social Determinants of Health—Violence and Trauma

Goals:

- Provide trainings, drills, and simulations to area first responders and community partners.
- Teach hemorrhage-control techniques to immediate responders to use in a mass casualty or active shooter event.
- Provide a free support group for survivors of trauma and their families.

Goals Status:

- LHMC provided three trainings for area first responders and partners in FY 19.
- In FY 19, LHMC trained 375 community members throughout our CBSA at over 14 separate events.
- LHMC held seven support group sessions of the Trauma Survivors Network Support Group in FY 19, with the goal to increase participation in FY 20.

Community Partners: Region 3 Hospitals, Region 4AB Hospitals, Burlington Fire, Burlington Police, Armstrong Ambulance, Peabody Fire

Increasing Access: Patient Financial Counseling

Brief Description/Objective: The extent to which a person has health insurance that covers or offsets the cost of medical services coupled with access to a full continuum of high-quality, timely, accessible health care services has been shown to be critical to overall health and well-being. Access to a usual source of primary care is particularly important because it greatly impacts one's ability to receive preventive, routine and urgent care, as well as chronic disease management services.

Despite the overall success of the Commonwealth's health care reform efforts, information captured for this assessment shows that while the vast majority of the area's residents have access to care, significant segments of the population, particularly low-income and racial/ethnic minority populations, face significant barriers to care. These groups struggle to access services due to lack of insurance, cost, transportation, cultural/linguistic barriers, and a shortage of providers willing to serve Medicaid-insured or uninsured patients.

To address these gaps, LHMC employs seven MassHealth-certified application counselors who can screen patients and assist them in applying for state aid. They also estimate for patients their financial responsibility (copay,

deductible, coinsurance, self-pay). The financial counselors spend their time with patients discussing financial assistance and estimates and helping patients understand their insurance benefits.

LHMC served ~62,000 patients in 2019 with Medicaid coverage (MassHealth, Tufts Health Public, Fallon, etc.). This includes patients with existing Medicaid, patients who presented as self-pay and completed an application with a financial navigator, as well as patients who qualified for upgraded MassHealth coverage.

The age ranges and percentages of patients are below:

- 0-17 years (6%)
- 18-35 years (31%)
- 36-53 years (30%)
- 54-71 years (29%)
- 72-107 years (4%)

Based on the data reviewed, their employment status obtained at time of service is below:

- 11,800 employed full or part time
- 10,100 unemployed
- 2,160 self-employed
- 3,000 retired
- 3,500 disabled
- 1,600 full- or part-time students
- 1,300 children

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: English
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Access/Coverage Support
DoN Health Priorities: None
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health—Access to Health Care
Goals: Meet with patients who are uninsured to assess their eligibility for and align them with state and hospital-based financial assistance programs.
Goals Status: April 2019-September 2019, Financial Counseling met with ~3,000 patients (both inpatient and outpatient) and completed 400 MassHealth applications.

Increasing Access: Interpreter Services

Brief Description/Objective: An extensive body of research illustrates the health disparities and differences in health care access and utilization that exist for diverse individuals/cohorts and foreign-born populations. According to the Centers for Disease Control and Prevention (CDC), non-Hispanic blacks have higher rates of premature death, infant mortality, and preventable hospitalization than do non-Hispanic whites. Hispanics have the highest uninsured rates of any racial or ethnic group in the United States. Asians are at a higher risk for developing diabetes than are those of European ancestry, despite a lower average body mass index (BMI). These disparities show the disproportionate and often avoidable inequities that exist within communities and reinforce the importance of understanding the demographic makeup of a community to identify populations more likely to experience adverse health outcomes. The LHMC/LMCP service area is quite diverse. While many municipalities are predominantly white, there are significant populations of Asian and Hispanic/Latino residents throughout the service area. Language barriers pose significant challenges to providing effective and high-quality health and social services.

To address this need, and in recognition that language and cultural obstacles are major barriers to accessing health and social services and navigating the health system, LHMC/LMCP offers an extensive Interpreter Services program that provides interpretation (translation) and assistance in over 60 different languages, including American Sign Language, and hearing augmentation devices for those who are hard of hearing. The Interpreter Services Department routinely also helps with facilitating access to care, helping patients understand their course of treatment, and adhering to discharge instructions and other medical regimens. LHMC/LMCP also routinely translates materials such as legal consents for treatment, patient education forms, and discharges to continue to reduce barriers to care.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Access/Coverage Support
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health—Language/Literacy
Goals: Provide culturally responsive care through the Interpreter Services Department.
Goals Status: In FY 19, LHMC interpreters reported 82,112 total encounters.

The top three languages were: Spanish, Portuguese, Chinese languages

Interpretation for top three languages:
In person:
Spanish 19,733
Portuguese: 5,582
Chinese: 4,331

Video:
Spanish 4,919
Portuguese: 1,204
Chinese: 1,265

Over the phone:
Spanish 4,389
Portuguese: 1,214
Chinese: 668

Community Education: Women's Health Lecture Series

Brief Description/Objective: The Women's Leadership Council (WLC) at LHMC was founded in 2004 by a group of female community leaders and physicians with the goal of educating and empowering women to be their own health care advocates. One of the ways they achieve that mission is through the Women's Health Lecture Series, a forum that supports education and health care advocacy for women of all ages. The lecture topics are derived directly from the LHMC/LMCP CHNA and are chosen by the WLC Education Committee with input from the Clinical Advisory Committee. The lectures are free and open to the public. The audience averages about 125-150 people. In FY 19, the WLC hosted three lectures on the following topics:

My Journey on the Gurney

Overcoming Adversity with Attitude, Choice & Purpose
- Julia Fox Garrison

Healthy Bones for a Healthy Life
- Alice Hunter, MD
- Gianluca Toraldo, MD, PhD

To Sleep, Perchance to Dream
Sleep Problems and What to Do About Them
- Paul Gross, MD

Target Population:
- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: English
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Chronic Disease--Osteoporosis
Goals: The annual Women's Health Lecture Series strives to educate the community on important and timely health issues.
Goals Status: Approximately 480 people were served through this program in FY 19, which represents an increase of 140% from FY 18.

Supporting the Community: Grant Funding

Brief Description/Objective: LHMC provides funding to community organizations aligned with the needs identified in our CHNA through the J.B. Thomas Lahey Foundation Program and through our scheduled DoN payments to the Community Health Network Areas in our service area. In FY 19, LHMC continued our six-year Department of Public Health scheduled payments to Community Health Network Areas 15 and 13/14 for our Emergency Department project. The funding provided goes toward grants focused on youth behavioral health and elder health – two priority populations in the LHMC CHNA.

In collaboration with Community Health Network Areas 15 and 13/14, in FY 19, LHMC funding provided over 26 grants ranging from $300 to $25,000 for organizations within the service area to address identified health issues focused on youth behavioral health and elder health in their communities.

The J.B. Thomas Lahey Foundation at LMCP funds programs that support the identified health needs of residents of Peabody, with the goal of improving community health. Based on findings from the most recent CHNA, Peabody residents are largely older, more diverse and more vulnerable to health disparity than the majority of those in the LHMC service area.

Projects are reviewed and approved by a five-member board comprising hospital leadership and community representatives from Peabody. In FY 19, the J.B. Thomas Lahey Foundation supported six grants, with amounts ranging from $300 to $50,000, to improve the health of the community.

Target Population:
- Regions Served: Peabody; All Massachusetts
- Sex: All
- Age Group: Children; Teenagers; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Prevention
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: None
EOHHS Focus Issues: Chronic Disease; Mental Illness and Mental Health
Health Issues: Health Behaviors/Mental Health—Mental Health; Other—Senior Health Challenges/Care Coordination
Goals:

- Provide annual funding to Community Health Network Areas 13/14 and 15 for grants that address youth behavioral health and elder health.
- Provide annual grant funding for programs that improve the health and well-being of residents living in Peabody.

Goals Status:

- In FY 19, LHMC DoN funding supported 38 grants that addressed youth behavioral health and elder health in the community.
- In FY 19, the J.B. Thomas Lahey Foundation provided $165,903 in grant funding to seven community organizations.

Community Partners: Community Health Network Area 15, Community Health Network Area 13/14

Educating the Community: Bone Health and Osteoporosis Prevention

Brief Description/Objective: According to the American Orthopaedic Association, fragility fractures have become nearly epidemic in the United States among older adults, with over 2 million fractures occurring each year – more than the total number of heart attacks, strokes and breast cancer combined. Moreover, at least 44 million Americans are affected by osteoporosis or low bone density. Due to an aging population, the number of Americans with osteoporosis or low bone density is expected to increase significantly. Nearly half of all women and more than a quarter of all men will suffer fragility fractures in their lifetime.

In order to combat this growing crisis, LHMC is committed to injury prevention through its Bone Health & Osteoporosis Prevention Program. The program provides an education class to patients and community members who are either referred by their physician or self-referred. The program provides patients with information for understanding the diagnosis of osteopenia and/or osteoporosis, discusses treatment measures to improve bone health after a fracture, provides education on the types of exercises necessary to promote bone health and prevent falls, provides information on a healthful diet with important nutrients that contribute to bone health, and aims to reduce the burden of fragility fractures for the individual and community.

The majority of participants were from Middlesex and Essex Counties, and most of those were from Burlington and surrounding cities and towns, including Bedford, Belmont, Beverly, Chelmsford, Lexington, Rowley, Tewksbury, Tyngsborough, Wakefield, Westford, Wilmington, and Woburn, and several participants were from New Hampshire. Most participants were women (78%) 50 and older. In FY 19, LHMC also purchased a bone index scanner that is undergoing testing for accuracy in order to bring the scans into the community in FY 20.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: Adults; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Community-Clinical Linkages

DoN Health Priorities: None
EOHHS Focus Issues: Chronic Disease
Health Issues: Chronic Disease—Osteoporosis
Goals:

- Provide information and motivation for lifestyle changes to positively impact bone health.

Goals Status:

- LHMC provided five classes in FY 19. Program evaluation included a 10-item post-program survey rating the effectiveness of the class and to what degree the participant could apply the information and skills learned to improve their bone health. In addition, participants were asked what they found most helpful about the presentations. The following are some of the comments provided by the participants:
    - Participants reported new ideas and information to apply to their lifestyles for better health.
    - Participants reported that they plan to pay more attention to diet and exercise to improve health.
    - Participants plan to make changes to their exercise routine and take vitamin D and calcium as recommended by their health care professional.
    - Participants found that actual menus were helpful for meal planning.
    - Participants reported that background and explanation of medications provided better understanding for decision-making and adherence to treatment.

Increasing Access: Merrimack Valley Food Bank Community Market Program

Brief Description/Objective: In FY 19, LHMC partnered with the Merrimack Valley Food Bank (MVFB) to provide funding to support its Community Market Program, which serves residents of four Lowell Housing Authority (LHA) properties, offering them the opportunity to supplement their food by enjoying fresh produce at no cost. In addition to the fresh produce, the market frequently offers bottled water, juice, and other items. The market operates in one location each Friday so that residents of each complex are able to attend once per month. There are interpreters at the markets, where most guests are speakers of other languages, and outreach materials are translated into Spanish and Khmer for all partner sites.

On the Fridays when the market takes place, MVFB staff and volunteers transport and distribute food from our Lowell food distribution center to one of the four market sites. The first time they attend, residents register by providing proof of residency and income verification, as well as their household size and demographic information. Once they have registered, they just need to check in with the MVFB staff at the beginning of each market so that we can track participation. The amount of food given to each attendee is based on the size of their household. Each household receives an average of 143 pounds of food from the market over the course of the July-October operation.

Bringing the market to the LHA properties helps residents who have difficulty traveling to a grocery store or pantry. The convenience of having fresh produce available outside one's front door may encourage individuals to eat more fresh fruits and vegetables. The program goal is to help members of low-income households maintain a healthy lifestyle by offering fresh fruits and vegetables that will supplement their diets and food budgets.

This program also serves a diverse population at the four housing sites in FY 19:

- 2% African/Black
- 30% Asian
- 33% White
- 28% Hispanic
- 7% Other

Of those ethnicities, the following age groups were served:

- 10% Children 0-17
- 43% Adults 18-64
- 47% Seniors 65+

Target Population:

- Regions Served: Lowell
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: English
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Additional Health Needs as defined by community
Health Issues: Social Determinants of Health—Access to Healthy Food
Goals: Increase access to fresh produce for residents of Lowell.
Goals Status: 1,194 residents received food through this program. This is a slight increase from 1,115 served the previous year. The program distributed over 30,546 pounds of food of food to the residents of the four sites. This translates to 23,497 meals. This is compared to 22,000 pounds distributed the previous year.
Community Partners: Merrimack Valley Food Bank, Lowell Housing Authority

Educating the Community: Cooking Up Good Health

Brief Description/Objective: Based on responses from the LHMC Community Health Survey, the percentage of adult respondents (18+) who reported being either obese or overweight was higher (60.8%) than the percentage for the Commonwealth overall (58%). Even more notably, adults in households earning below 200% of the federal poverty level were even more likely to be overweight or obese, with 72% of low-income individuals reporting being either overweight or obese. To help address this issue, LHMC hosts Cooking Up Good Health cooking classes. Led by a registered dietitian, Cooking Up Good Health is a free cooking demonstration and nutrition class series that is open to the entire community. In FY 19, LHMC hosted seven sessions of the class, where participants learned different culinary tips and nutrition information about meals, snacks, sides and desserts.

Target Population:

- Regions Served: Burlington, Billerica
- Sex: All
- Age Group: Adults; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: None
EOHHS Focus Issues: Chronic Disease
Health Issues: Social Determinants of Health—Nutrition
Goals:

- Serve five or more participants per session with the goal in FY 20 of serving 10+ participants per session. LHMC is promoting the series to patients during inpatient and outpatient visits and is targeting the community via Facebook posts and marketing at other community events, such as the Burlington Council on Aging grand opening in November.
- Increase culinary skills and knowledge of healthful nutrition.

Goals Status:

- In FY 19, LHMC served over 77 participants, many of whom attended more than one session.
- 43% of participants reported in a pre-class survey that they felt very confident that they could cook a healthy meal. After taking the class, 69% of participants reported feeling very confident, representing a 26% increase.

Community Partners: Burlington Council on Aging, Billerica Council on Aging

Improving the Built Environment: Lowell's Community and School Gardens

Brief Description/Objective: In FY 19, LHMC partnered with Mill City Grows (MCG) to provide funding for improvements to its community-based garden program. MCG, a longtime partner of LHMC, has designed and built and now oversees 20 community and school gardens in Lowell that are used by over 6,500 Lowell residents. In this urban environment with numerous low-income neighborhoods, environmental challenges exist that contribute to health inequities among low-income families, elders, immigrants and refugee residents. Low-income neighborhoods are blighted by vacant, contaminated and underutilized lots containing soils with legacy heavy metals and other toxins that are remnants of Lowell's industrial past. This renders much of the open space in these neighborhoods unsuitable for recreational use – with little incentive for developers to remediate the land.

Many of Lowell's low-income neighborhoods also have low food access, without a grocery store available in walking distance for residents who do not have reliable access to transportation. As a result, Lowell residents have a high rate of diet-related diseases including obesity, diabetes, and high blood pressure. In 2008, *Nutrition Reviews* identified characteristics of neighborhoods that contribute to the obesity epidemic faced in our country: income level, the built environment, and access to healthy food. Lowell residents are greatly at risk in these three areas, as poverty remains a key community challenge, with 19.1% of residents and 20% of families with children under the age of 18 living below the poverty level. Twenty-two percent of Lowell residents receive Supplemental Nutrition Assistance Program benefits, compared with 10.7% statewide. Community gardens have been shown to reduce urban blight, increase property values by 9.4% in five years, and reduce gardeners' BMI.

MCG's seven community gardens include 199 garden beds. These garden beds are assigned to local residents for their personal use from April to November each year to grow and harvest produce. Gardens are co-led by community volunteers who are trained at the Garden Leadership Institute, which runs from February to March and teaches participants about leadership, food justice, and advocacy as well as gardening skills. These garden leaders assist with outreach, garden maintenance, and managing volunteer projects at the gardens. All gardeners have access to supplies (seeds, tools, water), training, and technical support from MCG staff as well as more structured training through the Gardener Training Program, which includes a series of workshops in organic gardening as well as "skillshares," which are short workshops taught by experienced community gardeners.

School gardens are available at 13 of Lowell's Public Schools (LPS), where over 6,000 students can participate in gardening through in-classroom, afterschool and out-of-school activities. MCG's Education Team provides in-school lessons at two to four high-needs schools in Lowell, afterschool programming at four schools, schoolwide taste tests of local produce for up to 2,000 students, and family cooking classes for up to 20 families per year. In addition, MCG supports LPS teachers in using the gardens as a hands-on learning lab for a variety of teacher-led STEM lessons.

Demographically, this project served the following populations in Lowell:

Community gardeners: 51% white, 15% black, 18% Asian; 16% Latinx/Hispanic. Sixty percent are from very low-, low-, or moderate-income houses, according to U.S. Department of Housing and Urban Development guidelines. We do not track ages and genders for this cohort.

LPS students: 7.9% African American, 28.3% Asian, 34.4% Hispanic/Latinx, 0% Native American, 25.5% white, 3.9% multiracial. Of these students, 52% are male and 48% are female. According to the Massachusetts Department of Education, 57.7% are economically disadvantaged, 74% are high needs, and 24% are English language learners.

The overall purpose of the project was to improve long-term health outcomes for Lowell's low-income families by improving access to healthy food through changes to the built environment.

Target Population:

- Regions Served: Lowell
- Sex: All
- Age Group: All

- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Built Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Social Determinants of Health—Access to Healthy Food; Social Determinants of Health—Nutrition
Goals:

- Improve and maintain garden spaces and reach 6,500 Lowell residents through the community garden program, providing food access and education programming.
- 40% of gardeners will eat more produce, 50% will report more physical activity, and 75% will report an increase in knowledge about gardening and nutrition.

Goals Status:

- Total reach was 7,108 people, a 9% increase over what was projected. This included 450 community gardeners, 6,598 students with access to a garden (2,707 students served directly through educational programming led by MCG), and 60 volunteers.
- 16,325 pounds of produce was grown and distributed across all school and community gardens; 20 public green spaces were improved and maintained as a result of this project, providing gathering space for outdoor activity for over 7,000 people. The Lowell Police Department has noted that community gardens have made public parks safer spaces. The community and school gardens also create cross-cultural spaces for social engagement across language barriers.
- In a survey, 52% of community gardeners reported an increase in physical activity; 48% of gardeners reported an increase in fruit/vegetable consumption; and 75% of participants reported they gained knowledge or skills after participating in a food/gardening educational program.

Community Partners: Mill City Grows

Improving the Built Environment: Burlington Fitness Court

Brief Description/Objective: Lack of physical fitness and poor nutrition are among the leading risk factors associated with obesity and chronic health issues such as heart disease, hypertension, diabetes, cancer and depression. Adequate nutrition helps prevent disease and is essential for the healthy growth and development of children and adolescents. Overall fitness and physical activity reduce the risk for many chronic conditions and are linked to good emotional health. The LHMC CHNA identified that approximately one in five adults (21%) reported getting no physical activity in the past 30 days.

As a response, to increase access to and the availability of free exercise equipment for the community, LHMC has partnered with the Burlington Recreation Department and the National Fitness Campaign (NFC) to fund an outdoor fitness court. The NFC Fitness Court is a full-body circuit-training system designed for adults of all ages and fitness levels. Each Fitness Court features 30 individual pieces of equipment and shock-resistant sports flooring, and includes exercise stations that allow for up to 28 individuals to use the court at the same time. Workouts are app driven and can be tailored for each participant. Research is increasingly demonstrating links between specific community factors, such as the availability of parks, accessibility of healthy foods, and walkability of neighborhoods, and the choices people make in their daily lives. The Fitness Court opened in June 2019, and the Burlington Recreation Department has hosted several free pilot classes, hired a Fitness Court coordinator, and is planning for a scheduled biweekly class in FY 20. The Burlington site was also selected by NFC as a pilot study site and is being closely monitored for users and total impact.

Target Population:

- Regions Served: Burlington
- Age Group: All
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Built Environment
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Health Behaviors/Mental Health—Physical Activity
Goals:

- Increase total number of users through classes and other activation activities.
- Improve the overall health of Fitness Court users through increasing daily caloric expenditure.

Goals Status:

- On average:
  - The Fitness Court has 3.4 daily app users, which NFC estimates to be 10% of the total users, based on existing data from other sites.
  - The Fitness Court has 34 daily users, based on that estimate.
  - In FY 19, it is estimated that there were over 3,500 total users.
- For the 2019 pilot program, there are various data points under consideration to measure impact. The primary data point used for individual use for 2019 is Fitness Court App data, showcasing total active users on the platform. It is important to note that this study is speculative in nature, extrapolating nationwide estimates for caloric expenditure as it relates to body composition. Historically, an estimated 5%-10% of total Fitness Court users at a given location use the app. Thus, estimates can be created on total users, both digital and nondigital.
  - Estimated average participation duration was 4.5 minutes.
  - Caloric expenditure for an average adult per 4.5 minutes was 77 calories.
  - Estimated total caloric expenditure for FY 19 was 269,500 calories.

Community Partners: Burlington Recreation Department, National Fitness Campaign

Increasing Access to Care: LHMC Transportation Programs

Brief Description/Objective: The LHMC CHNA identified transportation as one of the major barriers to care within our service area. While social determinants of health affect all populations, community and organizational experts expressed concern that seniors may feel these effects more acutely. Many older adults live on fixed incomes with limited funds for medical expenses, leaving them less able to afford the high costs associated with negative health outcomes. Transportation was also consistently mentioned as a major barrier to senior well-being, as many elders no longer drive and find themselves with fewer transportation options in LHMC's suburban setting. LHMC also set improving access through transportation as a key Implementation Strategy goal and participates in a regional transportation planning collaborative.

In response, LHMC provides a variety of ways to help bridge the gaps that can be caused by lack of transportation, including providing free taxi and Uber rides and free parking vouchers to local Councils on Aging. In FY 19, LHMC also supported the Billerica Council on Aging ride program by providing funding to support reimbursement for volunteer drivers who transport seniors to both medical and nonmedical destinations, like the grocery store, senior center, and pharmacy.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Access/Coverage Supports

DoN Health Priorities: None
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health—Access to Transportation
Goals: Increase access to transportation for area residents.
Goals Status:

- LHMC provided 160 free taxi and Uber rides for those who could not otherwise transport themselves home.
- LHMC provided 1,000 parking passes to the Burlington Council on Aging to distribute to residents they identified as in need of assistance to help them pay for parking for their previously scheduled appointments. This is a 100% increase from FY 18.
- The Billerica volunteer ride program provided 1,170 rides to medical appointments.

Community Partners: Middlesex 3, Burlington Council on Aging, Billerica Council on Aging

HIncreasing Access to Care: Housing Corporation of Arlington Social Worker Program

Brief Description/Objective: Vulnerable and low-income individuals were identified specifically in the most recent LHMC CHNA as targeted populations for Community Benefits support. Starting in FY 18, LHMC partnered with the Housing Corporation of Arlington (HCA) to provide a grant to support the addition of a social worker to its team to support its Homelessness Prevention Program (HPP). HCA is a nonprofit community development corporation established in 1986 whose mission is to provide and advocate for affordable housing for low- and moderate-income households in Arlington and the surrounding communities while promoting social and economic diversity. HCA runs two programs: the Affordable Apartment Program and the HPP.

As part of the grant, HCA hired an experienced social worker who dedicated 64 hours per month of staff time to the project and served 163 households (approximately 260 people). In addition to serving a higher number of Arlington residents, HCA is planning to further streamline the referral process to current members of the network while recruiting additional service providers to join the network. As a component of this project, HCA also expanded the Arlington Human Services Network (AHSN), a 16-member group that meets twice a month to collaborate on referrals of individuals and families with complex needs including multiple risk factors and to coordinate services. The AHSN knits together existing community resources and coordinates efforts to wrap services around Arlington's most vulnerable residents. Families and individuals enter the AHSN through referrals by any AHSN member organization. The AHSN created a common referral and consent form, and each member organization has integrated the referral and consent form into its own intake process. The AHSN tracks referrals and outcomes in an Excel database.

Target Population:

- Regions Served: Arlington
- Age Group: All
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health--Homelessness
Goals:

- Assist vulnerable Arlington residents with maintaining or accessing housing and help connect them with individualized support services.
- Increase participation in the AHSN.
- Provide stabilized housing for individuals and families.
- Provide follow-up to households that received housing grants to assess the impact of the program.

Goals Status:

- HCA served 123 households and the AHSN served 40 households during the reporting period, for a total of 163 households, or approximately 260 individuals.
- HCA expanded the AHSN to include 16 organizations, crystalized the AHSN's mission and purpose, and researched promising evidence-based models of outreach and coordination. The AHSN served 40 households with complex needs including homelessness, eviction risk, substance abuse, and mental health and physical health challenges.
- The HPP stabilized housing for 23 households during the reporting period. These households faced challenges that included health issues that led to rental arrears, job loss, domestic violence, immigration challenges, and moves due to high housing costs or housing sales by landlords.
- In 2019, HCA conducted follow-up with households that received grants to stabilize their housing from 2017 to 2019. Out of the 51 households that received grants from the HPP since 2017, 28 households responded. All 28 households reported that they remained housed without rental arrears. Out of the 28 households, 13 were referred for additional services. Referrals included financial coaching and credit repair, library homebound services, employment assistance, the Council on Aging, the Arlington EATS Market, the Arlington Youth Counseling Center, and volunteer opportunities in the community.

Community Partners: Arlington Council on Aging, Arlington Food Pantry, Department of Health and Human Services, Arlington Police Department, Arlington Fire Department, Arlington Public Schools, Arlington Board of Health, Arlington Housing Authority, Arlington Youth Counseling Center, Arlington Public Library, Greater Somerville Homeless Coalition, Minuteman Senior Services, Veterans Affairs, Mt. Auburn Hospital, Housing Corporation of Arlington, Calvary United Methodist Church, and Metro Housing Boston

Healthy State: Web-Based Health News
Program Website: https://www.myhealthystate.org/

Brief Description/Objective: More people are turning to web-based resources for health information. By providing expert health information, personal stories and connections to resources, Healthy State provides health information to educate and influence people to change their unhealthy behaviors and encourage interventions capable of improving health status.

Healthy State is a health news website that highlights the expertise of our practitioners across Lahey Health. We collaborate with practitioners (doctors, advanced practitioners, staff, etc.) on stories across various service lines to share information relevant to our audience. Story topics range from health and wellness to patient and colleague anecdotes to community programs.

The site offers free, easy-to-read articles for the community. The site strategically addresses health issues that are most pressing to the community, including:

- Cancer awareness, with articles on the benefits of cancer screenings, including information on breast, skin, colon, cervical, prostate and lung cancers.
- Sports and exercise safety, healthful eating, high blood pressure and heart health.
- Seasonal wellness tips, including educating residents about the difference between a cold and the flu and how to avoid heat stroke in extreme heat.
- Emerging health concerns, such as new forms of smoking and understanding Juul and other vaping/e-cigarette product health risks. Articles also address the increase in suicide rates and how to speak to a child about suicide.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education

Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: None
EOHHS Focus Issues: Chronic Disease; Mental Health/Mental Illness; Substance Use; Additional Health Needs as Defined by Community
Health Issues: Chronic Disease: Obesity; Health Behaviors/Mental Health: Mental Health; Social Determinants of Health: Nutrition
Goals: Healthy State seeks to influence personal health choices and to inform people about ways to enhance health or avoid specific health risks by:

- Increasing knowledge and awareness of a health issue
- Influencing behaviors and attitudes toward a health issue
- Dispelling misconceptions about health

Goals Status:

- Number of page views for FY 19: 106,720
- Number of return users for FY 19: 8,320
- Average session duration for FY 19: 38 seconds
- Pages per session: 1.26

Strengthening the Local Workforce: LHMC Internship Programs

Brief Description/Objective: Lack of gainful and reliable employment is linked to several barriers to care, including lack of health insurance, inability to pay for health care services and copays, and inability to pay for transportation to enable individuals to receive services. In key informant interviews and focus groups, participants stressed that while unemployment may be low across the service area, many live on fixed incomes or are underemployed. Certain populations struggle to find and retain employment for a variety of reasons – from mental and physical health issues to lack of child care to transportation issues and other factors.

In recognition of this significant health need, LHMC is committed to collaborating with partners to strengthen the local workforce by supporting job training and internship programs. Every year, through the Radiology Job Training Program, students from surrounding colleges and universities are given the opportunity to receive hands-on clinical experience in radiation, breast imaging, CT scan, nuclear medicine, and ultrasound technologies. Internships range from six months to two years and interns are supervised and educated by LHMC staff members. LHMC partners with Bunker Hill Community College, Middlesex Community College, and Regis College on this program.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: Adult
- Race/Ethnicity: All
- Language: English
- Environment Served: All

Additional Target Population Status: Health Professional/Staff Training
Program Description Tags:
Program Type: Direct Clinical Services
DoN Health Priorities: Education
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health: Education/Learning
Goals: Provide clinically based education opportunities to help strengthen the local workforce.
Goals Status: In FY 19, LHMC was able to provide:

- Three year-long internships for students in ultrasound technologies
- One nine-month internship in mammography for breast imaging

- Four three-month internships in nuclear medicine
- 18 two-year radiology internships; seven of those graduates were hired by LHMC post-internship

Community Partners: Regis College, Bunker Hill Community College, Middlesex Community College

Cancer Programs: Screenings and Prevention

Brief Description/Objective: Chronic conditions such as heart disease, cancer, stroke, Alzheimer's disease, and diabetes are the leading causes of death and disability in the United States and are the leading drivers of the nation's $3.3 trillion annual health care costs. Over half of American adults have at least one chronic condition, while 40% have two or more. Screening is an essential tool to identify cancers early. Because the risk for breast cancer is not the same for all women, some women need more advanced screening beyond the standard recommendations.

In response to this identified community need, LHMC has implemented an assessment screening tool at the Burlington, Peabody and Lexington locations to help community residents determine whether they may be at risk for breast cancer. Using an electronic tablet, people confidentially answer questions that help determine whether they may be at a higher risk for breast cancer. The assessment, evaluation and follow-up are all provided at no cost to participants. Results are given to their physicians, who can help them determine whether they might benefit from a higher level of screening beyond regular checkups and mammograms.

LHMC is also a long-standing partner with the American Cancer Society on many community-based prevention activities and has partnered for several years with the Burlington Recreation Department on a summer skin safety campaign.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None

Program Description Tags: Health Screening

Program Type: Direct Clinical Services

DoN Health Priorities: None

EOHHS Focus Issues: Chronic Disease

Health Issues: Cancer: Breast Cancer; Cancer: Skin Cancer

Goals: Identify persons who may be at a higher risk for breast cancer and provide screening follow-up to their physicians.

Goals Status: In FY 19, LHMC completed 26,131 risk assessments, representing an increase of 5% from the previous year. In screening findings for FY 19, 10% of participants who were screened were identified as having a high lifetime risk of breast cancer.

Community Partners: Burlington Recreation Department, American Cancer Society

Cancer Programs: Caregiver Support

Brief Description/Objective: In the most recent CHNA, caregiver support was consistently brought up as a serious issue in community interviews and forums. Many people undergoing cancer treatment rely on family members or aides to manage their care. Between navigating the health system, organizing appointments and medications, and making major medical decisions on behalf of their loved one, stress and burnout among caregivers was reported by stakeholders as one of the greatest threats to senior well-being. In direct response, in our most recent Implementation Strategy, LHMC identified as a goal enhancing caregiver support and reducing family/caregiver stress.

One way that LHMC is addressing that goal is through the Harpley Fund. This fund provides grants of up to $1,500 to families of people undergoing cancer treatment to help provide financial support for private-duty nursing services or end-of-life care.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: Adult; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Community Clinical Linkages
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Cancer—Other; Other—Hospice
Goals: To provide grants of up to $1,500 to people undergoing cancer treatment to help alleviate caregiver/family stress related to cost of care.
Goals Status: In FY 18, LHMC provided funding for 50 individuals, and in FY 19 that number increased to 63, representing a 26% increase.

Cancer Programs: Increasing Access and Supportive Services for Cancer Patients

Brief Description/Objective: Oncology nurse navigators are registered nurses with oncology-specific clinical knowledge who offer individualized support and assistance to patients and their caregivers to help them make informed decisions about their care and to overcome barriers to optimal care. They establish contact with newly diagnosed cancer patients and/or caregivers to guide them through the disease-specific care system and provide an understanding of the clinical pathways established by the disease-specific systems. They help direct patients to health care services within the organization for timely treatment and survivorship. They also identify and address barriers to care that might keep the patient from receiving timely and appropriate treatment for their cancer diagnosis by connecting them with resources and health care and support services in their communities.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Access/Coverage Support
DoN Health Priorities: None
EOHHS Focus Issues: Chronic Disease
Health Issues: Cancer—Other; Social Determinants of Health: Access to Healthcare
Goals: To guide patients through the complexities of the disease, direct them to health care services for timely treatment and survivorship, and actively identify and address barriers to care that might prevent them from receiving timely and appropriate treatment. In addition, the nurse navigator connects patients with resources and health care and support services in their communities and assists them in the transition from active treatment to survivorship.
Goals Status: In FY 19, the navigators served on average between 10-15 individuals per day.

Cancer Programs: PINK Breast Cancer Support

Brief Description/Objective: In response to the priorities identified in our CHNA, LHMC partnered with the Burbank YMCA to conduct three courses of the PINK Breast Cancer Survivorship Program that served 37 individual breast cancer survivors and an additional 68 registrants for the PINK Maintenance Program over the course of the year from fall 2018 to fall 2019 for a total of 105 PINK Program users.

The PINK Program for breast cancer survivors is a locally developed program specifically designed to help breast cancer survivors boost energy, increase strength and restore ease of movement while performing daily tasks. Classes are tailored for the different types of breast cancer surgeries and adapted for all fitness levels. The instructors are trained in cancer survivorship, post-rehabilitation exercise and supportive cancer care.

Through PINK, survivors and their families receive a membership at the YMCA for the duration of the program, whether they are new to the program or participate in the maintenance program.

Over the past several decades, the number of cancer survivors has dramatically increased. The number of cancer survivors in the United States rose from 3 million in 1971 to 9.8 million in 2001 to 14.5 million in 2014 – from 1.5% of the U.S. population in 1971 to 4.6% today. Projections indicate that the number of cancer survivors will reach at least 19 million by 2024. According to data from the CDC, nearly 8,000 people suffer from cancer in Middlesex County, which includes the Reading YMCA's service area. The LHMC CHNA reveals that hospitalization rates for breast cancer in women were statistically higher than the Commonwealth's across nearly all the primary service area's cities and towns. However, only Reading had an incidence rate (179 per 100,000) that was statistically higher than the Commonwealth's.

Beyond the physical and emotional effects of cancer, many cancer patients and survivors also face severe debt and other financial hardships. Some lose their life savings, others lose their jobs, and many are forced to file for bankruptcy. In an article published May 15, 2013, in the journal *Health Affairs*, researchers at the Fred Hutchinson Cancer Research Center in Seattle reported that people with cancer were more than 2.5 times more likely to declare bankruptcy than were people without cancer, with the likelihood even greater in younger patients. Because of these financial burdens, the YMCA provides access to its cancer programs free of charge to all participants.

Beyond addressing the physical and emotional needs of this population, the PINK Program provides social/emotional support that cancer survivors find very valuable. Because cancer can change their lives so drastically, participants welcome meeting others who know what they are going through and value working with instructors who genuinely care about the progress they make. This was the genesis for the PINK Maintenance Program, which allows graduated participants to continue their journey to health with the support of staff and other survivors.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: Adults; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Cancer: Breast; Health Behaviors—Physical Activity
Goals: Increase mobility, balance and opportunities for exercise for cancer survivors to return to health.
Goals Status: In FY 19, this program was able to serve 105 people in three PINK sessions as well as through the ongoing PINK Maintenance Program.

The PINK Program has a pre- and post-assessment and uses the Promis-29 as a measurement. The programs use a physical assessment that includes range of motion for arms, flexibility, and balance. Generally, participants experienced significant increases in physical activity, overall quality of life and fitness performance, as well as decreases in cancer-related fatigue. The program is run twice a week, as participants are encouraged to stick with the program during the early part of the session.

After 12 program weeks, the participants who utilized the PINK Program experienced the following:

Physical Assessments:

- Balance assessment showed participants improved by an average of 1.5 times their previous score
- Range of motion assessment was inconclusive, as many began the program with 100% range of motion.

Emotional Assessments:
Promis-29 results show that 50% of all participants had shown an increase in energy level, including:

- Physical function (ability to do chores, run errands, walk, and climb stairs)
- Satisfaction with social role (ability to work and attend to personal and household responsibilities and daily routines)
- Fatigue (feeling tired, run down, and unable to start tasks)

Completion Statistics:

- 96% of PINK participants who began the program completed it.

Community Partners: Burbank YMCA

Cancer Programs: LIVESTRONG

Brief Description/Objective: Over the past several decades, the number of cancer survivors has dramatically increased – from 3 million (1.5% of the U.S. population) in 1971 to 9.8 million in 2001 to 14.5 million (4.6%) in 2014. Projections indicate that the number of cancer survivors will reach at least 19 million by 2024. According to data from the CDC, nearly 8,000 people suffer from cancer in Middlesex County, which includes the North Suburban YMCA's service area.

To address this issue, LHMC partnered with the North Suburban YMCA in Woburn to provide five sessions of the LIVESTRONG program for cancer survivors. LIVESTRONG is a small-group, evidence-based class that helps cancer survivors, or those in the midst of cancer treatment, believe in and achieve a healthier tomorrow and envision life after cancer.

Classes are tailored for all cancer survivors, regardless of stage of diagnosis or treatment, and adapted for all fitness levels. Two trained and certified instructors run each session for 12 weeks, with eight to 10 participants meeting twice a week. Staff members are trained on the unique physical and emotional needs of cancer survivors, curriculum and best practices. They work with each participant to create an individualized exercise program from pre-program assessment results, and then teach and demonstrate exercise technique and safety considerations. This individualized attention helps participants meet their goals and overcome their specific barriers.

Target Population:

- Regions Served: All
- Sex: All
- Age Group: Adults; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population/Community Wide Initiative
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Cancer—Other; Health Behaviors—Physical Activity

Goals: Create communities among cancer survivors and guide them through safe physical activity, helping them build supportive relationships leading to an improved quality of life.
Goals Status: In FY 19, 20 people at the North Suburban YMCA participated in the program (10 in the spring and 10 in the fall). Of those, nine completed the 12-week program. The other 11 participants could not complete the program, largely because of various surgeries, chemotherapy and overall weakness from their treatments.

LIVESTRONG at the YMCA has an established, research-based evaluation plan that uses pre- and post-assessment tests. The detailed assessments evaluate arm function, range of motion and lymph node prognosis; shoulder flexion, extension and abduction; and posture. Program participants are asked to rate overall quality of life, ability to perform daily tasks, mobility, eating habits, fitness level, perceived body image, current energy levels and overall happiness.

The program collects pre- and post-assessment data to show participants' progress over the 12 weeks in the areas of cardiovascular endurance, strength, flexibility, mobility and behavioral health. Among participants who graduated, the results were as follows:

- 96% increased their cardiovascular endurance
- 90% increased their strength
- 65% increased their flexibility
- 75% increased their mobility
- 63% experienced an increase in ability to work
- 55% increased their ability to perform personal and household activities/chores
- 45% experienced increased confidence in daily routines

Community Partners: North Suburban YMCA

Elder Health Programs

Serving Health Information Needs of Everyone (SHINE) Program

Brief Description/Objective: LHMC continued our extremely successful partnership with Minuteman Senior Services in FY 19 to continue to provide SHINE counselors at the Arlington and Burlington Councils on Aging and at a designated site on the LHMC campus at 41 Mall Road.

The consumers served in the LHMC region received no-cost, one-on-one insurance benefits counseling provided by state-certified SHINE volunteers or staff members. LHMC is the only acute care health system serving as a SHINE counseling site in Massachusetts. The collaboration includes private, in-kind space so SHINE counselors can be accessible to the hospital community, volunteer support provided by the LHMC Volunteer Services Department, and related services.

Health insurance makes a difference when it comes to individuals receiving medical care, where they get this care, and ultimately, how healthy they are. People without adequate insurance are much more likely to postpone preventive care, health screenings and necessary treatment. The cost of putting off needed medical care, not filling prescribed medications and skipping routine exams can be severe, particularly when preventable or treatable diseases go undetected. While there are public health safety nets offered by nonprofit hospitals and community health centers, these programs do not close the health insurance gap for those who are completely uninsured. The LHMC/SHINE collaboration helps address health care costs Medicare beneficiaries struggle with by connecting individuals to health insurance that meets their current health care needs, their lifestyle and their budget.

SHINE counselors help Medicare beneficiaries understand what they need for insurance coverage based on medical history, current health, and prescribed medication(s), along with costs incurred by not having supplemental insurance. A one-hour visit with a SHINE counselor can save a consumer thousands of dollars in out-of-pocket costs by

comparing plans through a newly designed Medicare plan-finder tool. Counselors also have access to proprietary information developed by the Executive Office of Elder Affairs, Center for Medicare & Medicaid Services, and the Massachusetts Department of Health and Human Services, referred to as Common Resources, a password-protected intranet for counselors. SHINE counselors are part accountant, part software specialist, part researcher, part nurse, part pharmacist, part social worker and part advocate, often seeing consumers yearly for a "health insurance check-up."

SHINE counselors also screen Medicare beneficiaries for public benefits eligibility – e.g., MassHealth, the Medicare Savings Program, Prescription Advantage, Health Safety Net, free care/discounted prescriptions, and referrals to connect people with fuel assistance, home care, and food. Each SHINE counseling session is documented with data collected and stored in the Administration for Community Living STARS database used to analyze national, state and local trends and capture consumer demographics.

In addition to face-to-face counseling, SHINE counselors offered residents of Arlington and Burlington group presentations designed to educate individuals new to Medicare and people enrolled in Medicare and a supplemental plan who wanted to know more about their health care coverage choices. Open Enrollment presentations were held at the Arlington, Winchester, and Burlington Councils on Aging, and Minuteman Senior Services facilitated two two-night adult education seminars at Arlington High School, which each attracted 25 attendees. To help homebound individuals connect with their local SHINE counselors, information regarding Medicare and SHINE was distributed to anyone receiving Meals on Wheels and publicized using local cable television, social media and print advertising.

Target Population:

- Regions Served: Arlington, Burlington, Billerica
- Sex: All
- Age Group: Adult; Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Prevention
Program Type: Access/Coverage Supports
DoN Health Priorities: None
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health—Access to Health Care
Goals:

- To provide Medicare beneficiaries and their family members with confidential and unbiased health insurance information to address inpatient, outpatient and prescription drug benefit gaps in coverage.
- To increase the number of individuals served through the program.

Goals Status:

- The program served 672 individuals over the course of the year, a 40% increase from the number served in FY 18.
- Of the 672 individuals who visited a Lahey/SHINE counseling site during the fiscal year, 25% of consumers were below the federal poverty threshold, meaning these individuals received additional counseling regarding MassHealth, Health Safety Net and the Medicare Savings Program.
- Collectively, the Lahey/SHINE counselors provided communities with 2,000 hours of service including attendance at monthly training meetings and research on behalf of consumers.

Community Partners: Minuteman Senior Services, Burlington Council on Aging, Arlington Council on Aging

Caregiver Support: Burlington Memory Café

Brief Description/Objective: In the most recent LHMC CHNA, stakeholder interviews and community feedback revealed significant concerns for the older adult population including issues around neurological issues (e.g.,

Alzheimer's, dementia) and caregiver support. One way LHMC is addressing this identified health need is through a partnership with the Burlington Council on Aging to provide a Memory Café once a month for persons with dementia and their caregivers.

Memory Cafés are welcoming social gatherings for people living with dementia and their families, friends or professional caregivers. They are meant to provide a welcoming, stigma-free social setting where people living with dementia and their care partners can meet others and enjoy time together. Cafés aim to decrease the social isolation that often accompanies dementia.

Target Population:

- Regions Served: Burlington
- Age Group: Elderly
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Support Group
Program Type: Total Population/ Community Wide Intervention
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Other—Senior Healthcare Challenges; Chronic Disease—Alzheimer's Disease
Goals: Provide support through the Memory Café to 15 participants per class.
Goals Status:

- 45 individuals have attended one or more Memory Café, with an average of 30 participants per month.
- The age range for participants is 66-91 years old.

Community Partners: Burlington Council on Aging, Alzheimer's Association

Injury Prevention Initiatives: A Matter of Balance and AARP Smart Driver Course

Brief Description/Objective: LHMC has a robust, dedicated Trauma Department committed to community-based injury prevention for older adults. According to the American Orthopaedic Association, fragility fractures have become nearly epidemic in the United States among older adults, with over 2 million fractures occurring each year – more than the total number of heart attacks, strokes and breast cancer combined. Moreover, at least 44 million Americans are affected by osteoporosis or low bone density. Due to an aging population, the number of Americans with osteoporosis or low bone density is expected to increase significantly. Nearly half of all women and more than a quarter of all men will suffer fragility fractures in their lifetime. Based on this data and community feedback in the most recent CHNA, mobility and falls prevention for older adults continues to be a priority for LHMC's injury prevention program. In FY 19, LHMC continued is extremely successful evidence-based A Matter of Balance falls prevention program. LHMC hosted five eight-week sessions of the program and expanded capacity for the program in the community by training 17 community-based coaches. LHMC also focused its annual Injury Prevention & Community Outreach Conference in FY 19 on falls prevention.

LHMC also focused its injury prevention this year on decreasing the incidence of motor vehicle crashes involving older adults. CDC data has shown that since 1999, there has been a 63% increase of licensed drivers age 65 and older in the United States. In nearly all communities within the LHMC CBSA, the median age was significantly high compared with the Commonwealth overall, and in five communities, the percentage of the population over 65 was significantly high. Data has shown that elder drivers, particularly those age 75+, have higher crash death rates than middle-aged drivers (ages 35-54). Higher crash death rates among this age group are primarily due to increased vulnerability to injury in a crash. One way that LHMC has chosen to address this need is through partnering with AARP to provide a free Smart Driver course. The AARP Smart Driver course covers defensive driving techniques and the normal changes in vision, hearing, and reaction time associated with aging. The course provides practical techniques for adjusting to these changes to ensure the driver's own safety and that of others on the road. During the course, participants learn about current rules of the road and how to operate their vehicles more safely in today's increasingly challenging driving environment. Topics include maintaining proper following distance; minimizing the

effect of dangerous blind spots; limiting driver distractions such as eating, smoking, and cellphone use; properly using safety belts, air bags, and all car features; knowing the effects of medications on driving; maintaining physical flexibility; and monitoring the driving skills and capabilities of yourself and others.

Target Population:

- Regions Served: Burlington
- Age Group: Elderly
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Community Clinical Linkages
DoN Health Priorities: None
EOHHS Focus Issues: Chronic Disease
Health Issues: Injury—Home Injuries
Goals:

- Help older adults view falls and the fear of falling as controllable; set realistic goals for increasing activity; change their environment to reduce fall risk factors; and promote exercise to increase strength, endurance and balance.
- Provide a free AARP Smart Driver course to 15 participants.

Goals Status: The Project Enhance online data system was used to determine the effectiveness of the Matter of Balance (MOB) program. This report summary reflects patients who either were entered into the database system or completed the MOB program during FY 19. A total of 70 participants enrolled in the program (some had started the program during FY 18; 54 completed five or more sessions). Ages ranged from 60 to 95, with two individuals reporting an age less than 60; the top four age groups were 80-84 (28%), 75-79 (24%), 85-89 (14%), and 65-69 (14%). Of the participants, 74% were females, 26% males, and 5% were non-responders. Thirty-one percent of participants reported that they live alone.

In addition to offering the MOB program on the LHMC campus, we added a program offered off-site by the Burlington Medical Reserve Corps. Each participant was provided with a participant workbook.

Improvement and positive impact were noted in the following key areas:

- Participants could find a way to get up from a fall.
- Participants could find a way to reduce falls.
- Participants could protect themselves from a fall.
- Participants felt they could improve their physical strength.
- Participants could become steadier on their feet.
- Participants felt their concerns about falling did not interfere with normal social activities.
- Participants reported increased activity level.

Seventeen coaches were also trained in the training sessions.

The AARP Smart Driver course had 15 attendees representing several communities around Burlington, such as Arlington and Bedford. The average age of participants was 60+.

In a post-class survey, participants reported an increase in knowledge as a result of the course.
Community Partners: Burlington Council on Aging, Burlington Medical Reserve Corps, Burbank YMCA, AARP

Increasing Opportunities for Physical Activity: Community-Based Exercise Classes

Brief Description/Objective: As reported in the LHMC CHNA, lack of physical fitness and poor nutrition are the leading factors associated with obesity and chronic diseases such as heart disease, hypertension, diabetes and cancer, as well as depression and poor emotional health. According to Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) data for 2012-2013, one in four adults reported getting no physical activity in the 30 days preceding the survey and nearly 60% of adults in Middlesex County are considered overweight or obese. Rates for specific demographic, socioeconomic and geographic population segments in LHMC's CBSA are likely dramatically higher, based on Commonwealth data by race/ethnicity and age. Overall fitness and physical activity reduce the risk for many chronic diseases, are linked to good emotional health, and help prevent disease.

In response to this significant community need, LHMC partners with several community-based organizations, including the North Suburban YMCA and Arlington and Burlington Councils on Aging, to offer free exercise classes and opportunities for fitness, as well as a free weekly low-impact aqua aerobics class to 24 seniors in both communities. The seniors meet at the YMCA and participate in a low-impact water exercise program designed to help improve joint flexibility and decrease pain or stiffness. The program has been going on for the past three years and has drawn a consistent base of senior participants.

LHMC also provides funding and staff to the Burlington Council on Aging to support its free fitness programs. Twice a week, staff from LHMC's Rehabilitation Services Department facilitate an hour-long exercise class for seniors. LHMC also provides funding for several other exercise classes that the Council on Aging offers.

This year, LHMC also partnered with the Billerica Council on Aging to provide funding for its exercise classes, with the goal of increasing attendance by removing cost as a barrier to health. The Billerica Council on Aging provided six classes for free, including Brain and Balance, Cardio Boost, Tai Chi, and Zumba. The average age of participants was 74 and many reported weight loss, improved balance, and lowered blood pressure as a result of taking the classes.

Target Population:

- Regions Served: Burlington, Billerica
- Sex: All
- Age Group: Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Intervention
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Health Behaviors/Mental Health: Physical Activity
Goals: LHMC has the following goals for its community-based exercise class program:

- Provide an exercise alternative to seniors with mobility and joint issues.
- Provide an exercise/fitness class including light cardio, strengthening and stretching for members of the Burlington Senior Center in order to improve the health of the community.
- Increase participation to the Billerica Council on Aging's exercise classes by 15% overall by removing cost as a barrier.

Goals Status:

- In FY 19, the aqua aerobics program was able to serve 15 seniors per week, many of whom attended regularly.
- There were 10-20 participants per class at the Burlington Council on Aging. The average age of participants was 76 years old and 44% have been clinically diagnosed with a chronic condition.
    - A survey was administered to 25 attendees of the regular exercise class to ask them about how this class has improved their lives:
    - 95% reported that their mood had improved.

    - 95% reported that they had noticed positive changes in their physical health.
- The classes that were free as a result of LHMC funding reported the following outcomes over the course of four months (from August to November):
    - Brain and Balance: 172; 15.4% increase in attendance from grant support
    - Cardio Boost: 421; 4.2% increase in attendance from grant support
    - Reiki: 43; 16.2% increase in attendance from grant support
    - SAIL: 270; 167% increase in attendance from grant support
    - Tai Chi: 231; 14.4% increase in attendance from grant support
    - Zumba Gold: 300; 19% increase in attendance from grant support

Community Partners: Burlington Council on Aging, Billerica Council on Aging, North Suburban YMCA

Increasing Food Access and Nutrition Support for Seniors

Brief Description/Objective: Good nutrition helps prevent disease and is essential for the healthy growth and development of children and adolescents. The *Dietary Guidelines for Americans* states that about half of all American adults – 117 million individuals – have one or more preventable chronic diseases (*Dietary Guidelines for Americans*, 2015). Diet-related chronic diseases include cardiovascular disease, high blood pressure, and type 2 diabetes. Survey data from the CDC's state indicator report on fruits and vegetables shows that in 2018, only 14% of adults meet the daily fruit intake recommendation and only 11.1% of adults meet the vegetable recommendation (CDC, 2018). Moreover, according to a recent survey conducted by the Massachusetts Healthy Aging Collaborative, in Arlington only 32%, in Burlington only 38%, and in Billerica only 19% of seniors are getting the recommended five servings of fruits and vegetables per day. Issues of access to information as well as equitable access to healthy foods both play a role in these low figures.

To continue to address this need, LHMC partnered with the New Entry Sustainable Farming Project, an organization that grows organic produce locally for Middlesex County, and ran farmers markets for a total of 20 weeks. This year, the partnership continued programming at the Burlington, Arlington, and Billerica Councils on Aging. Depending on location, the program served 50-70 seniors per week from June through October, and on average, participants took home six varieties of fresh, local produce each week. In total, the program distributed more than 40,000 pounds of produce to the community.

Target Population:

- Regions Served: Arlington, Burlington, Billerica
- Sex: All
- Age Group: Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None

Program Description Tags: None

Program Type: Total Population or Community Wide Intervention

DoN Health Priorities: Social Environment

EOHHS Focus Issues: Chronic Disease

Health Issues: Social Determinants of Health—Access to Food; Social Determinants of Health—Nutrition; Chronic Disease—Obesity/Overweight

Goals:

- To increase access and exposure to fresh fruits and vegetables for senior citizens.
- To decrease senior social isolation while exposing seniors to new opportunities at senior centers.

Goals Status: The 2019 survey results demonstrated that:

- Income: Many participants earn less than $30,000 per year.
- Age: The average age of the participant was 75 and the majority were women. Results also showed that many participants struggled with food insecurity and food access.

- Financial: At the Burlington Council on Aging, 37% of survey respondents said that buying more produce would be hard on their budget, while 72% of respondents at the Arlington Council on Aging and 42% at the Billerica Council on Aging agreed.
- Access: About 38% of respondents at the Burlington Council on Aging agreed that it was difficult to purchase fresh fruits and vegetables where they normally shop, and about 15% reported frequently or sometimes using an emergency food program in the past 12 months. Billerica participants reported 43% and 43% to these questions, respectively, while Arlington participants reported 75% and 54%, respectively.

In the post-season survey conducted after the end of the Lahey/New Entry farmers market program, senior citizens largely indicated their diet had improved as a result of participation in the program.

- Improvement: 90% of respondents said that during the program they ate more fruits and vegetables.
- Quality: 82% said they ate better-quality produce because of the program. These results indicate that the program made fresh, healthy food more accessible for senior citizens. These results also indicate that food access and food security were real concerns for many of the senior citizens in our region, and programs such as this were critical to ensuring this population has access to a healthy diet, keeping them in good health into their later years.
- Isolation: When asked about the importance of social interaction that the program provides, 84% reported it was "important" or "very important."

Community Partners: New Entry Sustainable Farming Project, Billerica Council on Aging, Burlington Council on Aging, Arlington Council on Aging

Community-Based Exercise Classes: Enhance Fitness

Brief Description/Objective: Over the past two decades, obesity rates in the United States have doubled for adults. This trend has spanned all segments of the population, regardless of age, sex, race, ethnicity, education, income or geographic region. Some segments have struggled more than others, but no segment has been unaffected. According to data from the Massachusetts BRFSS for 2012-2013, nearly 60% of adults in Essex County were considered overweight or obese, and one in four adults reported getting no physical activity in the 30 days preceding the survey. Rates for specific demographic, socioeconomic and geographic population segments in LHMC's CBSA are likely dramatically higher, based on Commonwealth data by race/ethnicity and age. Overall fitness and physical activity reduce the risk for many chronic diseases, are linked to good emotional health and help prevent disease.

One way that LHMC is addressing this health need is through our partnership with the Metro North YMCA to offer free Enhance Fitness classes in the community. Enhance Fitness is a nationally offered program at YMCAs across the country. It is an evidence-based health intervention, offsetting the effects of aging and chronic illness as well as minimizing fall risk. Participants work on cardio and muscular strength, balance, and stability, all while fostering a supportive social community. Classes meet three days per week and sessions run for eight weeks. Fitness checks are done at the beginning and end of each eight-week session. In FY 19, the YMCA was able to offer two sessions of Enhance Fitness at the Peabody YMCA and Peabody Senior Center, and this partnership will continue into FY 20 and will expand to the Lynnfield Senior Center as well.

Target Population:

- Regions Served: Peabody, Lynnfield, Lynn
- Sex: All
- Age Group: Elderly
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Community Education
Program Type: Total Population or Community Wide Initiative
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Chronic Disease
Health Issues: Health Behaviors/Mental Health: Physical Activity

Goals: Increase general health, physical ability, and physical activity of participants.
Goals Status: Enhance Fitness is an evidence-based fitness program and participants were provided a pre- and post-class survey that demonstrated the following:

- The program served 103 people over the course of the two classes. The majority of participants were female, 60+, and from Lynn, Lynnfield, and Peabody.
- Post-survey questions assessed the program's impact on health and fitness and had the following results:
    - 85% of participants reported an improvement in general health.
    - 94% of participants reported an improvement in physical ability.
    - 94% of participants reported that they have either maintained or improved their workout routine, with the same intensity of Enhance Fitness.
- Participants were also evaluated on fitness checks and were asked to complete three exercises to the best of their ability on the first and last days of the sessions.
    - Up-and-go – The number of seconds it took to stand, walk eight feet, and return to sitting was recorded. This metric showed a 79% improvement in the post-assessment.
    - Arm curls – The number of reps completed by each arm in 30 seconds was recorded. This metric showed a 59% improvement in the post-assessment.
    - Chair stands – The number of stands from a seated position in 30 seconds was recorded. This metric showed a 77% improvement in the post-assessment.
    - Overall, there was a significant improvement in participants' performance in all three fitness tests as compared with the initial assessment.

Community Partners: Metro North YMCA, Peabody Senior Center

Increasing Access: Council on Aging Transportation Expansion Project

Brief Description/Objective: In FY 19, LHMC partnered with the Arlington Council on Aging to support its transportation expansion project. The project focused on outreach and education of transportation options for the residents of four Arlington Senior Housing Authority properties and one federally funded senior housing facility. Rides were free for all residents from these five addresses during the project period in order to encourage new riders to use the transportation services. Outreach included well-publicized information sessions at each housing authority address in its community room, a "door hanger" printed piece that was delivered by volunteers to each resident's apartment door (over 750 delivered), extensive publicity about the program in our monthly Council on Aging newsletter, and posters/flyers posted in common areas of each property address and in the senior centers. The project had a goal of reducing social isolation and increasing access for low-income seniors to free and reduced-cost accessible transportation options. Transportation included rides to social programs, health and wellness programs, assistance programs, medical appointments, and any engagement within Arlington.

All program participants were age 60+ and residents of the town of Arlington at one of these five addresses: 17 Mill St., 8 Summer St., 4 Winslow St., Drake Road, and 54 Medford St. Our database shows us that the demographics for the participants in the program were:

- 0%-30% (very low) of median income: 59%
- 31%-50% (low) of median income: 21%
- 51%-80% (moderate) of median income: 20%
- White: 61%
- Black/African American: 5%
- Asian: 14%
- Multiracial: 8%
- Hispanic: 12%

Lack of transportation has a significant impact on access to health care services and is a determinant of whether an individual or family has the ability to access the basic resources that allow them to live productive and fulfilling lives. Access to affordable and reliable transportation widens opportunities and is essential to addressing poverty and

unemployment; it allows access to work, school, healthy foods, recreational facilities, and a myriad of other community resources.

Target Population:

- Regions Served: Arlington
- Age Group: All
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Access/Coverage Supports
DoN Health Priorities: Built Environment
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health: Access to Transportation
Goals:

- Provide outreach to residents living in four Arlington Senior Housing Authority properties and one federally funded senior housing facility about transportation options.
- Increase the number of rides from the buildings by 2,000 per year.

Goals Status:

- There were 176 total attendees at five separate information sessions for residents and 750 individual apartments were visited by volunteers to spread the word about the program.
- The program provided 1,200 individual rides to residents at the targeted residences.

Community Partners: Arlington Housing Authority, Arlington Council on Aging

Substance Use/Mental Health

Assessing Risk in the Schools

Brief Description/Objective: In FY 19, LHMC supported the Youth Risk Behavior Survey (YRBS) in the Lynnfield Public School District and for the Middlesex League Collaborative which includes the towns of Arlington, Wakefield, Belmont, Watertown, Burlington, Wilmington, Melrose. Winchester, Reading, Woburn, and Stoneham. The YRBS can determine the prevalence of health behaviors; assess whether health behaviors increase, decrease, or stay the same over time; examine the co-occurrence of health behaviors; provide comparison data for geographies and subpopulations; and monitor progress toward achieving Healthy People objectives and program indicators. The YRBS allows the schools to better understand the extent to which middle school and high school students in the district engage in risky behaviors. LHMC's support has allowed both the Middlesex League and Lynnfield Public School District to create an online, standardized test that allows for the data to be processed in a timely manner and synthesized into a regional report.

The 2019 Middlesex League High School and Middle School YRBS asked questions related to depression, suicide, stress, and behavioral health treatment. Some survey highlights were:

For high school students:

- One in four (26.5%) reported that they felt sad or hopeless almost every day for two or more weeks in a row during the past 12 months.
- One in 13 (7.5%) reported experiencing sexual violence in the past 12 months.
- 40.1% reported that they had used electronic vapor products, an increase from 34.9% reported in 2017.
- 11.8% (a high percentage) were bullied electronically, including through texting, Instagram, Facebook, or other social media, during the past 12 months. An even higher percentage (13.0%) were bullied on school property.

For middle school students:

- 15.6% reported that they had seriously considered attempting suicide, 8.5% reported that they had made a plan about how they would attempt suicide, and 3.2% reported that they had actually attempted suicide.
- Woburn students were the most likely to report ever trying cigarette smoking (3.7%), ever using electronic vapor products (14.0%), and current use of an electronic vapor product (7.3%).

Lynnfield conducted its YRBS in fall 2019 and the results will be available in 2020.

In response to the findings in the last YRBS for Lynnfield, LHMC also supported staff training for the Responsive Classroom Schools Program. This is an evidence-based approach to education associated with greater teacher effectiveness, higher student achievement, and improved school climate for youth and, specifically, LGBTQ+ and insecure and disadvantaged students.

Target Population:

- Regions Served: Middlesex League Towns, Lynnfield
- Sex: All
- Age Group: Teenagers
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None

Program Description Tags: None

Program Type: Total Population or Community Wide Intervention

DoN Health Priorities: Social Environment

EOHHS Focus Issues: Mental Health/Mental Illness; Substance Use

Health Issues: Health Behaviors/Mental Health--Mental Health; Substance Use—Substance Use

Goals:

- Use information compiled by the survey to guide evidence-based activities to address the risky behaviors and foster a regional collaboration by schools.

Goals Status:

- 11 of the 12 schools in the Middlesex League participated in the most recent YRBS collaboration, an increase from seven in 2017.
- 9,114 high school students were surveyed.
- 7,631 middle school students were surveyed.

Community Partners: Middlesex School League, Lynnfield Public School District

Increasing Access to Mental Health Services: Peabody Veterans Memorial High School Student Health Center

Brief Description/Objective: In FY 19, LHMC supported the Peabody Veterans Memorial High School (PVMHS) Student Health Center (SHC) with funding for services not currently covered by insurance. The mission of the SHC is to provide high-quality comprehensive health care to students in order to support optimal health and academic outcomes. The mission of the SHC aligns closely with the priorities identified by LHMC in its most recent CHNA. For example, the SHC improves access to behavioral health and substance abuse services by offering these services on-site, and it integrates those services into primary medical care. The SHC also identifies students with chronic conditions and helps them improve self-management of these conditions. In addition, the SHC, through its partnership with Haven From Hunger, helps promote wellness through health education and healthy eating.

The SHC provides an integrated model of care in its approach. Services offered include management of chronic illnesses, such as asthma and diabetes; urgent care visits; immunizations; routine and sports physicals; health education; and confidential services, including reproductive health care and behavioral health services. As evidenced by the center's staffing structure, behavioral health care is a significant focus, with individual therapy and group counseling services provided for issues such as depression, anxiety, stress management and substance use. All students using the clinic are screened for behavioral health needs through use of the CRAFFT Screening Tool for adolescent substance use.

Services are provided on-site at PVMHS during the school day; SHC staff also provide behavioral health services on-site one day per week to students based at the Peabody Learning Academy, whose student body is at higher risk for behavioral health issues. In addition, a youth health advisory council convened by the office coordinator works to promote a healthy school climate at PVMHS and advocates with state and local legislators regarding youth health issues. Continuity of care is provided by reduced on-site staffing during school breaks as well as through connection with the Peabody Family Health Center, operated by North Shore Community Health Inc.

Target Population:

- Regions Served: Peabody
- Sex: All
- Age Group: Teenagers
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Prevention
Program Type: Access/Coverage Supports
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Mental Illness and Mental Health
Health Issues: Health Behaviors/Mental Health—Mental Health
Goals: Provide support and funding for services at the PVMHS SHC that meet a critical, identified community need.
Goals Status: In FY 19, the SHC had the following impacts:

- 352 individuals were served in 932 medical visits and 1,284 behavioral health visits.
- The top three medical visit diagnoses were health counseling, encounters for immunization, and contraceptive management.
- The top three behavioral health diagnoses were anxiety disorder, major depressive disorder, and adjustment disorder.

Community Partners: North Shore Community Health, Peabody Veterans Memorial High School

Medication Disposal Program and Prescription Drug Counseling

Brief Description/Objective: As part of our commitment to helping address the issue of prescription drug misuse, LHMC continued its successful medication disposal kiosk to safely dispose of expired or unwanted medication at the Burlington location. Medications can be dropped off 24 hours a day, seven days a week and are safely disposed of in accordance with Drug Enforcement Administration regulations. According to the National Institutes of Health (NIH) National Institute on Drug Abuse, an estimated 54 million people have used medications for nonmedical reasons at least once in their lifetime. Opioids are among the most misused prescriptions, with 75% of those who abuse reporting their first opioid was a prescription. The NIH reports that unintentional opioid pain reliever deaths have quadrupled since 1999, and that nearly 80% of heroin users reported using prescription opioids prior to heroin.

In FY 19, LHMC also began a program in collaboration with the Burlington Council on Aging for medication counseling. Each month, staff from the Pharmacy Department were on-site at the senior center to provide one-on-one medication counseling. Participants were scheduled for an appointment and asked to bring a list of their current medications, bring medication documents they would like to review with the pharmacist, and write down questions.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Prevention
Program Type: Total Population/ Community Wide Initiative
DoN Health Priorities: None
EOHHS Focus Issues: Substance Use

Health Issues: Substance Addiction—Substance Use

Goals:

- To provide a safe and convenient way for community members to dispose of unwanted or unused medications.
- To increase the amount of medications collected.
- To provide community-based medication counseling.

Goals Status:

- In FY 19, LHMC collected and disposed of over 711 pounds of medications.
- LHMC collected and disposed of 66% more medication than in FY 18.
- In FY 19, LHMC pharmacists counseled approximately 6-8 people in the community.

Community Partners: Medsafe

Collaborative Care Model

Brief Description/Objective: The National Alliance on Mental Illness (NAMI) reports that one-in-four individuals experiences a mental illness each year, underscoring a critical need for mental healthcare access across all patient populations. In the 2019 LHMC Community Health Needs Assessment, mental health – including depression, anxiety, stress, serious mental illness, and other conditions – was overwhelmingly identified as one of the leading health issues for residents of the service area. Further, individuals from across the health service spectrum discussed the burden of mental health issues for all segments of the population, specifically the prevalence of depression and anxiety.

In an effort to meet this need Lahey Health Primary Care adopted the Collaborative Care Model (CoCM). The model will be expanded to additional communities throughout the Beth Israel Lahey Health service area. Collaborative Care is a nationally recognized primary care led program that specializes in providing behavioral health services in the primary care setting. The services are provided by a licensed behavioral health clinician and they include counseling sessions, phone consultations with a psychiatrist, and coordination and follow up care. The behavioral health clinician works closely with the primary care provider in an integrative team approach to treating a variety of medical and mental health conditions.

The primary care provider and the behavioral health clinician develop a treatment plan that is specific to the patient's personal goals. The behavioral health clinician uses therapies that are proven to work in primary care. A consulting psychiatrist may advise the primary care provider on medications that may be helpful.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None

Program Description Tags: Prevention

Program Type: Direct Clinical Service

DoN Health Priorities: Social Environment

EOHHS Focus Issues: Mental Health/Mental Illness

Health Issues: Health Behaviors/Mental Health—Mental Health

Goals: To increase access to behavior health services

Goals Status: FY19 success included hiring and training behavioral health clinicians at four LHMC primary care practices, reaching 3501 patients.

Community Partners: None

Enhancing Care in the Community: Domestic Violence Support Group

Brief Description/Objective: The 2010 National Intimate Partner and Sexual Violence Survey data for Massachusetts residents mirrored the national data: Nearly one in two women and one in four men in Massachusetts had experienced sexual violence victimization other than rape. Nearly one in three women and one in five men in Massachusetts had experienced rape, physical violence and/or stalking by an intimate partner in their lives. In response to the community need to address this issue, LHMC has identified raising awareness about domestic violence as a Implementation Strategy priority.

In FY 19, LHMC continued our successful partnership with Saheli, a Burlington-based regional service organization, to provide a Saheli-conducted support group for survivors and victims of domestic violence. The group met eight times using themes/topics from a manual titled *The Power to Change*. This manual was developed by several European domestic violence agencies to provide support to survivors of domestic violence. Saheli has successfully used this model for several support groups, starting in 2013, to provide group support to survivors/clients. As cited by Saheli, one of the frequent barriers to people being able to attend and benefit from these support groups is access and transportation. Through the partnership, Saheli was able to provide free Uber services for people who were interested in attending. The group included a multiracial population of women from Burlington and surrounding towns such as Billerica, Cambridge, Chelmsford, Lexington, Somerville, Waltham, and Woburn. Sessions were structured around seven topics from *The Power to Change* and kicked off with a discussion about domestic violence. Additional topics included understanding self-esteem; identifying and meeting personal goals; socialization of South Asian women and gender stereotyping; healthy relationships: identifying and communicating needs; healthy relationships: exploring boundaries; coping with positive and negative emotions; and assertiveness versus aggression.

The sessions were scheduled to occur every Wednesday evening from 6 to 8 p.m. for eight weeks in the spring and fall of 2019. To enhance the support group from FY 18, Saheli identified the need for financial literacy among survivors and help with filing their taxes. To address the needs, Saheli extended the support group for two more weeks to help survivors understand issues related to personal finance and budgeting, credit score, and the importance of emergency savings. Saheli received such a great response for the financial literacy workshop that it was made a part of Saheli's spring and fall support group series. Also, Saheli added a Tax Clinic for survivors to come and file their taxes with experienced tax professionals free of charge in March 2019. A total of 10 survivors took advantage of these services, and they were able to get an average $1,500 tax refund. Some of the survivors were able to use this refund to buy a new car, pay for professional education and more.

Target Population:

- Regions Served: Burlington
- Age Group: All
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: Domestic Violence History
Program Description Tags: Support Group
Program Type: Total Population or Community-Wide Intervention
DoN Health Priorities: Violence
EOHHS Focus Issues: Mental Health/Mental Illness
Health Issues: Social Determinants of Health—Domestic Violence
Goals: Empower women by building positive self-esteem and healthy relationships.
Goals Status: There were between seven and nine recurring attendees during the spring and fall sessions. Many other survivors joined as their time permitted. This group consisted of five women from South Asia, three women from the Middle East (Morocco), one Caucasian and one survivor from China.

The facilitators distributed a weekly evaluation form at the end of each session, and an overall evaluation indicated that the women felt less isolated and were happy to receive confidential support.

Each support group helped women share their experiences of domestic violence and associated feelings. Most women have a limited support structure due to lack of family in the U.S. Many of them indicated that the support group made them feel less isolated.
Community Partners: Saheli

LHMC Domestic Violence Initiative

Brief Description/Objective: The 2010 National Intimate Partner and Sexual Violence Survey data for Massachusetts residents mirrored the national data: Nearly one in two women and one in four men in Massachusetts had experienced sexual violence victimization other than rape. Nearly one in three women and one in five men in Massachusetts had experienced rape, physical violence and/or stalking by an intimate partner in their lives. More than one in seven women had been raped. LHMC data also shows that there were 26 incidences of domestic violence, 122 incidences of elder abuse, 26 cases of child abuse, and 11 cases of abuse of disabled persons in FY 19.

The problem isn't new. LHMC has long collaborated with local police and community organizations to provide crisis intervention and links to services for victims of domestic violence, and they are committed to alleviating the public health and social problems associated with relationship violence in all forms, including spousal violence and elder abuse. Formed in 1992, LHMC's Domestic Violence Initiative (DVI) is a group that includes physicians and nonclinical staff from departments such as gynecology, general internal medicine, and social work, as well as the Emergency Department. Community members include law enforcement representatives and local emergency resource groups. LHMC convenes community partners serving victims of domestic violence on a quarterly basis to discuss best practices and resource sharing and to encourage a collaborative approach to addressing the problem.

Target Population:

- Regions Served: Burlington
- Age Group: All
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: Domestic Violence History
Program Description Tags: None
Program Type: Total Population or Community-Wide Intervention
DoN Health Priorities: Violence
EOHHS Focus Issues: Additional Health Needs as Defined by Community
Health Issues: Social Determinants of Health—Domestic Violence
Goals: Heighten awareness of domestic violence, provide crisis intervention and links to services, strengthen community partnerships, and train clinical staff to recognize and respond to the needs of victims.
Goals Status: In FY 19, LHMC hosted four quarterly meetings of community organizations that serve victims of domestic violence to share information and resources. LHMC also partnered with various organizations to host an information table at the hospital to provide information to patients and staff about domestic violence resources and to raise awareness about the issue. LHMC also facilitated a staff training to help providers identify and appropriately manage patients who might be victims of abuse.
Community Partners: Saheli, Burlington Police Department, REACH Beyond Domestic Violence, Burlington Council on Aging, Burlington Youth and Family Services

Lexington Youth & Family Services Crisis Counseling Program

Brief Description/Objective: In FY 19, LHMC partnered with Lexington Youth & Family Services (LYFS) on its Crisis Counseling program at Lexington High School. The purpose of the counseling program is to provide crisis counseling to at-risk Lexington teens and their families and is designed to:

- Provide and expand free, accessible, confidential crisis counseling
- Reduce the risk of suicide and self-harm behavior in the most vulnerable teen populations
- Provide information and referral resources that promote mental health

YRBS results from Lexington show that 27.1% of high school students felt sad or hopeless for two or more weeks per year, 17.2% had seriously considered suicide, 10.4% made a suicide plan, 4% had actually attempted suicide, and 12.5% had engaged in self-injury. Focusing just on those who reported considering suicide, 17.2% of 1,700 high school students is about 290 students.

Funding provided by LHMC in FY 19 enabled LYFS to maintain its current drop-in counseling hours and increase the number of counseling sessions provided. Outreach efforts also focused on Lexington's fast-growing Asian population and LGBTQ+ community.

Target Population:

- Regions Served: Lexington
- Sex: All
- Age Group: Teenagers
- Race/Ethnicity: All; Asian
- Language: All
- Environment Served: All

Additional Target Population Status: LGBT Status
Program Description Tags: Prevention
Program Type: Total Population/ Community-Wide Intervention
DoN Health Priorities: Social Environment
EOHHS Focus Issues: Mental Health/Mental Illness
Health Issues: Health Behaviors/Mental Health—Mental Health
Goals:

- Provide counseling sessions to Lexington youth
- Expand outreach into the LGBTQ+ and Asian communities

Goals Status:

- Provided 60 counseling session to Lexington teens and families, a 55% increase from 2018 when 33 session were provided
- Of the 60 counseling sessions, 32 were with Asian youth and families
- Provided monthly LGBTQ+ groups for youth, attended by 19 students

Community Partners: Lexington High School; Lexington Youth & Family Services

Screening, Brief Intervention, and Referral to Treatment

Brief Description/Objective: As a Level I Trauma Center, LHMC provides screening, brief intervention, and referral to treatment (SBIRT) for persons presenting as trauma cases to the ED with an elevated blood alcohol level (BAL) or a positive CAGE screening. SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders. Primary care centers, hospital emergency rooms, trauma centers, and other community settings provide opportunities for early intervention with at-risk substance users before more severe consequences occur.

It has been demonstrated that trauma centers can use the teachable moment generated by an injury to implement an effective injury prevention strategy and provide alcohol and/or drug use counseling for patients presenting to the hospital because of substance use. LHMC works collaboratively with social work, nursing, physicians, and all members of the care team to ensure screening, intervention, education, and referral to treatment is provided to every patient.

Target Population:

- Regions Served: All Massachusetts
- Sex: All
- Age Group: All
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: Prevention
Program Type: Direct Clinical Service

DoN Health Priorities: None
EOHHS Focus Issues: Substance Use
Health Issues: Substance Addiction—Alcohol Use
Goals: Provide SBIRT for persons presenting as trauma cases in the ED with an elevated BAL or positive CAGE screening.
Goals Status: In FY 19, LHMC provided SBIRT screenings for 132 individuals.

Increasing Access: Outpatient Behavioral Health Services
Brief Description/Objective: Mental health – including depression, anxiety, stress, serious mental illness, and other conditions – was overwhelmingly identified in stakeholder feedback as one of the leading health issues for residents of LHMC/LMCP's service area in the most recent Community Health Needs Assessment. Individuals from across the health services spectrum discussed the burden of mental health issues for all segments of the population, specifically the prevalence of depression and anxiety. Additionally, 46% of Community Health Survey respondents identified mental health as a health issue that people struggle with. Survey respondents also identified outpatient mental health service as the hardest health service for people to access.

In an effort to increase access to these vital and necessary services, LHMC provides a hospital-based, outpatient program for adults with complex medical and psychiatric needs in a single care setting. This is a unique service within the community, with psychiatry and behavioral health specialists coordinating evaluation and treatment, along with medical and surgical specialists, to provide whole-person care. Services include 24 hour emergency care, support groups, individualized/family therapy, stress management, and many other programs designed to enhance access to behavioral health resources in the community.

Target Population:
- Regions Served: All Massachusetts
- Sex: All
- Age Group: Adults
- Race/Ethnicity: All
- Language: All
- Environment Served: All

Additional Target Population Status: None
Program Description Tags: None
Program Type: Direct Clinical Services
DoN Health Priorities: None
EOHHS Focus Issues: Mental Health/Mental Illness
Health Issues: Health Behaviors/Mental Health—Mental Health
Goals: Enhance access to community-based behavioral health resources.
Goals Status: In FY 19, LHMC provided:
- 8 support groups at the Burlington and Peabody locations

Middle School Prevention Power
Brief Description/Objective: In FY 19, LHMC partnered with A Healthy Lynnfield on its Middle School Prevention Power program. As a whole, underage drinking and vaping product use put the overall health of Lynnfield adolescents at risk. The FY 17 YRBS demonstrated that:
- 45% of high school students reported drinking alcohol in their lifetime and 17% reported use within the past 30 days. Among Lynnfield Middle School (LMS) students, 10% reported ever drinking alcohol, mostly males.
- 30% of high school students reported using an electronic vapor product in their lifetime and 22% reported use within the past 30 days. Rates of use among males and females were similar (24% vs. 21%).
- Among middle school students, 3% reported ever using an electronic vapor product.

The goal of the program was to strengthen and expand Lynnfield's ability to teach students social, emotional, behavioral and leadership skills in order to reduce the rates of youth substance use in the community. The program focused on three main strategies:

- Training a team of middle school health and physical education staff in two of Project Adventures' professional development programs for educators – Social Emotional Learning through Adventure Activities and Healthy Habits.
- Initiating a middle school Healthy Lynnfield peer leadership group at LMS.
- Leadership training in a newly designed mentor program for high school youth who are challenged with academics, social adjustment, and a lack of feeling connected to the school community.

As a result of these initiatives, over 30 youth who are not involved in working in the middle school leadership program and six Lynnfield public school teachers in the health and physical education department participated in a 16-hour training on Social Emotional Learning through Adventure and implemented new programs in response, and 45 high school youth participated in a full-day leadership program.

Target Population:

- Regions Served: Lynnfield
- Age Group: Teenagers
- Language: All
- Sex: All
- Race/Ethnicity: All
- Environment Served: All

Additional Target Population Status: None

Program Description Tags: Prevention

Program Type: Total Population/ Community-Wide Intervention

DoN Health Priorities: Social Environment

EOHHS Focus Issues: Mental Illness/Mental Health

Health Issues: Health Behaviors/Mental Health—Mental Health

Operational Goals:

- 12 LMS youth leaders will demonstrate increased leadership development skills as demonstrated by a year-end youth group self-evaluation survey.
- 662 LMS students will receive supporting peer-driven messages on making good choices as an alternative to substance use.
- Perception of harm of current use of alcohol and vaping will increase, as demonstrated by a 2% increase in this measurement on the LMS YRBS.
- High school youth will receive training in the Edge of Leadership Program.

Outcome Goals:

- High school use of alcohol and vaping will decrease as more middle school students receive a stronger foundation in substance use prevention; LMS perception of peer disapproval of drug use will increase with middle school peer education; 30-day alcohol use and 30-day electronic vaping product use will decrease among high school students by 2% over time.

Goals Status:

- 30 youth leaders are now participating in the program and meet every two weeks, and five youth leaders will be teaching a substance use prevention class to peers. The evaluation will be performed at the end of the school year.
- Six health and physical education teachers received valuable training on interactive classroom activities designed to enhance social-emotional wellness and healthy habits. Each teacher has updated the Atlas curriculum management tool with new or modified lesson plans. They have adapted techniques learned during their training, and middle school physical education teachers have implemented daily Instant Activities. These occur during physical education as a warmup for all grades every day, reaching all 662 middle school students.
- Perception of harm did increase slightly, from 91% in 2017 to 92% in 2019.
- 45 youth were trained for Edge of Leadership.
- The fall 2019 YRBS shows a decrease in high school vaping rates, from 15% to 13.2%, which is an achievement of at least one long-term outcome stated. We are seeing a slight increase in alcohol use, heavy drinking and marijuana use at the high school, but the timing of our second set of data was at the very beginning of program intervention in fall 2019, so the next set of YRBS data should be a

better indicator of true outcomes. Middle school perception of peer disapproval of use remains high, with slight increases over 2017 rates.

Community Partners: Town of Lynnfield, A Healthy Lynnfield, Project Adventure

Section V: Expenditures

CB Expenditures by Program Type	Amount	Subtotal Provided to Outside Organizations (Grants/Other Funding)
Direct Clinical Services	$ 8,049,279.54	$900.00
Community-Clinical Linkages	$ 94,744.67	
Total Population or Community Wide Interventions	$ 881,807.87	$760,831.00
Access/Coverage Supports	$ 4,880,919.97	$33,884.98
Infrastructure to Support CB Collaborations Across Institutions	$ 224,061.00	

CB Expenditures by Health Need	Amount	
Chronic Disease with a focus on Cancer, Heart Disease, and Diabetes	$ 2,387,673.45	$409,523.00
Mental Health/Mental Illness	$ 5,886,804.59	$322,308.00
Housing/Homelessness	$ 47,204.00	
Substance Use	$ 4,754,428.95	
Additional Health Needs Identified by the Community	$ 1,054,702.06	$63,883.00

Other Leveraged Resources

Net Charity Care

Expenditures	Amount
HSN Assessment	$ 5,454,395.34

HSN Denied Claims	$ 6,311,670.59
Free/Discount Care	$ 0.00
Total Net Charity Care	$ 11,766,065.93
Total Leveraged Resources	$ 743,564.00
Total CB Expenditures	**$ 26,640,443.46**

Additional Information	**Amount**
Total Revenue (NPSR)	$ 1,350,019,000
CB Expenditure as Percentage of Net Patient Services Revenue	1.97%
Approved CB Program Budget for FY 20 **(*Excluding expenditures that cannot be projected at the time of the report)**	$ 14,130,813.05

Section VI: Contact Information

Michelle Snyder, Regional Manager
Community Benefits/Community Relations
Lahey Hospital & Medical Center
41 Mall Road
Burlington, MA 01805

Section VII: Self-Assessment Form