The Town of Brookline
Interim Disparity Report
March 30, 2021

Background

This Disparity Report reflects qualitative and quantitative data that was available within the municipality and community organizations within Brookline. This interim report reflects the intent of identifying Disparities that exist in Brookline's programming, resources, and services among traditionally underrepresented groups, and will ultimately include recommendations on fiscal allocations to the Town Budget, as well as concrete actions that can be taken by the Town to address and remedy those Disparities.

A working group comprised of the Assistant Director in the Brookline Office of Diversity, Inclusion, and Community Relations, representatives from the Commission for Diversity, Inclusion, and Community Relations, Brookline Housing Authority, Steps to Success, Mutual Aid Brookline, and the Brookline community met and have identified and defined fifteen disparity measures to evaluate for the purposes of this report. The full Disparity Report will look at the following measures: access to technology,access to food, access and availability to Covid-19 testing and vaccination, education, employment, housing status and affordability, morbidity and mortality rates, mental health disorders and substance use disorders, quality of life measures, access to adequate transportation, civic engagement, Public Safety services, language access, childcare, and accessibility as it relates to residents with disabilities. Over the past several months the Working Group has collected qualitative and quantitative data from a variety of community sources on three of the fifteen measures that were identified. The three measures, and the recommendations for each, that are included in this interim report are: access to technology, access and availability to Covid-19 testing and vaccination, and access to food.

Report Measures: Definitions, Data and Findings, and Recommendations

Technology Access

Defined as access to broadband internet (BIA), access to a functioning computer, and access to a functioning cell phone. Access to the internet and adequate technology devices is critical for individuals, families, and communities to conduct the basic functions of living, learning, working, and playing in a healthy manner. The American Medical Association has identified and defined six different social determinants of health. These include access to the healthcare system, economic stability, education, food, community and social context, neighborhood and physical environment, and information.The COVID-19 pandemic has proven that lack of BIA affects each of these social determinants, as well as another domain that has become increasingly important, access to credible information. In order to access BIA people must have the appropriate devices, such as a functioning computer and/or cell phone, as well as some training on how to use the devices and their common functions such as email, video calling, and setting up telehealth appointments.[1] Our society is quickly moving to more online operations including job searches/applications, filing for unemployment benefits, attending school, and accessing healthcare.

The Brookline Housing Authority has 984 families that live in properties owned and managed by the Housing Authority. About 50% of these residents live in Elderly/Disabled properties and the other 50% in Family properties. The BHA does not have cumulative or comprehensive quantitative data around access to technology, but they do have some survey data and anecdotal data that they were able to share with the Working Group. The BHA has families with children in school that are lacking the proper internet access, hindering education access, as well as seniors that lack both internet and computers that are hindering their ability to access health care and social interaction during COVID-19. Below is data from a phone technology survey that was conducted by a third party at three elderly properties (Figure 1). All residents of these properties were attempted to be contacted by phone and the response rate was roughly half of the BHA elderly households.

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[1] Benda, N. C., Veinot, T. C., Sieck, C. J., & Ancker, J. S. (2020). Broadband internet access is a social determinant of health! In *American Journal of Public Health* (Vol. 110, Issue 8, pp. 1123–1125). American Public Health Association Inc. https://doi.org/10.2105/AJPH.2020.305784

Figure 1. Data from Phone Survey of 3 BHA Elderly Properties

Kickham

3/25 (12%) no technology devices	3/25 (12%) no wifi or internet connection	2/25 (8%) have interest for new devices	2/25 (8%) agreed with virtual activities	5/25 (20%) agreed with outdoor activities

Col. Floyd

7/26 (27%) no technology devices	8/26 (31%) no wifi or internet connection	1/26 (4%) have interest for new devices	3/26 (11.5%) agreed with virtual activities	7/26 (27%) agreed with outdoor activities

Morse

12/40 (30%) no technology devices	13/40 (32.5%) no wifi or internet connection	1/40 (2.5%) have interest for new devices	8/40 (20%) agreed with virtual activities	9/40 (22.5%) agreed with outdoor activities

The Brookline Housing Authority currently provides a high speed internet hook up in all units through RCN or Comcast, however this is a private transaction between residents and internet providers. Internet is provided in all of the properties' community rooms, however, these are all currently closed due to COVID-19. Internet services are not recognized by HUD as a utility and therefore are not included in a resident's 'utility allowance'. The Brookline Housing Authority has pushed for access to the internet through the Brookline Schools and families that are eligible can be reimbursed for "Internet Essentials from Comcast" through BPS. Particularly during these physically distanced times, it is more urgent than ever that residents are provided with internet access in-unit, since they are unable to safely access communal spaces with internet.

The Brookline Housing Authority currently has completed an RFP process and received one qualified response from a company called Starry. The BHA is in the process of awarding this contract. This would allow residents to access the internet for approximately $15.00 a month. However, the Brookline Housing Authority would prefer to be able to provide public internet to all residents, but in order to do so would need additional assistance with funding, estimated at $130-140K annually.

The Brookline Public Library provides several resources and services to limit barriers to access to technology. The BPL offers free wifi for the public; during COVID-19, while the Library buildings are not currently open to the public, the wifi is still up and running and there are signs posted outside of the Library letting the public know that they are in range. The Library reports approximately 500 uses of the Library public wifi network in an 8 week period from Dec 2020-Feb 2021. BPL also offers Hotspots for checkout. They have a total of 30 Sprint Pocket WiFi units that may be checked out for two weeks and are requestable for pickup at the owning library. Each unit has an unlimited data plan and should work wherever Sprint has network coverage. There have been 84 circulations of these Hotspots this fiscal year. As far as access to computers and other hardware, the Library has Chromebooks available for 2-week checkouts (with or without a wifi hotspot). A Chromebook is a simple laptop computer that lets you browse the internet, participate in web conferences / video meetings and do word processing as long as you have a WiFi connection. As of the beginning of February 2021, the Library has checked out 24 Chromebooks since they started offering them in November 2020. In non-pandemic times, the Library offers in-library desktop use to any member of the public, and doesn't require a library card. The Library also has Ipads available for two week checkouts. The Library also offers printing to the community. In non-pandemic times, people can come into the library and print: $0.15 / page black and white, or $0.40 / page color.   On Tuesday, February 16, 2021, the Library began an email-to-print service where residents can print 15 free pages of black and white printing per person per day.   Lastly, the Library shared with the Working Group that there are reference librarians who can offer assistance with library resources (plus basic computer / internet skills) Monday - Thursday 9 a.m. - 9 p.m., Friday - Saturday 9 a.m. - 5 p.m. These reference services are currently available by phone, chat, or email. In non-pandemic times, they also offer one-on-one appointments with a librarian for longer / more in-depth questions.

The Brookline Office of Emergency Management is currently in the process of applying for grant funding for technology for Brookline's senior residents to help fund the "Tech Buddies Program" in the amount of $40,000. At the beginning of COVID-19 the Emergency Management team realized the need of seniors that were now isolated at home with no access to the community at large, leaving a large population of the Brookline community in need of food, medicine, and other essentials. Seniors who had previously relied on access to the internet or computers at the Library or residential community rooms, no longer had those resources at their disposal. The Tech Buddies Program's objective is to provide internet access, devices, and education and training on how to use the devices to Brookline Seniors in need. The initial funding would be to procure approximately 20 Samsung Tab A Tablets and pay for internet access for Senior "Buddies" who do not have the resources. The program intends to engage community

partners to assist identifying seniors and high school students as the Senior's support system and developing and sharing visual tutorials that can be shared. While the immediate need for more support services for seniors surrounding access to technology was exacerbated by the pandemic; the need for a program such as this is long-term.

Recommendations:
- Provide funding to support Brookline Housing Authority's goal to be able to public internet to all BHA residents.
- Provide initial funding of $40,000 and additional annual funding to allow for sustainable support of the "Tech Buddies" program.
- Assist the Brookline Library with community communications about the resources available and increase utilization of them.
- Provide communications in several languages and identify Town support to ensure that residents in need have access to federal programs such as Lifeline and the Emergency Broadband Benefit.
- Continue to publicize virtual Town meetings as broadly as possible to allow for continued increase in public participation and communication.
- Ensure that post COVID-19 in person meeting rooms throughout the Town have the proper technology and tools to allow for simultaneous remote access participation.

Availability and Access of COVID-19 Testing and Vaccination

Defined as the Brookline community access to COVID-19 testing, as well as any plan for equitable distribution of the vaccine as it becomes available. BIPOC communities have been the hardest hit by the Covid-19 pandemic, yet are being vaccinated in the lowest numbers. Statewide as of January 28th only 2.6% of people vaccinated identified as Latinx and 3.3% identified as Black, while 40% of those vaccinated identify as white.[2] Some of the largest barriers to an equitable vaccine distribution are the fact that the majority of appointments are accessed online or on the phone, meaning those who do not have access to BIA, or a functional computer/phone have a more difficult time scheduling appointments. Other barriers to both an equitable rollout of the vaccine, as well as COVID-19 testing is access to the information in an individual's primary language, access to transportation to an appointment, as well as access to insurance and resources. Creating an equitable vaccine distribution and testing access can prevent the further widening of health disparities.

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[2] Lee, R. (2021, February 1). *The Big 3: Ensuring equity in COVID-19 vaccine distribution | News | Harvard T.H. Chan School of Public Health*. Harvard T.H. Chan School of Public Health. https://www.hsph.harvard.edu/news/features/ensuring-equity-in-covid-19-vaccine-distribution/

The Brookline Health Department provided COVID-19 case data that has been collected from March 2020-Feb 2021. It was noted that approximately 89% of Brookline cases have known Race/Ethnicity data available.   Figure 2. And Figure 3. shows that the proportion of burden has had a greater impact on the BIPOC community in Brookline.   The Brookline Department of Public Health partnered with mPathy LLC to open a COVID-19 testing site at the Health Department, located at 11 Pierce Street that was open from November 2020 until it closed on March 4, 2021. Subsidies for symptomatic and uninsured residents were available via CARES funding after December 2020, but the subsidy program did not continue when the site closed, leaving uninsured residents no local free options for testing. The testing site was reportedly closed due to the CARES Act funding used to operate the site being depleted and the number of tests being administered daily dropping significantly. Over the four months that the testing site was operating, clinic staff administered more than 9,700 tests and identified 385 positive cases. As of February 22, 2021 the Brookline Health Department was currently waiting for vaccines to be made available and acknowledged that the State was currently prioritizing larger vaccination sites but was working with the Brookline Housing Authority and the Office of Emergency Management to develop a vaccination plan for Brookline's most vulnerable populations.   The State had approved on site clinics at BHA Senior Housing and these three were collaborating to ensure a smooth and equitable rollout.

Figure 2 and 3. COVID-19 Cases by Race per 100,000 in Brookline

COVID19 CASES PER 100,000 IN BROOKLINE			
RACES	Cases	Population	Rate per 100,000
WHITE	264	41217	640.51
BLACK	31	1709	1813.92
ASIAN	52	9397	553.37
HISPANIC	47	4606	1020.41
OTHER	48	2305	2082.43

Proportion of Burden of COVID19 Cases by Race

■Asian   ■Black   ■White

19%

57%

24%
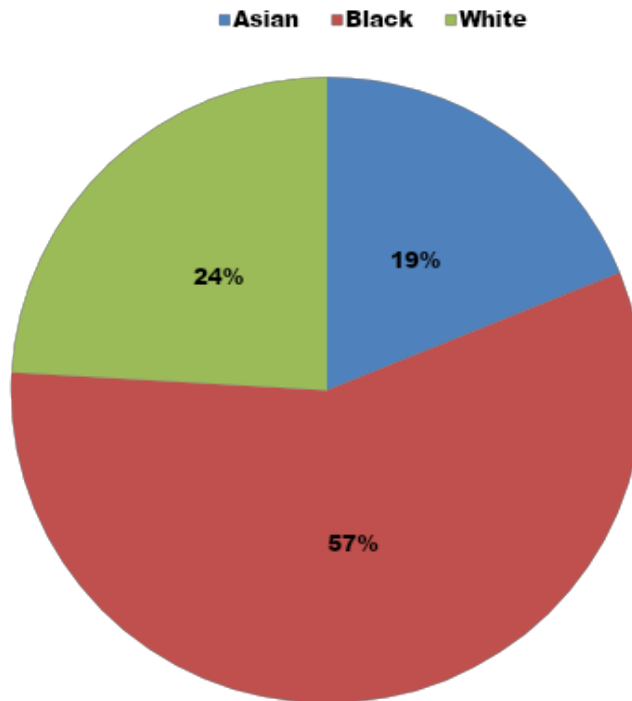
     The Office of Emergency Management reported 300 calls a week at the call center over a 4 week period from mid January to mid February. As of Feb 22nd, 7,500 residents had filled out a google form indicating their eligibility (over 75, over 65, comorbidities, etc). Town staff periodically follow up with residents on the list to let them know of vaccine appointment availability and support. The Office of Emergency Management has also collaborated with the Senior Center, the Town ADA Coordinator, and others to identify and create a list of homebound individuals in Brookline.

Recommendations:
- Understanding from the State and the Town to consider and prioritize transportation access to mass vaccination sites. While the Executive Office of Health and Human Services is now covering transportation costs for MassHealth recipients that can not easily get to a vaccination site, the process is not necessarily simple as consumers still need to request and receive a P-1 reference number. Designated Town staff should be able to assist members of our community through the process and offer other resources or alternatives for residents who are not insured. These opportunities should be widely disseminated through Town channels (press release, social media, local newspapers).

- After the Brookline testing site was closed down with almost no warning, Brookline residents are now facing barriers to testing. The three alternatives that were provided require referrals to get tested, which may be another barrier for some residents. The Department of Public Health should put together a more comprehensive list of testing sites that residents can access without insurance or referrals, as well as indicating the cost to get tested at the site and if they offer a subsidy. This information should be available in multiple languages and shared widely.

Food Access

Defined as the Brookline community's access by individuals to affordable food and to adequate resources for acquiring appropriate foods for a nutritious diet, including food choice and culturally-appropriate foods. There are both healthcare and social costs to food insecurity. When people are facing food insecurity they are often forced to eat whatever food is most affordable and available to them. It is important to point out that food insecurity in households with children can have negative long term impacts on the children. These children are more likely to have diminished physical and mental health, longer recovery periods when sick, higher hospitalization rates, and greater incidences of developmental and educational delays when compared to children in households with stable food access.[3] Food insecurity also impacts Brookline's growing senior population, many of whom make use of the Senior Center pantry, the main Brookline Food Pantry, and Mutual Aid Brookline. All Brookline residents and employees have the right to stable, nutritious, and culturally-appropriate food access, including delivery services that take into account cost, COVID precautions, and any mobility issues.

The Brookline Food Pantry currently runs out of three locations, four days a week. They primarily run on volunteer work and donations as well as three paid staff. Prior to the pandemic they had between 150-175 families picking food up a week. Since March 2020 they have seen serving between 600-700 families a week. The Brookline Food Pantry has also implemented a food delivery service for seniors and residents with health concerns in March of 2020. There are 170 families in this program with the option of getting weekly or biweekly deliveries. Currently they are making between 120-130 deliveries a week. The current food cost for the Pantry is four times higher than it was in 2019. They have been able to address this increase with Federal grants, virtual fundraising and additional donors. As of March 2021 there is no required proof of eligibility required; families in need of utilizing the pantry have to

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[3] Murthy, V. H. (2016). Food Insecurity. *Public Health Reports*, *131*(5), 655–657. https://doi.org/10.1177/0033354916664154

respond to a question of why they are in need of access the first time they attend and then are given an ID Card.

Brookline Thrives is a volunteer run organization that provides free weekend food packs to public school students in need. During the pandemic, with the help of school staff, Thrives has been able to continue in-school delivery of bags to our existing partner schools - Lincoln, FRR, Pierce and BEEP. Bags are available to both cohort A and B students, as well as full-time. Thrives has made bags available district-wide by distributing at all remote school meal sites on Friday afternoons. Locations are: BHA High St Vets, BHA 22 High St, BHA Egmont, BHS, Pierce, Baker and FRR. Thrives distributes an average of just over 500 bags per week. 14% of bags are for students with food allergies or other dietary restrictions. Bags have been modified this year to provide additional snacks (2 per day for 7 days), to supplement for snacks that students are not receiving at school. Thrives distribution is more than double last school year (2019-2020). Food costs are about 2.5 times that of last school year. Thrives does not collect demographic or economic information. Field observation shows that participating families are a mix of ethnicities/races. National data shows that food insecurity is not solely tied to low income.

The Food Pantry has identified some areas and populations that continue to be underserved. High School students are not picking up Thrive bags and do not go to the Pantry. Thrive bags are not necessarily ideal for older teens and they are currently working with Brookline High School and the Teen Center to open "mini pantries". The Food Pantry would also like to continue its outreach to Brookline Housing Authority residents and the Brookline community at large in a variety of languages.

The Brookline Public School - Food Services reports providing 28,000 meals (breakfast and lunch) to families in the district over the last school year both in school and at the mobile sites. The district has seen a 3% increase in 'free and reduced meals' eligibility in the 2020-2021 school year. This is compared to a typical annual increase of approximately .5%. This increase is likely due to families not having to prove eligibility status because of the USDA waiver allowing all students in the district to have access to free food. Free and reduced meals eligibility also opens up access to extra or additional funding, such as Pandemic -EBT[4]. BPS acknowledged the need for more outreach to get families to apply in order to get the additional benefits and encourage families to sign up for SNAP. The School district will be continuing to provide all students with free meals through June 30, 2021. It is unknown what will happen for the next school year, but administration in Food Services is advocating for it to continue.

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[4] https://www.map-ebt.org/ The *Pandemic - Electronic Benefits Transfer* (P-EBT) Program was created in Spring 2020 to provide funds for families to buy food while schools were closed due to COVID-19. More P-EBT funds are being issued for the 2020-2021 school year.

Mutual Aid Brookline has been serving Brookline on a completely volunteer basis since March 2020. MAB regularly provides full grocery subsidies to more than 40 Brookline households, and provides shopping and delivery services for up to 20 other households. The need for contactless delivery is not answered by existing Town services in Brookline: between MAB and the Food Pantry, more than 200 Brookline households are receiving food deliveries, and that does not account for other members of the Brookline community who use Springwell and other meal delivery services.

Along with specific grocery lists chosen by each household, MAB will subsidize items that are not covered by EBT or pantry offerings, including important items such as medications, snacks for all age levels, holiday treats and birthday cake, and cleaning supplies. Brookline needs to centralize services and prioritize not only food for all, but food choice, equitable access to nutritious foods, and culturally-specific foods.

MAB Community Fund Reimbursements, May 2020 - Mar 2021
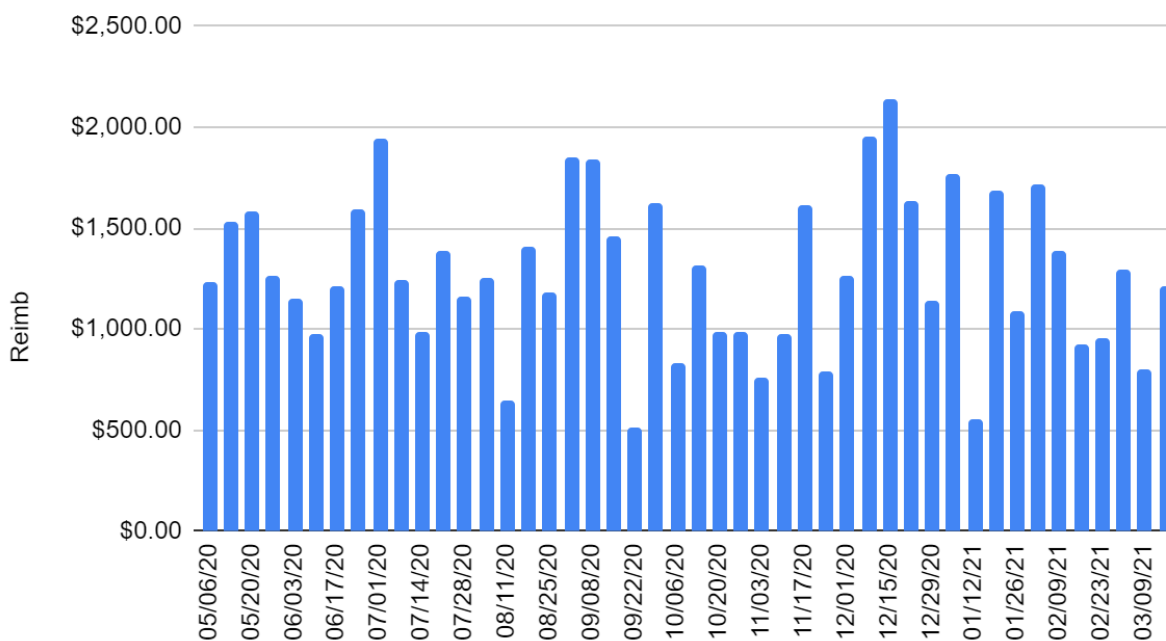
While MAB has streamlined their system and reduced their total number of biweekly deliveries by asking clients to consolidate their orders to every two weeks, weekly subsidies have remained fairly constant over the past year. The need for grocery subsidies has not gone away. The 1159 deliveries and $66,030.14 redistributed by MAB (as of March 22nd, 2021) have allowed volunteers to shop for neighbors with their own grocery lists, complete with substitution preferences and special requests. Paid services such as Instacart and Peapod can schedule a week or more out, depending on

demand: MAB's volunteers can schedule within three to four days, and within 24 hours for emergency out-of-food or out-of-medication situations. MAB collates anonymized data including subsidy amounts, neighborhoods, BHA housing, elderly and disabled housing, and number of repeat clients, all of which are visible in MAB's Deliveries by the Numbers spreadsheet and weekly fact sheets.[5]

Brookline's current systems are inadequate to support the estimated 12.3% of our residents living below the federal poverty line in 2019, and the more than 26% of our residents who are living below three times that mark - which research suggests is the estimated cost of living in Brookline.[67] A recent Feeding America report singled out Norfolk County with the highest increase of child food insecurity in the country.[8]

Food justice is food equity: our BIPOC community members are more likely to be food insecure.[9]

Recommendations
- A designated Town social services/human services staff person dedicated to addressing food insecurity and ensuring continuity and sustainability of local food resources.
  - Quarterly communication with Brooklie's low income residents, senior residents, and other vulnerable residents to assess and ensure that they are getting adequate services and addressing any gaps in need. This would enable the Town to have a comprehensive map of the food insecurities in Brookline.
- Development of a comprehensive centralized resource available several languages and made easy to access both electronically and in print.

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[5] MAB Deliveries by the Numbers, updated weekly on Tuesdays:
https://docs.google.com/spreadsheets/d/19KP7KfW41NXlYXx0tVCWjfdUTdFv5jDsiF7D5W-z83I/edit?usp=sharing. To join the weekly delivery fact sheet list, please email mutualaidbrookline.delivery@gmail.com.
[6] ACS 2019
(https://data.census.gov/cedsci/table?q=brookline&tid=ACSST5Y2019.S1701&hidePreview=false).
[7] BCF report for cost of living
(https://static1.squarespace.com/static/5b2920ad5b409b6a11fdc538/t/5c6d69b89140b752b96b9578/1550674362498/Understanding+Brookline-A+Report+on+Poverty.pdf; Boston-based Crittenton Women's Union has developed an Economic Independence Index to get a more realistic estimate of the cost of living in Massachusetts. For Norfolk County (which includes Brookline), the calculator estimates a minimum required income of $76,152 for two adults with one pre-school age child and one school-age child.) and ACS 2019 for percent of 300% above fed poverty line.
[8] Feeding America, 163% increase in child food insecurity in Norfolk County
(https://www.feedingamerica.org/sites/default/files/2020-10/Brief_Local%20Impact_10.2020_0.pdf)
[9] ACS 2019: 25% of Black households in Brookline use SNAP/EBT, compared to 4% of white households, despite Black households making up 3% of the population and white households making up 75%.

- Emphasize the continued need to alternative means to acquire food; deliveries, curbside pickup, etc. and provide incentives to local businesses to provide these services
- Encourage community partnerships such as the local restaurant pantry meals program pilot
- Town commitment of non-emergency funds to the Brookline Food Pantry.
- Establish community gardens and awareness campaigns around gardening and nutritional food access.
- Follow suit of several other neighborhoods and continue the Brookline Farmers Market outside through the Winter season.
- Follow suit of several other neighborhoods and collaborate with community organizations or businesses to operate and stock community fridges.

Psychological Measures (rates of diagnosis, rate of treatment)
Mental Health and Substance Use Disorders

Mental health is defined as a person's condition with regard to their psychological and emotional well-being. In the United States, only 43% of people with a mental illness receive some type of treatment. Racial/ethnic, gender and sexual minorities are more likely to have poor mental health due to multitude of factors. These factors include; accessibility of high quality mental health care, cultural stigma surrounding mental health and mental health care, discrimination, and even lack of awareness about mental health and mental health treatments. There are three common types of treatment options: outpatient, inpatient, and prescription. In order to better diagnose and treat people, we need to work to remove the barriers to care that exist. These barriers include the ones stated above as well as language barriers between doctor and patient, lack of insurance/underinsurance, lack of culturally diverse providers, as well as improving the trust people have in the healthcare system.

Quality of Life Measures (access to recreation, social engagement, green space, etc)

Quality of life measures refers to material and physical well-being, relationship with other people, community and civic activity, personal development, fulfillment, and recreation. Each of these categories can be broken down into smaller scale items that include, health and personal safety, relationships with parents, siblings, and other relatives, activities related to local or national government, creativity and personal expression, active and passive recreational activities. These are measures to assess the burden of physical and mental health problems that are not disease specific. They can be used to quantify the perceived physical and mental health disparities among population subgroups on the basis of gender, race/ethnicity, education, income, and

place of residence. We can then take this information to allocate resources to specific groups.

Ease of getting around
Transportation Accessibility:

Many low-income American families lack safe and convenient access to work, school, healthy food, health care, and other important destinations due to lack of transportation accessibility. This could be due to the price of public transportation, the lack of sidewalks, age or disability. Many of the current street conditions are not conducive for walking and biking, making it dangerous. This means that many low-income people and people of color are walking and biking in dangerous conditions. Some people due to their age or a disability are not able to utilize public transportation. There is hope that community health workers can coordinate transportation for patients. This in coordination with making roads more accessible for walking and biking may start to improve accessibility.

Civic Engagement

Civic engagement is individual and collective actions designed to identify and address issues of public concern. This can be done through individual volunteering, organizational involvement or electoral participation. Participation is civic life is a choice in the United States, and not everyone has the ability to participate. When there is unequal participation there can be inequities in the information that is communicated to the government, and thus inequities in governmental responses.

Public Safety Services

Public safety involves protecting people from crimes, disasters, and other potential dangers and threats. These are our police officers, security agents, emergency responders, and firefighters. Their role is to prevent danger and protect the wellbeing of citizens, communities, and organizations. Perceptions of public safety have far-reaching impacts on community health. In the United States, studies have shown that marginalized populations are unequally affected by law enforcement. This can then be linked to adverse mental health outcomes in the community including depression and PTSD. The discussion has begun to move towards reallocating some of the money spent on mental health services, youth development and affordable housing.

Language Access

Language access is something that is achieved when individuals with Limited English Proficiency can communicate with program staff/community members and actively participate in community programs and activities. Language access is also extremely important in health care settings. The availability of translations and use of

interpreters can be extremely helpful and allow people to join the conversation who may before have felt unwelcome.

Childcare

In the United States, there is no universal child care and this leads to many challenges for working families. Child care in many ways is still a political issue in the United States, it is linked to sanctity of motherhood and preserving the traditional family. The Covid-19 pandemic has exacerbated the issues in the child care system, and shown the need for change. Many parents of color are being forced to choose between putting food on the table and providing children with supervision and enrichment. Communities of color were affected by child care disparities before the pandemic and the data suggests that this will intensify after the pandemic.

Education (Access and Achievement)

- Retention rates
- Graduations rates
- GPA
- Testing
- Number of children at/above/below benchmarks
- Language and accessibility of classroom based education
  - Zoom access and internet access for remote learning
  - How metrics have shifted since online learning began

Employment

- Employment rates in Brookline
- Employment opportunities in Brookline
- Review [Local Area Unemployment Statistics (LAUS)](#)

Housing Status and Affordability

- What percentage of housing meets the [30% of income standard](#) in Brookline
  - Cost-burdened households
- Housed status
- If experiencing homelessness, how long

- Access to shelters
- Programs within the community to increase access to housing and other resources
  - Back on my Feet

Major Health Markers (Morbidity and Mortality)

- Top 10 global causes of death in 2019
  - Ischaemic heart disease
  - Stroke
  - Chronic obstructive pulmonary disease
  - Lower respiratory infections
  - Neonatal conditions
  - Trachea, bronchus, lung cancers
  - Alzheimer disease and other dementias
  - Diarrhoeal diseases
  - Diabetes mellitus
  - Kidney diseases
- Top 10 global causes of disability-adjusted life years (DALYs) in 2019
  - 1. Neonatal conditions
  - 2. Ischaemic heart disease
  - 3. Stroke
  - 4. Lower respiratory infections
  - 5. Diarrhoeal diseases
  - 6. Road injury
  - 7. Chronic obstructive pulmonary disease
  - 8. Diabetes mellitus
  - 9. Tuberculosis
  - 10. Congenital anomalies

Universal Design Access