



WHY DIGITAL EQUITY PLANS MATTER?

A digital equity plan ensures everyone in a community has access to technology, skills, and opportunities, bridging the digital divide and fostering inclusivity.

Digital equity plans build stronger, more inclusive communities where everyone can thrive in the digital age.

Here's why they matter:

For Municipal Officials:

- 1. Better Decisions: Provides insights to guide smart investments in technology.
- 2. Targeted Resources: Focuses efforts where they're needed most.
- 3. **Economic Boost:** Supports a skilled workforce and attracts businesses.
- 4. Improved Services: Ensures all residents can access essential online services.

For Community Residents:

- 1. Quality of Life: Makes healthcare, education, jobs, recreation and social participation more accessible.
- 2. **Equal Access**: Offers tools and skills for education, jobs, and participation.
- 3. **Empowerment**: Engages residents in shaping their digital future.
- 4. Connection: Reduces isolation by linking people to resources and community.

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Community Members

All Beverly community members who participated in the charrette workshops at the Council on Aging and the Beverly Bootstraps, and shared their valuable insights and experiences

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EXECUTIVE SUMMARY

Digital equity—ensuring that everyone can access and use the internet—plays a key role in helping people and families in Beverly, especially those most affected by the digital divide, get better access to social, economic, and civic opportunities. This report presents research, findings, and recommendations conducted and developed during a five-month period from February to June 2025 as a part of Massachusetts Broadband Institute's (MBI) Municipal Digital Equity Planning program. During this time, the Metropolitan Area Planning Council (MAPC) partnered with the City of Beverly to conduct a series of workshops with community members, including older residents and English language learners, as well as community partners.

This report centers the three pillars of the Digital Equity framework: internet access, device access, and digital literacy. In Beverly, Digital Equity is also integrated within their framework for Racial Equity Action Planning (REAP), considered not only as a technology issue but as an important step to addressing barriers to social justice. This report highlights what we heard directly from targeted vulnerable population groups in Beverly, including older individuals, English language learners, new immigrants, low-income individuals, and individuals living with disabilities, as well as the community partners serving them. The result is a set of findings and implementable recommendations to address Beverly's digital equity needs.

SUMMARY OF FINDINGS

As Beverly becomes more diverse, addressing the digital divide requires a focus on equity and inclusion to meet the needs of community members most negatively impacted

Beverly's Racial Equity Audit shows the city has become more diverse over the past decade, with non-white residents now making up about 15% of the population. This includes growing Black, Latino, Asian, Indigenous, and multiracial communities, groups that have historically been underrepresented and continue to face barriers in housing, jobs, healthcare, education, and civic life. The city also has a large aging population, around 19% are over 65 years, many of whom face challenges with mobility, digital access, and affordable services, especially those who are low-income, disabled, or without family support.

Other groups facing systemic barriers include individuals living with disabilities, English language learners, low-income families, and veterans. Many residents hold overlapping identities, which can lead to deeper inequities. The city is leading efforts to address these deep inequities through more equitable policies, inclusive engagement, and better-targeted resources.

Beverly has a foundation for successful community partnership and a robust network of community assets that can support a targeted and equitable approach to overcoming digital divide

Beverly serves as a regional hub for English Language Learners (ELLs) and immigrants in the North Shore, supported by a strong network of schools, nonprofits, and city programs focused on digital and language access. This well-established ecosystem, including ESL programs in schools and community-led digital literacy initiatives, enables Beverly to reach at-risk populations and address inequities. By leveraging these partnerships and community assets, the City is well-positioned to expand access and support for residents facing barriers to technology and connectivity.

Barriers to affordable internet service and access to appropriate devices are most severe for Beverly's priority population groups including older residents, low-income households, recent immigrants, and English Language Learners (ELLs).

Community members in Beverly shared that internet access is essential for staying connected and feeling a sense of belonging, especially among older adults who can experience social isolation and English Language Learners (ELLs) who often rely on the internet to keep in touch with family abroad. Affordability remains a major challenge for older residents, low-income households, ELLs, and recent immigrants. When the Affordable Connectivity Program (ACP) ended in June 2024, 1,379 Beverly households lost this critical support, impacting their ability to maintain internet service. Limited internet provider options also contribute to the issue, with a monopoly condition where Comcast is serving 99% of local addresses. There is no other ISP providing a wired plan to more than one Broadband Serviceable Location (BSL), with T-mobile serving only 8% of BSLs with fixed wireless. Transportation and language barriers further prevent some residents from accessing the internet and devices in community spaces.

More than 1,000 households in Beverly do not have a computer or similar device at home, affecting about 2.7% of the population, with a higher proportion in neighborhoods like Prospect Hill and North Beverly. Many of the residents most affected by the digital divide rely solely on smartphones to get online—1,000 households in Beverly have no other computing devices besides smartphones. Residents living with disabilities also face unique challenges and often need adaptive technology to access the internet and digital tools.

A tailored approach is needed to reach priority population groups with diverse support needs and close the digital skills gap.

Many individuals most affected by the digital divide experience challenges with their digital skills that make it harder for them to fully participate online. Older adults and English Language Learners (ELLs) have expressed interest in building their digital skills through education and training. For ELLs and new immigrants, language barriers often make digital literacy even more difficult. Community members highlighted the need for a variety of support options, including one-on-one tech help, training and education opportunities, and support in languages other than English, to meet people where they are.

SUMMARY OF RECOMMENDATIONS

CATEGORY 1: IMPROVE ACCESS TO BROADBAND AT THE HOUSEHOLD-, NEIGHBORHOOD-, AND CITY-LEVEL

This set of recommendations focuses on improving internet access, both by expanding public Wi-Fi in places like community centers and outdoor spaces, and by increasing options for at-home internet, especially for community members who need it most. During charrette workshops, we heard that many English language learners, immigrants, and low-income residents don't have reliable broadband at home. These recommendations lay out some ways to address this important issue.

- 1.1. Promote existing digital access and expand digital access in community facilities: Improve digital access at the neighborhood level by expanding public Wi-Fi at Community Anchor Institutions like libraries, public schools, and public housing sites. This can also include improving community facilities by installing charging stations to support unhoused populations and others who depend on smartphones for internet access.
- 1.2. Explore publicly accessible outdoor Wi-Fi: This recommendation lays out steps to use the city's existing fiber network to bring public Wi-Fi to areas that need it most. In the long-term, it encourages Beverly to look into partnerships to build and run a public Wi-Fi network, and to collaborate with the MBTA to try out an outdoor Wi-Fi pilot that connects the four commuter rail stations in the city and the surrounding businesses.
- 1.3. Partner with housing providers to support digital access in affordable housing sites: Affordable housing sites are key locations to reach low-income communities most impacted by the digital divide. To improve access to higher quality and more affordable at-home internet access for residents in affordable housing sites, improve network infrastructure, wiring, and broadband equipment to bring additional plan options and technologies to residents. Beverly Housing Authority should invest in modernizing infrastructure in older buildings to support fiber to the unit and pursue the Retrofit program to implement this recommendation. Similarly, the City should work with CDCs to explore different models to provide free or low-cost internet access to the entire building or site via apartment scale Wi-Fi.
- 1.4. Bring ISP market competition for at-home internet service in Beverly: The City should do what it can to facilitate more affordable internet service in Beverly by increasing the number of private internet service providers and exploring ways to leverage public infrastructure. To accomplish this, Beverly should engage additional ISPs like T-Moble that currently only serve a small number of addresses, and should explore ways to incentivize expansion, potentially through publicprivate partnership. Beverly can also consider leveraging public infrastructure or public policy to support more improved broadband access and consumer choice, for example by adopting a dig-once policy or managing an open access network model.
- 1.5. Promote low-cost internet options and programs: The City should promote low-cost internet plans like Internet Essentials, Spectrum Internet Assist, etc. through education and awareness about these plans. City can work with ISPs to raise awareness about low-cost internet plans and free public Wi-Fi hotspots, especially targeting former ACP participants and income-eligible residents in Beverly. This outreach would help more households access affordable connectivity options.
- 1.6. Expand hotspot lending to serve community members without at-home internet or mobile data: Continue to invest in Beverly Public Library's hotspot distribution program that is meeting the high demand of at-home internet access for many without internet connection. The city should partner with community organizations serving individuals experiencing homelessness, housing insecurity, and poverty to provide hotspot equipment.

CATEGORY 2: EXPAND DEVICE ACCESS AND DIGITAL SKILLS SUPPORT, BUILDING ON EXISTING ASSETS

Individuals have varied needs for device access and digital skills capacity building. There is no one size that fits all and it requires interventions tailored to the diverse needs of those community members most in need of support for self-sufficiency. The recommendations below propose ways of expanding targeted support for device access and digital literacy by building on the existing community assets as well as ongoing digital inclusion and social support.

2.1. Provide computer labs in critical high-need Community Anchor Institutions (CAIs): Set up computer labs in places like the Council on Aging and public housing sites, so older adults, low-income families, and English learners can easily

access computers and the internet where they already go. These labs will help close the digital gap in communication, city services, and building digital skills.

- 2.2. Provide accessible and adaptive devices for individuals living with disabilities: The Beverly Library and Beverly Public schools help residents get the devices they need, so it's important to keep investing in those programs. Partner with local community-based organizations to expand them.
- 2.3. Coordinate device donation, refurbishment, and distribution program with major employers in community, nonprofits, and City IT: Create a coordinated program to collect, refurbish, and distribute donated devices from individuals and companies to households and nonprofits. Work with corporate IT departments that regularly replace equipment, and explore partnership with nonprofits like Computers 4 People, MACIR, or the MassHire JEDI Consortium that specialize in refurbishing and distributing devices
- 2.4. Expand and diversify technology education in Beverly's priority population groups who will most benefit from training support: Offer technology training at different skill levels, in various formats, and at convenient community locations. Partnering with CAIs and other community-based organizations will help reach priority populations and integrate digital skills into existing programs. Training should be informed by community needs to tailor content to real needs, like basic computer use, online job applications, telehealth, or cybersecurity, and be delivered through one-on-one support, small group classes, or peer learning to ensure diversity in support.
- 2.5. Provide multilingual technology support through multiple programs: Provide multilingual support to community members through a Digital Navigators (DNs) program to provide support to City staff addressing digital equity needs, explore a "Train the Trainer" program for technology training that provides training support to city staff and organizations providing tech support, and lastly provide help desk support in key locations like the library, COA, affordable housing sites, public schools, and CBOs.

CATEGORY 3: BUILD COMMUNITY CAPACITY BY CULTURALLY RELEVANT AND MULTILINGUAL EDUCATION AND **OUTREACH**

Along with improving access to the internet, devices, and digital skills training, our research found that there are still key barriers to achieving full digital inclusion for those most affected by the digital divide. There's a clear need to raise awareness and provide education about ongoing and new digital equity efforts, in ways that are culturally sensitive and available in the main languages spoken in Beverly. We also encourage community service providers to consider digital equity as part of the broader system of support for racial equity and social justice in the city.

- 3.1. Publicly track progress on Digital Equity measures through Beverly's DEIB Framework Equity dashboard: Track progress of Digital Equity needs and strategies under Beverly's DEIB framework to ensure that the city services and programs are shaped by Beverly's diverse community.
- 3.2. Build on the digital equity community asset map to serve as an up-to-date inventory of resources and programs: Host the digital equity asset map on a public webpage as a resource directory for decision-makers, community members, and local organizations to be aware about ongoing and new programs.
- 3.3. Partner with BevCam for community-wide outreach of available resources and programs: Partner with BevCam to provide digital literacy support, particularly around accessing digital services and using online communications/media platforms to engage with local government and community; promote digital equity resources from the Community Asset Map and boost public awareness. Explore internship or apprenticeship opportunities for local youth to help with outreach and engagement efforts.
- 3.4. Develop and offer "how-to" video series with visual guides for accessing city services online: Create short, multilingual video tutorials to help people use online City services on their phones and laptops. Support the videos with simple, easy-to-follow guides that include clear language, photos, and step-by-step instructions so everyone can learn at their own pace.

- 3.5. Conduct a study of digital divide as a Social Determinant of Health (SDoH): Work with the Beverly Public Health Department and local healthcare providers to study how lack of digital access affects health, so the City can better understand who's most impacted and take steps to close those gaps.
- 3.6. Conduct user-testing of online resources to understand current barriers to online municipal services among at-risk populations: User-test online services, especially with older adults, people with disabilities, and English learners, to find issues and make improvements that ensure everyone can use them easily.

CATEGORY 4: STRENGTHEN COMMUNITY PARTNERSHIPS AND EXPLORE OPPORTUNITIES FOR REGIONAL COLLABORATION

Beverly's community partnerships and collaboration puts it in a great position to connect with regional digital equity efforts. The following recommendations suggest ways for Beverly to formalize its local partnerships through a dedicated steering committee, and to work with regional coalitions to strengthen its ability to deliver services and reach more diverse groups in the community.

- 4.1. Form a Digital Equity Steering Committee: Form a local digital equity steering committee with diverse community members to help guide and coordinate efforts, track progress, and make sure digital equity stays part of the City's priorities in areas like planning, health, education, and civic engagement.
- 4.2. Connect with local and state-wide Digital Equity partners: Ensure that Beverly actively participates in regional and state-level digital equity coalitions, like ECCF's coalition and MA Digital Equity Coalition, to stay informed, share best practices, and strengthen Beverly's digital equity efforts.
- 4.3. Strengthen participation in North Shore JEDI program: Partner with the regional Digital JEDI Consortium, supported by MassHire, to bring more digital equity services to Beverly like one-on-one tech help from Digital Navigators, multilingual outreach tools, digital literacy workshops, and device distribution for BIPOC, immigrant, and low-income residents.
- 4.4. Explore regionalizing IT services: Partner with nearby communities for regionalizing IT services. Consider joining the North Shore IT Collaborative.



INTRODUCTION

Digital equity is central to helping individuals and families access adequate social, economic, and civic opportunities today. This section introduces key concepts that define digital equity, digital equity's alignment with other core community values, and how the digital divide creates needs across the region.

As with many parts of the country, during and after the COVID-19 Pandemic, Beverly experienced a lack of sufficient bandwidth to carry out daily life online. Many communities in the Boston region face many of the same challenges with regard to digital access and education, including high costs for internet plans, a lack of online resources and training in languages other than English, and a lack of digital skills.

These concerns were at the forefront of developing a collaborative approach for Beverly to enhance existing services, break down barriers, and close the digital divide across the region. In 2024, the City of Beverly joined the Massachusetts Broadband Institute's Municipal Digital Equity Planning program and engaged the Metropolitan Area Planning Council (MAPC) in developing Beverly's first community Digital Equity Charrette Report.

Through a process of both data collection and public outreach including stakeholder interviews, the charrette model of planning by MAPC seeks to outline the current state of digital equity at the municipal level, and tie together strategies to address gaps in digital equity related to infrastructure, device access, and literacy for the benefit of all residents of Beverly.

WHAT IS DIGITAL EQUITY?

This plan will describe findings by analyzing the existing conditions as well as community needs, a vision and recommendations for digital equity in Beverly. But first, what is digital equity?

"Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services." -National Digital Inclusion Alliance (NDIA)

Digital equity means that everyone has access to the online opportunities and resources that they need, regardless of their identities, socio-economic status, and location. It means that everyone has an equitable opportunity to participate in society and the economy, access education and training, and participate in civic life.

DIGITAL EQUITY FRAMEWORK: THE THREE PILLARS

In discussing and analyzing digital equity in Beverly, this plan adopts the common framework of the "three pillars" of digital equity: internet access; devices; and digital literacy. They form the foundation for ensuring that all individuals and communities can fully participate in the digital world.

Internet Access

Equitable digital participation begins with access to affordable, reliable, high-speed broadband. This connectivity is essential for education, employment, healthcare, and civic engagement (Digital Promise; CDLE).

Devices

People need affordable, functional, internet-enabled devices- such as computers, tablets, or smartphones- that meet their needs for work, learning, and accessing services. Devices are a key component in bridging the digital divide (CDLE; Digital Inclusion.org)

Digital Literacy

Digital literacy involves the skills and knowledge required to use technology effectively—from operating devices and navigating the internet to evaluating online information and using digital tools. Ongoing training and support are vital to ensure meaningful participation in the digital world (Digital Promise; CDLE; Digital Inclusion.org).

WHY IS DIGITAL EQUITY IMPORTANT TO BEVERLY?

Digital equity is not an isolated issue but is instead interrelated to many of the core challenges faced by Beverly. Given the importance of digital access, devices, and literacy to participation in broader society, Beverly is home to many populations who face challenges in getting their digital needs met on a daily basis. Most notably, low-income households, residents who speak a language other than English, new immigrants, older residents, residents experiencing poverty and homelessness, are disparately disadvantaged by the digital divide.

Importantly, the Digital Divide impacts the region's ability to meet its housing, economic development, Health, Education, and Civic Participation goals as detailed below.

Digital Equity + Housing

- High speed internet access is an increasingly vital aspect of adequate housing1.
- A building's wiring and infrastructure can impact the internet options available to residents
- High cost of housing / cost burden can force households to have to choose between basic necessitates, sometimes sacrificing internet access
- Applications for affordable housing and other housing related services (such as rent payment portals) are increasingly online
- Low-income residents of affordable housing experience lower levels of internet access and adoption²
- Housing authority-managed sites and other multi-dwelling unit buildings (MDUs) can provide opportunities for shared broadband amenities or services

Digital Equity + Economic Development

- Research increasingly shows that digital inclusion is a prerequisite for economic inclusion and for closing generational wealth gaps³
- Digital access is necessary for a variety of important economic activities that increasingly take place online, from working remotely, to searching for a job, upskilling through online training, to e-commerce and online entrepreneurship
- Digital skills are required for 92% of job opportunities, and jobs that require more digital skills pay more than jobs that require fewer⁴
- A community's broadband coverage and adoption is associated with the number of jobs and economic output⁵, and individuals with broadband subscriptions report higher income than those without⁶
- Small businesses owners need digital skills to market and promote their business online
- Tech companies and other employers require top-tier broadband speeds to locate in a community

Digital Equity + Health

¹ National League of Cities (2021, December 9). Digital Equity Playbook: How City Leaders Can Bridge the Digital Divide. https://www.nlc.org/resource/digital-equity-playbook-how-city-leaders-can-bridge-the-digital-divide/

² ConnectHomeUSA Playbook. https://www.hud.gov/sites/dfiles/PIH/documents/ConnectHomeUSA%20Playbook%202019%201-8 Final.pdf

³ Ochillo, F. (2022). The Economic Consequences and Generational Impact of the Digital Divide. Belfer Center for Science and International Affairs. https://www.belfercenter.org/publication/economic-consequences-and-generational-impact-digital-divide

⁴ Bergson-Shilcock, A., Taylor, R., & Hodge, N. (2023). Closing the Digital Skill Divide. National Skills Coalition. https://nationalskillscoalition.org/wp-content/uploads/2023/02/NSC-DigitalDivide report Feb2023.pdf

⁵ (2021). Broadband for all: Charting a path to economic growth. Deloitte.

https://www2.deloitte.com/content/dam/Deloitte/us/Documents/process-and-operations/us-charting-a-path-to-economic-growth.pdf

⁶ Curtis ME, Clingan SE, Guo H, Zhu Y, Mooney LJ, Hser YI. (2022) Disparities in digital access among American rural and urban households and implications for telemedicine-based services. J Rural Health. 38(3):512-518. doi: 10.1111/jrh.12614. Epub 2021 Aug 6. PMID: 34355427; PMCID: PMC9827725

- Digital equity is a "super" social determinant of health, meaning it influences others, such as healthcare, education, and employment⁷
- The COVID-19 pandemic spotlighted the internet's impact on these domains, when medical appointments, school, and certain jobs moved online during lockdown and made digital access vital to meeting many daily needs associated with health outcomes
- With the rise of telehealth appointments, online patient portals, and secure messaging services for communicating with medical staff, access to healthcare is increasingly predicated on digital access

Digital Equity + Education

- Remote learning allows students to attend school, complete assignments, and experience educational programs from home
- Teenagers with computers at home are 6-8% more likely to graduate high school than those without, when controlling for individual, parental, and family differences⁸
- Middle and high school students without home internet access or who depend on a cell phone for internet access tend to have lower GPAs, lower homework completion rates, and lower standardized test (like SAT) scores, and are less likely to plan to attend college or pursue STEM-related careers⁹
- Education exposes students to digital skills that can expand learning and introduce future career pathways

Digital Equity + Civic Participation

- Digital access and inclusion also enables civic participation, especially as online government services expand¹⁰
- Government permits and services are increasingly accessed online via program websites and online application forms
- Many public meetings can now be accessed via online videoconferencing, allowing more flexible remote participation, but also presenting challenges for those without digital access
- Public announcements and community alerts are shared online on websites and via online applications
- Community organizing and other forms of social participation in civic life increasingly take place on social media

Digital Equity + Language Access

• Language access is key to ensuring that digital content is accessible and usable by all and especially by individuals who are not native English speakers.

⁷ Turcios, Y. (2023, March 22). Digital Access: A Super Determinant of Health. https://www.samhsa.gov/blog/digital-access-super-determinant-health

⁸ Home Computers and Educational Outcomes: Evidence from the NLSY97 and CPS. https://www.federalreserve.gov/pubs/ifdp/2008/958/ifdp958.pdf

⁹ Hampton, K. N., Fernandez, L., Robertson, C. T., & Bauer, J. M. Broadband and Student Performance Gaps. James H. and Mary B. Quello Center, Michigan State University. https://doi.org/10.25335/BZGY-3V9

¹⁰ Hovik, S., Giannoumis, G.A. (2022). Linkages Between Citizen Participation, Digital Technology, and Urban Development . In: Hovik, S., Giannoumis, G.A., Reichborn-Kjennerud, K., Ruano, J.M., McShane, I., Legard, S. (eds) Citizen Participation in the Information Society. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-99940-7_1

- For individuals with limited English proficiency, independent internet access can help them feel more included as they work on improving their language skills¹¹Digital language support includes translating online websites, tools, and services to all the languages in demand. It also provides staff support for interpretation services to promote greater participation and engagement for services of housing, healthcare, education, employment, and much more of services that have now moved online.
- Digital literacy support that is tailored to the needs of non-English speakers to improve their proficiency in using digital tools allows closing the gap in how they access opportunities.

HOW CAN MUNICIPALITIES AND ORGANIZATIONS USE THE DIGITAL EQUITY PLAN?

This Digital Equity Plan envisions Beverly without a digital divide. It outlines prioritized recommendations based on an assessment of existing digital equity assets, needs, and gaps. The plan lays the roadmap to meet the digital and technological needs at multiple layers- individual-level, household-level, and community-level. It also identifies resources to support implementation.

Most importantly, the plan provides a framework to guide municipal decision-making, investments, and programs that advance digital equity. Municipal leaders can use this framework to evaluate opportunities and allocate limited resources effectively. The plan supports the following activities:

- **Policy Advocacy:** Beverly has regulatory authority over permitting and licensing internet services. This plan guides how to leverage that authority to enhance digital access and advocate for state-level policy changes.
- Funding and Investment: Federal programs, such as the American Rescue Plan and Infrastructure Investment and Jobs Act, offer significant broadband funding. The plan inventories available funding and identifies digital equity funding within broader community and economic development initiatives.
- **Program Guidance**: Achieving and maintaining digital equity requires ongoing efforts. Beverly and regional organizations can use this plan to shape and coordinate digital access programs.
- **Coordination and Progress Tracking:** The plan recommends forming an implementation committee to track progress and coordinate collaborative efforts.

Additionally, the plan includes data to inform targeted programs and grant applications for Beverly. The recommendations section outlines prioritized actions, specifying whether Beverly should act independently or collaborate with regional agencies or other municipalities. Each action aligns with broader goals, includes available resources, and designates a lead actor, such as municipal staff or elected officials.

The plan is not just for Beverly's municipal government. Outside organizations and individuals can reference it to align with regional priorities, integrate their efforts, and utilize available resources. By working together, all stakeholders can ensure a unified approach to achieving digital equity.

HOW WAS THIS PLAN CREATED?

The plan balances findings from numerical data from the U.S. Census Bureau and data from charrette workshops where the planning team heard stories and experiences from people most impacted by the digital divide as well as from community partners already doing digital equity work throughout the community. The methodology was informed by a planning approach that reflects best practices and the values of Beverly.

This Digital Equity report builds on City of Beverly's previous work on Race Equity Action Planning (REAP) that lays the roadmap to ensure that race is no longer a predictor of life outcomes. Digital Equity is one of the four focus areas that the report outlines for targeted strategic alignment of actions for making the city government inclusive, accessible, and equitable. The REAP tool aims to improve collaboration, accelerate innovation, analyze data for decision-making and

¹¹ Supporting digital inclusion for adults with low English language skills. <u>Supporting Digital Inclusion for Adults with Low English Skills | Good Things Foundation</u>

promote sustainability and accountability. Beverly's Digital Equity planning approach and process for this charrette upholds these values of the REAP tool.

EXIT

EXIT

PLANNING APPROACH AND VALUES

MAPC's planning approach for the Beverly Digital Equity Plan is grounded in the following core principles:

- Data Informed and Community Led: To understand residents' access to apportunities and services, the planning team takes insights from quantitative data, as well as the companity voice through resident workshop discussions.
- Targeted toward Action: The focus of digital equity planning services is to set the foundation for future project implementation and program planning. The plan connects Beverly's digital needs to ongoing programs and future funding resources. It is tailored to fit the dapacity of municipal staff and other local implementers. The action plan develops an implementation strategy to address the digital divide with concrete project other interventions.
- Public, Multidisciplinary, and Colla rative: The planning process and recommendation are design different Beverly stakeholders to collaborate with one another.

Opportunity and Asset-O Di a prerequisite to further-acce s like healthcare, Ital equity nversations with education, job sm ent ir keholders in and opportunities those areas around

Centering Socially Disadvantaged Populations: The digital divide does n Beverly equally Therefore, our planning process seeks to center the voices and needs of those most impacted

YLANNING PROCESS

- Pre-Workshop Assessment: MAPC analyzed data from US Census Bureau American Community Survey (ACS) to outline disparity in digital access across Beverly.
- Workshop Preparation: Three workshops were designed as a part of the planning process. Two of them were for impacted residents - older residents and English Language Learner- and one for city leader
 - March 12- Older adults at Council On Aging (COA)
 - March 12 City leaders and community partners
 - March 27- English Language Learners at the Beverly Bootstraps
- Synthesis and Action Plan: MAPC used community feedback and data to develop recommendations and action plan, shared via a final report.

FINDINGS

The first step in the Beverly Digital Equity planning process was to listen to the community's experiences on digital access needs and aspirations, and to identify the existing conditions of digital access in Beverly. This included research into the infrastructure and Internet Service Provider (ISP) availability, analysis of American Community Survey (ACS) data, and other available data such as the FCC's 477 data and openly available speed tests. This was complemented with robust community engagement workshops to hear directly from the key priority population groups including older adults, English Language Learners, new immigrants, and low-income populations. A total of 37 Beverly community members participated in the community charrette workshops. The planning team also conducted a workshop with community partners to understand the needs, challenges, and opportunities that they encounter while serving the Beverly community members.

PEOPLE FIRST: OVERVIEW OF COMMUNITY NEEDS

INTERNET IS A NECESSITY FOR INDIVIDUALS PARTICIPATING IN SOCIETY AND FOSTERING A SENSE OF **BELONGING**

Multiple community groups in Beverly feel that they do not have full access to the internet, including the elderly population and the English Language Learners (ELL) population. Older residents wish they had more say in what resources or processes are moved online, and they often feel isolated due to a lack of digital connections.

"The biggest challenge for the older population right now is isolation. It's the second biggest health problem nationally, equivalent to smoking 16 cigarettes a day. Loneliness—it's the inability to connect." -older resident

ELL residents feel they do not have the skills to use the internet to its full capacity, but they are very grateful for the resources it provides. Both communities would like more opportunities to learn how to use the internet more effectively.

"In today's world, everyone uses the internet. That is the reason I will use it. Everything right now is on the internet." -Haitian Creole speaker via an interpreter



AFFORDABILITY OF INTERNET SERVICE AND DEVICES IS A PROBLEM FOR PRIORITY POPULATION GROUPS IN BEVERLY INCLUDING OLDER RESIDENTS, LOW-INCOME HOUSEHOLDS, ENGLISH LANGUAGE LEARNERS AND NEW **IMMIGRANTS**

Many participants in the focus group of older residents shared that having home internet was unaffordable for them. Others said that due to the high cost they had to pick and choose which digital devices to have, and may not be able to afford a computer, for example on top of a phone. Participants also noted that the most affordable internet plans often do not provide reliable internet service. Public and free Wi-Fi was brought up as a potential solution to this issue. Most residents were unaware of any programs available to them to help with their Wi-Fi costs, such as the Lifeline program.

MANY RESIDENTS WHO ARE MOST IMPACTED BY THE DIGITAL DIVIDE RELY ON SMARTPHONES FOR INTERNET **ACCESS**

Many participants explained that they did not have computers at home and therefore have to use their smartphones for any tasks they do online. For some residents, new immigrants and ELL in particular, this can include government work, immigration documents and other tasks with sensitive personal information. Participants also expressed that many tasks can be difficult to complete on the smartphone as the websites may be designed for computer use.

"I especially want help with government forms and immigration documents. It's hard to do it on my phone" -Spanish-speaker via an interpreter

BARRIERS TO ACCESSING INTERNET AND DEVICES IN COMMUNITY SPACES INCLUDE TRANSPORTATION AND LANGUAGE BARRIERS

Public Wi-Fi in community spaces, such as the library, is difficult for some residents to access. This can be true for many reasons including lack of accessibility for people with disabilities, far commutes, language barriers, or lack of time. Spanish speakers were one of the groups that felt the biggest challenges when it comes to accessing community spaces with public Wi-Fi.



INDIVIDUALS LIVING WITH DISABILITIES NEED ADAPTIVE DEVICES TO OVERCOME ACCESSIBILITY BARRIERS

Participants shared that for people living with disabilities the issues of digital access and accessibility intersect and compound. Digital devices are not designed to be accessible to everyone, and this can pose major issues for those who cannot use a standard device due to physical disabilities.

"I have to find someone to help me apply online because sometimes I have dyslexia. When the letters and numbers run together, it's hard to figure out. Even today, when I was trying to do something, it was tough to get everything right. These small issues add up and lead to big problems." -older resident

THERE IS A DIGITAL SKILLS GAP AMONG INDIVIDUALS MOST IMPACTED BY THE DIGITAL DIVIDE THAT IMPEDES THEIR ABILITY TO FULLY ENGAGE ONLINE

Older residents who participated in our discussion feel that they lack the skills to complete many of the tasks they are expected to do or would like to do online. This includes paying bills, setting up automatic payments, paying for parking, and dealing with remembering passwords. Participants expressed frustration that everything is password protected now, and they struggle to set, reset and remember passwords.

"I'm illiterate with computers. And I, okay, I don't know. Let me see what this is, and I'm reading it. And I got 6 people behind me waiting to pay. Now I'm flustered." - older resident

Some participants also worry about the safety of having their information online. ELL residents also struggled with making online payments. Both older residents and ELL residents shared a preference for in person gatherings, versus digital gatherings.

OLDER RESIDENTS AND ENGLISH LANGUAGE LEARNERS IN BEVERLY ARE INTERESTED TO BUILD THEIR DIGITAL SKILLS CAPACITY THROUGH EDUCATION AND TRAINING

While participants in older residents and ELL workshops expressed a gap in digital skills, they also expressed an interest in expanding their skills and building their digital capacity. Multiple tools and resources for digital skills were discussed including training and education, expanded online instructions, and opportunities for personal tech support.



VARIED LEVEL OF DIGITAL SKILLS NEED CALLS FOR DIVERSE AND VERSATILE SUPPORT OPPORTUNITIES

Resources and tools that are created to address the digital skills gap will need to be varied and flexible so as to meet the needs of diverse residents. Residents with disabilities, ELL residents and older residents are just a few of the groups that need digital support, but each group has very different needs. For community members who have grown with technology, they need support in upskilling, for residents who are not technology natives, they need continued step-by-step learning opportunities, for residents who are non-English speakers need tech support and training in their native languages, and for those living with disabilities need support to that meet them where they are in their digital skills capacities.

BEVERLY'S PRIORITY POPULATION, ENGLISH LANGUAGE LEARNERS AND NEW IMMIGRANTS, EXPERIENCE LANGUAGE BARRIERS IN DIGITAL LITERACY

In the United States most websites or online resources assume that you speak English. This poses a barrier for residents who do not speak English or are learning English. This can make crucial processes like applying for jobs online or paying bills on a municipal website very difficult for these residents. It also can make it harder for them to access resources that are meant to help with digital literacy.

"But my problem is not the internet. It is the language. I want to serve for my government. Paper on a file for my ID papers, but the language is kind of like a barrier to me." -Haitian Creole speaker via an interpreter

MANY COMMUNITY MEMBERS SHARED CONCERNS WITH INTERNET SAFETY AND SECURITY

Internet safety and security are a big concern for residents in Beverly, as it is for many people. Participants shared that they do not trust a lot of online payment or banking tools, and they worry about having a secure internet connection. Older residents in particular are wary of having to share any personal information online and have concerns about the safety of using public Wi-Fi that is less private.

BEVERLY IS A REGIONAL HUB FOR ENGLISH LANGUAGE LEARNERS AND IMMIGRANTS IN THE NORTH SHORE **REGION**

Beverly is home to many immigrants in the North Shore Region and has a large population of English Language Learners. This population has specific needs when it comes to internet access and digital literacy that should be considered by the municipality.



BY THE NUMBERS: DIGITAL EQUITY DATA IN BEVERLY

DEMOGRAPHICS

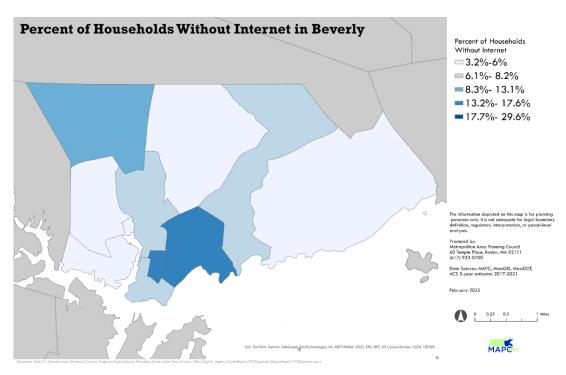
The City of Beverly has an estimated population of 42,318 (US Census Bureau ACS 2023 5-year estimates), with 87% of the population being White in the 2023 ACS count. Beverly's Racial Equity Audit highlights a notable demographic shift over the past decade, with non-white residents now comprising approximately 15% of the city's population. This growth signals increased racial and ethnic diversity, including rising numbers of Black, Latino, Asian, Indigenous, and multiracial community members. These populations have been historically underrepresented in city decision-making and continue to face disparities in areas such as housing, employment, healthcare access, education, and civic participation.

In addition to racial and ethnic diversity, Beverly is home to a significant aging population. Approximately 19% of residents are over the age of 65, many of whom experience challenges related to mobility, digital access, and affordable services. Older adults—particularly those who are low-income, disabled, or without family support—are among the most impacted by service gaps and infrastructure limitations.

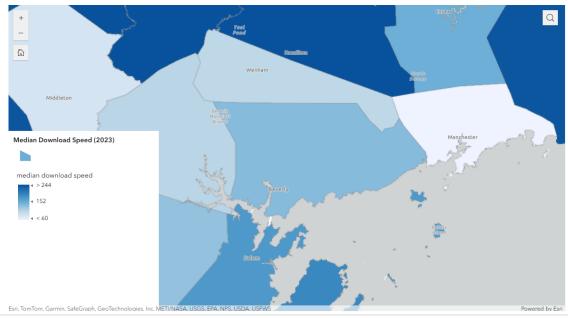
Other demographics that experience systemic barriers include individuals with disabilities, English language learners, lowincome families, and veterans. Just under 10% of the population is foreign born, and roughly 12% of residents speak languages other than English at home (ACS 2023). In 2023 the median household income in Beverly was \$103,739, which is higher than the Massachusetts median household income which is \$99,858 (ACS 2023). Approximately 10% of Beverly residents are below the poverty line (ACS 2023). These overlapping identities contribute to compounded inequities that the city is committed to addressing through equitable policy, inclusive engagement, and targeted resource allocation.

INTERNET INFRASTRUCTURE AND SERVICE

Beverly has high levels of internet access with only 3% of households having no internet service at home (ACS 2023, B28002). The Prospect Hill and North Beverly Neighborhoods have the lowest levels of internet access. Beverly has a limited choice of internet service providers, as Comcast Cable serves 99% of addresses in Beverly, and T Mobile only serves 8% of Broadband Serviceable Locations (BSLs). There are very limited options for affordable internet plans, and analysis conducted by MAPC found that whether or not a household has a broadband subscription is highly correlated to income, with households with an income of less than \$35,000 having the highest numbers of not having internet service. Affordable Connectivity was a federal program that ended in 2024, but previously provided a \$30/month subsidy to households at or below 200% of the federal poverty line towards any qualifying internet service plan. When this program ended 1,379 households in Beverly lost access to this subsidy.

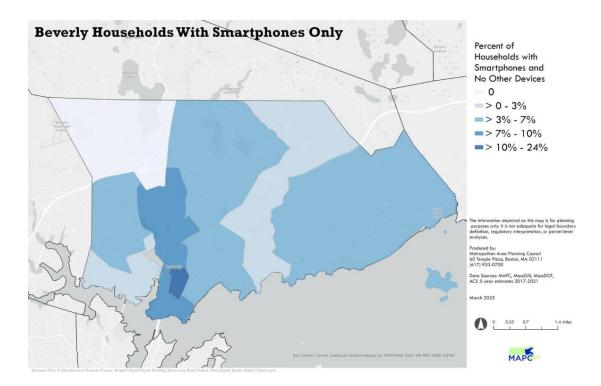


In Beverly, the median upload speed is 137 megabits per second (mbps) and the median upload speed is 23 mbps. These internet speed measures are just above FCC's minimum standard of 100 mbps upload and 20 mbps download, but they are still not fast enough to consistently support reliable and high-quality service.



DEVICE ACCESS

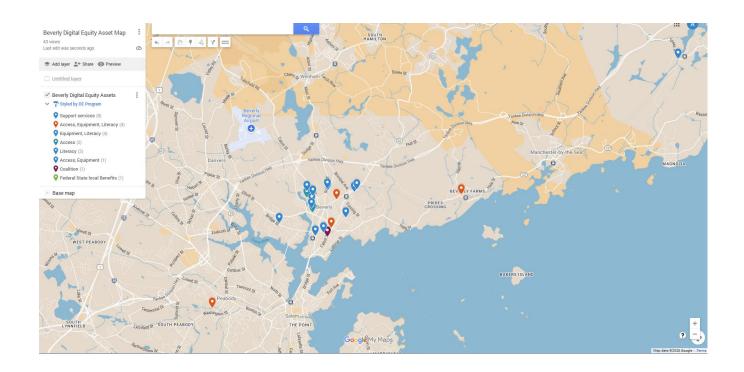
Over 1,00 households in Beverly do not have computing devices of any kind at home, making up over 2.7% of the population (ACS 2023). The same neighborhoods that have lower levels of internet access have lower levels of device access: Prospect Hill and North Beverly. Over 1,000 households only have smartphones and no other type of computing device (ACS 2023). The proportion of households dependent on smartphones is highest in Downtown, Goat Hill and Gloucester Crossing Neighborhoods.

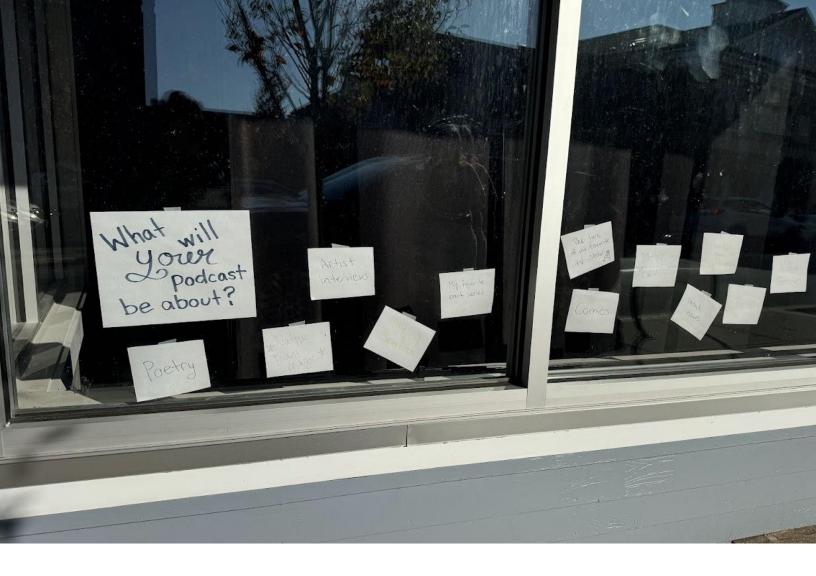


DIGITAL RESOURCES AND COMMUNITY ASSETS

Beverly has various resources and services available to support the community in their digital needs. The Beverly Digital Equity Asset map marks key community assets in Beverly. This map can be used as a public-facing tool or inventory where community members can find support services. It also helps identify the ecosystem of stakeholders and community service providers to foster partnership and help identify opportunities to scale existing programs.

Key resource providers include the Beverly Public Library, the Beverly Council on Aging, the Beverly Police Department, Beverly public Schools, Beverly Bootstraps, BevCam and Harborlight Homes. More information on each of these resources and how to access them is included in Appendix A of this report.





RECOMMENDATIONS

The recommendations in this report are based on findings from community engagement and existing conditions analysis. They are also informed by national best practices and a review of Digital Equity plans adopted by other communities in Massachusetts and across the country. They consider Digital Equity's role within city government and community-based organizations, and highlight specific programs, resources, and interventions to serve Beverly residents better.

CATEGORY 1: IMPROVE ACCESS TO BROADBAND AT THE HOUSEHOLD-, **NEIGHBORHOOD-, AND CITY-LEVEL**

Note: Legend for recommendation metrics

- Impact is rated on a scale from 1 to 5, where 1 indicates low impact and 5 indicates high impact.
- Resource Requirement is rated on a scale from 1 to 5, with 1 representing low resource needs and 5 indicating a resource-intensive effort
- **Timeframe** is categorized as:
 - O Short-term: Can be implemented within 1 year
 - Medium-term: May take 2 to 5 years to implement
 - Long-term: Expected to take more than 5 years to implement

1.1 Promote existing digital access and expand digital access in community facilities

- a. Invest in "quick win" facilities improvements to enhance digital access in community facilities: Invest in small-scale enhancements that may result in big impacts supporting the digital access needs of priority populations, for example by adding public guest networks to existing Wi-Fi options in municipal buildings, senior center, housing authority sites, and other Community Anchor Institutions (CAIs). Other "quick win" improvements can also include adding public workstations and installing digital kiosks in CAIs.
- b. Provide charging stations in community facilities: In Beverly, many rely on smartphones as their primary means of accessing the internet and staying connected. However, for community members experiencing homelessness or poverty, maintaining access to a charged device can be a significant barrier.
 - Installing charging stations in publicly accessible indoor spaces, such as food pantries, community centers, and shelters, can provide a vital lifeline. These stations offer a simple yet impactful solution, ensuring that more residents can stay connected, access essential online services, and engage in daily digital tasks.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
5	2	Short-term	City IT	Broadband access, device access

1.2 Explore publicly accessible outdoor Wi-Fi

Plan and implement an outdoor publicly accessible Wi-Fi network in high-need locations in Beverly including downtown, Gloucester Crossing, and around the Beverly Public Library.

a. Leverage City's existing network: Beverly's municipal IT network that connects municipal buildings provides a strong foundation to expand public Wi-Fi access in key community locations, improving digital connectivity for underserved residents. Enhancing network capacity and integrating Wi-Fi in key locations that host digital literacy programs and other community services will help close the digital divide. Strategic deployment of these publicly accessible Wi-Fi that builds on the existing municipal network can include outdoor Wi-Fi access points in parks, playgrounds, and other frequently used public spaces close to the municipal buildings. This can be evaluated and assessed based on studying the usage data. This

- can be achieved by collaboration with local partners while the existing network also supports future innovations.
- b. Explore a partnership model of providing publicly accessible Wi-Fi through a Collaborative between key Community Anchor Institutions including Beverly Public Library, Beverly Public School district, City Hall, Council on Aging, Higher education institutions like Montserrat College of Art and Endicott. Once established, the Collaborative of community partners can also include private entities. Examples: OSHEAN, Imperial Valley Telecommunications Authority.
- c. Pilot publicly accessible Wi-Fi near public transit stops: Beverly has more commuter rails station stops than most communities, a unique asset to support those who may need internet access during their commute as well as those who may visit areas adjacent to commuter rail stops, including businesses around the area and Beverly Main Streets. Explore a partnership with Massachusetts Bay Transportation Authority (MBTA) to pilot a public outdoor Wi-Fi at the commuter rail stations including Beverly, North Beverly, Montserrat, and Beverly Farms. Additionally, consider bus stops like the 451 bus stop and other Cape Ann Transport Authority (CATA) bus route stops. This will not only provide broadband access to Beverly residents but also individuals who come to Beverly for its many services.

Also refer to recommendation 1.5.(b) for publicly accessible Wi-Fi hotspots available through ISPs (Comcast)

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
5	5	Long-term	City IT, other City departments, schools, library, MBTA	Broadband access

1.3 Partner with housing providers to support digital access in affordable housing sites

- a. Pursue Residential Retrofit program in partnership with Beverly Housing Authority: Beverly Housing Authority can partner with the Massachusetts Broadband Institute (MBI) to improve high quality broadband service by addressing deficient wiring and infrastructure in their housing authority sites. Key sites marked in the Digital Equity asset map can be used as priority.
- b. Partner with Community Development Corporations (CDCs) to provide internet in their housing sites: CDCs in Beverly like North Shore CDC can explore options for providing internet access at the site-level through networks models like mesh networks, Apartment Wi-Fi, or Retrofit program.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
4	2	Short-term	Housing Authority, CDCs, MBI	Broadband access

1.4. Bring Internet Service Provider (ISP) market competition for at-home internet service in Beverly

The City of Beverly can facilitate more affordable internet service in Beverly by advocating for increasing the number of private internet service providers (ISPs) and exploring options for leveraging public infrastructure. Currency in Beverly Comcast is the major ISP for at-home internet service for the community and there is a need for more consumer choice for increased ISP coverage.

- a. The City should continue engaging the ISPs in dialogue to encourage and facilitate greater private market competition and availability through the cable franchise agreement.
- b. The City can explore options for leveraging public infrastructure and policy, such as laying conduit as a part of an Open Access network model. This is an opportunity for municipalities to build the physical infrastructure, and independent ISPs use this physical network to operate in a competitive market. Along with the Open Access network, municipal investments can be coupled with Dig Once/conduit policies that mandate additional conduit be installed during construction or repair. Installing conduits throughout public rights-of-way can lower costs for providing broadband service in the future.
- c. The City can work with ISPs to advocate broader network coverage at key sites like the MBI retrofit sites. This is an opportunity for the City to enable greater access to the internet where ISPs are expanding coverage.

Impact (1- 5)	Resource (1-5)	Timeframe	Implementer & partners	Category
5	5	Long-term	City Administration, City IT Director, City Council	Broadband access

1.5. Promote low-cost internet options and programs

- a. Many internet service providers offer lower-cost plans for income-qualified customers like Internet Essentials, Spectrum Internet Assist, etc. Build education and awareness around these plans to aid Beverly residents to obtain less expensive internet services.
 - This promotion could also target households which were previously enrolled in the Federal Affordable Connectivity Program (ACP) subsidy, which ended in April 2024. The City can partner with ISPs, particularly Comcast, to conduct this outreach.
- b. Promote ISP-provided free hotspots: Promote awareness among residents about existing free hotspots that customers can use in public spaces. Example: Xfinity free wifi hotspots in Beverly.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	2	Short-term	City, Library, School, CBOs	Broadband access, Affordability

1.6 Expand hotspot lending to serve community members without at-home internet or mobile data

For individuals and households that are underserved by infrastructure or who cannot connect to the internet at home, hotspots can help support internet connections. Mobile hotspots for people experiencing homelessness and poverty can also support safety and increase access to basic needs and services.

- a. The Beverly Public Library serves as a key community asset for Digital Equity efforts with its services, including their hotspot distribution program in partnership with UMass Lowell's partnership grant. Invest in the library's capacity to increase the number of hotspots available for distribution.
- b. Partner with local community organizations serving individuals experiencing homelessness and poverty to provide hotspot equipment.

Impact	Resource	Timeframe	Implementer & partners	Category	
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(1-5)	(1-5)			
4	3	Short- to medium-term	Library, CBOs	Broadband access

CATEGORY 2: EXPAND DEVICE ACCESS AND DIGITAL SKILLS SUPPORT, BUILDING ON EXISTING ASSETS

2.1. Provide computer labs in critical high-need Community Anchor Institutions (CAIs)

Provide computer labs in the CAIs frequently accessed by older residents, low-income households, and English Language Learners. This ensures that the device access efforts meet them where they are.

- a. **Beverly Council on Aging (COA):** Install a computer lab to support older residents with their technology needs, including communication, city services, and other digital literacy needs.
- b. **Beverly Housing Authority sites:** Set up computer labs at select high-priority housing sites including <u>Elderly and Handicapped/Disabled properties</u> to provide low-income residents with reliable computer and internet access.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	3	Medium-term	COA, BHA, City	Device access, Broadband access

2.2 Provide accessible and adaptive devices for individuals living with disabilities

The Beverly Public Library and the Beverly Public Schools have device access programs to meet the device needs of the residents. Investing in those programs is essential. Partnering with local community-based organizations (CBOs) will help scale them up. Additionally, providing accessible devices ensures that people have options when they need non-traditional computing tools. Local support will also be available when it's needed most.

Implementers can partner with organizations who provide services to individuals living with disabilities. Refer to Appendix D for potential partnerships and resource opportunities.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	2	Short- to medium-term	Library, public schools, CBOs	Device access

2.3. Coordinate device donation, refurbishment, and distribution program with major employers in community, non-profits, and City IT

Research and implement a coordinated program of donation, refurbishment, and distribution of devices from individuals or corporations to households or non-profits. Engage corporate giving offices and IT departments that may phase out computers and other equipment on a 3–5-year lifecycle and consider partnering with nonprofits

with experience with device refurbishment and distribution, such as Computers 4 People, Mass Association of Computer and Internet Resources (MACIR), or MassHire JEDI Consortium.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	1	Short-term	City IT	Device access

2.4. Expand and diversify technology education in Beverly's priority population groups who will most benefit from training support

Community members have expressed strong interest in training and educational opportunities, while also showing a need for flexible, inclusive, and accessible digital education. These needs are especially critical for populations most impacted by the digital divide, including older adults, English Language Learners (ELLs), individuals with disabilities, low-income residents, and those at the intersection of these identities. Provide a multifaceted approach to technology training to meet this range of needs— one that offers technology training at varied levels, through different formats, and in accessible locations across the community.

Partner with CAIs and other community organizations to reach the targeted population groups.

- a. **Expand partnership with the Beverly Council on Aging (COA):** The COA has a history of offering computer classes for seniors. Building on the momentum from the community workshop for this planning process, COA has initiated an informal weekly "Digitally Ready" information-sharing sessions. COA can expand its offerings to include computer skills classes.
- b. **Partner with Beverly Bootstraps:** Collaborate to integrate digital literacy classes into existing cohort-based English classes. This will allow English Language Learners to build digital skills alongside their language learning in a culturally and linguistically appropriate environment
 - For English Language Learners who are actively seeking employment, technology classes can be designed to support professional development. These classes should focus on building the digital skills necessary for job searching, completing online applications, and navigating employment platforms. Integrating these practical, career-oriented components into English classes will empower participants to more confidently pursue job opportunities and engage in the modern workforce.
- c. **Partner with Beverly Public Schools:** Beverly High School, Middle School, and Elementary Schools are equipped with technology that supports student learning and engagement. Partnering with these schools to offer multilingual evening classes for both students and parents will provide valuable tech training and help families build their capacity to use technology in everyday life.
- d. Work with BevCam for training: Use BevCam's platforms to reach underserved groups such as low-income residents, the youth population, older residents, and unhoused population. Additionally, BevCam is well-positioned to provide a digital literacy training course focusing on video editing and media fields, with pathway to jobs opportunities with community access TVs, MassHire, local community colleges, etc. The City should partner with BevCam to support ongoing and future programming.

Assessment to understand training needs: As a best practice, conduct a survey or a suitable assessment method before starting a training class to identify the top digital literacy needs and interests of the priority population being targeted. Use the results to tailor the training content to their specific needs, such as basic computer skills, applying for public benefits, cybersecurity, telemedicine, and educational tools.

Offer multiple formats of training: Provide one-on-one sessions, small group classes, and peer learning opportunities tailored to older residents, ELLs, low-income individuals, and others with specific barriers to access.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
4	3	Short-term	DEIB office, COA, Bootstraps, BevCam, other interested CBOs	Digital literacy

2.5. Provide multilingual technology support through multiple programs at key locations

- a. Provide a multilingual Digital Navigators (DNs): Hire a Digital Navigator (DN) to support the ongoing work that many local stakeholders already do in supporting community members to access online government services, forms, etc. DNs could provide additional staff capacity and be the bridge between multiple stakeholders, municipal staff and community organizations, who are working with priority population groups.
- b. Explore a multilingual "Train the Trainer" program: Many community-based organizations already offer technical support to their communities both through formal programs and informally as part of their day-to-day engagement. The City can enhance and expand these efforts by equipping frontline staff and volunteers with targeted training resources. This approach would strengthen existing support networks and significantly increase the overall impact of current training initiatives.
 - Through a "Train the Trainer" model, graduates of technology training programs can also be empowered to become instructors within their own communities, delivering instruction in their native languages. This strategy not only extends the reach of training programs but also helps build long-term capacity within diverse language communities by bringing accessible, culturally relevant education directly to them.
- c. Help desk support in key locations and CAIs: Provide tech support through help desks in key locations in Beverly including CAIs like the public library, COA, affordable housing sites, public schools, and CBOs.

The Beverly Public Library, in partnership with UMass Lowell through a partnerships grant, currently hosts weekly "tech help desk" events. These sessions offer valuable, hands-on support for residents seeking assistance with technology. Building on the success and lessons learned from this pilot, the City should expand the program to additional Community Access and Inclusion (CAI) sites and maintain consistent support at the library.

To sustain and scale this effort, City can host an American Connection Corps (ACC) fellow for staff support in extending one-on-one or on-ground support to community members in Beverly.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
4	3	Short-term	City, CAIs, CBOs	Digital literacy

CATEGORY 3: BUILD COMMUNITY CAPACITY BY CULTURALLY RELEVANT AND MULTILINGUAL AWARENESS, EDUCATION, AND OUTREACH

3.1. Publicly track progress on Digital Equity measures through Beverly's DEIB Framework Equity Dashboard

Digital Equity is a key strategy of the Racial Equity Action Planning (REAP) tool that aims to evaluate progress through the criteria of the three Ps- People, Practices, and Policies. Similarly, the City should evaluate progress of Digital Equity recommendations and strategies to ensure that

- City staff are trained and supported to meet the diverse digital needs of the Beverly community
- All government services are accessible to residents of all cultures and communities that builds on trustful relationship between staff and marginalized communities
- Policies and programs are shaped by the diverse perspectives of Beverly's community members

Progress should be publicly tracked using Beverly's DEIB Framework Equity dashboard with the following metrics and others as Digital Equity needs evolves:

- Percentage of households with internet access (tracked yearly by ward
- Participation rates in digital literacy workshops
- Website accessibility audit scores
- Number of residents assisted by Digital Navigators

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
5	1	Short to long term	City	Capacity

3.2. Build on the digital equity community asset map to serve as an up-to-date inventory of resources and programs

Host the Digital Equity Community Asset Map on a public webpage to share information about local digital equity resources with the public, policymakers, funding agencies, city staff, and community organizations. This increases the visibility of current initiatives, helping Beverly residents and those coming to the city for services easily find and benefit from them. It also serves as a tool for city staff to identify opportunities to expand existing programs or develop new ones to address unmet needs.

To maximize accessibility, make the resource directory available in print at CAIs and community organizations, such as through the Council on Aging newsletter, flyers at the library, and , Beverly Bootstraps, and BevCam. Ensure the materials are multilingual to reach priority populations more effectively.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
4	1	Short-term	City	Digital literacy, Outreach and education, Capacity

3.3. Partner with BevCam for community-wide outreach of available resources and programs

Collaborate with BevCam to promote the digital equity resources and programs featured in the Digital Equity Community Asset Map. Leveraging BevCam's community engagement expertise, co-develop outreach strategies that increase public awareness and accessibility of these resources across Beverly.

BevCam can host office hours on various topics including motion graphics, video editing, etc. This can also include tools and resources that would be helpful for City staff and/or City Council members to run online public meetings as well as making it accessible and inclusive.

In addition, explore opportunities for BevCam to offer internships and apprenticeships for youth and students to support the development and implementation of these outreach efforts.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
2	1	Short-term	City, BevCam	Digital literacy, Outreach and education, Capacity

3.4. Develop and offer "how-to" video series with visual guides for accessing city services online

Create multilingual video tutorials to help priority populations navigate online City services using their smartphones and laptops. These tutorials aim to empower community members to independently access and use digital resources, while also supporting their ongoing learning as technology continues to evolve. Support the videos with instructional materials that use plain language and are culturally and linguistically accessible. Provide step-by-step instructions with images and photographs for reference.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
4	2	Short-term	City (DEIB)	Digital literacy, Outreach and education

3.5. Conduct a study of digital divide as a Social Determinant of Health (SDoH)

Collaborate with the Beverly Public Health Department and local health care institutions to conduct a comprehensive study on digital access and its role as a Social Determinant of Health (SDoH). This research should explore the extent and impact of the digital divide in Beverly, identifying the most affected households and the specific barriers they encounter such as connectivity, device access, and digital literacy.

By examining how limited digital access influences health outcomes, the study can guide targeted, data-informed interventions that promote both digital and health equity.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	3	Medium-term	City Public Health, Healthcare institutions	Capacity, Outreach and education

3.6. Conduct user-testing of online resources to understand current barriers to online municipal services among at-risk populations: Build a practice of testing online services as they are moved online, including testing with high need populations such as older adults, individuals living with disabilities, and English Language Learners. Testing can reveal user "pain points" and areas of confusion, informing improvements to online services and identifying educational or support materials needed.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	3	Short-term	City IT	Capacity, Outreach and education

CATEGORY 4: STRENGTHEN COMMUNITY PARTNERSHIPS AND EXPLORE OPPORTUNITIES FOR REGIONAL COLLABORATION

4.1. Form a Digital Equity Steering Committee

Form a local digital equity steering committee of diverse stakeholders working to close the digital divide in Beverly. The steering committee will serve as a working group to coordinate efforts, evaluate progress of Digital Equity plan recommendations and implementation, and widen the network of stakeholders in Beverly invested in Beverly's digitally equitable future. It will also ensure that digital equity is continually integrated into broader city initiatives—such as community planning, economic development, public health, education, civic engagement, and more.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	1	Short-term	City DEIB, all community partners	Capacity

4.2. Connect with local and statewide Digital Equity partners

Ensure that Beverly actively participates in regional and state-level digital equity coalitions to stay informed, share best practices, and strengthen Beverly's digital equity efforts.

- a. Essex County Community Foundation (ECCF) Coalition: Join this county-wide coalition with local stakeholders that is working towards system-wide change as well as community-driven interventions.
- b. MA Digital Equity Coalition: This is a state-wide coalition where Beverly can join other municipalities or organizations, and be part of the Digital Equity movement in Massachusetts.
- c. Nearby, Peabody has also participated in the MBI Digital Equity Planning process, as have other North Shore communities participating in the JEDI network like Chelsea, Lynn, and Gloucester. These could offer opportunities for regional collaboration.

Participating in these coalitions will help Beverly remain connected to evolving best practices, funding opportunities, and innovative solutions for the community.

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	1	Short-term	City DEIB	Capacity

4.3. Strengthen participation in North Shore JEDI program

The Digital JEDI (Justice, Equity, Diversity, and Inclusion) Consortium, a regional initiative supported by MassHire, to expand digital equity services in Beverly. The Consortium serves communities across the North Shore and Metro North regions and focuses on supporting BIPOC, immigrant, and low-income residents. Through this partnership, Beverly can benefit from:

- a. Digital Navigators who offer one-on-one tech support and training
- b. Outreach and multilingual communication tools tailored for diverse communities
- c. Digital literacy education and basic skills workshops
- d. Device distribution programs that help bridge the technology access gap

Impact (1-5)	Resource (1-5)	Timeframe	Implementer & partners	Category
3	1	Short-term	City DEIB, MassHire	Capacity

4.3. Consider joining the North Shore IT Collaborative

The North Shore IT Collaborative was established in July of 2021, with Seven communities-Danvers, Middleton, Topsfield, Wenham, Hamilton, Essex, and Manchester-by-the-Sea—now working together on shared technology needs. Together, these communities take advantage of peer-to-peer learning, economies of scale, and collective purchasing to realize cost savings, attract grant funding, and coordinate on infrastructure projects, including municipal fiber infrastructure. As an adjacent community looking to improve technology capacity and broadband infrastructure, Beverly should explore joining the collaborative.

APPENDICES

APPENDIX A - COMMUNITY NEEDS ASSESSMENT

KEY FINDINGS FROM THE COMMUNITY:

INTERNET IS A NECESSITY

Participants in the older residents workshop shared that they feel like many tools, resources and processes are moving online without asking for feedback from users. Many older residents would advocate for a non-digital option. Some examples of this that participants shared include:

- Applications for licenses in Beverly are going online. Example: dog license and parking permits.
- o Triple A has begun sending out digital cards instead of physical cards.
- Some health insurance providers are sending digital cards instead of physical cards.

Older residents shared concerns that they are experiencing, or will experience, social isolation because they are not able to connect with others digitally. A participant explained the risks of social isolation:

> "The biggest challenge for the older population right now is isolation. It's the second biggest health problem nationally, equivalent to smoking 16 cigarettes a day. Loneliness—it's the inability to connect."

Participants in the ELL workshop shared that they are grateful that the internet exists, as it can make some things easier for them to access, even if they are still gaining the tools to use it fully.

- o "In today's world, everyone uses the internet. That is the reason I will use it. Everything right now is on the internet." -Haitian Creole speaker via an interpreter
- o "In today's world everything is on the Internet. I don't have it at home, but the library is near where I live" -French speaker via an interpreter

Participants in the ELL workshop shared a wide variety of uses that they have for the internet. Some of these uses include:

- Listening to books or podcasts on the internet
- Searching and applying for jobs
- For entertainment: Watching videos, Social media: Facebook, WhatsApp
- Communicating with family and friends
- Watching the news channel or other local broadcasting
- Completing online transactions
- Conducting personal research

One participant stated: "I don't use the Internet much except for facebook and WhatApp to talk to my family" "I use the internet on my phone." -Arabic speaker via an interpreter

Some participants in the focus group for older residents shared aspirations to be able to learn how to use the internet in various ways including to:

Talk to their grandkids and family members.

- Take classes to expand and improve their tech skills
- Pay bills
- Take photos and organize them
- Learn new tools like ChatGPT
- Learn to avoid scams

AFFORDABILITY OF INTERNET SERVICE AND DEVICES IS A PROBLEM

Older residents shared that accessing devices is expensive for them. They often can't afford to have different types of devices (such as computer, phone, TV, Ipad etc) because of the high cost.

Maintaining an internet connection at home is expensive for many residents. This is especially true for residents who are disparately impacted by the digital divide, including English language learners and older residents.

Many residents were not aware of the Affordable Connectivity Program (ACP), which provided a discount on broadband services to eligible residents until 2024. In the workshop with English Language Learners, only one out of 8 Spanish-speaking residents in a breakout group were aware of the subsidy program and had received

Older residents also shared that internet connection was unaffordable for them. Specific issues of unaffordability discussed included:

- Receiving internet services in bundles makes subscriptions expensive as they are paying for content that they are not interested in within the bundle.
- Costs of internet plans going up and causing participants to consider downgrading their plans.
- Affordable plans and programs, like the Internet Essentials Program, often have poor quality internet connections that don't meet the needs of users, such as doing telehealth appointments or talking to family members.
- Lower cost internet plans not providing networks that work well on cellular devices.

Some participants in the older resident workshop shared public Wi-Fi as a solution to use digital services so that residents can connect to the internet and access the services that have moved online while they are out in the community. They also emphasized that then they don't have to be dependent on data plans.

"Some folks don't have an unlimited data plan." -older resident

BARRIERS TO ACCESSING INTERNET AND DEVICES IN COMMUNITY SPACES INCLUDE TRANSPORTATION AND LANGUAGE BARRIERS

For participants who don't have at-home internet connection, going to community spaces like the library is difficult. Some older residents in particular may not be able to drive anymore, or others may not have a car making it difficult to get to community spaces with public wifi. The conversation with English language learners found that in particular, Spanish speakers do not go to the library or other community spaces that provide public wifi or computers. Spanish speaking participants discussed multiple challenges that kept them from access these community spaces, which included

- Lack of digital skills
- Lack of transportation
- Limited hours of operation
- They are too busy, or working too much to have time
- Need for childcare

MANY RESIDENTS WHO ARE MOST IMPACTED BY THE DIGITAL DIVIDE RELY ON **SMARTPHONES FOR INTERNET ACCESS**

Participants shared that they often just use their phones to access the internet. For many, this is more for their social needs rather than practical needs, such as doing online payment.

> "I'm number 7 on my son's plan. He pays for it. I don't know what. But he has told me that the data... I guess it's unlimited data. But I use it more than anybody else, really just from looking at Facebook." -older resident

Participants in the ELL workshop shared that they use the internet for a lot of things including government tasks and personal work. However, many residents don't have computers at home to use the internet for these purposes and have to rely on just their phone.

"It's hard to access the internet. I use my phone but I don't have a computer" -French+Arabic speaker, who was also housing insecure, via an interpreter

Phones are not enough for many, especially recently immigrated individuals and families, who have to use it for everything that they are required to do upon arrival to the US. Many have no choice but to depend on their phones for crucial and sensitive tasks like immigration documentation.

"I especially want help with government forms and immigration documents. It's hard to do it on my phone" -Spanish-speaker via an interpreter

In the workshop with English Language Learners, only 3 out of 8 Spanish-speakers in a breakout group had a computer at home.

"It's like the sun comes out when I get access to a computer and someone helping me use the internet" -Spanish-speaker via an interpreter

ACCESSIBILITY BARRIERS CALLS FOR ADAPTIVE DEVICES

Physical disabilities can pose barriers for some people to access digital devices. A few examples that came up in the focus groups include:

- A person who has pain and limited movement in their arms which prevents them from holding their phone for long periods of time.
- A person who wears their phone around their neck as they are otherwise not able to use it.
- Anyone with limited vision may struggle to see apps on their screens or small text used by their phone.
- A person with dyslexia finds filling out forms online to be very difficult.
 - "Being an older resident, it is important to consider ADA, accessibility along with literacy of devices." - older resident

"I have to find someone to help me apply online because I have dyslexia. When the letters and numbers run together, it's hard to figure out. Even today, when I was trying to do something, it was tough to get everything right. These small issues add up and lead to big problems." -older resident

DIGITAL SKILLS GAP

Participants in both the workshops for older residents and for English Language Learner shared a preference for in-person interaction over digital. Both groups expressed difficulty joining certain events or completing certain tasks online including:

- Attending online gatherings, such as a book group
- Using automated payment systems and checking them for accuracy
- Paying for parking using apps
- Paying for parking tickets or regular bills online

"I'm illiterate with computers. And I, okay, I don't know. Let me see what this is, and I'm reading it. And I got 6 people behind me waiting to pay. Now I'm flustered." - older resident

Participants in the older resident workshop shared their feelings that everything has become complex since going online. They struggle to remember different logins and passwords, but they also are concerned about having their information and identity online. Participants shared that they understand the necessity of the security online, but they struggle with the complexity of it all.

(Some seniors) "don't even have a password-protected phone because they can't discern the difference between a passcode and a password." -older resident

For participants in the ELL workshop, the biggest digital skill challenge identified was the ability to make online payments.

BUILDING CAPACITY FOR DIGITAL SKILLS

Participants in the older resident workshops shared some solutions that could help them overcome the barrier to accessing digital tools and applications, including:

- Training on how to make electronic payment via apps or online services.
- General digital counseling and education
- Making sure online services are supported with clear instructions including images and photographs.
- 1:1 tech support, especially for municipal services

Personal tech support is a big need that older residents have. This need is often filled by family members, especially children and grandchildren. Participants noted that sometimes family members will complete a task for them rather than showing them how to complete it themselves, which impedes their ability to be self-sufficient or build their digital skills.

VARIED LEVEL OF DIGITAL SKILLS NEED CALLS FOR DIVERSE AND VERSATILE SUPPORT OPPORTUNITIES

The technology skills and needs of older residents are quite varied, which creates a need for varied solutions and supports. The tiers of digital ability identified in the focus groups are:

- The lower tier: people who have cognitive disabilities who don't have the capacity to absorb a lot of information. It is difficult to share chunks of information with them and it needs to be broken down and made easier to absorb. The support they need is more ongoing support and also real time support to navigate online websites like showing where the menu button is, etc.
- Tier two: moderate learners who have the capacity to learn but don't have the desire. A larger
 population of older residents are in this tier.

Third tier: a smaller population. They get most things and need help with specific tasks. They are motivated and they want to learn.

Similarly, the need for digital skills and existing digital literacy is not uniform for all English Language learners. Some are older adults who did not grow up with tech. Some are younger and more technology native. Many English language learners have specialty, high-skill qualifications, but their certifications don't transfer or they have trouble communicating these qualifications in the US job market.

LANGUAGE BARRIERS IN DIGITAL LITERACY

Many participants shared that they face language access barriers when using the internet.

"But my problem is not the internet. It is the language. I want to serve for my government. Paper on a file for my ID papers, but the language is kind of like a barrier to me." -Haitian Creole speaker via an interpreter

Many residents use tools like google translate to use the internet in their language. This can be difficult on municipal websites and resources pages that are intended to help residents access wifi and digital services.

English Language Learners have to often overcome the layered barriers to language skills and digital skills, particularly in their job search process. Many ELLs don't have jobs, making everything harder. Money is tight and so is time.

"It's like we have to learn two languages, english AND the computer" -Haitian Creole speaker via an interpreter

Those who do have jobs may be working multiple jobs or long hours. One participant shared that it was difficult to use community facilities to access computers because they work 70 hours/week.

INTERNET SAFETY AND SECURITY CONCERNS

Trust is a critical factor with everything moving online, and many participants have fears around using online tools, particularly online banking or payment on phone apps.

"It is scary because all information is online." - older resident

"(Children) need to have filters on what they view on the internet." - older resident

A community partner participant shared a concern about access to secure internet and devices, especially for people who don't know how or when to update their device

> " If there is a virus or a bug out there right now then you need to update your Google Chrome immediately. People are ignoring updates because they don't understand how updates work. They feel like it's going to change a lot of things."

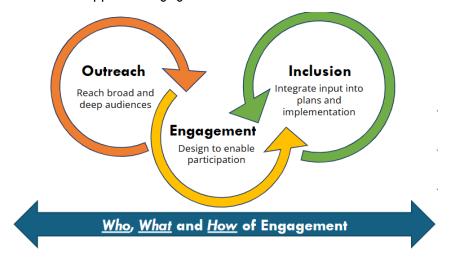
Providers of public Wi-Fi need to ensure that it is a safe and secure network so that users feel confident in utilizing this resource.

BEVERLY IS A REGIONAL HUB FOR ENGLISH LANGUAGE LEARNERS AND IMMIGRANTS IN THE NORTH SHORE REGION

Many individuals come to Beverly Bootstraps from elsewhere including Lynn, Salem, Hamilton, Haverhill. Beverly is a hub for ELL residents and immigrants in particular in the North Shore region.

APPENDIX B- COMMUNITY ENGAGEMENT **STRATEGY**

MAPC's community engagement process was a three step process that started with asking the questions on WHO the priority community members are that we wanted to engage with, What information do we need to hear from residents' perspectives, and HOW do we want to approach engagement.



Community engagement principles:

- Meeting people where they are: Centering relationship building to meaningfully engage community members by meeting people where they are to solicit feedback that will shape a plan for and by the Beverly community.
- Full circle communication: Ensure residents feel heard, feedback is shared in a timely manner with decisionmakers, and community members understand how to remain involved in digital equity work.
- Accessible and transparent: Ensure those with various abilities can be involved in all engagement opportunities, while avoiding over-burdening community members with requests.
- Dynamic and iterative: Remain nimble in the community engagement process, adapting strategies as the project progresses and more is learned about the community

To capture Beverly's unique needs and aspirations, MAPC tailored the engagement plan to meet the following goals:

- Engage with and understand the needs of Beverly residents most impacted by digital divide. Specifically, we will focus on reaching those who speak languages other than English and older residents.
- Understand the current conditions and needs for digital access among the most vulnerable community members. The engagement will focus on understanding the lived experience of how residents currently access the internet, what barriers they face, and what resources they already tap into.
- Aim to improve transparency and accessibility of government services so that residents can make their voices heard. This engagement process should embody those values through full-circle communication, language access, and transparency.
- Meet people where they are, rather than asking the most vulnerable community members to adhere to the government's schedule and comfort. The project team will seek to understand how Beverly residents want to be

engaged, where they are already convening, and show up in those spaces, rather than asking people to take additional time to come to our meetings and events.

MAPC and the City of Beverly carried out their community engagement strategy by connecting with key population groups in places those groups regularly visit. The planning team held their first workshop with older adults at the Council on Aging, using the Pathways to Change board game as a tool for engagement. This approach helped participants open up about their personal experiences, especially the challenges they face, without feeling singled out. A similar format was used in sessions with community partners, where they worked together to generate ideas for recommendations and potential implementation strategies. Finally, the team met with English Language Learners at Beverly Bootstraps, where many attend English classes. They spoke with learners at various levels—beginner, intermediate, and advanced—to better understand their needs and abilities when it comes to digital skills.

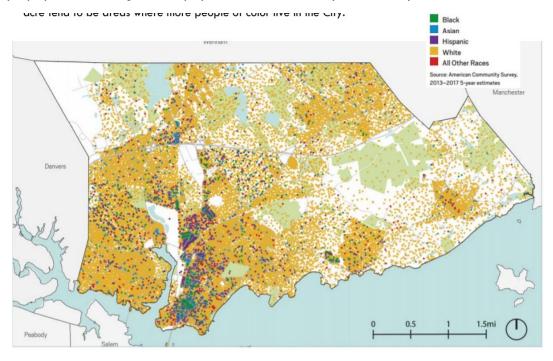
APPENDIX C- EXISTING CONDITIONS ANALYSIS

DEMOGRAPHICS

The estimated population of Beverly in 42,318 (US Census Bureau ACS 2023 5 year estimates)

Race and Ethnicity

- Approximately 87% of the population is White, 2.65% Black, and 2.3% is Asian. 5.6% of the population is Hispanic or Latino (ACS 2023).
- The Beverly Racial Equity Audit highlights that today 15% of Beverly is non-white, with diverse residents living in densely populated areas throughout the city. The audit also noted that over the past 10 years, Beverly's population has grown in population and diversity with nearly all new residents being non-white.



(Image reference: Beverly Race Equity Audit)

Household income and poverty

- The median household income was \$103,739, which is higher than the median household income of \$99,858 in Massachusetts (ACS 2023).
 - The median household family income is \$143,596 and the median non-family household income is \$59,882.

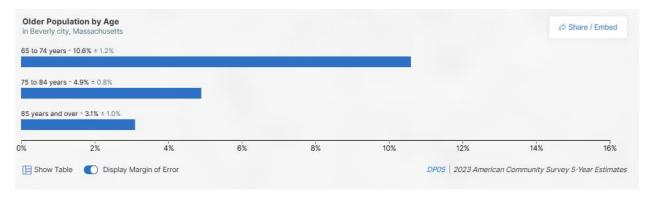
Approximately 10% of Beverly residents are living in poverty (ACS 2023)

Nationality and English-speaking capacities

- A little under 10% of Beverly's population is foreign-born (ACS 2023)
- Roughly 12% of residents in Beverly speak languages other than English at home. Among residents who speak languages other than English at home, 6.2% speak Indo-European languages and 3% speak Spanish (ACS 2023)

Older residents and individuals living with disabilities

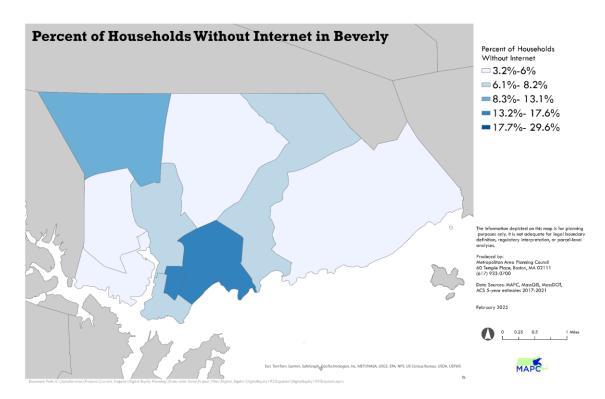
- 11.2% of Beverly's population identifies as having one or more disabilities.
 - 2.83% of Beverly's population have hearing difficulty
 - 1.28% of the population have vision difficulty
 - 5.42% of the population with a cognitive difficulty
 - 4.62% of the population have ambulatory difficulty
- 18.6% of Beverly's population are 65 years and older



Roughly 5% of Beverly's population is Veterans

Internet infrastructure and service:

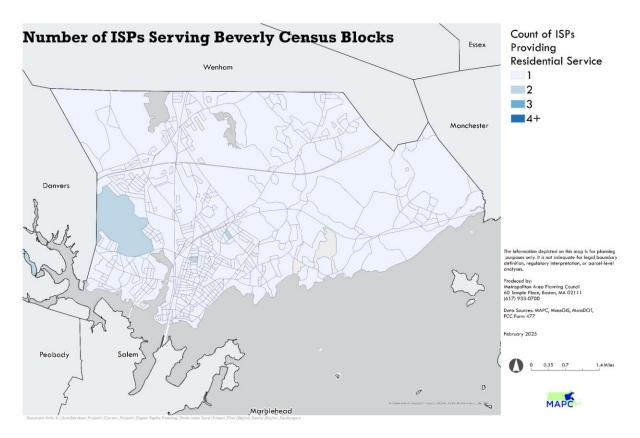
About 3% of households in Beverly have no internet service at home. (ACS 2023, B28002). The proportion of households with no internet access is higher in Prospect hill and North Beverly neighborhoods.



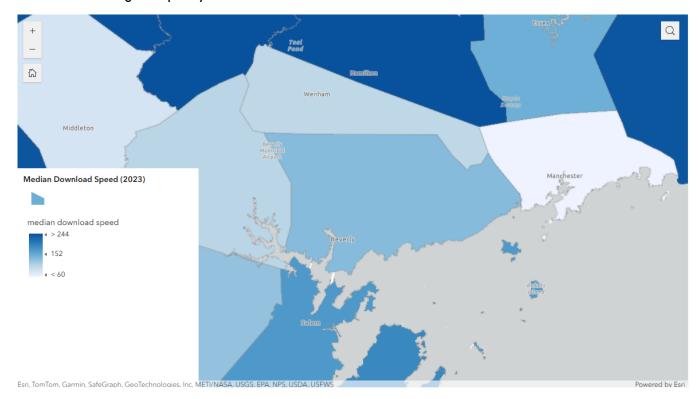
Whether or not a household has a broadband subscription is highly correlated with income.

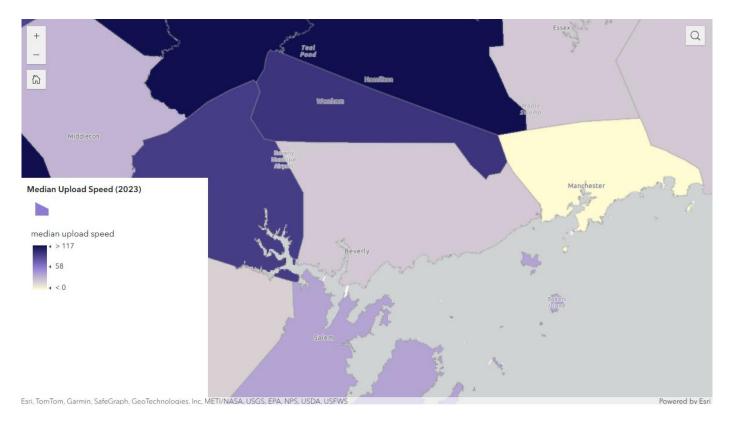
	No.of households with dial-up or broadband internet	No. of households with no internet
\$75,000 or more	10,585	220
\$50,000 to \$75,000	1,512	150
\$35,000 to \$50,000	831	107
Less than \$35,000	2,509	1,001

- There is a limited choice of service providers in Beverly, with few options for affordable plans.
 - o Beverly is served primarily by Comcast Cable, with about 99% addresses effectively experiencing monopoly conditions when it comes to cable or fiber internet.
 - T-mobile only serves 8% of Broadband Serviceable Locations (BSLs)
 - Verizon and RCN serve only one BSL each



- Beverly has limited private broadband and fiber infrastructure.
- The median download speed in Beverly is 137 megabits per second (mbps) and the median upload speed is 23 mbps. These speed test measures are a little higher than FCC determined threshold of 100 mbps download and 20 mbps upload speed (100/20). However, the median speeds are still low for reliable and good quality internet service.

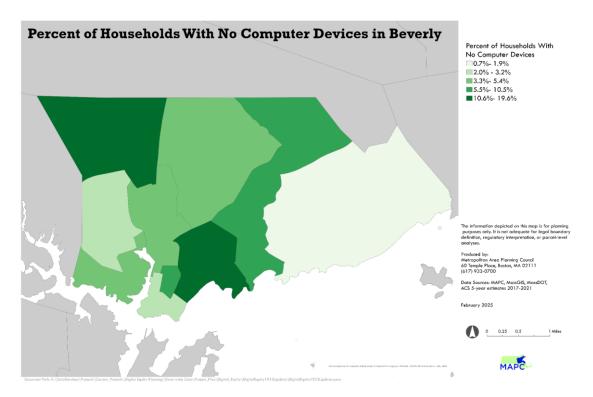




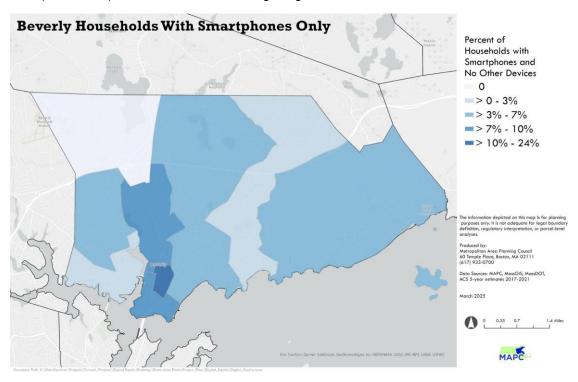
- Affordable Connectivity Program(ACP): ACP was a federal subsidy program available to households living at or below 200% of the Federal Poverty Line, which provided a \$30 monthly subsidy towards any qualifying internet service plan.
 - o 1,379 households lost access to ACP subsidy of \$30/month for home internet in April 2024 (Benton Institute, ACP enrollment performance tool)
 - This represents a loss of approximately \$41,370 of subsidies every month, or \$496,440 annually, exclusively for low-income households.

DEVICE ACCESS:

1,143 households in Beverly (2.7%) do not have computing devices of any kind at home (ACS 2023). The proportion of households with no computer devices is highest in Prospect Hill and North Beverly neighborhoods.



1,178 households, that is 7.5% of Beverly households, have only smartphones with no other type of computing device (ACS 2019-23). The proportion of households dependent on smartphones are higher in Downtown, Goat Hill, and Gloucester Crossing neighborhoods.



DIGITAL RESOURCES AND COMMUNITY ASSETS

Beverly Public Library

Beverly Public Library provides free Wi-Fi and computers at both their locations. They additionally offer PCs for children and teens as well as Chromebooks for in-house use. Their document services also include

printing, copying, scanning, and faxing. Their services are open for all including Older adults, Youth, Immigrants, Low-income households, Racial or ethnic minority groups, Persons with disabilities, persons with low literacy levels, Veterans. The library provides additional language support via collections and translation services.

Digital inclusion services: Broadband Access & affordability, Device access, Digital skills & technical support, Public device & internet access

Council on Aging

<u>Beverly Council on Aging</u> coordinates and conducts programs for older residents in Beverly and promotes facilities for health, education, welfare, and recreation for them. Beverly COA supports English and Spanish languages and provides education and digital training for older residents in Beverly.

Digital inclusion services: Broadband Access & affordability, Device access, Digital skills & technical support, Public device & internet access, Digital inclusion funding

Beverly police department

The <u>police department</u> supports digital equity efforts in Beverly through educational resources on internet safety issues like identity theft, scams as well as building awareness about social networking tips and Beverly Smart 911. They provide support to their constituents in English, Spanish, and Portuguese.

Digital inclusion services: Public device and internet access

Veteran Services.

Digital inclusion service: Digital skills and technical support

Harborlight Homes

Provide support to low-income households. Focus on housing.

Digital inclusion services: Broadband Access & affordability, Device access, Digital skills & technical support

Beverly Public Schools

The <u>Technology Department</u> of Beverly Public schools provides technology devices and infrastructure needed to support learning. Additionally, they also provide professional development opportunities to staff to make the best use of the technology for their instruction.

All schools have high speed internet access with wireless access in every classroom. Beverly high school has a 1 to 1 MacBook laptop program with a lease to own partnership with parents and students and students have access to a loaner laptop during the school day. All Beverly middle school students have access to 1 to 1 access to iPads provided by the district. Every classroom in the Elementary schools has 15 devices available for student use.

Digital inclusion services: Broadband Access & affordability, Device access, Digital skills & technical support, Public device & internet access

Beverly Bootstraps

Beverly Bootstraps provides important resources to families and individuals to achieve self-sufficiency including access to food, housing stability, adult and youth programs, education, and advocacy **Digital inclusion services:** social support and digital skills support

BevCam

BevCam is Beverly's community media center that provides services to Beverly and the surrounding area. This includes local municipal meetings, sports, education, public access, and more. They provide education and support to individuals and groups in Beverly to communicate through electronic media, technological and educational resources that facilitate and encourage freedom of expression, and a place for Beverly community to gather to learn and experience technologies.

Digital inclusion services: Digital skills & technical support, device access, public device & internet access

APPENDIX D - FUNDING OPPORTUNITIES AND RESOURCES

Funding opportunity or resource	Description	Possible recommendation category
MBI Digital Equity Implementation Grant	A one-time grant up to \$100,000 for municipalities that have developed a Digital Equity Plan or Charrette report. This implementation grant will enable the municipality to put one or more recommendations from the plan/report to action.	Digital literacy training, education, outreach, and awareness
MBI Digital Equity Partnerships program	This program funds organizations to improve digital equity in 6 focus areas:digital literacy, free in-unit Wi-Fi for affordable housing, public infrastructure, connectivity for those facing economic hardship, device distribution, and outreach to boost digital adoption. UMass Lowell has been awarded the partnership grant and has been working with Beverly Public Library to advance their initiatives. This is an opportunity to enhance Beverly's partnership with UML and enhance the programs they have initiated.	Expansion of existing programs or pilot efforts by UML in Beverly Public Library. Additional training support for CBOs
Efficiency and Regionalization (E&R) Grant program	Supports governmental entities in implementing regionalization and efficiency initiatives to enhance long-term sustainability. This program can be used for digital inclusion for planning and implementation activities, including small capital purchases, technical assistance, and project management costs as well as internal efficiency initiatives to improve municipal service delivery.	Publicly accessible outdoor Wi-Fi
English Language Acquisition State Grant	Enhance instruction for English learners with digital resources.	Digital literacy and skills training through public schools or in partnership with public schools
Workforce Innovation and Opportunity Act (WIOA)	Digital literacy- use of technology to improve teaching, learning, professional development, skill development and abilities, career guidance, supportive services, job search workshop, referral to jobs or training, workers' rights and complaint system information.	Digital literacy- skills training, one-on-one classes
Disability resource Center	The Disability Resource Center in Salem is a potential partner in the North Shore region. Their core services include Independent Living Skills training and facilitate transition of people living in nursing homes and other	Accessible devices and resources for community members living with disabilities

	institutions back to the community. Their services can help pilot accessible and adaptive devices.		
Technology Forward Task Force	The Arc of Massachusetts partners with the Massachusetts Department of Development Services (DDS), Massachusetts Association of Developmental Disabilities Providers (ADDP) to run a Technology Forward Task Force which is a useful resource to guide strategies and services for Assistive Technology through equipment, education and training.	Accessible devices and resources for community members living with disabilities	
MABVI	The Massachusetts Association for the Blind and Visually Impaired (MABVI)'s Access Technology help blind and visually impaired people learn to use technology	Accessible devices and resources for community members living with disabilities	
Senior Planet- Older Adults Technology Services by AARP	Technology support and courses for older adults	Digital literacy courses and educational resources tailored for older adult residents	
Mass Attorney General: Computer and Online Privacy Mass Attorney General: Cyber Crimes	Educational materials to protect personal information and mitigate safety and privacy concerns.	Technology education and resources	
Government-to- Government Grant	Provide funding that supports sovereign partnerships, enabling recipient governments—particularly tribal nations—to design and implement programs aligned with their self-determined priorities, while strengthening intergovernmental relationships and respecting tribal self-governance.	Studying Digital Equity needs and impact in Beverly as a Social Determinant	
MAPC Technical Assistance (TAP)	The MAPC TAP supports cities and towns in the Greater Boston region by providing planning and technical assistance for projects that advance regional goals such as housing, economic development, climate resilience, and equity.	of Health (SDoH)	
Community Development Block Grants (CDBG)	CDBG provides opportunities for digital equity initiatives including conducting a broadband needs assessment, installing critical infrastructure—including wiring, fiber optic cables, and permanently affixed equipment—and providing digital literacy classes to ensure underserved residents can access and effectively use essential online services.	Infrastructure measures for community or neighborhood neworks; digital literacy training	
Mass Vets Advisor	A resource directory of benefits available for Veterans	Education materials that can be shared with Veterans needing assistance with	
PLA Digital Literacy Workshop Incentives,	Online Digital Learn courses and training packages in English and Spanish.	Digital literacy training materials and courses for	

supported by AT&T		Beverly Public Library	
Tech Goes Home (TGH)	Tech Goes Home has aided in education, jobs, managing finances, and connecting seniors to loved ones. The nonprofit seeks to expand its networks throughout Central Massachusetts as they have received a \$4.5 million grant in 2023. Beverly would benefit from initiating a partnership with the nonprofit to expand resources in digital equity for residents.	Digital literacy and device access	
Computers 4 People	Provides free or low-cost computers to income-qualifying adults, free refurbished laptops to college-bound students in financial need	Device lending programs	
PCs for People			
National Digital Inclusion Alliance (NDIA): Digital Navigator Resources	NDIA provides support resources for DNs	Digital Navigators	
MACIR	Internet safety and security resources	Digital literacy training materials; materials for education and outreach	
American Connection Corps Fellow	ACC fellows serve as community leaders in bridging the digital divide in rural and underserved areas. They collaborate with local organizations to implement initiatives that enhance digital literacy, expand broadband access, and promote affordable connectivity.	Staff support in digital literacy, tech help, and outreach support	
MassDevelopment	Offers technical assistance that can be tailored to the digital needs of small businesses, including services in community visioning, marketing, and branding	Digital skills and capacity support for small businesses. This is a good resource or collaborative opportunity to support immigrantowned small	
Massachusetts Growth Capital Corporation (MGCC)	Provides grants through its Small Business Technical Assistance (SBTA) program, as well as other mini-grants, to support small business owners with professional, technical, and operational services.		
Local Enterprise Assistance Fund	Provides solutions-oriented advisory services to underserved business owners in Massachusetts	businesses in Beverly	
Massachusetts Community Health and healthy Aging Funds	The Funds aim to address health and racial inequities by recognizing that social determinants significantly impact health outcomes and that dismantling structural and institutional racism is essential to achieving equity.	Studying impacts of digital inequities as a SDoH	