Community Health Needs Assessment Report 2022

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EIN of hospital organization operating hospital facility:	
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I. Executive Summary

A. Introduction and Background

Spaulding Rehabilitation Hospital Boston (Spaulding Boston) was founded in 1971 and is the flagship institution of the Spaulding Rehabilitation Network and the official teaching hospital of the Harvard Medical School Department of Physical Medicine and Rehabilitation. Spaulding Boston is at the forefront of research in advances in rehabilitative care and provides comprehensive rehabilitative treatment to a broad spectrum of patients through its diverse inpatient programs and 25 outpatient centers. Spaulding Boston enables persons to achieve their highest level of function, independence, and performance through the following mission:

- To provide a full continuum of rehabilitative care, and community-based rehabilitation services.
- To contribute to new knowledge and treatment approaches to rehabilitation and disease and injury management through research and outcome studies.
- To educate future rehabilitation specialists, including physicians, nurses, therapists, and other allied health professionals.
- To advocate for persons with disabilities.
- To support the mission of Mass General Brigham (MGB) and collaborate with other health care providers.

B. Regulatory Requirements

The Affordable Care Act requires health care institutions to conduct Community Health Needs Assessments (CHNA) every three years in communities where they have licensed facilities, submit the report to the Internal Revenue Service, and post the report publicly on the hospital website by the last day of the fiscal year in which the CHNA is conducted. The Massachusetts Attorney General has a similar requirement. A Community Health Improvement Plan (CHIP) detailing how the hospital will engage with the community to address the prioritized issues must be completed and posted by February 15.

While we are required to conduct CHNAs and CHIPs, we are also allowed to prioritize which communities and issues to focus on as long there is a clear rationale. Through community health needs assessment, collaborative planning with community partners and hospital leadership, and with particular attention to the social determinants of health and opportunities for disease prevention and wellness promotion, Spaulding Boston's community benefit program addresses factors that impact access to care, and the health and quality of life of our patients, their families, and the communities in which they live.

C. Methods

In FY22, an internal working group conducted a community health needs assessment as part of a continuous quality improvement approach to community benefit planning. The assessment involved a review of patient data from the past fiscal year, FY21 (October 1, 2020 – September 30, 2021); data from the Census, American Community Survey data, and Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS); information related to the Center for Disease Control and Prevention's (CDC) Healthy People 2030 (HP2030). The patient and community data were used in formulating the community benefit priorities, goal, objectives, and target communities and to outline the progress made in the 2018 CHNA.

D. Target Populations

Spaulding Boston fulfills a highly specialized role. Thus, our community knows no hard and fast borders. Indeed, our patients come from across the U.S. and around the world. For the purpose of Spaulding Boston's community benefit program, we define our "community" by understanding who we serve and where they live.

Because Spaulding Boston cares for patients across Massachusetts, some of its community benefit programs have a statewide reach. As the home of the Spaulding Boston hospital campus, we are committed to contributing to the health and well-being of the Charlestown community and its residents. Therefore, several of Spaulding Boston's community benefit programs target Boston's Charlestown neighborhood.

E. Key Data

The analysis of patient data showed that, in the FY21, Spaulding Boston served 52,954 individuals in its inpatient and outpatient services. Of those, 50,195 (94.8%) live in Massachusetts and represent 246 of the Commonwealth's 351 cities and towns. When looking at the hospital preparedness regions of Massachusetts, Spaulding Boston is an important resource across the Commonwealth and particularly in the Boston, Metrowest, and Northeast regions of the state for both inpatient and outpatient services

The full report details Spaulding Boston's mission; community benefit goals; target communities; objectives, progress and expenditures made in the 2018 CHNA.

F. Mass General Brigham System Priorities

Mass General Brigham (MGB) Community health leads the MGB system-wide commitment to improve the health and well-being of residents in the MGB priority communities most impacted by health inequities. In addition to the priories each hospital identifies that are unique to its communities, MGB has identified two system-level priorities: cardiometabolic disease and substance use disorder.

These priorities emerged from a review of hospital-level data and prevalent trends in population health statistics that show Black and Hispanic individual are disproportionately affected by disparities in health outcomes and excess deaths related to these conditions. MGB efforts within these two areas will aim to reduce racial and ethnic disparities in outcomes, with the goal of improving life expectancy.

Hospitals across MGB are conducting CHNAs at this time to align with MGB efforts to have all hospitals on the same three-year cycle to utilize system-wide efforts to address health inequities.

G. Themes, Conclusions, and Priorities

Priority area	Objective
Addressing the social determinants of health	To increase opportunities for educational and professional advancement
Improving access to care	To reduce barriers to health care
Promoting wellness and preventing injury and disease	To increase wellness and prevent injury and disease, especially for children, seniors, and those with disabilities
Improving the social environment and opportunities for those with disabilities	To decrease isolation and increase social-emotional support for people with disabilities
Other priorities identified by the community	To provide resources, as appropriate and available, to support community priorities that fall outside the other community benefit priority areas.

H. Rationale for identified health needs not prioritized

Spaulding Boston recognizes there are identified health needs not within our priorities and while we recognize the importance of these health needs, these needs will not be a focus for our CHIP. However, the Spaulding Boston Community Benefit Program plans to provide resources, as appropriate and available, to support community priorities that fall outside the other community benefit priority areas.

II. Community Health Needs Assessment

A. Purpose and Scope of Community Health Needs Assessment and Community Health Improvement Plan

i. Who We Are

Founded in 1971, Spaulding Rehabilitation Hospital Boston (Spaulding Boston), the flagship institution of the Spaulding Rehabilitation Network, is one of the largest inpatient rehabilitation facilities in the United States. Since 1995, it has consistently been ranked among U.S. News and World Report's Best Hospitals – the only hospital in New England to do so. In 2021, Spaulding Boston was ranked #3 in the nation and #1 in New England.

In April 2013, Spaulding Boston opened a new 132-bed facility in Charlestown the first new free-standing hospital in Boston in over 30 years. Certified LEED Gold for its commitment to renewable energy and sustainability, it also is a national model for inclusive design.

As the official teaching hospital of the Harvard Medical School Department of Physical Medicine and Rehabilitation, Spaulding Boston is at the forefront of research in advances in rehabilitative care. Spaulding Boston provides comprehensive rehabilitative treatment to a broad spectrum of patients. With a wide range of inpatient programs and 25 outpatient centers throughout Eastern Massachusetts, Spaulding strives to continually update and improve its programs to offer patients the latest, high-quality care through its leading, expert providers. Spaulding has been awarded a Model Systems designation in three specialty areas - Brain Injury, Spinal Cord Injury and Burn Injury Rehabilitation- by the National Institute on Disability, Independent Living, and Rehabilitation Research.

Spaulding Boston's community benefit program addresses factors that impact access to care, and the health and quality of life of our patients, their families, and the communities in which they live. These factors often require interventions that are outside the traditional clinical, teaching, and research roles of hospital. Every three years, through community health needs assessment, collaborative planning with community partners and hospital leadership, and with particular attention to the social determinants of health and opportunities for disease prevention and wellness promotion, Spaulding Boston develops a comprehensive community benefit plan. The full report describes Spaulding Boston's mission; community benefit goals; target communities; community benefit goals; and a review of progress and expenditures from the 2018 CHNA.

ii. Our Mission

Spaulding Boston enables persons to achieve their highest level of function, independence, and performance through the following mission:

- To provide a full continuum of rehabilitative care, and community-based rehabilitation services.
- To contribute to new knowledge and treatment approaches to rehabilitation and disease and injury management through research and outcome studies.
- To educate future rehabilitation specialists, including physicians, nurses, therapists, and other allied health professionals.
- To advocate for persons with disabilities.
- To support the mission of Mass General Brigham and collaborate with other health care providers.

j. Data and Methods

In FY22, an internal working group conducted a community health needs assessment as part of a continuous quality improvement approach to community benefit planning. The assessment involved a review of patient data from the past fiscal year, FY21 (October 1, 2020 – September 30, 2021); data from the Census, American Community Survey data, and Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS); information related to the Center for Disease Control and Prevention's (CDC) Healthy People 2020 (HP2030). The patient and community data were used in formulating the community benefit priorities, goal, objectives, and target communities and to describe the progress made in the 2018 CHNA. On November 4, 2022, the plan was reviewed and approved by the Spaulding Boston Board of Trustees. Appendix A provides a list of working group members and senior leaders involved in the assessment and planning.

k. Target Populations

Spaulding Boston fulfills a highly specialized role. Thus, our community knows no hard and fast borders. Indeed, our patients come from across the U.S. and around the world. For the purpose of Spaulding Boston's community benefit program, we define our "community" by understanding who we serve and where they live. The analysis of patient data showed that, in the FY21, Spaulding Boston served 52,954 individuals in its inpatient and outpatient services. Of those, 50,195 (94.8%) live in Massachusetts and represent 246 of the Commonwealth's 351 cities and towns. When looking at the hospital preparedness regions of Massachusetts, Spaulding Boston is an important resource across the Commonwealth and particularly in the Boston, Metrowest, and Northeast regions of the state for both inpatient and outpatient services (See Figure 1).

Figure 1. MA Hospital Preparedness Regions in which Spaulding Boston patients live

Region:	Total #	Total %	Inpatient #	Inpatient %	Outpatient #	Outpatient %
Boston	4886	9.7	327	18.1	4559	9.4
Metrowest	21,110	42	667	37	20,443	42
Northeast	18,570	37	379	21	18,191	38
Southeast	3214	6.4	243	13.5	2971	6.1
Central	1994	4	133	7.4	1861	3.8
Western	419	0.8	56	3.1	363	0.8

Just under forty percent (38.8%) of our Massachusetts patients live in the top 10 cities and towns (Figure 2, 3, 4). Of our 4,886 patients who live in Boston, 823 (16.8%) live in Charlestown. By understanding our reach and where our patient population is most concentrated, we were able to identify the geographic targets for the Spaulding Boston's community benefit agenda. Because Spaulding Boston's reach is statewide, some of Spaulding Boston's community benefit programs have a statewide reach. As the home of Spaulding Boston hospital campus, we are committed to contributing to the health and well-being of the Charlestown community and its residents. Therefore, several of Spauling Boston's community benefit programs target the Charlestown neighborhood of Boston.

Figure 2

Top 10 Communities: Inpatient/Outpatient (n=50195)	#	%
Boston	4886	9.7
Lynn	2922	5.8
Framingham	1864	3.7
Peabody	1755	3.5
Cambridge	1655	3.3
Salem	1644	3.3
Newton	1506	3
Medford	1223	2.4
Malden	1085	2.2
Somerville	954	1.9

Figure 3

Top 10 Communities: Outpatient (n=48390)	#	%
Boston	4559	9.4
Lynn	2862	5.9
Framingham	1847	3.8
Peabody	1732	3.6
Salem	1626	3.4
Cambridge	1613	3.3
Newton	1448	3
Medford	1198	2.5
Malden	1059	2.2
Somerville	926	1.9

Figure 4

Top 10 Communities: Inpatient (n=1805)	#	%
Boston	327	18.1
Lynn	60	3.3
Newton	58	3.2
Revere	48	2.7
Cambridge	42	2.3
Quincy	30	1.7
Everett	29	1.6
Somerville	28	1.6
Malden	26	1.4
Medford	25	1.4

I. Population Characteristics

As part of our assessment, we sought demographic and other data on our patients and their home communities to understand the factors that affect access to care and put residents at risk for poor health and quality of life. Just over forty percent (41.2%) of Spaulding Boston's Massachusetts inpatients are women. Although the majority (80.4%) of our Massachusetts patients are White, Spaulding Boston also serves patients who are Black/African American, Asian/Pacific Islanders, Hispanic/Latino, American Indian, or other/unspecified (Figure 5).

Figure 5. Race/ethnicity of Spaulding Boston's MA patients

Race/ethnicity: (n=50195)	**#**	**%**
Hispanic/Latino	4037	8
Black	3147	6.3
Asian/Pacific Islander	2081	4
American Indian	92	0.2
White	40,338	80.4
Declined/Unspecified	500	1

English is the primary language of 93.5% of these patients, the remaining patients collectively speak 54 other primary languages (Figure 6).

Figure 6. Primary language of Spaulding Boston's MA patients

Languages (n=50195)	**#**	**%**
English	46912	93.5
Spanish	1615	3.2
Portuguese	259	0.5
Arabic	149	0.3
Russian	110	0.2
Haitian Creole	90	0.2
Chinese - Cantonese	66	0.1
Italian	63	0.1
Chinese - Mandarin	58	0.1
Vietnamese	53	0.1
American Sign Language	45	0.09
All others	775	1.5

Our Massachusetts patients range in age from under 1 year to 100 years of age with a mean of 67.2. Children (age 0 to 18) comprise 8.3% and seniors (age 65 and over) 34% of the patients we see from across Massachusetts.

Figures 7, 8, and 9 show available social and demographic data for Charlestown and the top 10 communities where most of our patients live. These data were used to understand the potential barriers to care community residents may face, as well as vulnerabilities that could impact their health and well-being. For example, in all but 4 communities for outpatient and 3 communities for inpatient, 10% or more of the residents live in poverty. In five communities for both outpatient and inpatient, less than 50% of the population aged 25 years and older has a college degree. The median household income (MHI) in five of the outpatient and six of the inpatient communities is less than of the statewide MHI of $84,385. Twenty percent or more of the population in the inpatient communities[1] was foreign-born, and eight of the outpatient communities. Although health care reform efforts in Massachusetts have resulted in relatively low rates of uninsured, in two of the outpatient communities and three of the inpatient communities, more than 5% of the population under age 65 has no health insurance.

[1] Data on foreign-born residents not known for Charlestown

We recognize that among our patients, certain groups are more vulnerable due to age and disability status. In Charlestown and nine of the top 10 inpatient and outpatient communities, 10% or more of the population is age 65 or over. In eight of the outpatient communities and seven of the inpatient communities, 15% or more of the population is under the age of 18. In Charlestown, eight of the inpatient communities and seven of the outpatient communities, 5% or more of the population under the age of 65 has a disability. Based on 2020 Massachusetts BRFSS data (See Appendix B), compared to people with no disability, people with a disability in MA are more likely to: rate themselves as experiencing fair or poor health; experience more unhealthy days in the past 15+ days; report falls in the last year; experience chronic disease; smoke; to be obese; ever have experienced depression; experience barriers to care; and less likely to participate in physical/leisure activities. In describing the social determinants of health domains for HP2030, the CDC indicated that those with disabilities are more likely to experience challenges finding a job, attending school, accessing the workplace, receiving preventive health care services, and obtaining sufficient social-emotional support.

Figure 7. Demographic and social characteristics of 10 communities with largest population of Spaulding Boston in- and out-patients and Charlestown neighborhood.

	Population	# of Spaulding Boston patients living here	Females	Under age 18	Age 65+	White	Black/ African American	Hispanic	Asian	Foreign born	High school or more (for 25 years old +)	BA or more (for 25 years old +)	Under age 65 with a disability	Under age 65 without health insurance	Persons living in poverty	Median household income	Per capita income past 12 months
Boston	689326	4886	52.05	15.75	11.79	44.73	21.99	19.54	9.73	28.22	87.87	51.34	8.77	3.87	17.96	76298	46845
Lynn	94201	2922	49.69	24.03	12.32	36.27	11.05	43.01	6.01	36.66	76.55	19.45	12.06	4.95	15.79	61329	27405
Framingham	72846	1864	50.51	20.08	16.17	62.59	5.29	16.49	8.38	28.39	90.78	49.75	8.66	6.40	8.29	86322	45769
Peabody	53004	1755	53.14	18.26	22.56	81.89	3.13	11.61	1.27	15.59	90.85	34.62	10.46	3.57	7.70	80681	41990
Cambridge	117822	1655	49.83	12.44	11.65	58.65	9.79	9.33	17.47	29.25	95.54	79.08	4.99	2.52	11.98	107490	61036
Salem	43350	1644	56.02	15.61	16.44	70.59	4.8	18.34	2.61	14.47	91.37	45.11	9.36	2.83	15.88	66428	39697
Newton	88322	1506	52.95	21.29	18.31	73.53	2.84	4.51	15.08	21.31	97.35	78.72	4.86	1.55	4.31	154398	73398
Medford	58290	1223	52.04	13.09	14.4	68.79	8.79	7.55	11.27	22.08	93.32	54.69	5.09	3.51	8.57	101168	52133
Malden	60710	1085	50.51	18.44	13.07	45.85	15.66	9.63	25.41	42.27	88	40.65	7.2	5.67	15.59	73399	36752
Somerville	81175	954	50.21	10.96	8.75	69.84	5.05	11.42	9.81	23.94	91.36	65.65	5.51	2.89	11.32	102311	53279
Charlestown	20504	823	52.36	19.9	12.29	72.33	6.66	8.92	9.64	14.67	91.29	66.84	5.7	1.1	13.41	131064	77481

Figure 8. Demographic and social characteristics of 10 communities with largest population of Spaulding Boston outpatients and Charlestown neighborhood.

	Population	# of Spaulding Boston patients living here	Females	Under age 18	Age 65+	White	Black/ African American	Hispanic	Asian	Foreign born	High school or more (for 25 years old +)	BA or more (for 25 years old +)	Under age 65 with a disability	Under age 65 without health insurance	Persons living in poverty	Median household income	Per capita income past 12 months
Boston	689326	4559	52.05	15.75	11.79	44.73	21.99	19.54	9.73	28.22	87.87	51.34	8.77	3.87	17.96	76298	46845
Lynn	94201	2862	49.69	24.03	12.32	36.27	11.05	43.01	6.01	36.66	76.55	19.45	12.06	4.95	15.79	61329	27405
Framingham	72846	1847	50.51	20.08	16.17	62.59	5.29	16.49	8.38	28.39	90.78	49.75	8.66	6.40	8.29	86322	45769
Peabody	53004	1732	53.14	18.26	22.56	81.89	3.13	11.61	1.27	15.59	90.85	34.62	10.46	3.57	7.70	80681	41990
Salem	43350	1626	56.02	15.61	16.44	70.59	4.8	18.34	2.61	14.47	91.37	45.11	9.36	2.83	15.88	66428	39697
Cambridge	117822	1613	49.83	12.44	11.65	58.65	9.79	9.33	17.47	29.25	95.54	79.08	4.99	2.52	11.98	107490	61036
Newton	88322	1448	52.95	21.29	18.31	73.53	2.84	4.51	15.08	21.31	97.35	78.72	4.86	1.55	4.31	154398	73398
Medford	58290	1198	52.04	13.09	14.4	68.79	8.79	7.55	11.27	22.08	93.32	54.69	5.09	3.51	8.57	101168	52133
Malden	60710	1059	50.51	18.44	13.07	45.85	15.66	9.63	25.41	42.27	88	40.65	7.2	5.67	15.59	73399	36752

Somerville	81175	926	50.21	10.96	8.75	69.84	5.05	11.42	9.81	23.94	91.36	65.65	5.51	2.89	11.32	102311	53279
Charlestown	20504	800	52.36	19.9	12.29	72.33	6.66	8.92	9.64	14.67	91.29	66.84	5.7	1.1	13.41	131064	77481

Figure 9. Demographic and social characteristics of 10 communities with largest population of Spaulding Boston inpatients and Charlestown neighborhood.

	Popula-tion	# of Spaulding Boston patients living here	Females	Under age 18	Age 65+	White	Black/ African American	Hispanic	Asian	Foreign born	High school or more (for 25 years old +)	BA or more (for 25 years old +)	Under age 65 with a disability	Under age 65 without health insurance	Persons living in poverty	Median household income	Per capita income past 12 months
Boston	689326	327	52.05	15.75	11.79	44.73	21.99	19.54	9.73	28.22	87.87	51.34	8.77	3.87	17.96	76298	46845
Lynn	94201	60	49.69	24.03	12.32	36.27	11.05	43.01	6.01	36.66	76.55	19.45	12.06	4.95	15.79	61329	27405
Newton	88322	58	52.95	21.29	18.31	73.53	2.84	4.51	15.08	21.31	97.35	78.72	4.86	1.55	4.31	154398	73398
Revere	53400	48	49.32	20.59	13.75	51.52	4.1	37.33	3.73	40.08	83.74	24.1	9.04	5.67	12.42	68331	30591
Cambridge	117822	42	49.83	12.44	11.65	58.65	9.79	9.33	17.47	29.25	95.54	79.08	4.99	2.52	11.98	107490	61036
Quincy	94389	30	50.76	14.56	16.83	57.95	5.46	3.75	29.69	32.89	89.17	45.64	7.31	3.55	9.82	80462	42847
Everett	46275	29	48.99	21.99	11.3	41.31	16.73	29.23	7.82	42.99	83.77	23.71	9.14	8.2	10.87	70627	29806
Somerville	81175	28	50.21	10.96	8.75	69.84	5.05	11.42	9.81	23.94	91.36	65.65	5.51	2.89	11.32	102311	53279
Malden	60710	26	50.51	18.44	13.07	45.85	15.66	9.63	25.41	42.27	88	40.65	7.2	5.67	15.59	73399	36752
Medford	58290	25	52.04	13.09	14.4	68.79	8.79	7.55	11.27	22.08	93.32	54.69	5.09	3.51	8.57	101168	52133
Charlestown	20504	23	52.36	19.9	12.29	72.33	6.66	8.92	9.64	14.67	91.29	66.84	5.7	1.1	13.41	131064	77481

Notes:

1. All data based on 2020 Massachusetts American Community Survey (ACS) Estimate unless otherwise noted below
2. Data meant for descriptive purposes only and not for community-to-community comparison as data sources and analytic methods may differ across communities
3. Charlestown data are also included in the Boston data

E. Social and Physical Environment

The Spaulding Boston CHNA focuses on those with the greatest health disparities. With a population of nearly 690,000, Boston continues to experience population growth and the city expects this trend to continue with an anticipated population of 724,000 residents by 2030. Boston is a young city; about one-third of residents are under age 24. It's also diverse and becoming more so, including residents who are Black (24%), Hispanic (20%), and Asian (10%). It has a large immigrant community and one-third speak a language other than English at home. Some groups are concentrated in certain neighborhoods with a greater number of Black residents in Mattapan, Dorchester, Roxbury, and Hyde Park; more Latinos (the group with the greatest growth in recent years) living in East Boston; and Asians living in the South End, Fenway, and Allston/Brighton.

There are disparities in education. Forty-eight (48%) of all Boston residents have a college degree or higher; however, rates vary substantially across race and ethnicity: Whites (70%), Asians (57%), Latinos (21%), and Blacks (20%). In the Boston Public Schools (BPS), nearly 42% of students identify as Latino and 32% as Black, and many school-age children have special needs that affect their educational achievement. BPS data show that 75% of students have "high-needs," meaning they are low-income, English Language Learners, and/or have a disability.

F. Key Themes and Conclusions

The goal of Spaulding Boston's community benefit program is to Improve the health and quality of life of our patients and other members of the Spaulding Rehabilitation Hospital community, particularly for persons recovering from, or learning to live fully with, illness, injury, and disability. Based upon the analysis of demographic and social characteristics of our patients and the communities in which they live, we identified five priorities for our community benefit programming.

G. Priorities

Poverty is a primary driver of poor health and diminished quality of life; this is especially true for those with disabilities. Within Spaulding Boston's patient population and the target communities, individuals experience poverty and other social determinants of health, including challenges related to education, employment, and citizenship status. Access to care is critical to optimal health and quality of life and yet some individuals within our target communities experience factors that can significantly limit their health care access, including linguistic barriers and lack of health insurance. Given these findings, ***the Spaulding Boston community benefit program will prioritize initiatives that address the social determinants of health and improve access to care***.

Within our patient population and the target communities are demographic groups who are more vulnerable to poor health and poor quality of life, namely seniors, children, and those with disabilities. ***The community benefit program will prioritize initiatives that promote wellness and prevent injury and disease in general, but especially for children, seniors, and those with disabilities, who are priority populations for the Spaulding Boston community benefit agenda.***

People with disabilities are at increased risk of isolation and insufficient social-emotional support and are twice as likely to be unemployed, which can have devastating consequences for their physical and

emotional health and well-being. ***The community benefit program will prioritize initiatives that improve the social environment and opportunities for people with disabilities.***

Spaulding Boston also recognizes that the community may identify needs that do not align directly with the priorities described above, but which have benefit to the community and are an appropriate use of the hospital's community benefit resources. ***In accordance with community benefit guidelines and as resources allow, the community benefit program will prioritize initiatives that fall outside the other community benefit program priorities, but which are considered important to the well-being of the communities we serve.***

Five objectives were developed to achieve the community benefit goal and address each of the program priorities.

Priority area	Objective
Addressing the social determinants of health	To increase opportunities for educational and professional advancement
Improving access to care	To reduce barriers to health care
Promoting wellness and preventing injury and disease	To increase wellness and prevent injury and disease, especially for children, seniors, and those with disabilities
Improving the social environment and opportunities for those with disabilities	To decrease isolation and increase social-emotional support for people with disabilities
Other priorities identified by the community	To provide resources, as appropriate and available, to support community priorities that fall outside the other community benefit priority areas.

III. MGB System Priorities

A. Context and Priorities

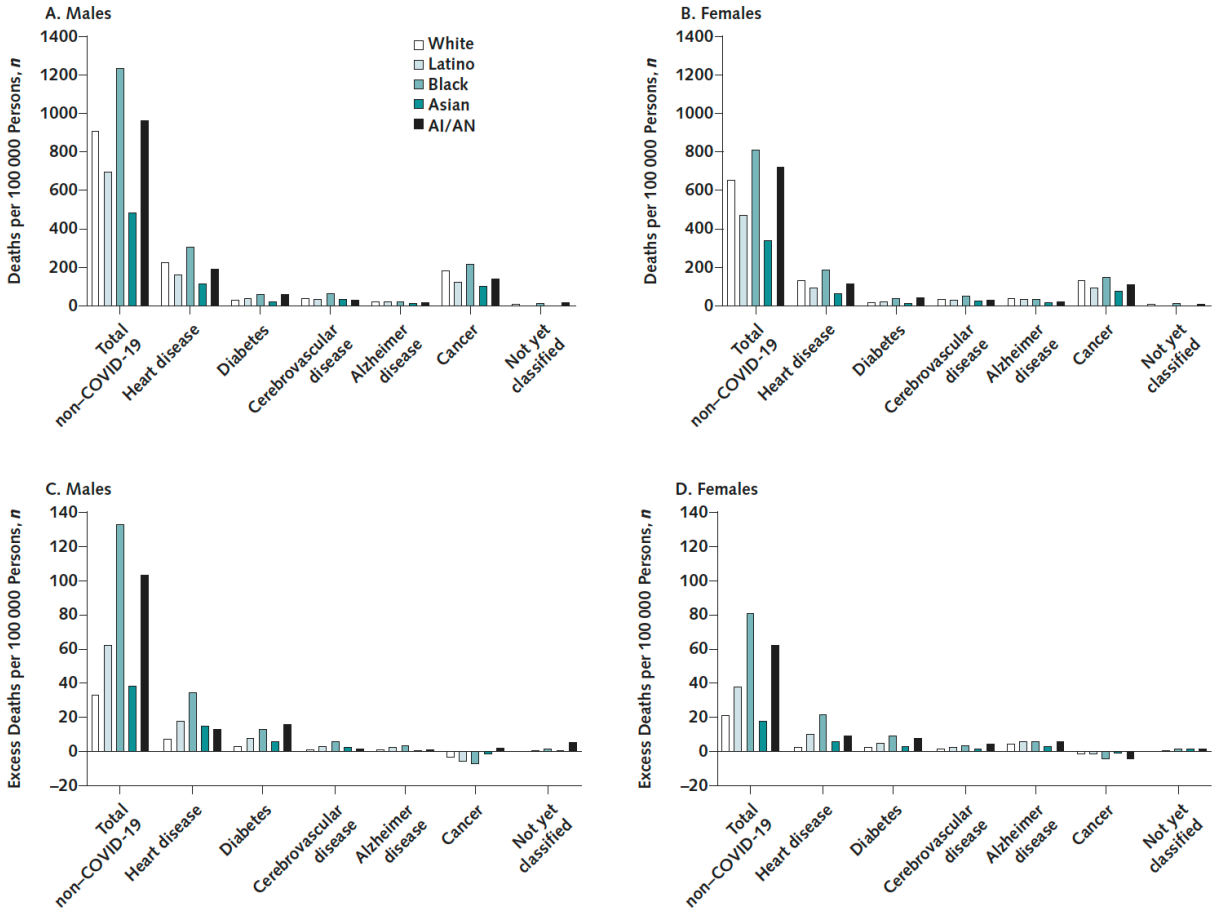
Mass General Brigham Community Health leads the Mass General Brigham system-wide commitment to improve the health and well-being of residents in our priority communities most impacted health inequities. Mass General Brigham's commitment to the community is part of a $30 million pledge to programs aimed at dismantling racism and other forms of inequity through a comprehensive range of approaches involving our health care delivery system and community health initiatives. While not required to conduct a CHNA under current regulations, Mass General Brigham's belief in the critical importance of system-wide, population-level approaches resulted in our decision to have every hospital conduct a 2022 CHNA. Having all our hospitals on the same three-year cycle will prove invaluable in our efforts to eliminate health inequities by identifying system-wide priorities that require system-level efforts. In addition to the priorities each hospital identifies that are unique to its communities, Mass General Brigham identified two system-level priorities: cardiometabolic disease and substance use disorder. These priorities emerged from a review of hospital-level data and prevalent trends in population health statistics. Our efforts within these priorities will aim to reduce racial and ethnic disparities in outcomes, with the goal of improving life expectancy.

B. Key Findings

In a national study of deaths during the first wave of the COVID-19 pandemic (March to December 2020), researchers explored non-COVID deaths and excess deaths, defined as the difference between the number of observed and number of expected deaths. Nationally, non-COVID deaths disproportionately affected Black, American Indian/Alaska Native, and Latino persons (A. and B.) (Graphic 1)[2] Moreover, when looking at excess deaths, the inequities worsened (C. and D.). The greatest disparities are seen for heart disease and diabetes. Inequities also exist for all cancer deaths but not excess cancer deaths.

Graphic 1: Figure 3, Racial and Ethnic Disparities in Excess Deaths During the COVID-19 Pandemic, March to December 2020, Annals of Internal Medicine

Figure 3. Age-standardized non-COVID-19 cause-specific deaths per 100 000 persons in the United States in March to December 2020 among males (*A*) and females (*B*) and age-standardized non-COVID-19 excess cause-specific deaths per 100 000 persons among males (*C*) and females (*D*), by race/ethnicity.



AI/AN = American Indian/Alaska Native.

[2] `Sheils et al. Racial and Ethnic Disparities in Excess Deaths During the COVID-19 Pandemic, March to December 2020. Annals of Internal Medicine, Vol 174 No. 12. December 2021. 1693-1699

Massachusetts mortality data for 2019 reveal that heart disease and unintentional injuries, which includes drug overdoses, account for the second and third highest causes of death. As shown in Graphic 2, the highest number of deaths among individuals from birth to age 44 were the result of unintentional injuries. However, among those 45 years of age and older, heart disease accounts for the highest or second highest cause of death across age group.

Graphic 2: Table 6: Top Ten Leading Underlying Causes of Death by Age, MA 2019

Table 6. Top Ten Leading Underlying Causes of Death by Age, Massachusetts: 2019

	Age Groups (number of deaths)								
Rank	<1 year	1-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75-84 years	85+ years	All
1	Short gestation and LBW[1] (57)	Unintentional Injuries[3] (20)	Unintentional Injuries[3] (186)	Unintentional Injuries[3] (1319)	Cancer (2781)	Cancer (3446)	Cancer (3430)	Heart Disease (5622)	**Cancer (12584)**
2	Congenital malformations (56)	Cancer (17)	Suicide (67)	Cancer (241)	Heart Disease (1585)	Heart Disease (1786)	Heart Disease (2581)	Cancer (2641)	**Heart Disease (11779)**
3	SIDS[2] (21)	Congenital malform (9)	Homicide (43)	Suicide (202)	Unintentional Injuries[3] (1138)	Chronic Lower Respiratory Disease[5] (632)	Chronic Lower Respiratory Disease[5] (893)	Stroke (1260)	**Unintentional Injuries[3] (4094)**
4	Complications of placenta (19)	Other infect (8)	Cancer (27)	Heart Disease (193)	Chronic liver disease (383)	Unintentional Injuries[3] (340)	Stroke (629)	Alzheimer's Disease (1128)	**Chronic Lower Respiratory Disease[5] (2842)**
5	Pregnancy Complications (13)	Homicide (8)	Heart Disease (7)	Homicide (77)	Chronic Lower Respiratory Disease[5] (350)	Stroke (331)	Alzheimer's Disease (415)	Chronic Lower Respiratory Disease[5] (941)	**Stroke (2463)**
6	Respiratory distress (8)	Ill-defined conditions-signs and symptoms[4] (7)	Injuries of Undetermined Intent[3] (7)	Chronic liver disease (62)	Diabetes (312)	Diabetes (300)	Unintentional Injuries[3] (381)	Unintentional Injuries[3] (709)	**Alzheimer's Disease (1662)**
7	Bacterial sepsis of newborn (7)	Influenza & Pneumonia (4)	Diabetes (6)	Ill-defined conditions-signs and symptoms[4] (37)	Suicide (281)	Nephritis (221)	Diabetes (358)	Influenza & Pneumonia (612)	**Diabetes (1386)**
8	Necrotizing entercolitis (6)	Suicide (3)	Influenza & Pneumonia (4)	Diabetes (29)	Stroke (212)	Septicemia (181)	Nephritis (339)	Nephritis (553)	**Nephritis (1280)**
9	Circulatory System (5)	Septicemia (2)	Ill-defined conditions-signs and symptoms[4] (4)	Stroke (29)	Septicemia (171)	Chronic liver disease (180)	Parkinsons (285)	Diabetes (381)	**Influenza & Pneumonia (1217)**
10	Intrauterine Hypoxia (4)	In situ neoplasms (2)	Chronic Lower Respiratory Disease[5] (2)	Injuries of Undetermined Intent[3] (26)	Nephritis (150)	Influenza & Pneumonia (179)	Influenza & Pneumonia (276)	Ill-defined conditions-signs and symptoms[4] (355)	**Septicemia (942)**
All Causes	**255**	**106**	**389**	**2,646**	**9,417**	**9,974**	**13,570**	**22,303**	**58,660**

Note: Ranking based on number of deaths. The number of deaths is shown in parentheses.

1. LBW: Low birthweight. 2. SIDS: Sudden Infant Death Syndrome. 3. Injuries are subdivided into 4 separate categories by intent: unintentional, homicide, suicide, and injuries of undetermined intent (deaths where investigation has not determined whether injuries were accidental or purposely inflicted). 4. Ill-Defined Conditions: Includes ICD-10 codes R00-R99. 5. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title).

In Boston, heart disease mortality for Black and Hispanic residents was second only to COVID-19 in 2020.

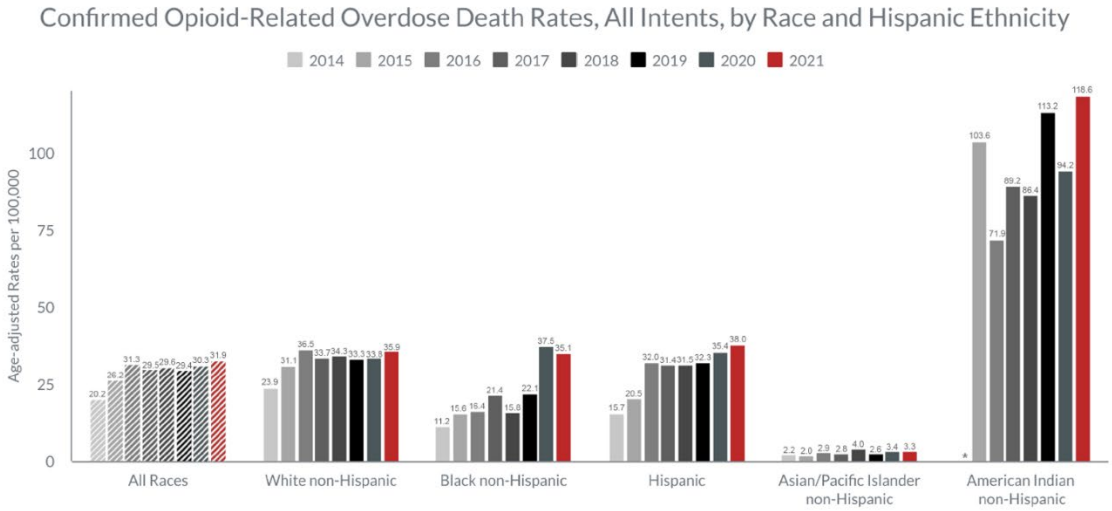
Table 2. Leading Causes of Mortality, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2020

	Boston	Asian	Black	Latino	White
1	COVID-19 138.4	COVID-19 95.1	COVID-19 238.1	COVID-19 143.5	Cancer 117.6
2	Cancer 117.4	Cancer 92.8	Heart Disease 183.6	Heart Disease 86.1	Heart Disease 113.1
3	Heart Disease 114.9	Heart Disease 55.4	Cancer 166.7	Cancer 78.8	COVID-19 103.5
4	Accidents 53.7	Cerebrovascular Diseases 22.2 †	Accidents 82.7	Accidents 59.5	Accidents 53.2
5	Cerebrovascular Diseases 27.4	Accidents 17.1 †	Cerebrovascular Diseases 52.8	Diabetes 27.4	Chronic Lower Respiratory Diseases 24.7

DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Deaths, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Please be advised that 2020-2022 data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Massachusetts Department of Public Health strongly cautions users regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events; Dagger (†) denotes where rates are based on 20 or fewer deaths and may be unstable

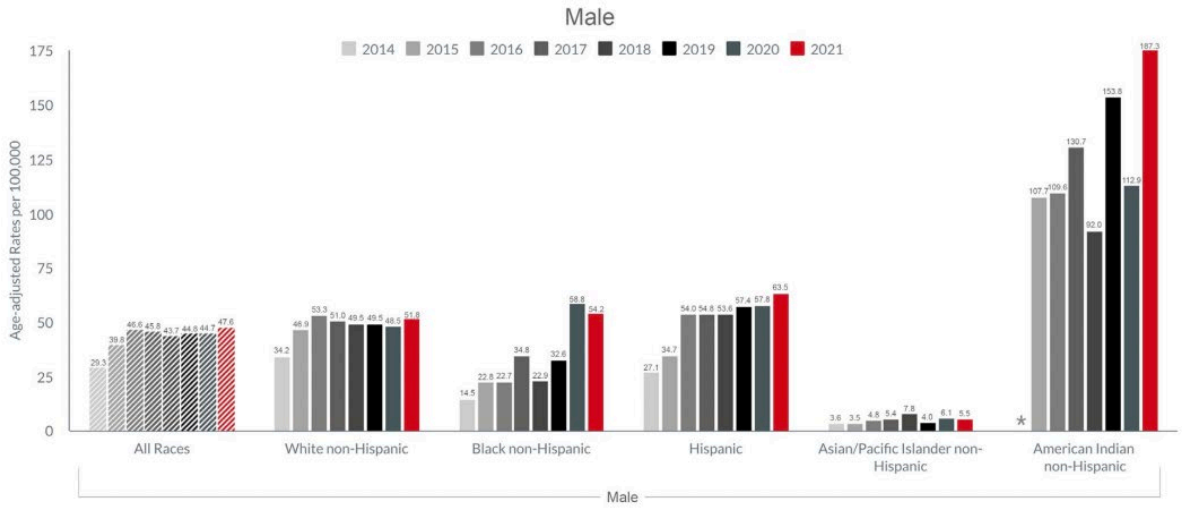
From 2014 to 2021, opioid-related overdose deaths in Massachusetts increased dramatically for Black and Hispanic residents (Graphic 2 and 3). Death rates for American Indian residents have consistently and significantly outpaced deaths rates for all other races.

Graphic 2: Massachusetts Opioid-Related Deaths, All



Data Source: MA Department of Public Health. https://www.mass.gov/doc/opioid-related-overdose-deaths-demographics-june-2022/download

Graphic 3: Massachusetts Opioid-Related Deaths, Males



C. Focus Areas

As Mass General Brigham develops and implements programming and supports that will reduce disparities in health outcomes for the two system priorities, our efforts will focus on the highest need communities across our hospital priority neighborhoods. We will also continue to support locally identified priorities at the hospital level.

VI. Next Steps and Considerations Towards Implementation Plan

Spaulding Boston is prioritizing initiatives that address the social determinants of health and improve access to care, promote wellness and prevent injury and disease in general, but especially for children, seniors, and those with disabilities, improve the social environment and opportunities for people with disabilities, and are considered important to the well-being of the communities we serve. Spaulding Boston will actively engage internal and community stakeholders to develop a comprehensive community health implementation plan.

REFERENCES

2020 MA American Community Survey data
2020 MA Behavioral Risk Factor Surveillance System (BRFSS)
Census
Spaulding Hospital patient data
Center for Disease Control and Prevention's Healthy People 2030

Appendix A: Spaulding Boston Community Benefit Planning Group Members

Working Group and Senior Leadership
Russ Averna, VP of Human Resources
Paul Chiodo, Director of Finance
Tim Sullivan, Director of Communications
Rob Welch, VP of Outpatient Services
Lynne Brady Wagner, Chief Learning Officer
Cara Brickley, VP of Operations, Director of Inpatient Therapy

Community Advisory Board Members
Dave Estrada
Cheri Blauwet
Lynne Brady Wagner
Sharon McLean

Appendix B: MA Behavioral Risk Factor Surveillance Survey (BRFSS) Data for People with Disabilities

2020 - Health indicators for MA adults by disability status as reported on the BRFSS

	Any disability	No disability
General health (adults 18 and older)		
Fair or poor self-rated health	32.4%	5%
Physically unhealthy in past 15+ days (adults 18 and older)		
15 or more days unhealthy	20.8%	2.8%
Falls (adults 65 and older)		
Unintentional Falls	39.1%	17%
Injured by Unintentional Fall	16.1%	6.7%
Chronic diseases (adults 18 and older		
Ever had arthritis	40.3%	17.4%
Current asthma	17.4%	8.7%
Ever had cancer (excluding skin cancer)	16.3%	10.8%
Heart disease	9.5%	3.7%
COPD	12.5%	2.3%
Diabetes	17.5%	6.2%
Ever had a stroke	7%	1.8%
Prevention and screenings		
Mammogram in past 2 years (females 50-74 years)	83.6%	87.8%
Up-to-date on cervical cancer screening (females 21-65)	71.3%	79.6%
Up-to-date on colorectal cancer screening (adults 50-75)	81.4%	80.9%
Visited dentist in past year (adults 18+)	62.6%	76.5%
Had flu vaccine in past 12 months (adults 18-49)	43.6%	47.9%
Had flu vaccine in past 12 months (adults 50-64)	58.4%	58.4%
Had flu vaccine in past 12 months (adults 65+)	73.9%	76.6%
Smoking behaviors (adults 18+)		
Current smoker	19.4%	8.5%
Former smoker	29.5%	22.9%
Attempted to quit smoking in past 12 months	59.9%	56.2%
Currently use e-cigarettes	4.9%	3.8%
Body mass index categories (adults 18+)		
Overweight	66.1%	58.6%
Obese	30.9%	22.5%
Other health risks & behaviors		
Binge drinking in past 30 days (adults 18+)	13.8%	16.4%
Ever tested for HIV (adults 18-64)	53.6%	41%
Barriers and costs of care (adults 18+)		
Could not see doctor in past 12 months due to cost	18.3%	6.0%
Have 1 personal doctor or health care provider	86.9%	86.3%
Have no health insurance	6.7%	4.0%
Dental visit in past 12 months	62.6%	76.5%
Mental and emotional health (adults 18+)		
Ever had depression	47.5%	11.7%
Mentally unhealthy days in past 30 days (adults 18+)		
15+ days mentally unhealthy	26.6%	8.1%