Monadnock Region Digital Literacy and Access Needs Assessment

FINAL REPORT

October 2022

SWRPC | Southwest Region Planning Commission

CONTENTS

Cover Photo: Peter Kindersley

1 LIST OF FIGURES

LIST OF FIGURES

2 LIST OF TABLES

3 ACKNOWLEDGEMENTS

Southwest Region Planning Commission would like to thank the many contributors that made this project possible. The Monadnock United Way provided funding to the Monadnock Healthy Aging Collaborative (MHAC) in support of the project following a series of community conversations held in response to the COVID-19 pandemic, which up-turned normal business operations for many organizations, specifically those serving older adults. Keene Senior Center, which served as fiscal sponsor, and MHAC partner organizations proposed a project that would provide information about the existing level of digital skills and access to technology of their clients.

[Monadnock United Way](#) (MUW) is a non-profit focused on improving quality of life in Southwest NH. In response to the COVID-19 pandemic, MUW provided funding to a wide variety of community organizations to support access to food, shelter and other essential services. The fall of 2021, MUW accepted a proposal from the Keene Senior Center to conduct a needs assessment to identify assets, gaps and strategies for improving digital literacy and access among older adults.

[Keene Senior Center](#) was founded in 1957 to support older adults in Keene and around Southwest NH. Their work focuses on adults over that age of fifty and includes a variety of social engagement, educational and other opportunities to support independence, wellbeing and involvement within the community.

The **Monadnock Healthy Aging Collaborative** includes a variety of area agencies including Keene Senior Center, Keene Housing, Cheshire Medical Center, Monadnock Family Services, Community Volunteer Transportation Company, Home Health Care, Hospice and Community Services, Southwestern Community Services, Southwest Region Planning Commission, Service Link, Monadnock at Home, Monadnock RSVP Volunteer Center - a program of Monadnock Family Services. MHAC's mission is to serve as convener and a voice of all things relating to older adults living in the Monadnock Region. Participating partner organizations and individuals address fundamental needs (housing, food, fuel, transportation, and safety); a variety of living arrangements; caregiver and family supports; social and civic engagement opportunities; physical and mental wellbeing activities; and advocacy for older adult issues. MHAC fosters collaboration with programs and services that enhance partner organizational impact and sustainability.

[Southwest Region Planning Commission](#) (SWRPC) is one of nine regional planning agencies in New Hampshire and serves a region made up of 34 municipalities. SWRPC employs a staff of professionals with the expertise and skills to work in partnership with the communities of the Southwest Region to promote sound decision-making for the conservation and effective management of natural, cultural and economic resources. Technical assistance provided by SWRPC includes support related to improving broadband,

including the Monadnock Broadband Group, informal coalition of municipal officials, practitioners and other stakeholders with interest in understanding and coordinating relative to broadband issues in Southwest NH.

SWRPC would especially like to thank the individuals and organizations that participated in questionnaires and conversations related to the project.

Published in 2022 by:
Southwest Region Planning Commission
37 Ashuelot Street
Keene, NH 03431
603-357-0557
info@swrpc.org
www.swrpc.org

4 GLOSSARY

The following terms and phrases will be helpful to your understanding of the material presented in the report.

Term	Definition
5G	5G stands for the fifth generation of mobile communications technology. Compared to previous generations, 5G offers faster data rates and reduced delay (also known as latency)[1].
Access	In the context of "digital access," access refers to the availability of high-quality Internet connections and related technology.
App	App often refers to mobile app, a software program developed specifically for smartphones or tablets. In some cases, app may be synonymous with "application" or "program."

---

[1] "5G FAQs," Federal Communications Commission, December 13, 2019, https://www.fcc.gov/5g-faqs.

Term	Definition
Broadband	The term broadband commonly refers to high-speed Internet access that is always on and faster than the traditional dial-up access. Broadband includes several high-speed transmission technologies such as: Digital Subscriber Line (DSL), Cable Modem, Fiber, Wireless, Satellite, and Broadband over Powerlines (BPL)[2]. The Federal Communications Commission's minimum fixed broadband speed is 25 megabits per second (Mbps) for downloading, and 3 megabits per second (Mbps) for uploading. Occasionally, the FCC revises this definition and in 2022, FCC Chairwoman Jessica Rosenworcel proposed raising minimum broadband speeds to 100 Mbps for downloads and 20 Mbps for uploads[3].
Cable	Cables previously used to deliver television service are used to deliver broadband via a cable modem. Transmission speed varies depending on the type of modem, network, and congestion on the network.
Digital Inclusion	The National Telecommunications and Information Administration (NTIA) defines digital inclusion as: individual- and community-level access to robust broadband connections; Internet-enabled devices that meet their needs; and the skills to explore, create and collaborate in the digital world[4].
Digital Literacy	Digital literacy measures an individual's ability to use the Internet and modern technologies.
Download	Download refers to the process of sending data from one computer to another over a network. From the perspective of the user, viewing a webpage involves downloading information from the computer hosting the website to their own computer.
DSL	Digital Subscriber Line (DSL) is a technology to transmit data over copper telephone lines. Transmission speed varies depending on the specific type of DSL employed and the distance from the internet service provider facility.

---

[2] "Types of Broadband Connections," Federal Communications Commission, June 23, 2014, https://www.fcc.gov/general/types-broadband-connections.

[3] "Chairwoman Rosenworcel Proposes to Increase Minimum Broadband Speeds," Federal Communications Commission, July 15, 2022, https://www.fcc.gov/document/chairwoman-rosenworcel-proposes-increase-minimum-broadband-speeds.

[4] "What Does Digital Inclusion Mean? I BroadbandUSA," accessed October 23, 2022, https://broadbandusa.ntia.doc.gov/about-us/frequently-asked-questions/what-does-digital-inclusion-mean.

Term	Definition
FCC	The Federal Communications Commission (FCC) regulates communications in the United States and is overseen by Congress. With respect to the Internet and broadband, the FCC collects and shares data, incentives broadband infrastructure improvements, and establishes standards for quality, among other things.
Fiber	Fiber-optic technology transmits data over very thin glass fibers using lasers. Fiber technologies transit data at speeds much higher than DSL and cable.
ICT	Information and communications technologies (ICT) include devices, software, devices that support communications and the ability to store and transmit information. The phrase is sometimes used interchangeably with information technology (IT). Examples include telephones and telephone systems, video conferencing, satellite system, computers, computer network hardware, and more.
Internet	Internet refers to the global network of computers that use Internet protocols to transmit information. The Internet consists of a wide range of resources and services including websites, e-mail, and file sharing.
IT	IT is short for information technology and refers to people, departments, businesses, and others responsible for providing technical assistance related to computers and technology.
Mbps	Mbps means megabits per second and is used for transmission speeds in a network.
NTIA	The National Telecommunications and Information Administration (NTIA) is located within the United States Department of Commerce. A focus of the administration is increasing access to and adoption of broadband through BroadbandUSA and other initiatives. In November of 2021, the Infrastructure Investment and Jobs Act was signed into law. The majority of the approximately $65 billion was directed to the NTIA to implement a variety of broadband programs.
Technology-Based Services	In the context of this project, technology-based services refer to services that rely on the Internet and digital technologies like computers to deliver information, programming, and support.
Upload	Upload refers to the process of sending data from one computer to another over a network. From the perspective of the user, sending an e-mail involves uploading data from their computer to the e-mail server (before going on the recipient).

5 INTRODUCTION

Broadband today is what electricity was to New Hampshire in the 1930's - a necessity. In a relatively short time period, access to fast and reliable broadband, also known as 'high-speed Internet,' has become integral to economic growth and competitiveness and improved quality of life. It is changing how we educate children, deliver health care, ensure public safety, engage government, and access and disseminate information. Yet in our part of the State, we lack universal access to high-speed internet in many communities or portions of communities. And, the COVID-19 pandemic made these needs more apparent, caused disruption to our daily lives and resulted in the adoption of a variety of new strategies to continue delivering services.

MHAC partner agencies have clients who have indicated that the lack of access to broadband and the technology to access the internet limited their opportunities for socialization and access to services during the pandemic. A random digit phone survey[5] of 606 adult residents in the Monadnock Region in 2020 identified 36% of respondents reporting poor internet connectivity preventing them from connecting with family and friends, accessing health care services, and using on-line educational resources. Further analysis indicated higher rates of poor internet connectivity among lower income residents.

The COVID crisis exposed the disparity between those who have broadband access and those who do not. MHAC partners serve older adult clients and people who may have physical, emotional and cognitive disabilities, and lack access to broadband and technology devices to access the internet, along with varying technological comfort levels and knowledge about computer use and internet applications and platforms.

According to the October 2020 Southwest Regional Planning Commission (SWRPC) Monadnock Broadband Implementation Guide, an expanding array of medical services can be accessed online, but only if the necessary bandwidth is available. Telehealth services are facilitating remote mental health counseling, video consultations with physicians and specialists, and transmission of vital signs and other biometric data. Telehealth could prove to be especially important in sparsely populated areas, where access to care would traditionally require long trips to hospitals or other medical facilities.

Vulnerable people who are high risk to contract COVID, have been the most isolated during the pandemic. Those who had broadband access and were comfortable with technology were able to stay in touch with family members, order groceries online, participate in telehealth appointments and enjoy the various opportunities provided by the internet. Conversely, those without broadband access, even those with technological skills,

---

[5] Zachary Azem and Sean McKinley, "Healthy Monadnock 2020 Community Survey" (University of New Hampshire Survey Center, October 2020).

commented about being lonely and their ability to meet their basic human needs which put them at high risk for getting COVID when they ventured out. Compounding a lack of broadband access, some low-income residents also struggled due to lack of transportation due to their age, ability, economic situation, lack of social supports as well as availability or knowledge about resources.

The lack of social engagement can have a significant impact on the health and well-being of vulnerable people and can lead to a decrease in community involvement, lack of motivation, depression, anxiety, poor health outcomes and life expectancy, and limits access to resources and personal and financial support. Home Healthcare Hospice and Community Services documents from their Meals on Wheels survey showed that 69% of their homebound seniors live alone. Of these, 15% have no visits and 37% have 1-3 visits a week from family or friends. The number of seniors needing assistance is expected to increase in the upcoming decades. An Age-Focused Planning Study completed by SWRPC in 2020, found that the proportion of the Monadnock Region's population that is 65 years and older is growing faster than any other age group. This segment of the population is expected to nearly double from 15% to over 26% between 2010 and 2040. Increased access to the internet and improved digital literacy will be critical to meeting the needs of this growing population. The study also found that only Coos County in the North Country has more residents without access to broadband. Yet, the region's residents desire to be more connected, both digitally and socially. Among the study's survey respondents, high speed internet was the most frequently cited community amenity or service considered "important" or "very important" to have in town. 93% of respondents indicated having more access to social activities is important to their overall quality of life in the region.

The focus of this project is a needs assessment on digital literacy and access. Specifically, the ability to take advantage of broadband, access to – and training in the use of - technology. Cost factors will also be considered. The Keene Senior Center contracted with SWRPC to conduct the assessment. To date, a similar assessment has not been conducted in the Monadnock Region. The assessment is critical for identifying cases where digital literacy and online access can best be improved by existing programs and services, and where new programming may be necessary. In instances where quality programming and services already exist, the region's seniors might be most effectively and efficiently served by connecting them with resources already in place.

The needs assessment includes:

- An analysis of which social service agencies and health providers are offering services that require an internet connection and computing technology (e.g. laptop, smartphone, wearable devices, specialized telehealth hardware, etc.). Analysis incorporates interviews with and/or survey of healthcare providers, senior organizations, and social service agencies in order to document current utilization of

INTRODUCTION

online services, outcomes to date, perceived barriers to increased positive impact, and constraints limiting the improvement of existing services or the development of new ones.

- Input from clients of senior organizations, social service agencies, and healthcare providers. Direct input was collected through questionnaires and one listening session. Engaging clients is critical in order to fully understand current levels of digital literacy, the barriers encountered by seniors seeking online services, and the types of assistance that would be most valuable.

- An inventory of existing programs and organizations in the region already providing digital literacy training and resources (e.g. town libraries). In order to better understand the level of access to existing trainings and resources, the inventory addresses the geographic service areas of these programs and organizations.

- Best practices, identified among Monadnock Region organizations and elsewhere that have successfully improved digital literacy among seniors, reduced barriers to accessing online services, and contributed to improved health outcomes and social connection.

- Analysis of how COVID has changed how organizations, healthcare providers, and social service agencies serving older adults approach online client engagement and service provision. What have they learned about online service provision over the course of the pandemic? What changes will "stick" post-pandemic and which will revert to a pre-pandemic norm?

- Baseline information on broadband access and adoption across Monadnock Region communities, including a list of communities that have approved bond proposals to upgrade broadband connectivity. To the extent possible, this baseline information will include data on available connection speeds, network technology (e.g. fiber, DSL), and subscription costs.

- In addition, partners reported on numbers of people who receive assistance and completed a survey to demonstrate the benefit of having technology support.

With this information on best practices, existing services, and broadband access, assets and gaps can be identified in each community.

The objective of the project and this report is to conduct a needs assessment to identify assets, gaps and strategies for improving digital literacy and access among older adults seeking online services and assistance. The target audiences for the study includes Monadnock Region senior organizations, social service organizations and health care providers that serve the older adult population. And of course, older adults utilizing the services of these organizations. Prior to this project, no such regional assessment has been

completed. However, there are a variety of past projects and information that were consulted and incorporated in the report. Southwest NH Broadband Plan[6], the region's first ever broadband plan, adopted in 2015, identified one specific strategy related to digital literacy that was listed as a high priority in the short term as well as the long term:

> GOAL 3: POSITION BROADBAND AS A CRITICAL UTILITY AND A BASIC REQUIREMENT FOR ECONOMIC DEVELOPMENT, COMMUNITY VITALITY AND SUSTAINED QUALITY OF LIFE.
>
> OBJECTIVE 3A: ENSURE THAT EVERYONE HAS THE KNOWLEDGE AND UNDERSTANDING OF HOW TO UTILIZE AND APPLY BROADBAND TECHNOLOGY AND SERVICES.
>
> STRATEGY 3A.III: SUPPORT EXISTING AND EXPANDED PROGRAMS FOR DIGITAL LITERACY FOR ALL LEVELS OF LEARNERS IN REGIONAL EDUCATIONAL INSTITUTIONS.

At the time, the region was not as aware of digital literacy gaps as they apply to older learners and adults. Access to broadband and the Internet is also mentioned in the Plan. Specific strategies focused on access include:

> GOAL 1: ELIMINATE GAPS IN BROADBAND AVAILABILITY FOR ALL USERS AND PROVIDE CHOICES IN COST AND QUALITY OF SERVICE.
>
> OBJECTIVE 1E: REDUCE OR REMOVE REGULATORY BARRIERS TO BROADBAND DEVELOPMENT OR EXPANSION.
>
> STRATEGY 1E.III: SUPPORT INITIATIVES TO ENHANCE MUNICIPAL EFFORTS TO FINANCE BROADBAND INFRASTRUCTURE NEEDS.

The region has made progress on many of the strategies mentioned in the Plan. This needs assessment will help guide new strategies around improving digital literacy and access for older adults.

6 NEEDS ASSESSMENT

6.1 Literature Review of Best Practices to Improve Digital Literacy

SWRPC undertook a literature review to better understand best practices for evaluating and improving digital literacy to inform development of a plan of action for improving digital literacy among older adults in Southwest NH.

---

[6] Southwest Region Planning Commission, "Southwest New Hampshire Broadband Plan," January 13, 2015, https://www.swrpc.org/wp-content/uploads/2021/02/Southwest-New-Hampshire-Regional-Broadband-Plan_FINAL.pdf.

6.1.1   Older Adults and Digital Literacy

6.1.1.1   Pew Research Center

The Pew Research Center has written extensively on national trends related to older adults and their use of the technology and the Internet. Relevant findings from their work include the following:

- In 2013, just 18% of older adults ages 65 and up reported owning a smartphone. In 2016, Pew Research Center surveys found that had increased to 42%.[7] The same study found that use of the internet among older adults was also on the rise (to 67% in 2017), although lagging behind the figure for all adults (90%). The same survey found a marked difference in adoption rates based on household income. They found 87% of seniors earning $75,000 or more had broadband at home, versus just 27% of older adults whose household income is less than $30,000.
- A 2021 survey found that adoption of smartphones, tablets and social media all grew among older adults. The rates continued to lag behind other age groups by a significant margin (e.g. smartphone adoption is reported as 61% for ages 65 and up and 96% for ages 18-29).[8] The rates of increases among older populations reported much stronger than those in younger age groups.
- In 2015, they found that older adults were more likely to characterize their smartphone as "freeing" and "connecting" versus "leash" or "distracting" compared to younger adults.[9]
- Adoption of technology has continued to lag for people with lower incomes and that this population is much more likely to not have a home broadband connection and rely on their smartphone to access the Internet.[10]
- Americans with disability are less likely to have a computer or smartphone (62% versus 81%).[11]

---

[7] Monica Anderson and Andrew Perrin, "Tech Adoption Climbs Among Older Adults," *Pew Research Center: Internet, Science & Tech* (blog), May 17, 2017, https://www.pewresearch.org/internet/2017/05/17/tech-adoption-climbs-among-older-adults/.

[8] Michelle Faverio, "Share of Those 65 and Older Who Are Tech Users Has Grown in the Past Decade," *Pew Research Center* (blog), accessed October 23, 2022, https://www.pewresearch.org/fact-tank/2022/01/13/share-of-those-65-and-older-who-are-tech-users-has-grown-in-the-past-decade/.

[9] "For Vast Majority of Seniors Who Own One, a Smartphone Equals 'Freedom,'" *Pew Research Center* (blog), accessed October 23, 2022, https://www.pewresearch.org/fact-tank/2015/04/29/seniors-smartphones/.

[10] Emily a Vogels, "Digital Divide Persists Even as Americans with Lower Incomes Make Gains in Tech Adoption," *Pew Research Center* (blog), accessed October 23, 2022, https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/.

[11] Andrew Perrin and Sara Atske, "Americans with Disabilities Less Likely than Those without to Own Some Digital Devices," *Pew Research Center* (blog), accessed October 23, 2022, https://www.pewresearch.org/fact-tank/2021/09/10/americans-with-disabilities-less-likely-than-those-without-to-own-some-digital-devices/.

- Adults living in rural areas are less likely to have a home broadband connection, smartphone, tablet, desktop, or laptop computer compared with those that live in urban areas.[12]
- Older Internet users are less likely to view the Internet as positive. However, older generations have experienced increasing adoption of smartphones, tablets and social media.[13]

6.1.1.2   Laura Liu et al. 2021

In 2021, some researchers studied virtual access to care during the COVID-19 pandemic. In one study, authors attempted to identify inequities in accessing care via telephone and videoconference for older adults.[14] They concluded that frail adults or those that lack a caregiver are less likely to benefit from virtual options. Specifically, they found older adults had a lower chance of using videoconference-based virtual care without a caregiver present. They also found that older adults that could use a computer independently might prefer telephone compared to videoconferencing.

6.1.1.3   Claudia Isabel Martínez Alcalá et al. 2018

Martinez et al. focused on the use of Learning Management Systems as a tool for improving the digital literacy of older adults.[15] The paper includes several notable observations that relate to the goals of this project:

- Blended workshops are an effective way to teach digital literacy among older adults. They involve the use of a learning management system on a computer to provide instruction on digital literacy.
- Older adults will use and adopt technology when they notice it is relevant and while they receive family support.
- Suggests an educational modeling focused on four important points (p. 3):

Usefulness of Learning. The knowledge of information and communication technologies (ICT) provided to the elderly must be really useful, and for that it must respond to the personal and social needs of the latter.

[12] Emily a Vogels, "Some Digital Divides Persist between Rural, Urban and Suburban America," *Pew Research Center* (blog), accessed October 23, 2022, https://www.pewresearch.org/fact-tank/2021/08/19/some-digital-divides-persist-between-rural-urban-and-suburban-america/.

[13] Emily a Vogels, "Millennials Stand out for Their Technology Use, but Older Generations Also Embrace Digital Life," *Pew Research Center* (blog), accessed October 23, 2022, https://www.pewresearch.org/fact-tank/2019/09/09/us-generations-technology-use/.

[14] Laura Liu et al., "Factors Associated with Virtual Care Access in Older Adults: A Cross-Sectional Study.," *Age and Ageing* 50, no. 4 (June 28, 2021): 1412–15, https://doi.org/10.1093/ageing/afab021.

[15] Claudia I. Martínez-Alcalá et al., "Digital Inclusion in Older Adults: A Comparison Between Face-to-Face and Blended Digital Literacy Workshops," *Frontiers in ICT* 5 (2018), https://www.frontiersin.org/articles/10.3389/fict.2018.00021.

Cooperativeness and collaboration. The teaching of ICT should focus on teamwork, support, cohesion and interaction to achieve more proactive learning.

Fostering social inclusion. The knowledge acquired should offer older adults the possibility of expanding communication channels through the web with their relatives and friends, either close or distant.

Promoting autonomy. Older adults must be the protagonists of their own learning. For this purpose, content must be designed considering the learning styles, interests and expectations of the senescent individual.

- Suggesting use of the Senior Digital Literacy Evaluation (SDLE) for in-depth digital literacy evaluations.

6.1.1.4   Kuerbis et al. 2017

Kuerbis et al. identified a number of factors that enhanced and inhibited behavioral health among older adults using services that use mobile technology (referred to as mobile health or mHealth).[16] Such devices can communicate health information directly to healthcare providers. Specific interventions available in this manner include text messaging, mobile-phone applications and web-based applications. They also provide important context about potential barriers to adoption of technology by older adults and confront the stereotype that they are "…afraid, unwilling, and unable to use technology…" (p. 2).

6.1.1.5   Schreurs et al. 2017

Schreurs et al. investigated barriers to older adults in using information and communication technologies (ICT).[17] They describe the issue of lower digital skills among older adults as a paradox because their lack of experience and supports make it harder to improve their digital literacy. The authors argue that: "When older adults realize the utility of ICTs for their own benefit, they can move from a basic curiosity about these tools to a deeper understanding and incorporate them further into their daily routines—thus gaining experience and digital literacy." The authors also argue that digital literacy and access are closely interlinked and that digital skills can be viewed as a major barrier to improving access. Individuals

---

[16] Alexis Kuerbis et al., "Older Adults and Mobile Technology: Factors That Enhance and Inhibit Utilization in the Context of Behavioral Health," *Mental Health and Addiction Research* 2, no. 2 (2017), https://doi.org/10.15761/MHAR.1000136.

[17] Kathleen Schreurs, Anabel Quan-Haase, and Kim Martin, "Problematizing the Digital Literacy Paradox in the Context of Older Adults' ICT Use: Aging, Media Discourse, and Self-Determination," *Canadian Journal of Communication* 42, no. 2 (May 23, 2017): 359–77, https://doi.org/10.22230/cjc.2017v42n2a3130.

interviewed as part of the study felt embarrassment about their familiarity with Internet-related terms.[18] However, they showed a desire to become more digitally literate.

6.1.1.6   Haan et al. 2021

Haan et al. looked at the use of a smartphone application designed for activity tracking and fall detection along with the role of peer support in use of the application.[19] The article points to a notable use of smartphone technology to support aging in place and describes what they feel are successful and transferrable strategies to teach older adults smartphone technology in a social setting.

6.1.1.7   Ollevier et al. 2020

In "How can technology support ageing in place in healthy older adults?" Ollevier et al. conducted a review of many articles according to four major categories relevant to supporting aging in place: accessible communication, emergency assistance, physical well-being, and mental well-being.[20] Of these, only seven documented interventions through randomized controlled trials and clinical trials. They concluded that evidence supported by randomized trials is rare but that the interventions "added value to [aging] in place" and that integrating technology into the homes and lives of older adults "demands training, guidance and close follow-up of the participants" (p. 10).

6.1.1.8   Martínez-Alcalá et al. 2021

In "The Effects of Covid-19 on the Digital Literacy of the Elderly: Norms for Digital Inclusion," Martínez-Alcalá et al. 2021 found that during the COVID-19 pandemic, the digital literacy of many older adults improved.[21]

---

[18] Eszter Hargittai and Yuli Patrick Hsieh, "Succinct Survey Measures of Web-Use Skills," *Social Science Computer Review* 30, no. 1 (February 1, 2012): 95–107, https://doi.org/10.1177/0894439310397146.

[19] Marjolein den Haan et al., "Creating a Social Learning Environment for and by Older Adults in the Use and Adoption of Smartphone Technology to Age in Place," *Frontiers in Public Health* 9 (June 16, 2021): 568822, https://doi.org/10.3389/fpubh.2021.568822.

[20] Aline Ollevier et al., "How Can Technology Support Ageing in Place in Healthy Older Adults? A Systematic Review," *Public Health Reviews* 41, no. 1 (November 23, 2020): 26, https://doi.org/10.1186/s40985-020-00143-4.

[21] Claudia I. Martínez-Alcalá et al., "The Effects of Covid-19 on the Digital Literacy of the Elderly: Norms for Digital Inclusion," *Frontiers in Education* 6 (2021), https://www.frontiersin.org/articles/10.3389/feduc.2021.716025.

Figure 1 – Digital Literacy process according to Martínez-Alcalá et al. 2021
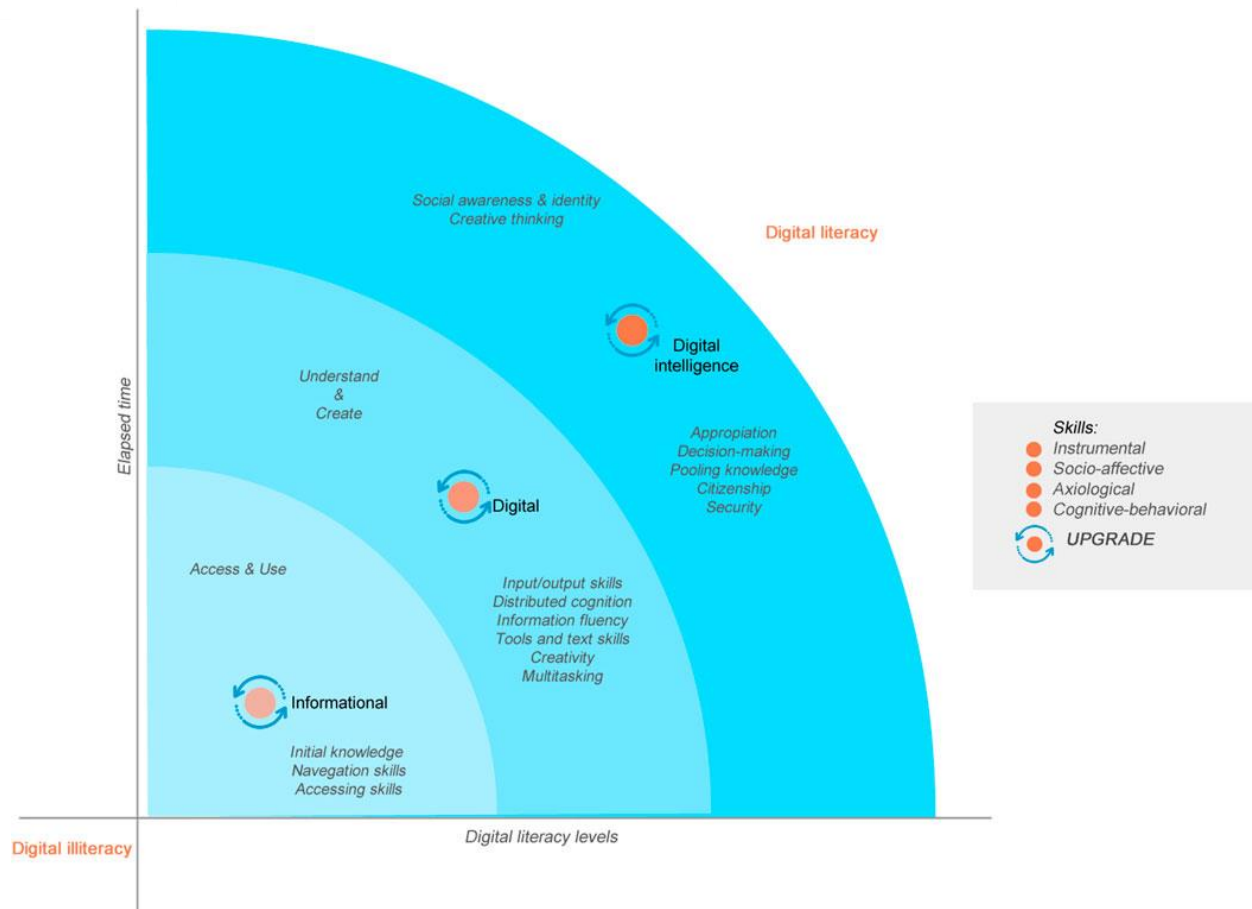
The authors also provide specific recommendations for "[g]overnment agencies, for-profit and non-profit organizations, and community volunteers are required to ensure the accessibility and usability of effective programs and interventions, for older adults" (p. 17).

Ensure older adults' access to the equipment and connectivity necessary to use Internet services, which may include arranging to offer Internet hotspots in neighborhoods with low-income elderly adults or do not have a computer;

Training to improve older adults' digital literacy, through volunteers; this should include cybersecurity advice to ease concerns about the privacy of your personal information;

Support older adults [to] stay connected with friends they typically interact with at senior centers or churches, through applications for virtual meetings. Initiatives exist – for example, the Institute for Successful

Longevity (ISL) at Florida State University has launched a Zoom initiative to help older adults fight social isolation ([Institute for Successful Longevity (ISL) at Florida State University, 2020](#));

Put within reach intuitive informatics tools (apps for mobile devices and intelligent voice assistants) that promote intergenerational interactions among family members;

Training volunteer people who have knowledge of and digital skills to support older adults within resource-limited communities to maintain communication through some digital medium;

Family members should try to provide technical support to older loved ones who may be using new devices or platforms during the pandemic to stay connected ([Moore et al., 2020](#)).

6.1.1.9 The Digital Competence Framework for Citizens

The Digital Competence Framework for Citizen (DigComp) provides a framework for evaluating digital literacy in the European Union and elsewhere.[22] DigComp 2.2, the current iteration, provides examples of expected knowledge and resources that may be used for self-testing.

6.1.2 A Framework for Digital Health Equity

The National Institute on Minority Health and Health Disparities (NIMHD) expanded its Social Determinants of Health (SDoH) Research Framework to include a framework for digital health equity domain of influence.[23] The Digital Determinants of Health (DDoH) domain was created to better understand conditions in the digital environment that affect a wide range of health, functioning, and quality of life outcomes and risks. The DDoH includes access to technological tools, digital literacy, and community infrastructure like broadband internet and operates at the individual, interpersonal, community, and societal levels. They impact digital health equity, which in healthcare systems translates to equitable access to digital healthcare, equitable outcomes from and experience with digital healthcare, and equity in the design of digital health solutions.

---

[22] Riina Vuorikari, Stefano Kluzer, and Yves Punie, "DigComp 2.2: The Digital Competence Framework for Citizens - With New Examples of Knowledge, Skills and Attitudes," JRC Publications Repository, March 17, 2022, https://doi.org/10.2760/115376.

[23] Safiya Richardson et al., "A Framework for Digital Health Equity," *Npj Digital Medicine* 5, no. 1 (August 18, 2022): 1–6, https://doi.org/10.1038/s41746-022-00663-0.

6.1.3 Digital Literacy Surveys & Questionnaires

SWRPC identified and reviewed the following resources during the development of the project's questionnaire. They have also been identified for future use by organizations interested in more rigorously evaluating digital literacy levels among their older adult clients, customers, or members.

6.1.3.1 *Measuring Digital Skills*

Measuring Digital Skills: From Digital Skills to Tangible Outcomes Project Report reviewed past methods of measuring digital literacy and proposed a set of measures to evaluate Internet skills on a scale of 5-10 items depending on the skill being assessed:[24]

- Operational skills include statements such as: "I know how to open downloaded files."
- Information Navigation skills include statements such as: "I find it hard to decide what the best keywords are to use for online searches."
- Social skills include statements such as: "I know which information I should and shouldn't share online."
- Creative skills include statements such as: "I know how to create something new from existing online images, music or video."
- Mobile skills include statements such as: "I know how to install apps on a mobile device."

6.1.3.2 *Digital Literacy Self-Assessment Tool*

The World Education EdTech Center developed a self-assessment and inventory to be used by a variety of learners that includes questions regarding frequency of use, comfort level, internet access, and device use.[25]

6.1.3.3 *Digital Literacy Questionnaire – Language Learners*

Many possible questionnaires exist for evaluating the use of technology and digital literacy skills. One such study developed and evaluated two questionnaires in the context of English language learners.[26] The questions themselves, however, could be broadly applicable to other assessments and are readily available at the author's website.[27]

6.1.3.4 *Mobile Device Proficiency Questionnaire*

Some scientists have studied assessing mobile device proficiency as it pertains to older adults. The Mobile Device Proficiency Questionnaire (MDPQ) or a shorter 16-question version (MPDQ-16) can be used for this purpose and was found to be highly reliable (Roque

---

[24] Alexander J A M Van Deursen, Ellen J Helsper, and Rebecca Eynon, "Measuring Digital Skills: From Digital Skills to Tangible Outcomes Project Report," 2014, https://doi.org/10.13140/2.1.2741.5044.
[25] "Digital Literacy Self-Assessment Tool," *EdTech Center @ World Education* (blog), accessed October 20, 2022, https://edtech.worlded.org/resource/digital-literacy-self-assessment-tool/.
[26] Jeong-Bae Son, Sang-Soon Park, and Moonyoung Park, "Digital Literacy of Language Learners in Two Different Contexts," *The JALT CALL Journal* 13, no. 2 (August 31, 2017): 77–96, https://doi.org/10.29140/jaltcall.v13n2.213.
[27] Joeng-Bae Song, "Digital Literacy," July 15, 2015, http://drjbson.com/projects/dl/.

and Boot 2018).[28] The research also provides justification for studying this functionality in older adults. For example, compared to desktop computers, a mobile device has the benefit of providing access to information in any room of the home as well as outside of the home – an important feature for things like reminders about appointments, taking medication, etc. Without proficiency with these devices, older adults may not be able to access these benefits.

6.1.3.5   *Northstar Digital Literacy Assessment*

Northstar Digital Literacy is a service used by adult education programs, colleges, non-profits and others to assess basic skills needed to use computers, software and technology. There is no cost to complete the assessments [via the publisher's website](#).[29]

6.2 BROADBAND ACCESS AND ADOPTION

6.2.1   List of Municipal Broadband Projects

The availability of high-speed internet, also known as broadband, has a significant impact on the Region's long term economic growth. Adequate and reliable broadband has become a critical utility for nearly every sector of our Region, whether it be education, health care, public safety, local government, or economic development. The availability of affordable broadband at the residential level allows people the opportunity to access employment, education, health care, goods and services from home. This critical need was put in the spotlight throughout the COVID-19 pandemic which required these and other activities to occur using the Internet.

Over the period 2019 to 2022, spurred by enabling legislation and the success of the Town of Chesterfield in bonding for improvements to broadband, 18 other Southwest NH municipalities followed in seeking approval from voters to fund broadband expansion to unserved areas in partnership with private internet service providers (Figure 2). Such projects involved replacing older and slower Digital Subscriber Line technologies in favor of fiber optic-based systems. Perhaps most notable, the projects result in buildouts to all areas of these communities, not just to more densely-settled areas.

---

[28] Nelson A. Roque and Walter R. Boot, "A New Tool for Assessing Mobile Device Proficiency in Older Adults: The Mobile Device Proficiency Questionnaire," *Journal of Applied Gerontology* 37, no. 2 (February 2018): 131–56, https://doi.org/10.1177/0733464816642582.

[29] Northstar Digital Literacy, "Northstar Digital Literacy Assessment Standards," accessed October 23, 2022, https://assets.digitalliteracyassessment.org/static/main_website/docs/NDLA-standards-2018-11-18.pdf.

Figure 2 - Municipal Bonding for Broadband in SWRPC planning region by year of town meeting (2019-2022)

Interestingly, communities frequently cited studies that found a positive relationship between internet speeds available and home sale prices in their justification of bonding for the funds needed to construct the projects. Still, access to reliable broadband in the Region varies significantly. There are still areas without any broadband access, not having raised funds locally. Deploying broadband infrastructure in many of these rural areas remains difficult without financial incentives due to low population density and difficult terrain.

Table 1 – Public-private partnerships for broadband improvement in New Hampshire by year of Town Meeting and funding level.

Municipality	County	Town Meeting	Local Funding	Private Funding	Total
Chesterfield	Cheshire	2019	$1,800,000	$2,500,000	$4,300,000
Dublin	Cheshire	2020	$1,300,000	$866,069	$2,152,594
Harrisville	Cheshire	2020	$896,375	$696,581	$1,592,956
Rindge	Cheshire	2020	$2,579,125	$2,458,700	$5,037,825
Walpole	Cheshire	2020	$1,856,100	$1,362,462	$3,218,562
Westmoreland	Cheshire	2020	$1,219,000	$800,000	$2,019,000
Fitzwilliam	Cheshire	2021	$1,622,500	$1,284,950	$2,907,450
Gilsum	Cheshire	2021	$567,125	$296,251	$863,376
Greenfield	Hillsborough	2021	$987,012	$369,285	$1,356,297
Jaffrey	Cheshire	2021	$1,229,020	$2,976,785	$4,205,805
Langdon	Sullivan	2021	$902,625	$246,519	$1,149,144
Marlborough	Cheshire	2021	$965,000	$736,700	$1,702,200
Marlow	Cheshire	2021	$1,017,200	$477,900	$1,495,100
Peterborough	Hillsborough	2021	$262,288	$4,750,975	$5,013,263
Roxbury	Cheshire	2021	$300,000	$92,807	$392,807
Sullivan	Cheshire	2021	$570,000	$265,417	$780,256
Temple	Hillsborough	2021	$710,435	$1,152,108	$1,862,543
Troy	Cheshire	2021	$222,311	$1,441,904	$1,664,215
Winchester	Cheshire	2022	$660,000	*Unknown*	

The Southwest Region made considerable progress in addressing disparities in equal access to broadband throughout individual communities. A smaller number of communities have received other support from New Hampshire CARES Act Funds (including Stoddard), the Federal Communications Commission's Rural Digital Opportunity Fund, and the United States Department of Agriculture's ReConnect program to improve access to broadband.

6.2.2   United States Census Bureau American Community Survey

There is currently no comprehensive data about a household's access to Internet subscriptions and devices. The United States Census Bureau American Community Survey does provide some information, albeit using a random sampling method over a 5-year period to achieve statistical significance. The purpose of this section of the needs assessment is to learn from the household questionnaires as they relate to the Internet and computers at the local and regional level and how they compare with figures for the United States and State of New Hampshire as a whole.

6.2.2.1   Types of Computers and Internet Connections

The U. S. Census Bureau offers the following guidance relative to the American Community Survey 5-Year Estimates (2016-2020) Table S2801 (Types of Computers and Internet Subscriptions):[30]

- Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.
- The category "Broadband of any type" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; a fixed wireless subscription; or other non-dial up subscription types.
- The category "Without an Internet subscription" includes those who accessed the Internet without a subscription and also those with no Internet access at all.
- The category "Has one or more types of computing devices" refers to those who said "Yes" to at least one of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; or some other type of computer. The category "No computer" consists of those who said "No" to all of these types of computers.
- Desktop or laptop refers to those who selected that category regardless of whether or not they indicated they also had another type of computer. However, "Desktop or laptop with no other type of computing device" refers to those who said "Yes" to owning or using a desktop or laptop and "No" to smartphone, tablet or other wireless computer, and other computer. Similarly, the same holds true for "Smartphone" compared to "Smartphone with no other type of computing device", "Tablet or other portable wireless computer" compared to "Tablet or other portable wireless computer with no other type of computing device", and "Other computer" compared to "Other computer with no other type of computing device."
- An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.
- The category "With a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as

---

[30]

https://data.census.gov/cedsci/table?q=internet&g=0100000US_0400000US33_0500000US3300 5,33005%240600000,33011,33019_0600000US3301101700,3301104900,3301131540,3301131940,3301 133700,3301151940,3301160580,3301168820,3301176260,3301185940,3301940900&tid=ACSST5Y202 0.S2801

cable, fiber optic, or DSL; a cellular data plan; satellite; a fixed wireless subscription; or other non-dial up subscription types. The category "Without an Internet subscription" includes those who accessed the Internet without a subscription and also those with no Internet access at all.

6.2.2.1.1   Findings

Based on the results of the American Community Survey, SWRPC observed the following (Table 2):

- The proportion of households in Southwest NH that has access to at least one computing device (91.9%) matches the United States (91.9%) figure but is lower than the rate for the State as a whole (93.7%). The regional figure also hides variability apparent between communities and ranges from a low of 85.5% in Walpole to a high of 98.8% in Dublin.
- The proportion of households in Southwest NH that has access to a smartphone (77.3%) is significantly lower than the national figure (83.7%) and is also significantly lower than the rate for the State as a whole (82.1%). There are a number of communities that are more than twice as likely for a smartphone to be the only device in the home, compared to the State as a whole (4.6%), including Chesterfield (11.6%), Gilsum (11.0%), and Troy (10.2%).

Table 2 - American Community Survey 5-Year Estimate (2016-2020): Percent of households with different types of computers

	Total households	Has one or more types of computing devices:	Desktop or laptop	Desktop or laptop with no other type of computing device	Smartphone	Smartphone with no other type of computing device	Tablet or other portable wireless computer	Tablet or other portable wireless computer with no other type of computing device	Other computer	No computer
United States	122,354,219	91.9%	78.3%	4.9%	83.7%	8.3%	61.9%	0.9%	2.7%	8.1%
New Hampshire	539,116	93.7%	84.5%	6.8%	82.1%	4.6%	65.9%	1.1%	2.7%	6.3%
Cheshire County	30,513	91.3%	80.6%	8.6%	77.0%	4.6%	60.7%	1.0%	1.7%	8.7%
Hillsborough County	162,843	94.3%	84.6%	5.9%	84.6%	5.3%	65.9%	1.0%	2.2%	5.7%
Sullivan County	17,281	91.3%	79.9%	7.5%	77.5%	7.5%	54.8%	1.1%	1.3%	8.7%
Southwest NH	40,515	91.9%	80.9%	8.7%	77.3%	4.9%	60.7%	1.1%	1.8%	8.1%
Alstead	792	88.5%	77.8%	10.0%	76.5%	5.2%	59.5%	0.0%	0.6%	11.5%
Antrim	1,048	93.5%	83.8%	13.2%	76.1%	7.7%	49.1%	0.4%	1.3%	6.5%
Bennington	686	91.5%	82.9%	12.8%	76.4%	5.4%	52.3%	0.0%	0.6%	8.5%
Chesterfield	1,454	98.7%	87.1%	7.9%	74.6%	11.6%	68.3%	0.0%	5.3%	1.3%
Dublin	652	98.8%	84.4%	5.4%	86.7%	6.6%	66.1%	2.3%	0.0%	1.2%

	Total households	Has one or more types of computing devices:	Desktop or laptop	Desktop or laptop with no other type of computing device	Smartphone	Smartphone with no other type of computing device	Tablet or other portable wireless computer	Tablet or other portable wireless computer with no other type of computing device	Other computer	No computer
Fitzwilliam	1,004	90.6%	79.7%	6.4%	76.4%	5.8%	56.6%	1.0%	2.6%	9.4%
Gilsum	282	94.0%	73.0%	7.8%	74.5%	11.0%	67.0%	0.7%	5.7%	6.0%
Greenfield	666	90.7%	81.7%	6.6%	77.8%	4.8%	60.4%	3.0%	1.8%	9.3%
Greenville	978	89.3%	74.5%	5.1%	76.1%	6.7%	63.5%	2.8%	1.1%	10.7%
Hancock	794	97.1%	84.4%	13.9%	75.1%	6.8%	57.6%	1.8%	1.0%	2.9%
Harrisville	374	94.9%	81.8%	5.3%	81.8%	3.5%	65.5%	2.7%	6.1%	5.1%
Hinsdale	1,615	89.7%	74.3%	15.6%	70.1%	7.2%	56.2%	0.2%	0.7%	10.3%
Jaffrey	2,276	93.1%	76.3%	7.6%	81.9%	5.3%	60.5%	0.6%	2.4%	6.9%
Keene	9,239	89.5%	81.1%	7.7%	77.0%	3.1%	58.3%	1.4%	1.6%	10.5%
Langdon	227	90.7%	84.1%	7.0%	71.4%	4.8%	65.6%	0.0%	2.6%	9.3%
Marlborough	986	88.1%	79.5%	9.7%	71.4%	5.4%	60.3%	0.5%	0.0%	11.9%
Marlow	328	93.9%	80.2%	2.7%	82.9%	7.3%	58.5%	0.0%	1.2%	6.1%
Nelson	236	95.3%	82.6%	5.9%	84.3%	8.5%	69.9%	0.0%	0.0%	4.7%
New Ipswich	1,848	97.6%	88.0%	10.8%	79.5%	6.4%	62.8%	0.9%	3.1%	2.4%
Peterborough	2,988	92.4%	76.6%	6.1%	79.4%	4.9%	63.7%	1.3%	2.5%	7.6%
Richmond	416	91.3%	78.1%	10.1%	74.5%	7.2%	59.1%	0.0%	3.4%	8.7%
Rindge	1,817	96.0%	85.9%	7.0%	86.7%	4.5%	68.1%	0.7%	3.7%	4.0%
Roxbury	101	91.1%	83.2%	6.9%	82.2%	5.0%	73.3%	1.0%	0.0%	8.9%
Sharon	177	97.2%	90.4%	15.3%	77.4%	2.3%	67.8%	1.7%	4.0%	2.8%
Stoddard	423	91.5%	78.7%	9.2%	72.1%	3.5%	69.7%	0.7%	0.0%	8.5%
Sullivan	285	91.6%	83.5%	15.4%	72.6%	0.0%	60.4%	0.0%	1.8%	8.4%
Surry	329	97.9%	90.6%	10.9%	78.4%	2.1%	73.9%	0.9%	0.9%	2.1%
Swanzey	3,119	90.1%	82.9%	7.2%	77.0%	2.5%	61.8%	0.7%	1.1%	9.9%
Temple	509	94.3%	88.8%	3.7%	88.2%	1.6%	69.2%	0.6%	3.7%	5.7%
Troy	729	93.1%	75.9%	11.2%	74.1%	10.2%	55.3%	3.3%	0.7%	6.9%
Walpole	1,681	85.5%	74.5%	7.7%	75.1%	2.7%	54.2%	0.6%	0.0%	14.5%
Westmoreland	864	96.5%	91.2%	13.3%	78.6%	0.9%	72.1%	0.5%	0.9%	3.5%
Winchester	1,511	90.1%	76.4%	12.2%	70.0%	5.7%	57.3%	2.0%	1.7%	9.9%
Windsor	81	100.0%	91.4%	16.0%	80.2%	7.4%	60.5%	1.2%	0.0%	0.0%

Differences in access to computers are more easily observed in the charts below:

- Percent of households without access to a computer (Figure 3, p. 27).
- Percent of households with access via a smartphone only (Figure 4, p. 28).
- Percent of households without access to an internet subscription (Figure 5, p. 29).

- Percent of households with a cellular data plan with no other type of Internet subscription (Figure 6, p. 30).
- Percentage of households with a broadband subscription compared with household income (Figure 7, p. 31).

Figure 3 - American Community Survey 5-Year Estimate (2016-2020): Count and percent of households without access to a computer
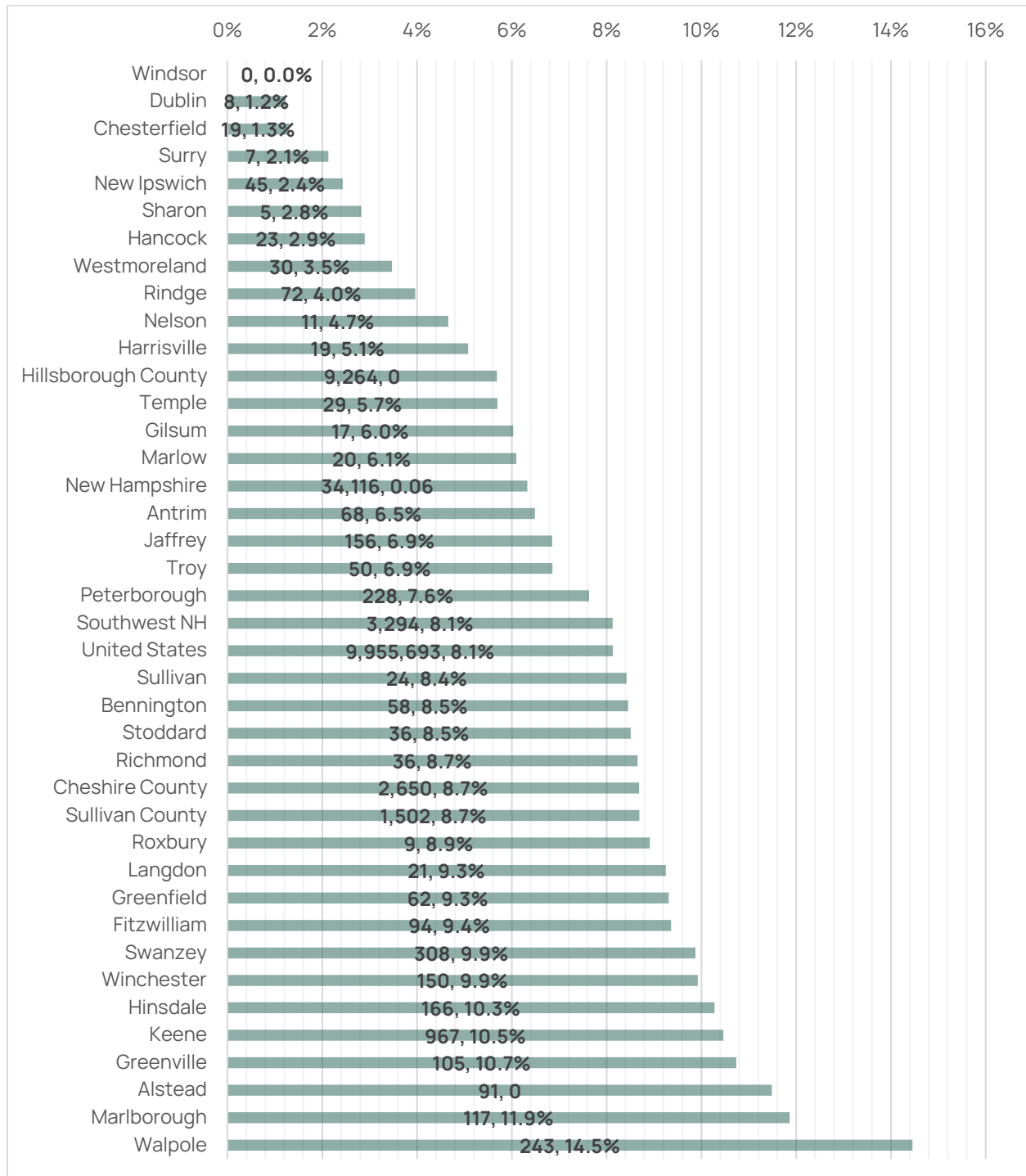
Figure 4 - American Community Survey 5-Year Estimate (2016-2020): Count and percent of households with a smartphone only

Location	Count, Percent
Sullivan	0, 0.0%
Westmoreland	8, 0.9%
Temple	8, 1.6%
Surry	7, 2.1%
Sharon	4, 2.3%
Swanzey	79, 2.5%
Walpole	45, 2.7%
Keene	289, 3.1%
Harrisville	13, 3.5%
Stoddard	15, 3.5%
Rindge	82, 4.5%
Cheshire County	1,407, 4.6%
New Hampshire	24,869, 4.6%
Greenfield	32, 4.8%
Langdon	11, 4.8%
Southwest NH	1,971, 4.9%
Peterborough	147, 4.9%
Roxbury	5, 5.0%
Alstead	41, 5.2%
Jaffrey	120, 5.3%
Hillsborough County	8,682, 5.3%
Marlborough	53, 5.4%
Bennington	37, 5.4%
Winchester	86, 5.7%
Fitzwilliam	58, 5.8%
New Ipswich	118, 6.4%
Dublin	43, 6.6%
Greenville	66, 6.7%
Hancock	54, 6.8%
Hinsdale	116, 7.2%
Richmond	30, 7.2%
Marlow	24, 7.3%
Windsor	6, 7.4%
Sullivan County	1,301, 7.5%
Antrim	81, 7.7%
United States	10,127,155, 8.3%
Nelson	20, 8.5%
Troy	74, 10.2%
Gilsum	31, 11.0%
Chesterfield	168, 11.6%

Figure 5 - American Community Survey 5-Year Estimate (2016-2020): Count and percent of households without access to an internet subscription
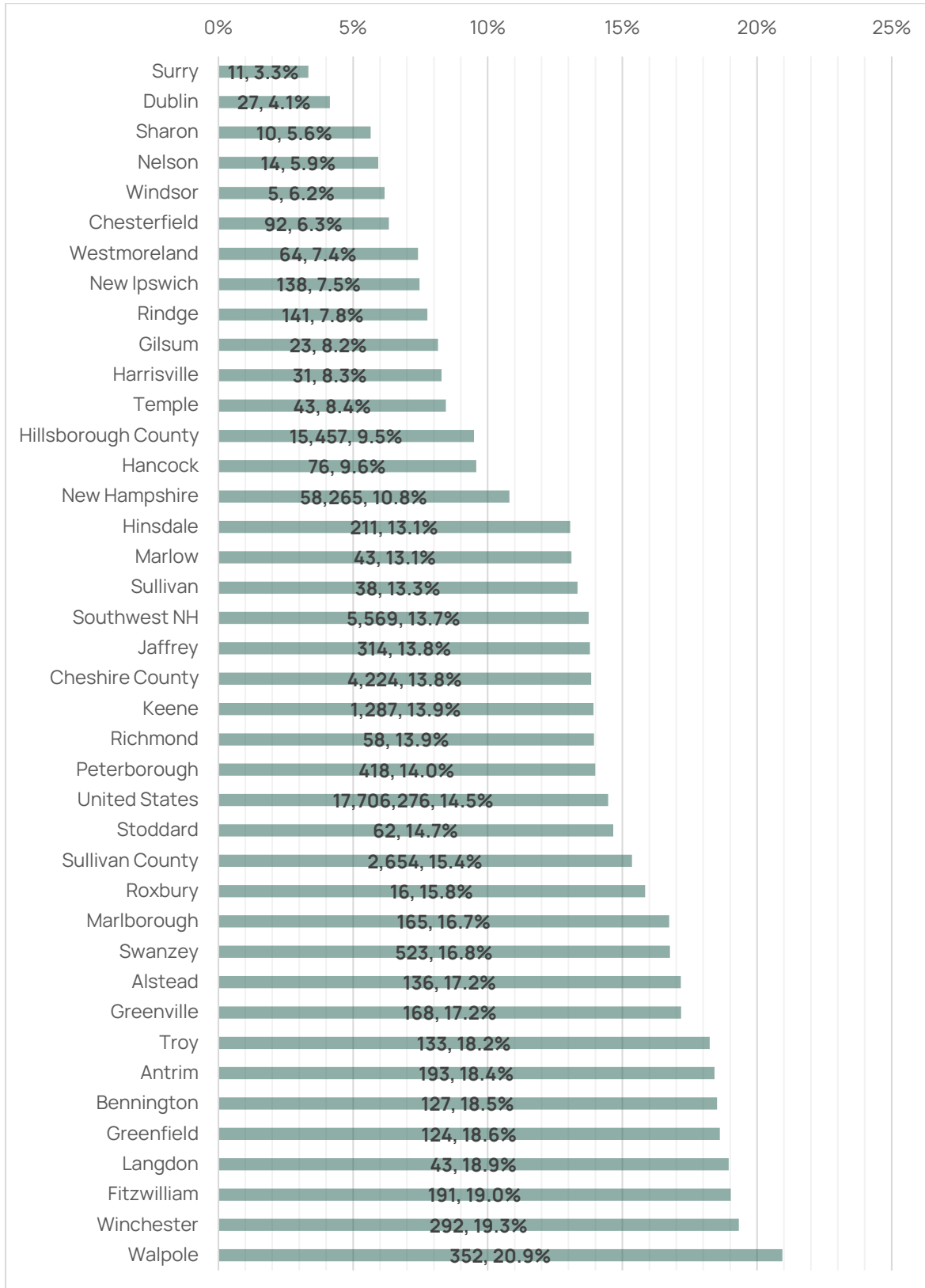
Figure 6 - American Community Survey 5-Year Estimate (2016-2020): Count and percent of households with a cellular data plan with no other type of Internet subscription

Location	Count, Percent
Sullivan	6, 2.1%
Troy	28, 3.8%
Marlborough	38, 3.9%
Langdon	9, 4.0%
Swanzey	139, 4.5%
Hancock	38, 4.8%
Greenfield	34, 5.1%
Fitzwilliam	52, 5.2%
Walpole	91, 5.4%
New Ipswich	102, 5.5%
Jaffrey	130, 5.7%
Stoddard	25, 5.9%
Keene	572, 6.2%
Richmond	26, 6.3%
Bennington	43, 6.3%
Peterborough	196, 6.6%
New Hampshire	36,717, 6.8%
Temple	35, 6.9%
Southwest NH	2,932, 7.2%
Greenville	71, 7.3%
Cheshire County	2,266, 7.4%
Hillsborough County	12,115, 7.4%
Winchester	125, 8.3%
Antrim	90, 8.6%
Sullivan County	1,570, 9.1%
Marlow	31, 9.5%
Nelson	23, 9.7%
Windsor	8, 9.9%
Harrisville	38, 10.2%
Gilsum	29, 10.3%
Rindge	187, 10.3%
Chesterfield	156, 10.7%
Hinsdale	177, 11.0%
United States	13,570,529, 11.1%
Surry	40, 12.2%
Westmoreland	115, 13.3%
Alstead	108, 13.6%
Dublin	99, 15.2%
Sharon	40, 22.6%
Roxbury	31, 30.7%

Figure 7 - American Community Survey 5-Year Estimate (2016-2020): Percentage of households with a broadband subscription compared with household income
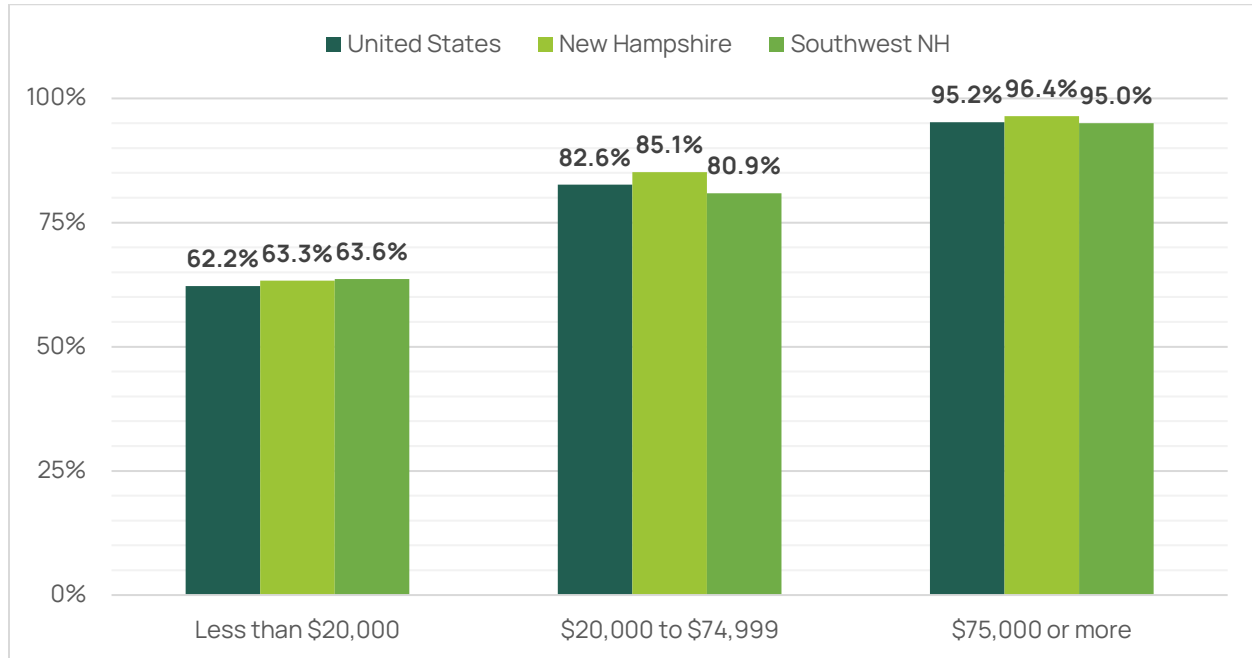
Given the trend observed above, communities like Alstead, Winchester, and Bennington should be recognized as likely to have lower rates of access to broadband due to their relatively high proportions of lower-income households.

6.2.2.2 Types of Internet Connections by Selected Characteristics

The U. S. Census Bureau offers the following guidance relative to the American Community Survey 5-Year Estimates (2016-2020) Table S2802 (Types of Internet Connections by Selected Characteristics)[31]:

- Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.
- An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

31

https://data.census.gov/cedsci/table?g=0100000US_0400000US33_0500000US33005,33005%24 0600000,33011,33019_0600000US3301101700,3301104900,3301131540,3301131940,3301133700,33011 51940,3301160580,3301168820,3301176260,3301185940,3301940900&tid=ACSST5Y2020.S2802

- The category "With a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; a fixed wireless subscription; or other non-dial up subscription types. The category "Without an Internet subscription" includes those who accessed the Internet without a subscription and also those with no Internet access at all.
- The category "No computer in household" consists of those who said "No" to all of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; and some other type of computer.

6.2.2.2.1 Findings

Older adults in Southwest NH fare better than the United States as a whole when it comes to how many have access to a computer in their home (13.8% versus 15.7%). However, the region lags behind the State, and amounts to approximately 2,735 residents.

Table 3 - American Community Survey 5-Year Estimate (2016-2020): Count and percent of age groups that do not have a computer in their home

	Under 18 years		18 to 64 years		65 years and over	
United States	1,709,992	2.3%	6,502,529	3.3%	7,966,837	15.7%
New Hampshire	2,001	0.8%	16,688	2.0%	28,558	12.1%
Cheshire County	76	0.6%	1,055	2.4%	2,229	15.1%
Hillsborough County	401	0.5%	4,487	1.7%	7,430	11.9%
Sullivan County	304	3.8%	918	3.6%	1,159	12.9%
Southwest NH	130	0.7%	1,492	2.6%	2,735	13.8%
Alstead	0	0.0%	21	2.1%	111	25.6%
Antrim	0	0.0%	65	3.8%	32	7.6%
Bennington	0	0.0%	60	5.4%	12	6.1%
Chesterfield	0	0.0%	0	0.0%	19	2.1%
Dublin	0	0.0%	7	0.8%	1	0.3%
Fitzwilliam	0	0.0%	65	4.5%	58	11.0%
Gilsum	4	3.1%	9	2.0%	19	13.4%
Greenfield	0	0.0%	37	3.4%	80	24.0%
Greenville	21	6.1%	44	3.3%	76	14.4%
Hancock	0	0.0%	2	0.2%	26	4.7%
Harrisville	2	1.6%	0	0.0%	28	11.6%
Hinsdale	0	0.0%	84	3.8%	246	24.3%
Jaffrey	0	0.0%	23	0.7%	157	19.4%
Keene	40	1.2%	362	2.9%	717	18.4%
Langdon	2	1.5%	22	5.6%	7	6.9%
Marlborough	5	0.9%	47	3.2%	106	22.2%
Marlow	0	0.0%	4	1.0%	22	10.5%

	Under 18 years		18 to 64 years		65 years and over	
Nelson	0	0.0%	15	4.6%	2	1.4%
New Ipswich	0	0.0%	88	2.8%	45	5.8%
Peterborough	27	2.2%	109	3.2%	204	11.1%
Richmond	0	0.0%	3	0.4%	53	21.1%
Rindge	11	1.0%	60	2.1%	52	5.0%
Roxbury	0	0.0%	1	0.4%	8	24.2%
Sharon	0	0.0%	2	1.0%	3	1.9%
Stoddard	14	6.6%	28	3.9%	20	9.5%
Sullivan	0	0.0%	19	4.3%	19	19.0%
Surry	0	0.0%	0	0.0%	9	4.8%
Swanzey	0	0.0%	178	4.0%	190	11.7%
Temple	4	3.1%	8	0.9%	21	10.3%
Troy	0	0.0%	21	1.9%	34	14.3%
Walpole	0	0.0%	49	2.2%	220	25.7%
Westmoreland	0	0.0%	10	0.8%	22	4.4%
Winchester	0	0.0%	49	1.9%	116	22.4%
Windsor	0	0.0%	0	0.0%	0	0.0%

Figure 8 - American Community Survey 5-Year Estimate (2016-2020): Count and percent of age groups that do not have a computer in their home

Legend: Under 18 years | 18 to 64 years | 65 years and over

Location	65 years and over label
Walpole	220, 25.7%
Alstead	111, 25.6%
Hinsdale	246, 24.3%
Roxbury	8, 24.2%
Greenfield	80, 24.0%
Winchester	116, 22.4%
Marlborough	106, 22.2%
Richmond	53, 21.1%
Jaffrey	157, 19.4%
Sullivan	19, 19.0%
Keene	717, 18.4%
United States	7,966,837, 15.7%
Cheshire County	2,229, 15.1%
Greenville	76, 14.4%
Troy	34, 14.3%
Southwest NH	2,735, 13.8%
Gilsum	19, 13.4%
Sullivan County	1,159, 12.9%
New Hampshire	28,558, 12.1%
Hillsborough County	7,430, 11.9%
Swanzey	190, 11.7%
Harrisville	28, 11.6%
Peterborough	204, 11.1%
Fitzwilliam	58, 11.0%
Marlow	22, 10.5%
Temple	21, 10.3%
Stoddard	20, 9.5%
Antrim	32, 7.6%
Langdon	7, 6.9%
Bennington	12, 6.1%
New Ipswich	45, 5.8%
Rindge	52, 5.0%
Surry	9, 4.8%
Hancock	26, 4.7%
Westmoreland	22, 4.4%
Chesterfield	19, 2.1%
Sharon	3, 1.9%
Nelson	2, 1.4%
Dublin	1, 0.3%
Windsor	0, 0.0%

6.2.3   Costs and Speeds

6.2.3.1   *Southwest NH Household Wireline Internet Subscription Costs*
The following inventory represents a sampling of advertised wireline broadband internet service costs for a variety of internet service providers in Southwest NH. SWRPC selected wireline providers because they are the most common type of connection (compared to wireless connections) and they typically, but not always, offer superior performance and pricing compared with alternatives. They do not represent a comprehensive inventory, nor do they represent an array of options for each household in a certain area. In fact, in many cases, residents are limited to a single wireline internet service provider. The purpose of the inventory was to provide context for discussions and strategies around the affordability of Internet connections.

6.2.3.1.1   Consolidated Communications
Consolidated offers both Digital Subscriber Line (DSL) and fiber-optic services in Southwest NH, although DSL service (delivered over copper telephone lines) is much more typical. Compared with fiber-optic technology, DSL offers inferior upload speeds and lower speeds for both uploads and downloads the farther the location is from specific equipment.

Service	Name	Commitment Term (2 Years)
20	Fast	$54.85
50	Faster	$65.50
100	Blazing	$76.95

6.2.3.1.2   FiberCast
FiberCast owns networks with different technologies. In some areas of Southwest NH, they offer fiber-optic connections.

Table 4 - Monthly Subscription Costs for FiberCast Internet Service Plans by Download/Upload Speeds (mbps)

Service	Name	Contract Term (1-3 Years)	Standard Rate
50/50	Fast Broadband	$35.00	$55.95
250/250	SuperFast 250	$59.95	$85.95
1,000/1,000	UltraFast Gig	$69.95	$95.95

6.2.3.1.3   Fidium
Launched in 2022, Fidium is a business unit of Consolidated Communications that exclusively utilizes fiber to the home (also called fiber to the premises) internet service. Fidium offers the following pricing in many areas of Southwest NH.

Table 5 - Monthly Subscription Costs for Fidium Internet Service Plans by Download/Upload Speeds (mbps)

Service	Name	Promotional Rate (1 Year)	Standard Rate
50/50	Essential	$35	$55
250/250	Advanced	$60	$85
1,000/1,000	Supreme	$70	$95
2,000/2,000	Futuristic	$165	$190

The following notes apply to this internet service:

- The "1-Year Rate Lock" is a temporary, promotional price.
- Prices do not reflect the additional "Bond Recovery Fee" in communities that supported build outs with broadband infrastructure bonds. These fees range from an additional $8 to $14 monthly.
- Most plans advertise free installation.
- Assumes customer enrolls in paperless billing and automatic payment.

6.2.3.1.4 Spectrum

Spectrum internet service delivers internet service over coaxial cables. Spectrum advertises subscriptions based on maximum download speeds because the technology used cannot achieve the symmetrical speeds achieved by fiber-optic services. The upload speeds do, however, exceed the Federal Communications Commission standards from broadband.

Table 6 - Monthly Subscription Costs for Spectrum Internet Service Plans by Download Speeds (mbps)

Service	Name	Promotional Rate (1 Year)	Standard Rate
300	Internet	$49.99	$69.99
500	Internet Ultra	$69.99	$94.99
1,000	Internet Gig	$89.99	$109.99

Spectrum offers Internet Assist (30 mbps/4 mbps) that offers discounted service for households currently receiving assistance from:

- National School Lunch Program (NSLP)
- Community Eligibility Provision (CEP) of the NSLP
- Supplemental Security Income (For Applicants 65+ Years of Age)

Combined with the Federal Communications Commission's Affordable Connectivity Program, the service can be free for some households.

6.2.3.1.5 TDS

TDS Telecom offer services in the eastern part of Southwest NH including Antrim and Bennington.

Table 7 - Monthly Subscription Costs for TDS Internet Service Plans by Download/Upload Speeds (mbps)

Download Speed/Upload Speed (mbps)	Name	Promotional Rate (2 Years)	Standard Rate
300/300	Extreme300 Fiber Internet	$49.95	$74.95

6.2.3.1.6 Xfinity

Xfinity delivers internet service over coaxial cables in various communities in Southwest NH. The information below assumes a customer enrolls in paperless billing and automatic payment.

Table 8 - Monthly Subscription Costs for Comcast Internet Service Plans by Download Speeds (mbps)

Download Speed (mbps)	Name	Contract Term (2 Year)	Standard Rate
400	Performance Pro	$29.99	$98.95
800	Blast!	$59.99	$103.95
1,200	Gigabit Plus	$79.99	$113.95

Similar to Spectrum, Xfinity offers Internet Essentials (50 mbps/10 mbps) for $9.95 per month. Combined with the Federal Communications Commission's Affordable Connectivity Program, the service can be free for some households.

6.2.3.2 Analysis of Affordable Connectivity Program Enrollment

The cost of an Internet service subscription is one of many possible barriers to digital literacy and access. The subscription alone can cost many hundreds of dollars or more per year (in some cases in addition to a mobile telephone subscription). Fortunately, there are options for lower income households and individuals to reduce this cost.

The Federal Communication Commission's Affordable Connectivity Program, announced December 31, 2021[32], provides a discount of up to $30 per month toward internet service, and up to $100 towards to the purchase of a laptop, desktop or tablet computer. The Affordable Connectivity Program is the successor to a similar program, the Emergency Broadband Benefit, which provided $50-$75 monthly benefit between when the program was established on February 25, 2021[33] and the transition to the current program, the Affordable

---

[32] "Affordable Connectivity Plan Enrollment and Digital Equity Planning," Benton Foundation, June 16, 2022, https://www.benton.org/blog/affordable-connectivity-plan-enrollment-and-digital-equity-planning.

[33] "Emergency Broadband Benefit Program," *Universal Service Administrative Company* (blog), accessed August 2, 2022, https://www.usac.org/about/emergency-broadband-benefit-program/.

Connectivity Program. A household is deemed eligible if the household income is at or below 200% of federal poverty guidelines or if any member of the household meets other criteria[34]:

- Received a Federal Pell Grant during the current award year
- Meets the eligibility criteria for a participating provider's existing low-income internet program
- Participates in one of these assistance programs:
  - The National School Lunch Program or the School Breakfast Program, including through the USDA Community Eligibility Provision;
  - SNAP;
  - Medicaid;
  - Federal Public Housing Assistance;
  - Supplemental Security Income (SSI);
  - WIC;
  - Veterans Pension or Survivor Benefits;
  - or Lifeline.

An analysis of enrollment data as of June 1, 2022 (the most current record available) helps show where communities may be better positioned to promote digital literacy such as through tech support and skills training or where increasing enrollment itself may be a priority strategy to improve Internet access[35]. As of June 1, 2022, enrollments by county were as follows in Table 9.

Table 9 - New Hampshire Affordable Connectivity Program Enrollment by County

County	Total households	Subscribers	% of households enrolled in ACP	% of people at or below 200%
Belknap	25,576	959	3.7%	21.5%
Carroll	22,235	778	3.5%	23.6%
Cheshire	30,513	1,521	5.0%	23.4%
Coos	13,967	1,115	8.0%	33.2%
Grafton	35,141	1,531	4.4%	25.4%
Hillsborough	162,843	6,383	3.9%	18.4%
Merrimack	59,209	1,976	3.3%	18.7%
Rockingham	122,520	2,336	1.9%	12.7%
Strafford	49,831	2,034	4.1%	21.0%
Sullivan	17,281	810	4.7%	28.3%

---

[34] "Affordable Connectivity Program," Federal Communications Commission, December 15, 2021, https://www.fcc.gov/acp.
[35] "Affordable Connectivity Plan Enrollment and Digital Equity Planning."

6.2.4 Public Libraries Survey

Libraries frequently play an important role in improving access to the Internet, computers, digital skills training, and more. The Institute of Museum and Library Services annual Public Libraries Survey data was analyzed to better understand computer use at libraries around the region over the 2015 through 2020 fiscal years (Table 10).

Table 10 - Computer and Internet Use at Libraries (2015-2020)

	2015[36]	2016[37]	2017[38]	2018[39]	2019[40]	2020[41]
Internet computers used by the general public	115	118	129	142	147	142
Uses of public Internet computers per year	54,110	52,620	46,461	49,570	91,140	24,748
Total annual wireless sessions provided by the library wireless service	3,012[42]	4,080[43]	4,502[44]	55,547	48,718	53,313

Of the 32 libraries that responded, some notable details emerged about computer access and internet use:

- Every library has at least one computer available to the public and the number of computers has increased significantly in the last few years.
- Regionwide, there has been steady demand for computers with Internet access, including a notable uptick over the 2019 fiscal year, followed by a substantial drop in the 2020 fiscal year, which overlapped with COVID-related library closures. Notably, the use of wireless internet at libraries over this period saw an increase.

6.3 INDIVIDUAL QUESTIONNAIRE RESULTS AND FINDINGS

SWRPC utilized three survey forms or questionnaires to assess issues related to digital literacy, access to the Internet, interest in skills training and demographic information. Over the course of the project, the questionnaires were promoted via a dedicated webpage (www.swrpc.org/digital) and SWRPC website news post, through Facebook, and agency

---

[36] July 2014 to December 2015.

[37] July 2015 to December 2016.

[38] July 2016 to December 2017.

[39] July 2017 to December 2018.

[40] July 2018 to December 2019.

[41] July 2019 to December 2020.

[42] Most libraries did not report data for this period.

[43] Most libraries did not report data for this period.

[44] Most libraries did not report data for this period.

printed and e-mailed newsletters. SWRPC promoted the availability of the questionnaire via e-mail to a variety of organizations listed in an initial listening session (Listening Session) as well as with members of the Monadnock Healthy Aging Collaborative. The project and questionnaires were also promoted via a news release (**9.2.2 June 2022 News Release**). The survey was available from June into October of 2022 and garnered a total of 45 responses. Although not a statistically significant sampling of the older adult population in the Monadnock Region, SWRPC feels many of the conclusions are representative of common experiences and that the effort represents a good first step in evaluating digital literacy and access issues among this population.

Figure 9 - Individual Questionnaire social media post on SWRPC's Facebook page
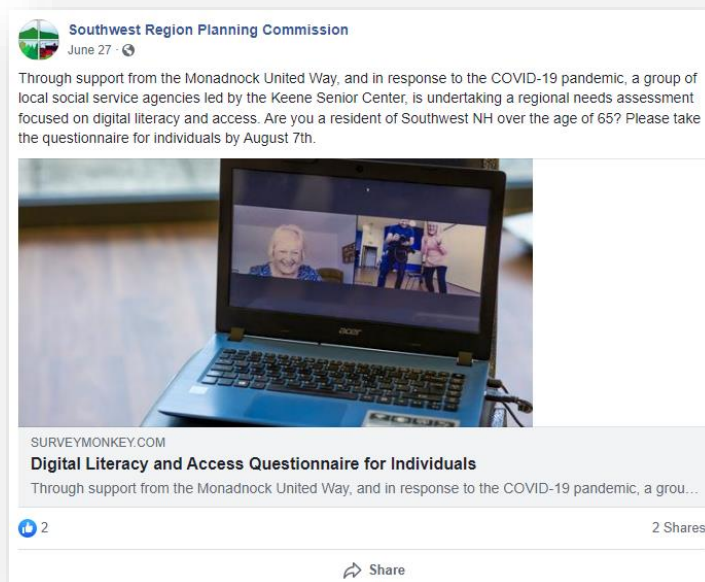
Objectives of the questionnaire included the following:

1. Quantify the capabilities and skill level of participants in doing technology-based tasks.
2. Learn about the interest of different participants in training opportunities to improve skills.
3. Learn where older adults use the Internet and on what devices.
4. Understand the availability and quality of internet service in the homes of older adults.
5. Identify geographic "hot spots" for issues or populations interested in improving their digital literacy through a follow-up intervention.
6. Learn about how disabilities are hindering access to technology, the Internet and technology-based services.

7. Identify respondents based on age, gender and ethnicity as a means of informing the design of follow-up activities or interventions.
8. Maintain anonymity and offering the ability to skip most questions.

There were three versions offered to participants, generally described as:

1. A short version applicable to individuals regardless of whether they use or have access to the Internet.
2. Longer versions:
   a. One for people that have access to the Internet at home, and
   b. One for people that lack access to the Internet at home.

Most respondents (37 or about 84%) were willing to participate in the longer version of the questionnaire. The typical time spent by respondents was 11 minutes.

A copy of the survey instrument is available in **9.3 Individual Questionnaire**. Descriptive statistics, tables and graphs for all questions are available in **9.4 Individual Questionnaire Results**.

6.3.1   Who responded to the questionnaire?

- Respondents were well educated. All participants graduated high school. The majority graduated from college or graduate school (together, 27 of 34 that responded to this question, or about 69%).
- Household incomes in the last year were most commonly over $50,000 (20 of 34 that responded to this question, or about 60%). Only one respondent indicated a household income less than $10,000, which falls below federal poverty guidelines for a 1-person household.
- All survey respondents were over the age of 60. Ages ranged from 61 to 91 years of age, with the largest group being those aged 76-81 (19 of 38 respondents or 50%).
- Most did not feel they had a medical condition or disability that made it harder to use the Internet (35 of 39 respondents or about 90%). Of those that felt they did, issues included "comprehension problems," vision-related difficulties like legibility and ease of navigation on smaller screen.
- All respondents identified as white. Interestingly, 35 of 39 respondents that indicated their gender identified as female (about 90%).
- A minority of respondents said they worked part time or full time (6 of 40 respondents). Most identified as retired (32 of 40 respondents or 80%).
- Respondents represent 11 of 34 municipalities in SWRPC's planning region including Chesterfield, Dublin, Greenfield, Hancock, Jaffrey, Keene, Nelson, New Ipswich, Peterborough, Swanzey, and Westmoreland. The highest number of respondents live in Peterborough (11) and Keene (7).

6.3.2 What did we learn from people who don't currently use the Internet?

- Of the respondents that said they didn't use the internet (4), a small number elaborated that they would need someone to help them if they wanted to use the Internet (2).
- Reasons why people did not use the internet included:
    - Concerns about safety and privacy online.
    - Not being interested.
    - Having someone else who does this on their behalf.
    - Using the internet is too difficult.
- One respondent provided the following comment: "I get frustrated when services such as my health insurance requires online response to things like my medication. Not everyone can or desires to do electronics. I like and trust paper and mail."

6.3.3 What were some of the experiences of people that already use the Internet?

- The survey found that a variety of devices were popular choices. Of those that provided this information (34), the most commonly-used device was a laptop (33), followed by a smartphone (31), tablet (29), and desktop (27). Of these devices, smartphones and laptops were the most commonly used devices on a daily basis. Desktops were more likely to be rarely used.
- Most people responding to the questionnaire access the internet at home on a daily basis (41 respondents or about 95%). Only one respondent did not have access to high-speed internet at home. A fair number or respondents (13 or about 31%) went online daily using a smartphone. People were least likely to go online at work or school, likely because of the demographics of respondents.
- Of a list of activities that require use of the Internet:
    - The most common choices have to do with obtaining health information and looking up directions using a service like Google Maps (as defined by having the lowest proportion of respondents that indicated they never did the activity).
    - Shopping or making purchases and online banking and bill payment are the most likely activities to be done on a daily basis.
    - Meeting with friends, family, caregivers or healthcare providers is most likely to occur rarely (i.e. less frequently than monthly).
    - Finding transportation or ride share information, doing school or work-related things, or looking for a job are all done on the Internet, but are much more likely to be done rarely or not at all.
- The questionnaire produced findings about respondents' feelings relative to certain statements about the Internet which are meant to identify digital literacy needs, access issues and the importance of the Internet to their lives:

- o Respondents most commonly "strongly" agree with the statement that: "The Internet is very important [to their] life." Of 34 respondents that replied to this question, 26 or about 76% feel this way.
- o The next most-common experience has to do with feelings of frustration in finding "what [they] need online" followed by "The cost of high-speed Internet service from a cable or phone company is too high for me."
- o Respondents were most likely to disagree with the following statements:
  - ▪ "My phone's apps are a good substitute for a desktop, laptop or tablet."
  - ▪ "Social media or texting are enough for me to socialize with friends and family."
  - ▪ "I need help from librarians to use computers at the library."
  - ▪ "When I have money problems, one of the first things I do is drop my mobile phone plan."
  - ▪ "I'm always searching for free WiFi service."

6.3.4 What did we learn about access to the internet from older adults?

- Almost 90% of respondents (34 of 38 participants that replied to this question) said they currently used the Internet.
- The vast majority (about 95% or 35 of 37 respondents) paid a cell phone company or internet service provider to obtain Internet access. Others had access by some other means, possibly through the use of a connection shared by multiple residents in the same building.
- Broadband internet is available to the majority, but not all respondents. 31 of 38 respondents access the Internet using a broadband or high-speed connection such as cable, fiber optic, or DSL service (about 82%).
- Over a third of respondents (about 37% or 14 of 38 respondents that replied to this question) access the Internet through a cellular data plan for a smartphone or other mobile device either alone or in addition to other means of access.
- A handful of respondents access the Internet via a dial-up connection or via a Satellite Internet service.
- Laptops (27), smartphones (25) and tablets (23) are the most popular devices among the 38 respondents to a question about types of computers available. Desktop computers are much less likely to be available in the home (15).
- About three in ten respondents (13 of 44 that responded to the question) rate their ability to use the Internet and computers as "Fair" (12) or "Poor" (1).
- Respondents most commonly access the Internet from home (about 95% of respondents did daily) with access through a data plan and smartphone a distant second place (about 31% do daily). WiFi connections or other connections are seldom used outside of the home.

- Most respondents (about 61% or 27 of 44 that responded to the question) are interested in a free class focused on tasks they feel less capable in doing.

6.3.5   What activities are respondents more or less capable in doing?

From a wide range of activities, we learned about where respondents feel more capable in completing various tasks. Across the total population, there are consistently multiple respondents that feel "fully capable" of everything from writing computer code to participating in a video call on Zoom or Facetime. Skills that are more commonly rated lower in terms of capability include:

- Downloading an app on your cell phone.
- Blocking spam.
- Uploading content like photos to social media sites.
- Protecting your computer from malware or spyware.
- Writing and posting a resume online for a job.
- Recognizing a phishing attempt or online scam.
- Creating and managing a profile on social media.
- Adjusting privacy settings online.
- Making digital content like videos, photos, or music.
- Creating your own personal website.
- Writing computer code.

About 70% or 20 out of 43 respondents feel "Fully capable" of using a desktop or laptop computer to do basic tasks like e-mail (Figure 10).

Figure 10 – How capable do you feel doing the following things, with 1 being not at all capable and 5 being fully capable?
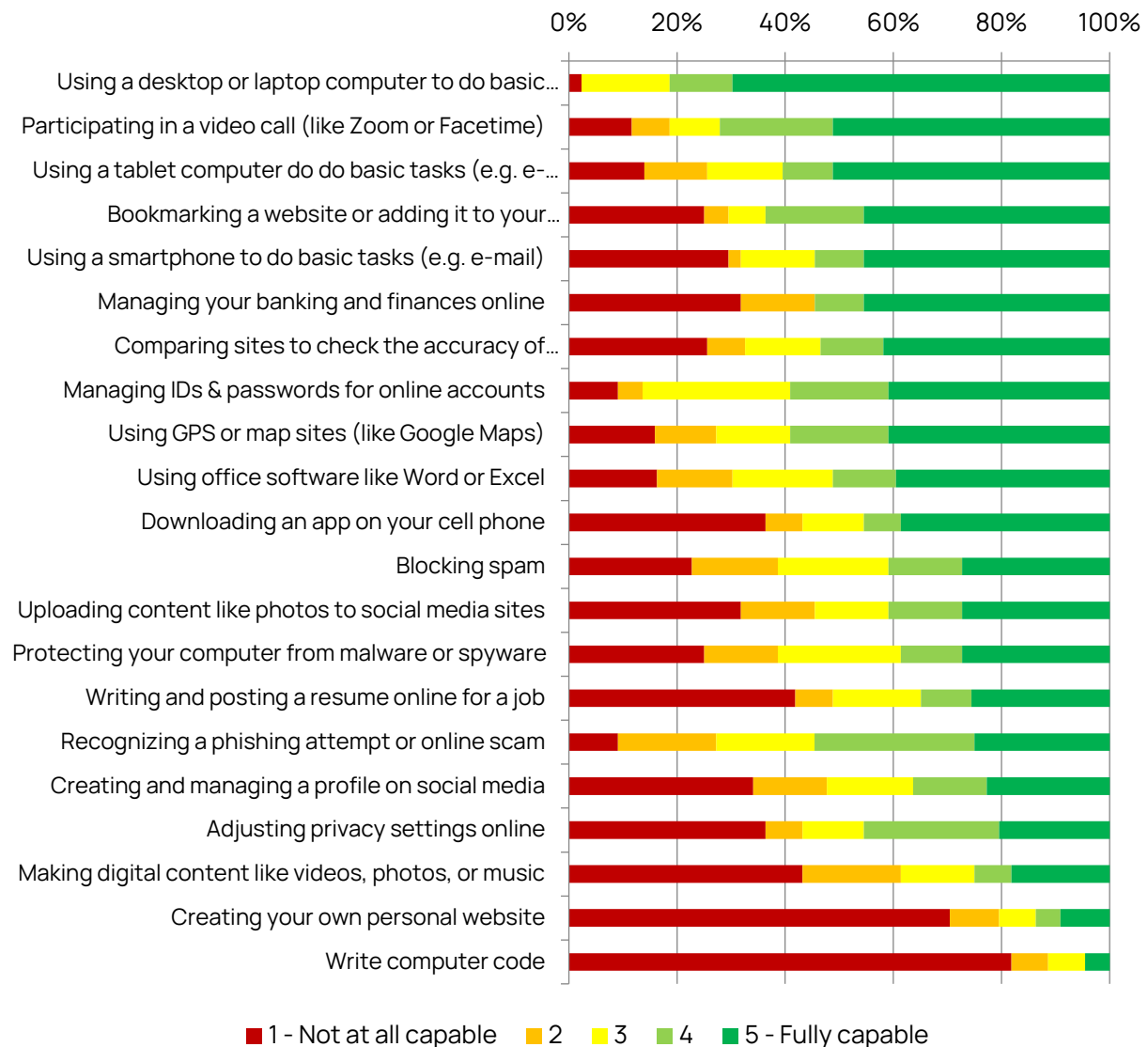

6.3.6 What are some of the notable differences between people that use the Internet and those who don't?

Although the majority of respondents said they use the internet (34 of 38 that responded to the question), a minority of responses that indicate they did not use the internet (4 of 38) showed notable differences:

- They are more likely to be less capable doing basic tasks on a computer.

Figure 11 – Question 1: How capable do you feel using a desktop or laptop computer to do basic tasks (e.g. e-mail), with 1 being not at all capable and 5 being fully capable?
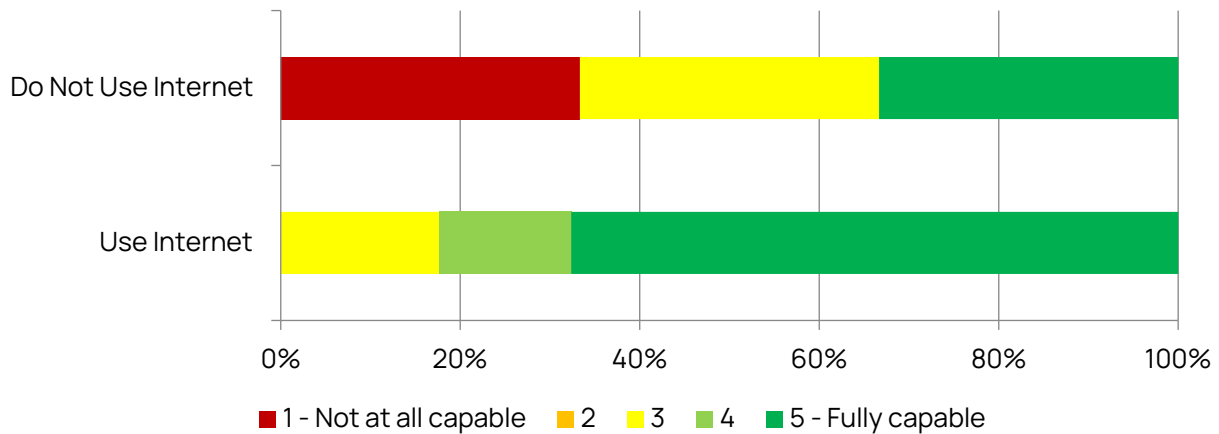
- Most people responding to the questionnaire access the internet at home daily (41 respondents or about 95%). Only one respondent reports not having access to high-speed internet at home. A fair number or respondents (13 or about 31%) go online daily using a smartphone. People are least likely to go online at work or school, likely because of the demographics of respondents.
- Respondents are interested in taking a free class about the tasks they are less capable in doing, of which there are more possible choices for curriculum.
- Respondents that did not use the internet rate their ability to use a desktop or laptop to do basic tasks as either fair or poor whereas those that use the Internet mostly indicate their ability as Good, Very Good or Excellent (Figure 11).
- Most respondents indicate they have a medical condition or disability that would make it harder for them to use the Internet.
- Respondents that don't use the Internet have lower household incomes than most respondents overall.

6.4 ORGANIZATIONAL QUESTIONNAIRE RESULTS AND FINDINGS

SWRPC utilized a single questionnaire to assess capabilities and issues related to Digital Literacy of organizations serving older adults in the Monadnock Region. Over the course of the project, the questionnaires were promoted via a dedicated webpage (www.swrpc.org/digital) and SWRPC website news post, through Facebook and agency printed and e-mailed newsletters. The survey was available from June into October of 2022 and garnered responses from eleven organizations. Respondents included representation from social service agencies Monadnock Developmental Services and Keene Housing; community organizations: Dublin Community Center, GEP Dodge Public Library in Bennington, and James A Tuttle Library in Antrim; healthcare providers: Cheshire Medical

focused on older adults: Keene Senior Center and Monadnock at Home; and Assisted Living Locators of New Hampshire, a service matching older adults with assisted living options through an advisor.

*Figure 12 - Organizational Questionnaire social media post on Facebook*

Most respondents participated via an online form (**9.5 Organizational Questionnaire**). One respondent, Home Healthcare, Hospice & Community Services participated in a roughly one-hour virtual interview to provide more detailed responses. The questionnaire was organized into the following sections:

- **Contact Information:** The name and title of respondents along with information about specific programs offered by an organization.
- **Current Technology Based Services**: This section was aimed at learning about online or technology-based *services* currently offered that in some way served the clients, members or customers or the responding organization.
- **Current Digital Literacy Training and/or Resources**: This section was aimed at learning about technology-based *training* offered by an organization to their clients, members or customers.
- **Assessing Digital Literacy of Your Clients and Customers:** This section was meant to identify where digital literacy assessments have occurred or are part of an organization's activities.
- **Wrap-Up:** This section was designed to help build the list of other staff and other organizations to include in future outreach.

6.4.1 Online or technology-based services in use today

As a result of the questionnaire, SWRPC has an enhanced understanding relative to conducting an inventory of organizational online/technology-based service offerings. Organizations offer a wide variety of technology-based services, however, it is rare that they are regularly tracked and that the outcomes of their use directly relate to patient, client or customer outcomes. No respondent indicated that they offer patient monitoring, the application of technologies to monitor a patient's health from their home as a way of reducing travel costs, among other things.

Figure 13 – Question 9: What online or technology-based services does your organization or program currently offer?
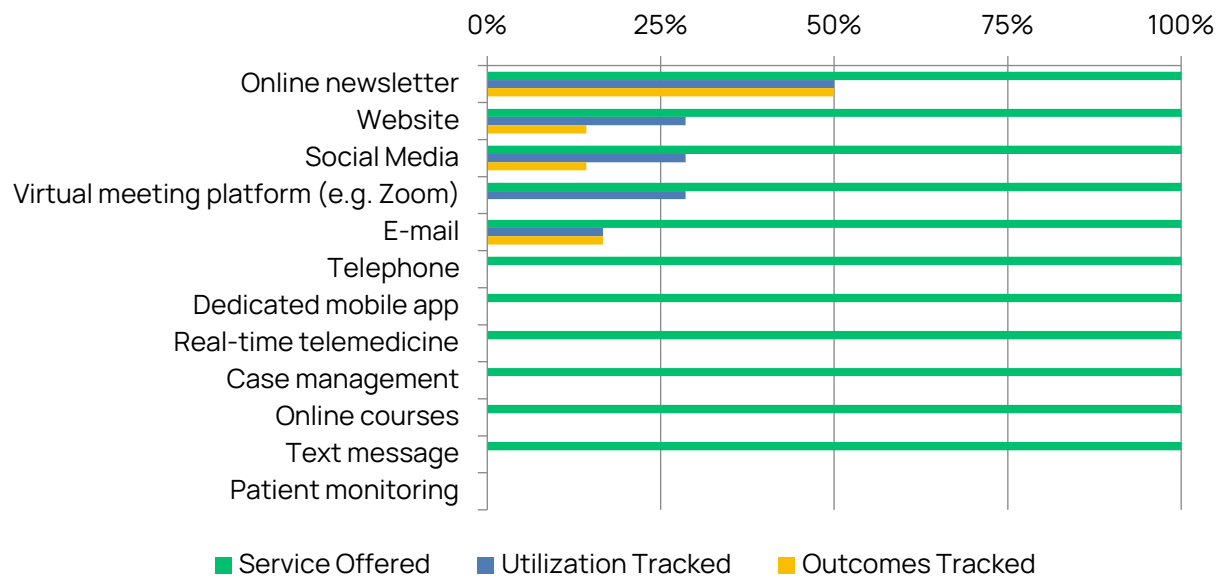
One respondent noted what may be a typical scenario elsewhere – that certain services may be available to a subset of clients or staff. Another respondent mentioned a specific real-time telemedicine service in use – doxy.me – was already being used for a specific program (i.e. Healthy Starts).

6.4.2 Impact and Outcomes of Online or Technology-Based Services

When asked about the impact and positive outcomes of online and technology-based services, respondents described a variety of benefits:

- "Technology has enhanced our ability to "work smarter" and provide support and oversight to more people. It is easier and faster to get important information out. We have also experienced more participation in events that are held via Zoom than we've ever seen in person."

- There appears to be high demand for digital literacy education. One library offering regular "tech help" services two days each week described it as their "most popular" and "much-needed" service.
- Using technology-based services improves customer and client satisfaction for those that are more technologically-literate by enabling the ability to share timely information on an ongoing basis through organizational websites and social media accounts.
- There has been a reduction in effort for clients, customers and organizations to adopt online or digital forms for a variety of purposes including event registration, payments, and membership renewals.
- Videoconferencing and phone-based communications enable both fuel and staff time savings as well as more frequent conversations that are beneficial to chronic health conditions. They also eliminate the risk of contracting infectious diseases.
- During the COVID-19 pandemic and related emergency orders in New Hampshire (which at times prohibited in-person activities), the use of technology-based services played a critical role in both connecting staff to each other as well as connecting staff to their clients. During this time, some work took place by phone.
- Overall, respondents confirmed that the lack of available funding, trained staff, and knowledge, skills and abilities of clients were barriers to improving the impact of technology-based services (Figure 14).

Figure 14 - Question 11: What do you perceive as barriers to improving the impact of online technology-based services? How about developing or adopting new online or technology-based services?
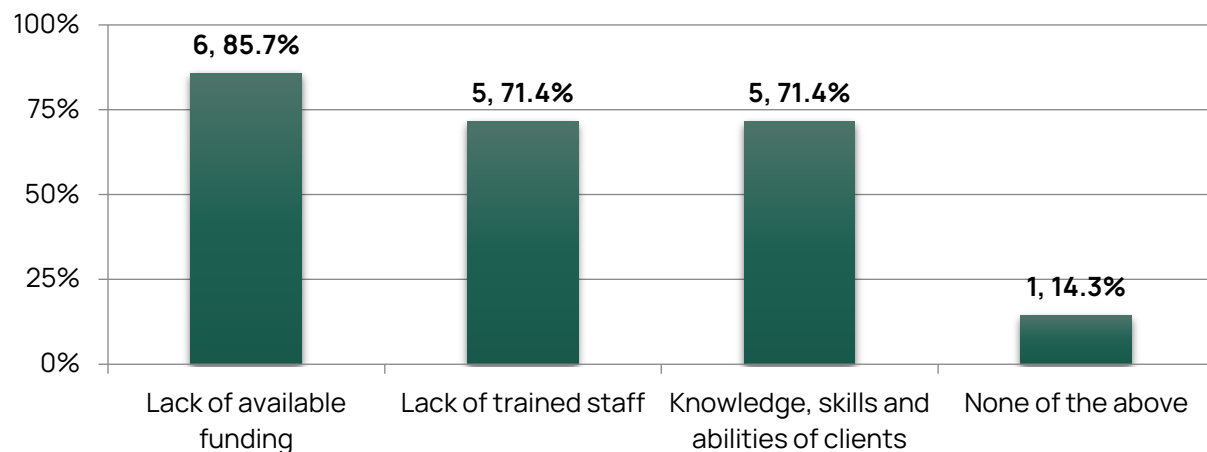
Respondents noted a variety of issues and barriers related to the use of technology-based services within their respective organizations:

- The cost of devices and internet subscriptions are major burdens for most clients of organizations that focus on lower-income populations and they don't have an obvious resource to meet this need.

- Evaluating the variety of competing services was described by one respondent as "daunting and overwhelming."
- Some videoconferencing platforms lack required privacy and other functionality required or desired. Products with these features can be prohibitively expensive to obtain and integrate with other technologies already in use.
- Clients often lack a device or device that meets minimum requirements for use of a technology-based service.
- Organizations have found it challenging to meet the wide range of client skill levels related to the use of technology-based services and devices (e.g. tablet devices like iPads).
- For organizations doing home visits, access to a data connection is not guaranteed. This requires organizations to obtain additional hardware, subscription fees and staff training. And, it does not guarantee connectivity due to the variety of mobile wireless coverage gaps throughout the region.
- Challenges in adopting technology-based services in an organization degrade an already-stretched workforce by "weeding out" nurses and others that are not able to or otherwise interested in utilizing the technology as part of their jobs. This leads to a need to constantly invest time and resources in training.
- Technology-based services that are critical to the mission of an organization are sometimes less intuitive, have a challenging user experience, or a complex experience (such as when navigating and selecting a wide variety of possible forms).
- Organizations successfully using some technology-based services have dedicated information technology staff as well as one or more individuals both fluent in the organization's client services as well as being responsible for keeping up with changes to technology and assisting the organization in deploying those technologies.

Specific online or technology-based services organizations would like to offer but are unable to include:

- Increasing the number of forms available through a website or some other technology-based solution. This is seen as desirable both for clients as well as staff of the organizations.
- Up-to-date hardware.
- One particular response addressed the issue of converting organizational form into a digital form: "We have been fortunate to have access to someone who can help us with fillable forms at no or very low cost to us. It would be great if there was a service like that for local non-profits. I would add that the cost of using various on line programs, to support the services, is not inexpensive."
- Telehealth software compatible with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Such services enable cost savings from fuel and

time spent driving and can result in quicker referrals. They are, however, costly to implement and maintain. compliant telehealth client (currently looking for grants).

6.4.3   Question 13: How has the COVID-19 pandemic changed client engagement practices and services?

- The COVID-19 pandemic required many client engagement activities to occur virtually or via telephone as opposed to in-person.
- The pandemic led to reductions in the number or availability of staff that also led to less capacity to provide services to clients.
- Older adults and others in need of in-person assistance around the use of technology were deterred from taking advantage of those opportunities. However, at least one library has observed a gradual rebound in participation.
- The pandemic required a shift in programming to videoconferencing solutions (e.g. Zoom).

6.4.4   Question 14: What are your clients or customers being excluded from without access to online or technology-based services?

- Most, but not all respondents agreed that lack of access to technology-based services were acting as a barrier to a more participatory role in society as a whole, educational and social engagement opportunities, digital literacy resources and telehealth (Figure 15).

Figure 15 - Question 14: What are your clients or customers being excluded from without access to online or technology-based services?
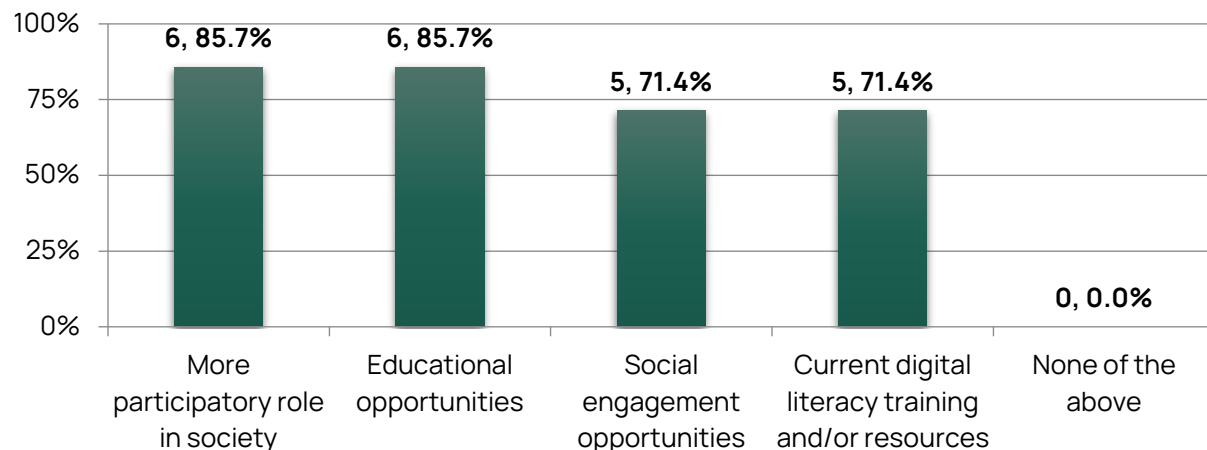

- The age and health of clients play a significant role in the use of technology by older adults. One organizational respondent noted that the use of technologies most

commonly used is simply not an option for many older adults due to issues related to vision, motor-control, arthritis, and lack of interest.

6.4.5 Question 15: What digital literacy training and resources do you currently offer?

Some organizations do not offer digital literacy training or resources of any kind. However, many organizations offer some kind of training, most commonly around the use of internet browser, creating and using an e-mail account and using a smartphone or apps (Figure 16).

Figure 16 - Question 15: What digital literacy training and resources do you currently offer?
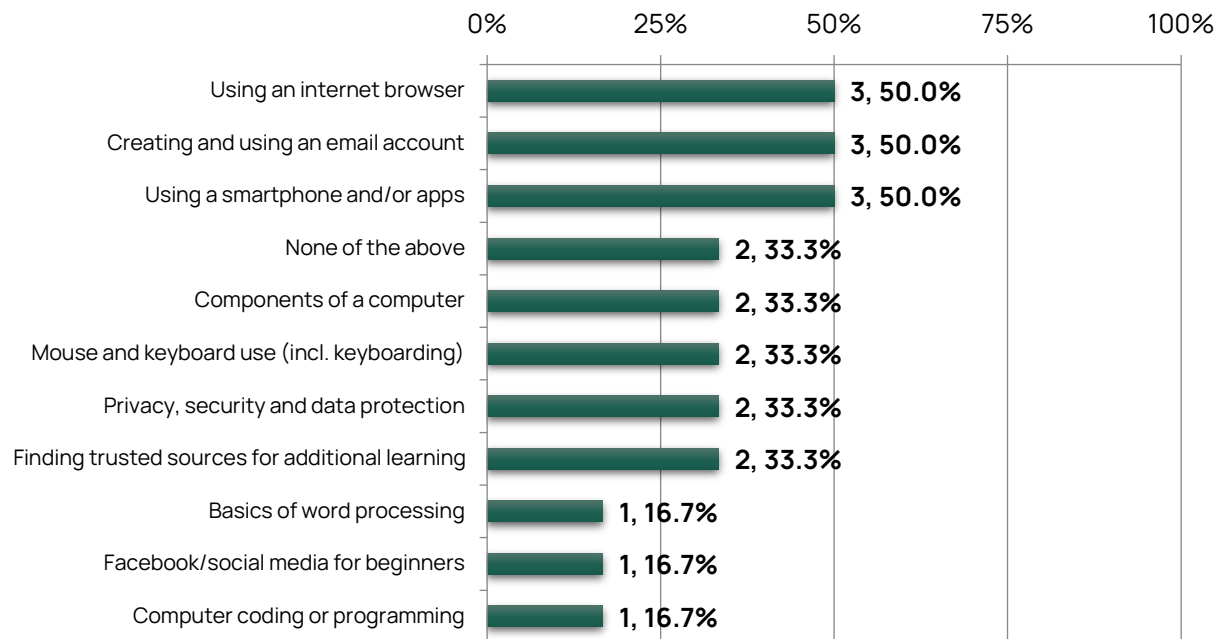
6.4.6 Question 16: What digital literacy trainings have you tried and found to work well?

Organizational respondents provided some suggestions for practices that have worked well, including:

- Scheduling one-on-one appointments between 30 minutes and 60 minutes in length.
- Troubleshooting specific problems provided by older adult participants.
- Offering trainings in small groups with a professional instructor in addition to one-on-one trainings.

6.4.7 Question 17: What digital literacy trainings have you found to be ineffective or not sustainable?

One organization found through trial and error that trainings should use the same type of device, be it a smartphone, tablet, or desktop. This is needed because there can be significant differences between software from one type of device to the next. Trying to

accommodate multiple device types (and operating systems) can lead to increased confusion and lack of engagement around the curriculum. Trainings where different clients used different interfaces can be confusing and not engaging enough.

In addition to acknowledging different types of computers and operating systems, organizations have found that it is important to know the skill levels of students in advance as a way of designing appropriate curriculum.

6.4.8   Question 18: Does your organization assist people in getting access to a high-speed internet connection?

No respondents indicated a formal program designed to assist people in getting access to high-speed internet connections.

6.4.9   Question 19: Does your organization assist people in getting access to any of the following types of computers?

A minority of organizations responding to the questionnaire make a computer available to their clients or customers.

Figure 17 - Question 19: Does your organization assist people in getting access to any of the following types of computers?
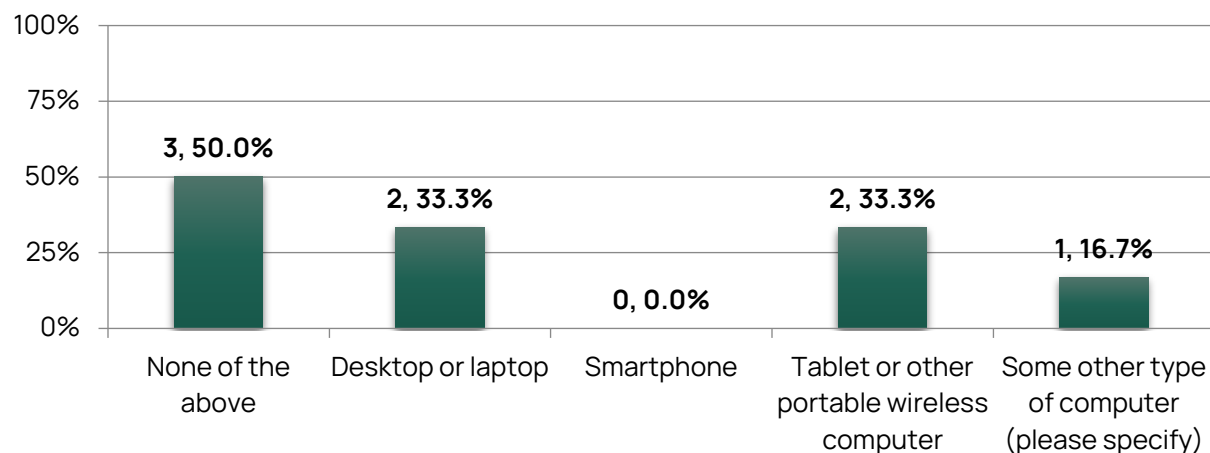
6.4.10 Question 20: What do you see as critical digital literacy and access issues for your members, clients or customers? Your organization?

Critical digital literacy and access issues and needs include:

- Providing assistance to seniors with their technology questions and issues.
- Updating or replacing outdated software and devices.
- Improving digital literacy for the purpose of improving health through telehealth services as well as social engagement with friends and family.
- Lower levels of digital literacy reduce access to entertainment.
- A lack of digital literacy acts as a barrier to general educational opportunities.
- Costs for broadband internet as well as devices.

6.4.11 Question 21: Have you conducted any kind of assessment of the digital literacy levels of your members, clients or customers before?

Only one respondent indicated they have conducted any kind of assessment of digital literacy levels.

6.4.12 Question 22: Have you collected information about access to high-speed internet from your members, clients or customers?

No respondents indicated they collect information about access to high-speed internet.

6.4.13 What do you feel are the best ways to reach your members, clients and customers about their needs and concerns related to digital literacy and access?

Organizations feel e-mail, newsletters, social media, apps such as Nextdoor, telephone, traditional media, website and in-person surveys represent good ways to reach their members, clients or customers.

6.5 INVENTORY OF DIGITAL LITERACY TRAINING PROGRAMS AND RESOURCES

New Hampshire is one of many states that do not offer virtual digital skills training. A nearby example of a state offering such services is Maine[45]. SWRPC identified some programs as part of its organizational questionnaire.

According to the organizational questionnaire, a small number of organizations report offering digital literacy trainings and resources. The most common training and resources are related to using an internet browser (3 of 6 respondents), creating and using an email account (3 of 6 respondents), and using a smartphone and/or apps (3 of 6 respondents).

Table 11 - Inventory of Digital Literacy Programs and Resources

Resource	Description
Affordable Connectivity Program Consumer Outreach Toolkit	The outreach toolkit includes infographics, fact sheets, flyers, handouts and more to help governmental and other partners raise awareness about the program.
BroadbandUSA Digital Inclusion Resources	NTIA's BroadbandUSA program features a variety of digital literacy and inclusion resources published by a variety of federal agencies and departments.
Computer Hope	Computer Hope provides free resources to people with computer questions and problems.

---

[45] "Digital Literacy Learning: Maine State Library," accessed October 24, 2022, https://www.maine.gov/msl/digital/learn.shtml.

Resource	Description
Cyber Seniors	Cyber Seniors provides free technology support and training focused on older adults.
Digital Learn	Digital Learn is the cornerstone of the Public Library Association's digital literacy portfolio and provides self-directed courses that build digital literacy skills and confidence using technology. Online courses are freely available to everyone and teach basic skills such as: getting started with email, navigating websites and commonly used apps, operating search engines, mastering cybersecurity, and more.
Microsoft Digital Literacy	Microsoft Digital Literacy offers lesson guides, transcripts, videos, and closed caption files over six courses: • Course 1: Work with computers • Course 2: Access information online • Course 3: Communicate online • Course 4: Participate safely and responsibly online • Course 5: Create digital content • Course 6: Collaborate and manage content digitally
National Collaborative for Digital Equity Resource Database	The Digital Equity Resource Database is one of many resources to support individuals and organizations on everything from tech support to hardware to cybersecurity.
National Digital Inclusion Alliance	The National Digital Inclusion Alliance provides a variety of resources focused on groups working to improve digital literacy and access, including: • The Digital Navigator Model is designed to support organization staff to become familiar and implement resources related to digital equity. • List of Free & Low-Cost Internet Plans. • Digital Inclusion Guidebook and Start-Up Manual are resources to better understand ongoing digital inclusion collaborations in the United States.
New Hampshire Educators Online	The New Hampshire Department of Education Digital Learning Plan Toolkit (formerly the technology planning toolkit) provides a variety of curated resources for digital learning in areas like digital literacy, digital citizenship, and cybersecurity.
Northstar	Northstar Digital Literacy is a service used by adult education programs, colleges, non-profits and others to assess basic skills needed to use computers, software and technology. • 1 on 1 Computer Skills Tutor Plan • External Resources
Rural Health Information Hub	Rural Health Information Hub's Rural Health Literacy Toolkit includes evidence-based and promising practices to improve

Resource	Description
	health literacy, including information and guidance focused on improving access to digital platforms, designing content, example programs, and other resources.
Senior Planet	A program of AARP, Senior planet offers a basic test of digital literacy, virtual classes, articles focused on technology and other resources.

6.6 LIST OF ASSETS AND GAPS

The following sections summarize key assets and gaps relative to digital literacy and access.

6.6.1 Assets

Assets relative to digital literacy and access identified during meetings, in response to questionnaires and other research include the following:

1. Virtual meeting platforms like Zoom have enabled much greater participation in events that was historically seen in-person.
2. Multiple local libraries have already had success in offering assistance in using or learning technology (including the public libraries in the region's population centers of Keene, Jaffrey, Peterborough, Rindge, and Swanzey).
3. Expanding availability of affordable broadband at the residential level allows people the opportunity to access employment, education, health care, goods and services from home.
4. Funding opportunities for digital literacy program implementation available through the National Telecommunications and Information Administration's Digital Equity Competitive Grant Program (one of four Digital Equity Programs) which considers aging individuals (60 and above) a priority "covered population" under this opportunity.

6.6.2 Gaps

Gaps relative to digital literacy and access identified during meetings, in response to questionnaires and other research include the following:

1. There is a likely gap in older adults being fully capable of basic tasks on a computer (approximately 30% according to the results of the individual questionnaire.
2. Evaluating competing services is a burdensome task and it is not clear how to do this effectively.
3. Lower-income household served by organizations are not able to afford to obtain or maintain technology due to relatively high costs.
4. Organizations have hardware and devices in need of updates and replacement.
5. There is a lack technical expertise in some organizations to obtain and continually update computers and devices.

6. The lack of devices and an internet connection (and knowledge about their use) is a barrier to accessing a wide variety of resources that are available online.
7. New Hampshire is one of many states that do not offer virtual digital skills training. A nearby example of a state offering such services is [Maine](#)[46].
8. Organizations are in need of specific solutions and technical assistance to convert paper forms to electronic and online versions.
9. Many eligible household and individuals are not yet enrolled in the Federal Communications Commission's Affordable Connectivity Program.

6.7 RECOMMENDED STRATEGIES

In consideration of the results of the content above, SWRPC arrived at a number of recommendations for further consideration.

6.7.1 Training on Digital Literacy

1. Mitigate for differences in types of devices and operating systems by offering content on a single device type (e.g. smartphone, laptop, tablet) or by providing additional support in the form of additional instructors (or instructions) to facilitate learning objectives of the session.

6.7.2 Organizations

1. Consider new digital literacy training programs for employees.
1. Conduct an assessment of digital literacy skills and access to the internet to better inform where such supports are needed most.
2. Engage in peer information sharing relative to the adoption of electronic records and forms as a way of sharing successful practices.
3. Investigate the benefits and applications of patient monitoring technologies to reduce the need for travel and risk of COVID-19 or other infectious disease exposure.
4. Audit required forms and determine options to create electronic versions as well as make them available via the Internet or another technology-based solution.
5. Apply for funding in support of the replacement or modernization of devices and computers. Obtain assistance and expertise to budget for these expenses over time.
6. Adopt best practices in developing website content for individuals with limited literacy skills such as through the [Health Literacy Online](#) resource.

6.7.3 Outreach

1. Consider continuing to offer an assessment of digital literacy that would be relevant to the older adult population at large and allow for the evaluation of progress over time. When deployed more rigorously within a specific organization, it would provide insight into digital literacy and access issues. There may also be opportunities to

---

[46] "Digital Literacy Learning: Maine State Library."

replicate these questions in more statistically relevant ways such as through a poll conducted by the University of New Hampshire Survey Center and/or inclusion in regional telephone surveys conducted by Cheshire Medical Center's Center for Population Health.

2. Cross-promote digital skills training opportunities, among organizations serving older adults. Examples could include a seminar about protecting privacy while using the Internet.
3. Partner with area libraries to hold community-based training opportunities.
4. Partner with area schools or school districts to partner older adults and digital literacy curriculum with young people.
5. Implement best practices in digital skills education for older adults.

6.7.4 Telehealth

1. Engage with the Northeast Telehealth Resource Center and other organizations to implement telehealth services.
2. Implement training programs for patients and clients.

6.7.5 Internet Access

1. Become an active participant in upcoming New Hampshire Digital Equity Planning activities.
2. No respondents have a program designed to assist people in getting access to high-speed internet connections. This could occur via promotion of the Federal Communications Commission's Affordable Connectivity Program outreach toolkit.

6.7.6 Individuals

1. Provide resources focused on the accessibility features of various operating systems and devices and internet browsers.
2. Comprehensively inventory and help to promote digital literacy training capabilities of the region's libraries.
3. Directly address affordability issues and the cost of technology for households and individuals through the Federal Communications Commission's Affordable Connectivity Program, requesting support from internet service providers (such as through Spectrum Internet Assist), and other funding sources.

7 CONCLUDING REMARKS

This report is an initial effort to better understand and address issues relative to digital literacy and access in Southwest New Hampshire. As the Region's demographics suggest significant growth in the older adult population, it will be critical for progress in this regard, particularly among agencies and organizations as they serve customers, clients, patients, etc.

8 REFERENCES

Federal Communications Commission. "5G FAQs," December 13, 2019.
https://www.fcc.gov/5g-faqs.

Benton Foundation. "Affordable Connectivity Plan Enrollment and Digital Equity Planning,"
June 16, 2022. https://www.benton.org/blog/affordable-connectivity-plan-
enrollment-and-digital-equity-planning.

Federal Communications Commission. "Affordable Connectivity Program," December 15,
2021. https://www.fcc.gov/acp.

Anderson, Monica, and Andrew Perrin. "Tech Adoption Climbs Among Older Adults." *Pew
Research Center: Internet, Science & Tech* (blog), May 17, 2017.
https://www.pewresearch.org/internet/2017/05/17/tech-adoption-climbs-among-
older-adults/.

Azem, Zachary, and Sean McKinley. "Healthy Monadnock 2020 Community Survey."
University of New Hampshire Survey Center, October 2020.

Federal Communications Commission. "Chairwoman Rosenworcel Proposes to Increase
Minimum Broadband Speeds," July 15, 2022.
https://www.fcc.gov/document/chairwoman-rosenworcel-proposes-increase-
minimum-broadband-speeds.

Deursen, Alexander J A M Van, Ellen J Helsper, and Rebecca Eynon. "Measuring Digital Skills:
From Digital Skills to Tangible Outcomes Project Report," 2014.
https://doi.org/10.13140/2.1.2741.5044.

"Digital Literacy Learning: Maine State Library." Accessed October 24, 2022.
https://www.maine.gov/msl/digital/learn.shtml.

EdTech Center @ World Education. "Digital Literacy Self-Assessment Tool." Accessed
October 20, 2022. https://edtech.worlded.org/resource/digital-literacy-self-
assessment-tool/.

Universal Service Administrative Company. "Emergency Broadband Benefit Program."
Accessed August 2, 2022. https://www.usac.org/about/emergency-broadband-
benefit-program/.

Faverio, Michelle. "Share of Those 65 and Older Who Are Tech Users Has Grown in the Past
Decade." *Pew Research Center* (blog). Accessed October 23, 2022.
https://www.pewresearch.org/fact-tank/2022/01/13/share-of-those-65-and-older-
who-are-tech-users-has-grown-in-the-past-decade/.

Pew Research Center. "For Vast Majority of Seniors Who Own One, a Smartphone Equals
'Freedom.'" Accessed October 23, 2022. https://www.pewresearch.org/fact-
tank/2015/04/29/seniors-smartphones/.

Haan, Marjolein den, Rens Brankaert, Gail Kenning, and Yuan Lu. "Creating a Social Learning
Environment for and by Older Adults in the Use and Adoption of Smartphone
Technology to Age in Place." *Frontiers in Public Health* 9 (June 16, 2021): 568822.
https://doi.org/10.3389/fpubh.2021.568822.

Hargittai, Eszter, and Yuli Patrick Hsieh. "Succinct Survey Measures of Web-Use Skills." *Social Science Computer Review* 30, no. 1 (February 1, 2012): 95–107. https://doi.org/10.1177/0894439310397146.

Joeng-Bae Song. "Digital Literacy," July 15, 2015. http://drjbson.com/projects/dl/.

Kuerbis, Alexis, Adina Mulliken, Frederick Muench, Alison A. Moore, and Daniel Gardner. "Older Adults and Mobile Technology: Factors That Enhance and Inhibit Utilization in the Context of Behavioral Health." *Mental Health and Addiction Research* 2, no. 2 (2017). https://doi.org/10.15761/MHAR.1000136.

Liu, Laura, Zahra Goodarzi, Aaron Jones, Ron Posno, Sharon E. Straus, and Jennifer A. Watt. "Factors Associated with Virtual Care Access in Older Adults: A Cross-Sectional Study." *Age and Ageing* 50, no. 4 (June 28, 2021): 1412–15. https://doi.org/10.1093/ageing/afab021.

Martínez-Alcalá, Claudia I., Alejandra Rosales-Lagarde, María de los Ángeles Alonso-Lavernia, José Á. Ramírez-Salvador, Brenda Jiménez-Rodríguez, Rosario M. Cepeda-Rebollar, José Sócrates López-Noguerola, María Leticia Bautista-Díaz, and Raúl Azael Agis-Juárez. "Digital Inclusion in Older Adults: A Comparison Between Face-to-Face and Blended Digital Literacy Workshops." *Frontiers in ICT* 5 (2018). https://www.frontiersin.org/articles/10.3389/fict.2018.00021.

Martínez-Alcalá, Claudia I., Alejandra Rosales-Lagarde, Yonal M. Pérez-Pérez, Jose S. Lopez-Noguerola, María L. Bautista-Díaz, and Raul A. Agis-Juarez. "The Effects of Covid-19 on the Digital Literacy of the Elderly: Norms for Digital Inclusion." *Frontiers in Education* 6 (2021). https://www.frontiersin.org/articles/10.3389/feduc.2021.716025.

Northstar Digital Literacy. "Northstar Digital Literacy Assessment Standards." Accessed October 23, 2022. https://assets.digitalliteracyassessment.org/static/main_website/docs/NDLA-standards-2018-11-18.pdf.

Ollevier, Aline, Gabriel Aguiar, Marco Palomino, and Ingeborg Sylvia Simpelaere. "How Can Technology Support Ageing in Place in Healthy Older Adults? A Systematic Review." *Public Health Reviews* 41, no. 1 (November 23, 2020): 26. https://doi.org/10.1186/s40985-020-00143-4.

Perrin, Andrew, and Sara Atske. "Americans with Disabilities Less Likely than Those without to Own Some Digital Devices." *Pew Research Center* (blog). Accessed October 23, 2022. https://www.pewresearch.org/fact-tank/2021/09/10/americans-with-disabilities-less-likely-than-those-without-to-own-some-digital-devices/.

Richardson, Safiya, Katharine Lawrence, Antoinette M. Schoenthaler, and Devin Mann. "A Framework for Digital Health Equity." *Npj Digital Medicine* 5, no. 1 (August 18, 2022): 1–6. https://doi.org/10.1038/s41746-022-00663-0.

Roque, Nelson A., and Walter R. Boot. "A New Tool for Assessing Mobile Device Proficiency in Older Adults: The Mobile Device Proficiency Questionnaire." *Journal of Applied Gerontology* 37, no. 2 (February 2018): 131–56. https://doi.org/10.1177/0733464816642582.

Schreurs, Kathleen, Anabel Quan-Haase, and Kim Martin. "Problematizing the Digital Literacy Paradox in the Context of Older Adults' ICT Use: Aging, Media Discourse, and Self-

Determination." *Canadian Journal of Communication* 42, no. 2 (May 23, 2017): 359–77. https://doi.org/10.22230/cjc.2017v42n2a3130.

Son, Jeong-Bae, Sang-Soon Park, and Moonyoung Park. "Digital Literacy of Language Learners in Two Different Contexts." *The JALT CALL Journal* 13, no. 2 (August 31, 2017): 77–96. https://doi.org/10.29140/jaltcall.v13n2.213.

Southwest Region Planning Commission. "Southwest New Hampshire Broadband Plan," January 13, 2015. https://www.swrpc.org/wp-content/uploads/2021/02/Southwest-New-Hampshire-Regional-Broadband-Plan_FINAL.pdf.

Federal Communications Commission. "Types of Broadband Connections," June 23, 2014. https://www.fcc.gov/general/types-broadband-connections.

Vogels, Emily a. "Digital Divide Persists Even as Americans with Lower Incomes Make Gains in Tech Adoption." *Pew Research Center* (blog). Accessed October 23, 2022. https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/.

———. "Millennials Stand out for Their Technology Use, but Older Generations Also Embrace Digital Life." *Pew Research Center* (blog). Accessed October 23, 2022. https://www.pewresearch.org/fact-tank/2019/09/09/us-generations-technology-use/.

———. "Some Digital Divides Persist between Rural, Urban and Suburban America." *Pew Research Center* (blog). Accessed October 23, 2022. https://www.pewresearch.org/fact-tank/2021/08/19/some-digital-divides-persist-between-rural-urban-and-suburban-america/.

Vuorikari, Riina, Stefano Kluzer, and Yves Punie. "DigComp 2.2: The Digital Competence Framework for Citizens - With New Examples of Knowledge, Skills and Attitudes." JRC Publications Repository, March 17, 2022. https://doi.org/10.2760/115376.

"What Does Digital Inclusion Mean? I BroadbandUSA." Accessed October 23, 2022. https://broadbandusa.ntia.doc.gov/about-us/frequently-asked-questions/what-does-digital-inclusion-mean.

9 APPENDIX

9.1 LISTENING SESSION

9.1.1 Agenda

Monadnock Digital Literacy and Access Needs Assessment Discussion

AGENDA
December 1, 2021
3:00 to 5:00 p.m.

Location: Old Court House, 12 Court Street, Keene NH

Desired Outcomes:
- Understand the objectives and targeted activities for the needs assessment.
- Identify opportunities for MSSC partner involvement in project.
- Identify potential participants to engage in interviews, listening sessions and surveys.
- Agree on project next steps.

I.   Welcome

II.   Review Agenda

III.   Digital Literacy and Access Needs Assessment Scope of Work Summary

IV.   Involvement of Monadnock Healthy Aging Collaborative Partners

V.   Engaging Participants in Key Informant Interviews, Listening Sessions and/or Surveys

        a.   Best Practices for Improving Digital Literacy Among Older Adults

        b.   Inventory of Organizations Offering Online/Technology-Based Services

        c.   Inventory of Digital Literacy Training Programs and Resources

        d.   Digital Literacy Assessment Among Older Adults

VI.   Next Steps

VII.   Adjourn

9.1.2 Discussion Questions

Monadnock Digital Literacy and Access Needs Assessment Discussion
Monadnock Healthy Aging Collaborative
December 1, 2021

Discussion Questions

1. Are there any questions, comments or recommendations you have about the project activities and deliverables?

2. What outcomes and information would you like to see come out of this assessment for your organization? For the integrated network of senior organizations, social service organizations and health care providers in the region?

3. The needs assessment will result in the identification of recommended strategies for improving digital literacy and access among older adults in our region. What long-term outcomes would you like to see these strategies achieve for the older adult population if they are implemented?

4. What have been your organization's and/or your experiences with older adults seeking online services and assistance?

    - What are the challenges? Gaps?

    - What has been the impact of the COVID pandemic on your organization's provision of services and/or your experiences accessing services?

    - What strategies or best practices is your organization using and/or are you aware of for improving digital literacy and access among older adults?

    - Are you aware of any successful examples/case studies for improving digital literacy and access among older adults in our region, state or from around the country?

5. What recommendations do you have for engaging older adults in listening sessions?

6. What roles can Monadnock Healthy Aging Collaborative partners play in this project?

    Potential roles:
    - ✓ Participate in key informant interview
    - ✓ Participate in listening session
    - ✓ Host listening session
    - ✓ Assist with distributing surveys
    - ✓ Serve on steering committee
    - ✓ Other?

7. In addition to MSSC partner organizations, what other organizations and stakeholders are you aware of that should be included in the needs assessment?

- What other organizations provide online services to older adults?

- What organizations provide digital literacy training programs and resources for older adults?

9.1.3 Notes

Meeting Notes

**Monadnock Digital Literacy and Access Needs Assessment Listening Session
Monadnock Healthy Aging Collaborative**

December 1, 2021

Attendees: Ellen Avery, *Community Volunteer Transportation Company*; Sandra Faber, *Monadnock at Home*; Katie Gardella, *Monadnock United Way*; Owen Houghton, *Citizen*; Mary Jensen, *Keene Senior Center*.

Facilitator: Terry Johnson, *Southwest Region Planning Commission.*

Recorder: Andrew Smeltz, *Southwest Region Planning Commission.*

Desired Session Outcomes
- Understand the objectives and targeted activities for the needs assessment.
- Identify opportunities for MSSC partner involvement in project.
- Identify potential participants to engage in interviews, listening sessions and surveys.
- Agree on project next steps.

Needs Assessment Project Overview and Deliverables

Objective: Conduct a needs assessment to identify assets, gaps and strategies for improving digital literacy and access among older adults seeking online services and assistance.

Target Audiences: Monadnock Region senior organizations, social service organizations and health care providers that serve the older adult population. Older adults utilizing the services of these organizations.

Activities and Deliverables:

o Inventory and analysis of organizational online/technology based services – services offered, utilization, outcomes, barriers to improving impact, constraints to improving existing/developing new services, and changes to client engagement practices and services as a result of COVID-19 pandemic.
o Digital literacy assessment among older adults – current levels of digital literacy, barriers to seeking online services, types of assistance needed.
o Inventory of available digital literacy training and resources – programs and organizations, geographic service areas.

      o   Identification of best practices for improving digital literacy among older adults, reducing barriers to accessing online services, and improving health outcomes and social connections.

      o   Baseline information on broadband access – communities with approved bond proposals to expand/upgrade to broadband and, to extent possible, data on connection speeds, network technology, subscription costs.

Discussion Questions and Responses

1. Are there any questions, comments or recommendations you have about the project activities and deliverables?

- Inventory of available digital literacy training and resources – make sure to include the community college, Keene State College Learning in Retirement (CALL) program, and Keene Continuing Education. Are they offering digital literacy training? Ask if subscription costs are included? Ask if they teach for tablet or computer?
- Identification of best practices – make sure to include safety around cyber security in literature review (i.e., phishing scams).
- Define "older adult" (i.e., 60+, 65+?). Maybe the techniques will be transferrable from senior to disability community. Should we gather information from the disability community for this project?
- Cost of owning a computer/access to a device is a limitation.
- Do a survey to find out what (if any) device people have, later on get another grant to provide devices. What is the most effective internet device for a senior to be using?
- What population are we talking about – population that can use a computer (or not)? Or gather information about entire demographic?

2. What outcomes and information would you like to see come out of this assessment for your organization? For the integrated network of senior organizations, social service organizations and health care providers in the region?

- Resources for people who want to use a computer safely. By topic: for play, for telehealth, for communication.
- Regional broadband expansion information.
- Important questions to answer:
  - What will improve the network of organizations serving seniors?
  - How can the services be delivered BETTER?
  - What makes the system as a whole work better?
  - Who does the consumer choose? Where does the consumer choose?
- One stop, one central source repository, a single web portal that directs people to services and resources.
- Follow up will be important. What actions will be taken to address the identified needs? What funding sources are available for taking action?
- The United Way community network team is interested in the outcomes of the assessment and recommendations for addressing the need. The United Way hosts information sessions and can help to increase awareness and engagement across the region.

3. What have been your organization's and/or your experiences with older adults seeking online services and assistance?

- Technology issues related to using telehealth.
- Not knowing where to go for support (i.e., when computer crashes, data is lost, trouble managing contacts).
- Some organizational clients don't have email accounts or computers.
- Seniors don't always vet websites and information sources. How do people know their information is accurate? Is there a trusted digital home for senior web needs (like ServiceLink)?

4. What has been the impact of the COVID pandemic on your organization's provision of services and/or your experiences accessing services?

- Had to shift to more online programming and new way of life. Have not yet seen a return to pre-covid in person activities.
- Saving money due to COVID, checking out new webinars, using the internet more, GREAT outcomes!
- Grocery ordering on the internet has grown and is expanding, Instacart, etc. It gets easier after the first purchase. Beneficial program. Can it be expanded?
- Online, hybrid activities are continuing. Able to accommodate a larger audience.

5. What strategies or best practices is your organization using and/or are you aware of for improving digital literacy and access among older adults?

- One-on-one training.
- First focus on teaching Zoom. Then expand and teach other online apps.
- Intergenerational opportunities, hopefully after COVID.
- Peter Sebert at Keene YMCA has high school students that can help. OR Rotaract.

6. Are you aware of any successful examples/case studies for improving digital literacy and access among older adults in our region, state or from around the country?

- Cyber Seniors
- The Library used to pre-COVID

7. What roles can Monadnock Healthy Aging Collaborative partners play in this project?

- Participate in key informant interviews/listening sessions.
- Host listening sessions/focus groups.
- Assist with distributing surveys.

8. In addition to MSSC partner organizations, what other organizations and stakeholders are you aware of that should be included in the needs assessment?

- Should an IT person be involved? Engage someone who works with seniors (and tech).
- Southwestern Community Services
- Keene Housing
- ServiceLink
- Assisted Living/Nursing Homes – Hillside Village, American House, Langdon Place, Maplewood, RiverMead (Scott Farrar), Pleasant Wood Center, Summerhill
- Home Healthcare, Hospice and Community Services
- Meals and Wheels
- Community/Senior Centers – Keene Senior Center, Dublin Community Center, Peterborough Senior Center, Hinsdale Community Center, ELMM Community Center
- Katie has contacts for senior organizations in Walpole and Alstead
- River Valley Seniors at Home (Walpole)
- Chesterfield Senior Meals program
- The Community Kitchen
- Churches/Faith based organizations (Monadnock Interfaith Project)
- Welfare office
- Sen. Kahn and other Reps
- Broadband reps from Chesterfield to speak about obstacles
- Cheshire Medical Center
- Monadnock Community Hospital
- Monadnock Family Services
- Monadnock at Home
- Monadnock RSVP

9.2 PROJECT OUTREACH

9.2.1   Project Overview Handout

Monadnock Digital Literacy and Access Needs Assessment

Project Overview

Objective: Conduct a needs assessment to identify assets, gaps and strategies for improving digital literacy and access among older adults seeking online services and assistance.

Target Audiences: Monadnock Region senior organizations, social service organizations and health care providers that serve the older adult population. Older adults utilizing the services of these organizations.

Activities and Deliverables:

➢ *Inventory and analysis of organizational online / technology-based services* – services offered, utilization, outcomes, barriers to improving impact, constraints to improving existing/developing new services, and changes to client engagement practices and services as a result of COVID-19 pandemic.

➢ *Digital literacy assessment among older adults* – current levels of digital literacy, barriers to seeking online services, types of assistance needed.

➢ *Inventory of available digital literacy training and resources* – programs and organizations, geographic service areas.

➢ *Identification of best practices* for improving digital literacy among older adults, reducing barriers to accessing online services, and improving health outcomes and social connections.

➢ *Baseline information on broadband access* – communities with approved bond proposals to expand/upgrade to broadband and, to extent possible, data on connection speeds, network technology, subscription costs.

9.2.2 June 2022 News Release

MONADNOCK REGION DIGITAL LITERACY AND ACCESS PROJECT

Project partners launch questionnaires to evaluate regional assets and gaps

FOR IMMEDIATE RELEASE

June 27, 2022

CONTACT:

Henry Underwood, SWRPC; 603-357-0557 ext. 18

(KEENE) – Access to high-quality internet is vital in today's world. However, there are many households that lack access to internet service capable of broadband speeds and a computing device like a desktop, laptop, tablet or smartphone. This is particularly the case for lower income households[47]. For others, knowledge and skills around the use of these services and devices represent a barrier and can result in reduced access to information, social engagement opportunities and healthcare, among other things. We also know that nationally, older adults and those with lower incomes are more likely to say they do not want or need service[48].

Through financial support from the Monadnock United Way, and in response to the COVID-19 pandemic, a group of local social service agencies led by the Keene Senior Center is undertaking a regional needs assessment focused on digital literacy and access. Mary Jensen, Executive Director of the Keene Senior Center said: "The Keene Senior Center is pleased to be a part of this research grant. Our experience during the pandemic showed that many Seniors would like to have broadband service, and training on computers, tablets and phones. They want to access medical care, stay in touch with family and friends and explore the world. Computer classes and drop in computer help at the Senior Center are filled while members who live more rurally talk about their frustration at slow speeds and the inability to zoom or engage in Tele-health. We look forward to the results of these surveys and next steps."

The project is expected to be complete later this summer. The inventory and analysis of the information will inform a report and recommendations from identifying funding and technical assistance opportunities to replicating successful practices. As consultant to the project, Southwest Region Planning Commission (SWRPC) is pleased to promote two different tools being used to inventory both assets and gaps related to access and digital literacy. What do these terms mean? As defined by the National Telecommunications and Information Administration[49]:

- Access considers the availability of high-speed, reliable Internet and related equipment, including having Internet connections and technology at home or in community institutions (e.g., free public Wi-Fi, public computer centers).
- Digital Literacy measures an individual's ability to use the Internet and modern technologies, such as computers and smart phones.

---

[47] https://data.census.gov/cedsci/table?q=internet%20use&g=0500000US33005&tid=ACSST5Y2020.S2801

[48] https://static1.squarespace.com/static/5aa8af1fc3c16a54bcbb0415/t/61ad7722de56262d89e76c94/1638758180025/EveryoneOn+Report+on+Affordability+%26+the+Digital+Divide+2021.pdf

[49] https://broadbandusa.ntia.doc.gov/about-us/frequently-asked-questions/what-does-digital-inclusion-mean

To participate in the needs assessment, organizations serving older adults (such as social service agencies, libraries, healthcare providers, community groups, etc.) are encouraged to respond to the organizational questionnaire online (www.surveymonkey.com/r/7R8PMSL). In place of an online response, organizations serving older adults may complete the survey via a phone or online interview. Older adult residents of Southwest NH are encouraged to respond to the individual questionnaire online (www.surveymonkey.com/r/7NRZRDF). Printed copies of each questionnaire are also available.

For more information, please contact Henry Underwood of Southwest Region Planning Commission at (603) 357-0557 and visit the project's webpage: www.swrpc.org/digital-literacy-and-access-needs-assessment. Both questionnaires will be available through August 7th, 2022.

9.2.3 September 2022 Senior Sentinel

SENIOR SENTINEL
The latest news from The Keene Senior Center - September 2022

Another Successful Golf Tournament!

After countless volunteer hours and months of planning, the successful **2nd Annual Golf Tournament** was held on Tuesday, August 2nd at Bretwood Golf Course in Keene.

This year's Committee, chaired by Sally Rhinehart-Boyce, included Burt Boyce, Jane and Terry Fecto, Sue and Jim Holley, and Dee and Greg Salonen and many volunteers! The team collected prizes and raffle items from over 100 local businesses and individuals to make it a very exciting event!

The winning teams were: **Women's** - Complete and Putter Madness: Sandra Guptill, Linda Daniel, Gail Taylor & Barbara Patnode; **Men's** - Covenant Living: Gregg Burdett, Aaron Pouliot, Tony Sgueglia & Brian Nadeau. **Mixed** - The Shanks: Art Skoog, Annette Skoog, Glenn Skoog, Lynn Murphy and the **Super Seniors** - Gang of Fore: pictured below, Andy Robinson, Jeff Garland, Tom Stearns & Richard High

Monadnock Digital Literacy and Access Needs Assessment

Through support from the Monadnock United Way, and in response to the COVID-19 pandemic, a group of local social service agencies being led by the Keene Senior Center is undertaking a regional needs assessment focused on digital literacy and access. There are substantial resources in support of broadband, Telehealth and digital equity on the horizon. Planning activities such as this needs assessment can be beneficial in making the most of these opportunities.

As defined by the National Telecommunication and Information Administration:

- **Access** considers the availability of high-speed, reliable Internet and related equipment, including having Internet connections and technology at home or in community institutions (e.g., free public Wi-Fi, public computer centers).

- **Digital Literacy** measures an individual's ability to use the Internet and modern technologies, such as computers and smartphones.

To conduct the needs assessment, Southwest Region Planning Commission (SWRPC) needs your input. Please consider completing the individual questionnaire which can be found online at www.surveymonkey.com/r/7NRZRDF.

The questionnaire may be completed online or in writing at your convenience. Please contact Henry Underwood at SWRPC at 603-357-0557 or hunderwood@swrpc.org with questions about the project or this questionnaire.

Come Visit Us:

70 Court Street
Keene, NH 03431

Senior Center Hours:
Monday-Friday
8:30-4:30pm
Phone: 603-352-5037

Court St. Thrift:
Monday-Friday
9:00-4:00pm

email: info@thekeeneseniorcenter.org   website: www.thekeeneseniorcenter.org

9.3 INDIVIDUAL QUESTIONNAIRE

The following thirteen pages contain the household survey used to better understand digital literacy and access issues. The questionnaire was available online as well as via printed versions. SWRPC designed three versions of the questionnaire that were selected based on the responses to certain questions (Table 12).

Table 12 - Individual Survey Questions by Version

Question	Short Version	Long Version (do not use Internet)	Long Version (use Internet)
1	X	X	X
2	X	X	X
3	X	X	X
4	X	X	X
5	X	X	X
Access			
6		X	X
7		X	X
8		X	X
9		X	X
Use Internet			
10			X
11			X
12			X
Don't Use Internet			
13		X	
14		X	
Wrap-Up			
15	X	X	X
16	X	X	X
17	X	X	X
18	X	X	X
19	X	X	X
20	X	X	X
21	X	X	X
22	X	X	X
23	X	X	X

Monadnock Digital Literacy and Access Needs Assessment
Welcome

Through support from the Monadnock United Way, and in response to the COVID-19 pandemic, a group of local social service agencies being led by the Keene Senior Center is undertaking a regional needs assessment focused on digital literacy and access. There are substantial resources in support of broadband, telehealth and digital equity on the horizon. Planning activities such as this needs assessment can be beneficial in making the most of these opportunities. [As defined by the National Telecommunication and Information Administration](#):

Access considers the availability of high-speed, reliable Internet and related equipment, including having Internet connections and technology at home or in community institutions (e.g., free public Wi-Fi, public computer centers).

Digital Literacy measures an individual's ability to use the Internet and modern technologies, such as computers and smartphones.

To conduct the needs assessment, Southwest Region Planning Commission (SWRPC) needs your input. The inventory and analysis of the information will inform a report and recommendations: from identifying funding and technical assistance opportunities to replicating successful practices.

The questionnaire below may be completed online or in writing at your convenience. Please contact Henry Underwood at SWRPC at 603-357-0557 or hunderwood@swrpc.org with questions about the project or this questionnaire.

Monadnock Digital Literacy and Access Needs Assessment
Self Assessment

This section is about your skills and abilities related to computers and the

Internet.

1. How capable do you feel doing the following things, with 1 being not at all capable and 5 being fully capable?

	1 - Not at all capable	2	3	4	5 - Fully capable
Using a desktop or laptop computer to do basic tasks (e.g. e-mail)	○	○	○	○	○
Using a tablet computer do do basic tasks (e.g. e-mail)	○	○	○	○	○
Using a smartphone to do basic tasks (e.g. e-mail)	○	○	○	○	○
Uploading content like photos to social media sites	○	○	○	○	○
Blocking spam	○	○	○	○	○
Managing IDs & passwords for online accounts	○	○	○	○	○
Adjusting privacy settings online	○	○	○	○	○
Bookmarking a website or adding it to your favorites	○	○	○	○	○
Comparing sites to check the accuracy of information	○	○	○	○	○
Creating and managing a profile on social media	○	○	○	○	○
Creating your	○	○	○	○	○

own personal website	○	○	○	○	○
Downloading an app on your cell phone	○	○	○	○	○
Recognizing a phishing attempt or online scam	○	○	○	○	○
Making digital content like videos, photos, or music	○	○	○	○	○
Using GPS or map sites (like Google Maps)	○	○	○	○	○
Protecting your computer from malware or spyware	○	○	○	○	○
Managing your banking and finances online	○	○	○	○	○
Using office software like Word or Excel	○	○	○	○	○
Write computer code	○	○	○	○	○
Writing and posting a resume online for a job	○	○	○	○	○
Participating in a video call (like Zoom or Facetime)	○	○	○	○	○

2. Would you be interested in taking a free class about the tasks you feel less capable of doing if it was offered at the public library or a community center?

○ Yes

○ No

3. Where do you go online? Please indicate how often you use the following services to get online.

	Daily	Weekly	Monthly	Rarely	Never
At home with my own high-speed Internet service	○	○	○	○	○
At a friend or relative's house	○	○	○	○	○
Using a data plan on my smartphone	○	○	○	○	○
At work	○	○	○	○	○
At school	○	○	○	○	○
WiFi from a business like a coffee shop, store, or hotel	○	○	○	○	○
WiFi at outdoor public places like the square or parks	○	○	○	○	○
WiFi at the public library or a community center	○	○	○	○	○

4. In general, how would you rate your ability to use the Internet and modern technologies like computers and smart phones?

○ Excellent

○ Very good

○ Good

○ Fair

○ Poor

* 5. Do you have time to respond to some additional questions? This should take about 10 minutes and will provide valuable information for the regional needs assessment

○ Yes

○ No

SWRPC | Southwest Region Planning Commission

Monadnock Digital Literacy and Access Needs Assessment
Access
These questions are about whether or not you have access to the Internet or devices at home.

6. At your home, do you use any of the following types of computers?

☐ Desktop   ☐ Smartphone

☐ Laptop

☐ Tablet or other portable wireless
    computer

☐ Some other type of computer (please specify)

[   ]

☐ None of the above

7. At your home, do you have access to the Internet?

☐ Yes, by paying a cell phone company or Internet service provider

☐ Yes, without paying a cell phone company or Internet service provider

☐ No access to the Internet

8. At your home, do you have access to the Internet using

☐ A cellular data plan for a smartphone or other mobile device?

☐ Dial-up Internet service installed in this household?

☐ Broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household?

☐ Satellite Internet service installed in this household?

☐ Some other service? (please specify)

[   ]

☐ None of the above

* 9. Do you use the Internet (at any location)?

○ Yes

○ No

SWRPC | Southwest Region Planning Commission

Monadnock Digital Literacy and Access Needs Assessment
Use the Internet
Please respond to the following questions.

10. How much does each statement describe your feelings or your experience?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The Internet is very important in my life	○	○	○	○	○
My phone's apps are a good substitute for a desktop, laptop or tablet	○	○	○	○	○
Social media or texting are enough for me to socialize with friends and family	○	○	○	○	○
When I have money problems, one of the first things I do is drop my mobile phone plan	○	○	○	○	○
The cost of high-speed Internet service from a cable or phone company is too high for me	○	○	○	○	○
I'm always searching for free WiFi service	○	○	○	○	○
I get frustrated if I can't find what I need online	○	○	○	○	○
I need help from librarians to use computers at the library	○	○	○	○	○

11. How often do you use the Internet to do the following things?

	Daily	Weekly	Monthly	Rarely	Never
Online banking or to pay bills	○	○	○	○	○
Meet with a caregiver or healthcare provider	○	○	○	○	○
Find public transportation information (e.g. City Express)	○	○	○	○	○
Contact a ride share service	○	○	○	○	○
Look up directions (e.g. Google Maps)	○	○	○	○	○
Do school-related things	○	○	○	○	○
Do work-related things	○	○	○	○	○
Shop or make purchases	○	○	○	○	○
Look for or apply for a job	○	○	○	○	○
Get health information	○	○	○	○	○
Look for information about government services	○	○	○	○	○
Participate in a meeting	○	○	○	○	○
Meet with friends or family	○	○	○	○	○

12. How often do you access the Internet on the following devices?

	Daily	Weekly	Monthly	Rarely	Never
Desktop	○	○	○	○	○
Laptop	○	○	○	○	○
Smartphone	○	○	○	○	○
Tablet or other portable wireless computer	○	○	○	○	○

SWRPC | Southwest Region Planning Commission

Monadnock Digital Literacy and Access Needs Assessment
Don't Use the Internet
Please respond to the following questions.

13. If you wanted to use the Internet, do you feel you know enough to do that on your own, or would you need someone to help you?

○ I know enough to use the Internet on my own

○ I would need someone to help me

14. Please identify reasons why you do **not** use the Internet.

- [ ] An internet connection is too expensive
- [ ] Broadband (high speed) Internet is not available
- [ ] I am concerned about safety and privacy online
- [ ] I do not have enough time
- [ ] I am not interested
- [ ] I have someone who will do it for me
- [ ] Other (please specify)

- [ ] I have no one to teach me how to go online
- [ ] My English-language skills make using the Internet too difficult
- [ ] My computer or device is too old, or broken, to use the Internet
- [ ] I do not need a computer or Internet for work
- [ ] Using the Internet is too difficult

[ ]

SWRPC | Southwest Region Planning Commission

Monadnock Digital Literacy and Access Needs Assessment
Wrap-Up

15. Do any school-age children live with you at least part-time?

- ( ) Yes
- ( ) No

16. Please select the Town/City where you live.

○ Alstead	○ Jaffrey	○ Stoddard
○ Antrim	○ Keene	○ Sullivan
○ Bennington	○ Langdon	○ Surry
○ Chesterfield	○ Marlborough	○ Swanzey
○ Dublin	○ Marlow	○ Temple
○ Fitzwilliam	○ Nelson	○ Troy
○ Gilsum	○ New Ipswich	○ Walpole
○ Greenfield	○ Peterborough	○ Westmoreland
○ Greenville	○ Richmond	○ Winchester
○ Hancock	○ Rindge	○ Windsor
○ Harrisville	○ Roxbury	
○ Hinsdale	○ Sharon	

○ Other or outside of the region (please specify):

17. Which of the following categories best describes your employment status?

○ Employed, working full-time

○ Employed, working part-time

○ Not employed, looking for work

○ Not employed, NOT looking for work

○ Retired

○ Disabled, not able to work

18. What is your gender?

○ Male

○ Female

○ Other

19. What is your race or ethnicity?

○ Asian

○ Black or African American

○ Hispanic or Latino

○ Middle Eastern or North African

○ Multiracial or Multiethnic

○ Native American or Alaska Native

○ Native Hawaiian or other Pacific Islander

○ White

○ Another race or ethnicity, please describe below

Self-describe below:

[   ]

20. Do you have a medical condition or disability that makes it harder for you to use the Internet?

○ No

○ Yes (please specify)

[   ]

21. What year were you born?

[   ]

22. What is the highest level of education you have completed?

[↕]

23. Last year, what was your total household income?

○ Less than $10,000

○ $10,000 - $19,999

○ $20,000 - $29,999

○ $30,000 - $39,999

○ $40,000 - $49,999

○ $50,000 - $74,999

○ More than $75,000

9.4 INDIVIDUAL QUESTIONNAIRE RESULTS

9.4.1 Question 1: How capable do you feel doing the following things, with 1 being not at all capable and 5 being fully capable?

Table 13 - Question 1: How capable do you feel doing the following things, with 1 being not at all capable and 5 being fully capable?

	1 - Not at all capable		2		3		4		5 - Fully capable		Total
Using a desktop or laptop computer to do basic tasks (e.g. e-mail)	2.33%	1	0.00%	0	16.28%	7	11.63%	5	69.77%	30	43
Participating in a video call (like Zoom or Facetime)	11.63%	5	6.98%	3	9.30%	4	20.93%	9	51.16%	22	43
Using a tablet computer to do basic tasks (e.g. e-mail)	13.95%	6	11.63%	5	13.95%	6	9.30%	4	51.16%	22	43
Bookmarking a website or adding it to your favorites	25.00%	11	4.55%	2	6.82%	3	18.18%	8	45.45%	20	44
Using a smartphone to do basic tasks (e.g. e-mail)	29.55%	13	2.27%	1	13.64%	6	9.09%	4	45.45%	20	44
Managing your banking and finances online	31.82%	14	13.64%	6	0.00%	0	9.09%	4	45.45%	20	44
Comparing sites to check the accuracy of information	25.58%	11	6.98%	3	13.95%	6	11.63%	5	41.86%	18	43
Managing IDs & passwords for online accounts	9.09%	4	4.55%	2	27.27%	12	18.18%	8	40.91%	18	44
Using GPS or map sites (like Google Maps)	15.91%	7	11.36%	5	13.64%	6	18.18%	8	40.91%	18	44
Using office software like Word or Excel	16.28%	7	13.95%	6	18.60%	8	11.63%	5	39.53%	17	43
Downloading an app on your cell phone	36.36%	16	6.82%	3	11.36%	5	6.82%	3	38.64%	17	44
Blocking spam	22.73%	10	15.91%	7	20.45%	9	13.64%	6	27.27%	12	44
Uploading content like photos to social media sites	31.82%	14	13.64%	6	13.64%	6	13.64%	6	27.27%	12	44
Protecting your computer from malware or spyware	25.00%	11	13.64%	6	22.73%	10	11.36%	5	27.27%	12	44
Writing and posting a resume online for a job	41.86%	18	6.98%	3	16.28%	7	9.30%	4	25.58%	11	43
Recognizing a phishing attempt or online scam	9.09%	4	18.18%	8	18.18%	8	29.55%	13	25.00%	11	44
Creating and managing a profile on social media	34.09%	15	13.64%	6	15.91%	7	13.64%	6	22.73%	10	44
Adjusting privacy settings online	36.36%	16	6.82%	3	11.36%	5	25.00%	11	20.45%	9	44
Making digital content like videos, photos, or music	43.18%	19	18.18%	8	13.64%	6	6.82%	3	18.18%	8	44
Creating your own personal website	70.45%	31	9.09%	4	6.82%	3	4.55%	2	9.09%	4	44
Write computer code	81.82%	36	6.82%	3	6.82%	3	0.00%	0	4.55%	2	44
									Answered		44
									Skipped		0

Figure 18 – Question 1: How capable do you feel doing the following things, with 1 being not at all capable and 5 being fully capable?

Legend: 1 - Not at all capable | 2 | 3 | 4 | 5 - Fully capable
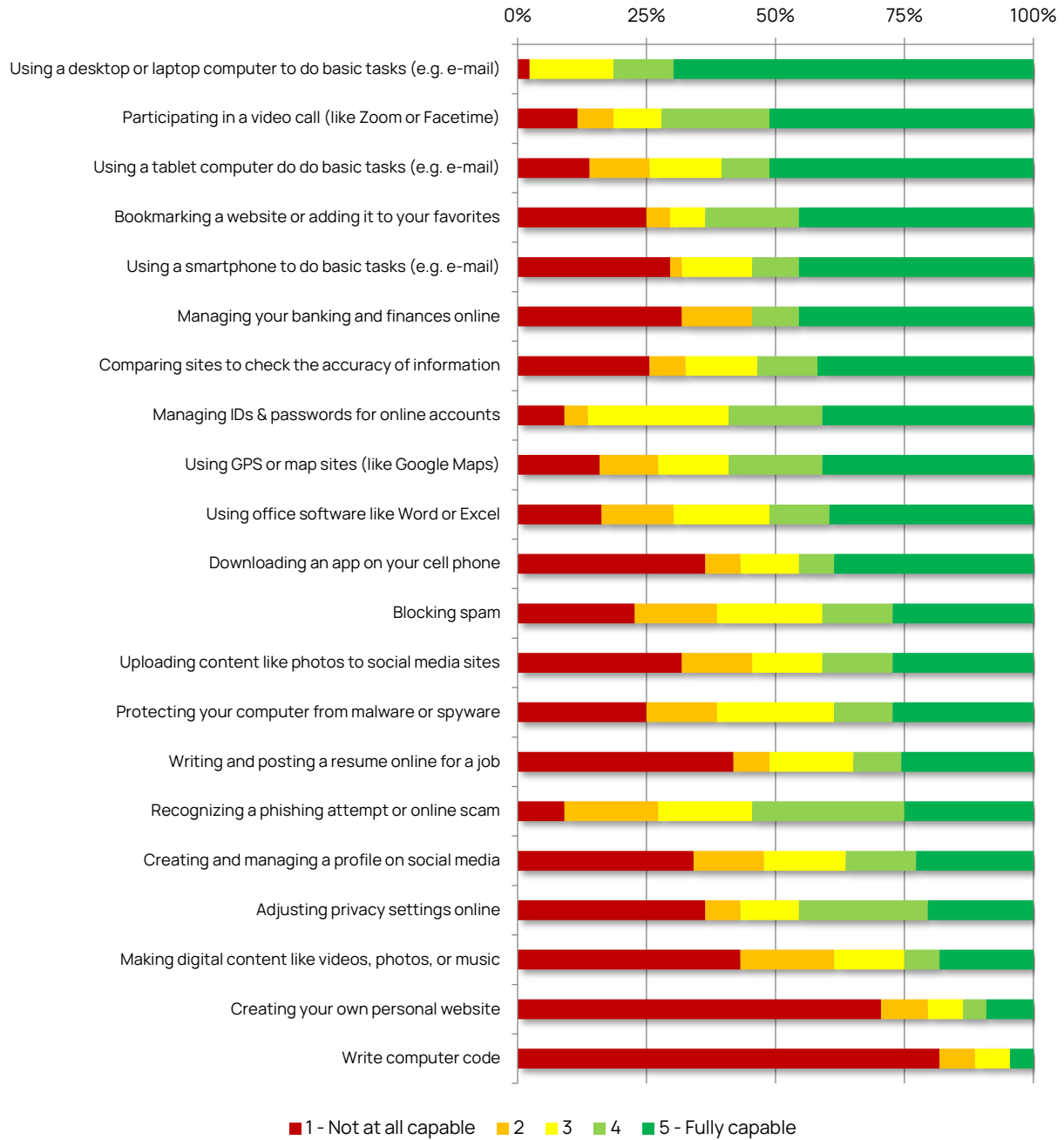
9.4.2 Question 2: Would you be interested in taking a free class about the tasks you feel less capable of doing if it was offered at the public library or a community center?

Table 14 - Question 2: Would you be interested in taking a free class about the tasks you feel less capable of doing if it was offered at the public library or a community center?

Answer Choices	Responses	
Yes	61.36%	27
No	38.64%	17
	Answered	44
	Skipped	0

Figure 19 – Question 2: Would you be interested in taking a free class about the tasks you feel less capable of doing if it was offered at the public library or a community center?
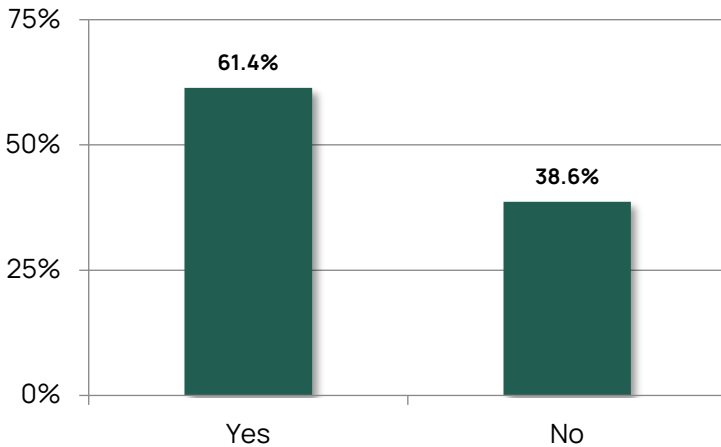
9.4.3 Question 3: Where do you go online? Please indicate how often you use the following services to get online.

Table 15 - Question 3: Where do you go online? Please indicate how often you use the following services to get online.

	Daily		Weekly		Monthly		Rarely		Never		Total
At home with my own high-speed Internet service	95.35%	41	2.33%	1	0.00%	0	0.00%	0	2.33%	1	43
At a friend or relative's house	2.44%	1	2.44%	1	9.76%	4	51.22%	21	34.15%	14	41
Using a data plan on my smartphone	30.95%	13	4.76%	2	4.76%	2	7.14%	3	52.38%	22	42
At work	15.00%	6	0.00%	0	2.50%	1	2.50%	1	80.00%	32	40
At school	2.63%	1	0.00%	0	0.00%	0	0.00%	0	97.37%	37	38

	Daily		Weekly		Monthly		Rarely		Never		Total
WiFi from a business like a coffee shop, store, or hotel	2.33%	1	4.65%	2	9.30%	4	41.86%	18	41.86%	18	43
WiFi at outdoor public places like the square or parks	2.33%	1	2.33%	1	0.00%	0	41.86%	18	53.49%	23	43
WiFi at the public library or a community center	2.38%	1	4.76%	2	9.52%	4	42.86%	18	40.48%	17	42
									Answered		**44**
									Skipped		**0**

Figure 20 – Question 3: Where do you go online? Please indicate how often you use the following services to get online.

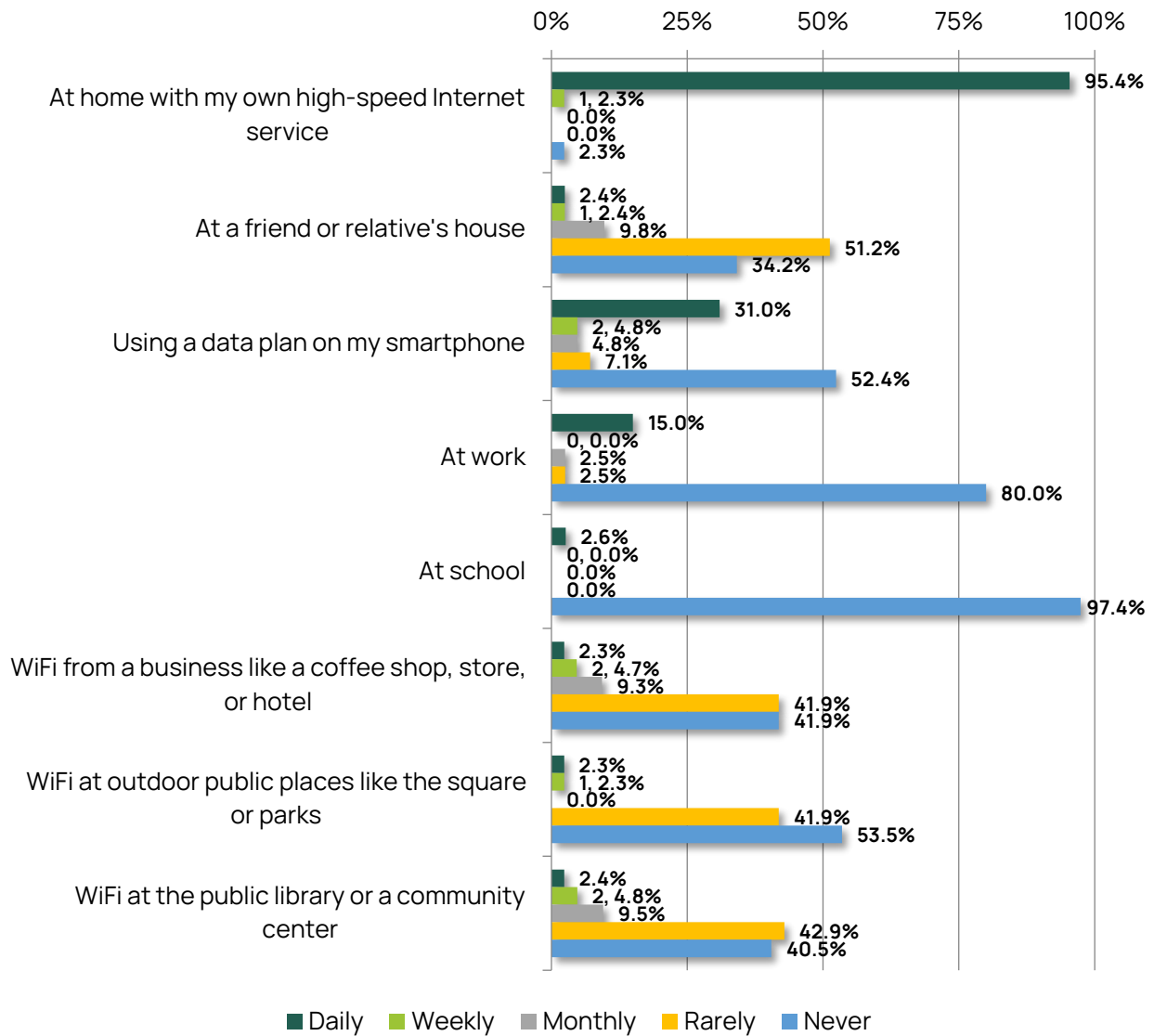### 9.4.4 Question 4: Do you have time to respond to some additional questions? This should take about 10 minutes and will provide valuable information for the regional needs assessment.

Table 16 - Question 4: Do you have time to respond to some additional questions? This should take about 10 minutes and will provide valuable information for the regional needs assessment.

Answer Choices	Responses	
Yes	88.10%	37
No	11.90%	5
	Answered	42
	Skipped	2

Figure 21 - Question 4: Do you have time to respond to some additional questions? This should take about 10 minutes and will provide valuable information for the regional needs assessment.
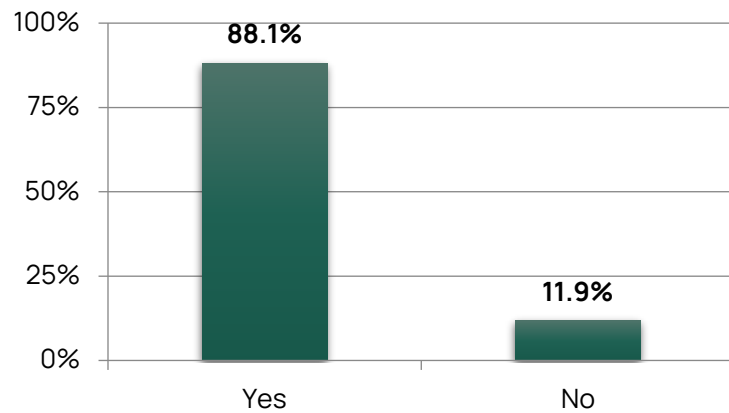
9.4.5 Question 5: In general, how would you rate your ability to use the Internet and modern technologies like computers and smart phones?

Table 17 - Question 5: In general, how would you rate your ability to use the Internet and modern technologies like computers and smart phones?

Answer Choices	Responses	
Excellent	9.09%	4
Very good	34.09%	15
Good	27.27%	12
Fair	27.27%	12
Poor	2.27%	1
	Answered	44
	Skipped	0

Figure 22 – Question 5: In general, how would you rate your ability to use the Internet and modern technologies like computers and smart phones?

9.4.6 Question 6: At your home, do you use any of the following types of computers?

Table 18 - Question 6: At your home, do you use any of the following types of computers?

Answer Choices	Responses	
None of the above	2.63%	1
Desktop	39.47%	15
Laptop	71.05%	27
Tablet or other portable wireless computer	60.53%	23
Smartphone	65.79%	25
Some other type of computer (please specify)	0.00%	0
	Answered	38
	Skipped	6

Figure 23 – Question 6: At your home, do you use any of the following types of computers?
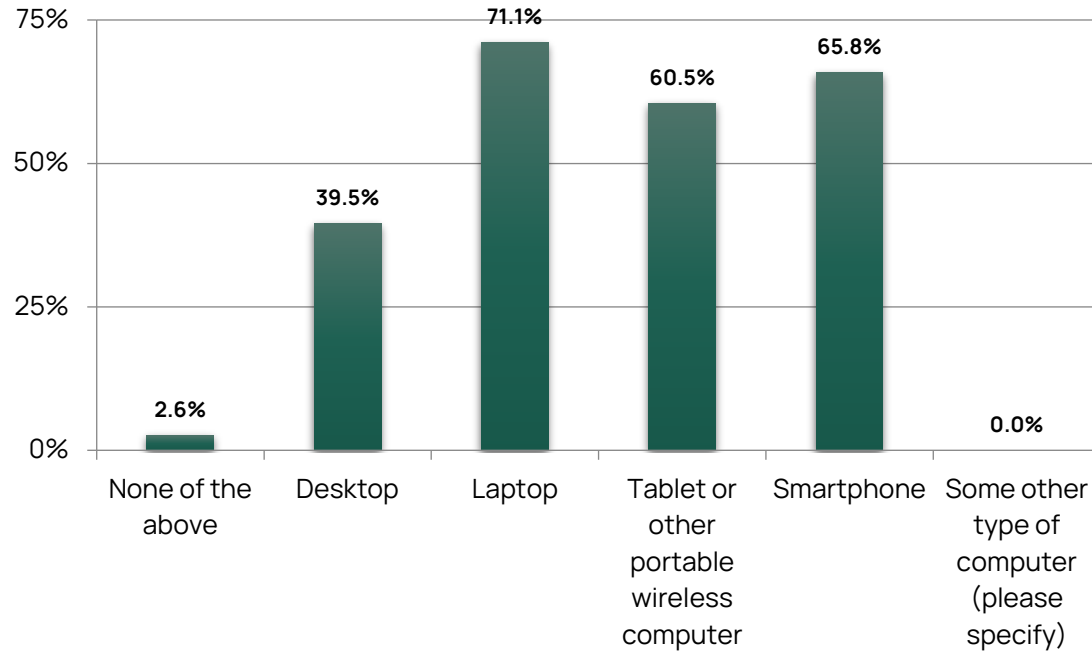
9.4.7 Question 7: At your home, do you have access to the Internet using any of the following options?

Figure 24 – Question 7: At your home, do you have access to the Internet using any of the following options?

Answer Choices	Responses	
None of the above	2.63%	1
A cellular data plan for a smartphone or other mobile device?	36.84%	14
Broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household?	81.58%	31
Satellite Internet service installed in this household?	2.63%	1
Dial-up Internet service installed in this household?	7.89%	3
Some other service? (please specify)	0.00%	0
	Answered	38
	Skipped	6

Figure 25 – Question 7: At your home, do you have access to the Internet using any of the following options?
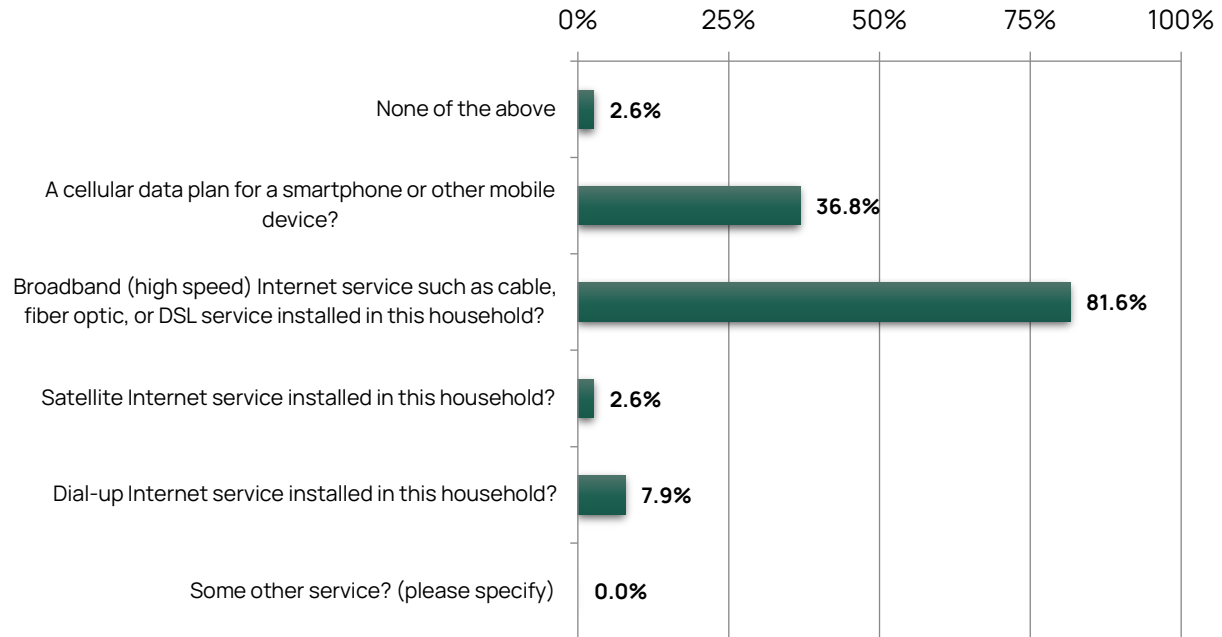
9.4.8 Question 8: At your home, do you have access to the Internet?

Table 19 – Question 8: At your home, do you have access to the Internet?

Answer Choices	Responses	
Yes, by paying a cell phone company or Internet service provider	94.59%	35
Yes, without paying a cell phone company or Internet service provider	5.41%	2

9.4.9 Question 9: Do you use the Internet (at any location)?

Table 20 – Question 9: Do you use the Internet (at any location)?

Answer Choices	Responses	
Yes	89.47%	34
No	10.53%	4

9.4.10 Question 10: How much does each statement describe your feelings or your experience?

Figure 26 – Question 10: How much does each statement describe your feelings or your experience?

Legend:
- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

The Internet is very important in my life
- Strongly disagree: 2.9%
- Somewhat disagree: 2.9%
- Neither agree nor disagree: 2.9%
- Somewhat agree: 14.7%
- Strongly agree: 76.5%

I get frustrated if I can't find what I need online
- Strongly disagree: 8.8%
- Somewhat disagree: 20.6%
- Neither agree nor disagree: 26.5%
- Somewhat agree: 35.3%
- Strongly agree: 8.8%

The cost of high-speed Internet service from a cable or phone company is too high for me
- Strongly disagree: 23.5%
- Somewhat disagree: 5.9%
- Neither agree nor disagree: 38.2%
- Somewhat agree: 20.6%
- Strongly agree: 11.8%

My phone's apps are a good substitute for a desktop, laptop or tablet
- Strongly disagree: 32.4%
- Somewhat disagree: 14.7%
- Neither agree nor disagree: 38.2%
- Somewhat agree: 14.7%
- Strongly agree: 0.0%

Social media or texting are enough for me to socialize with friends and family
- Strongly disagree: 41.2%
- Somewhat disagree: 29.4%
- Neither agree nor disagree: 20.6%
- Somewhat agree: 8.8%
- Strongly agree: 0.0%

I need help from librarians to use computers at the library
- Strongly disagree: 55.9%
- Somewhat disagree: 5.9%
- Neither agree nor disagree: 26.5%
- Somewhat agree: 8.8%
- Strongly agree: 2.9%

When I have money problems, one of the first things I do is drop my mobile phone plan
- Strongly disagree: 61.8%
- Somewhat disagree: 8.8%
- Neither agree nor disagree: 29.4%
- Somewhat agree: 0.0%
- Strongly agree: 0.0%

I'm always searching for free WiFi service
- Strongly disagree: 67.7%
- Somewhat disagree: 5.9%
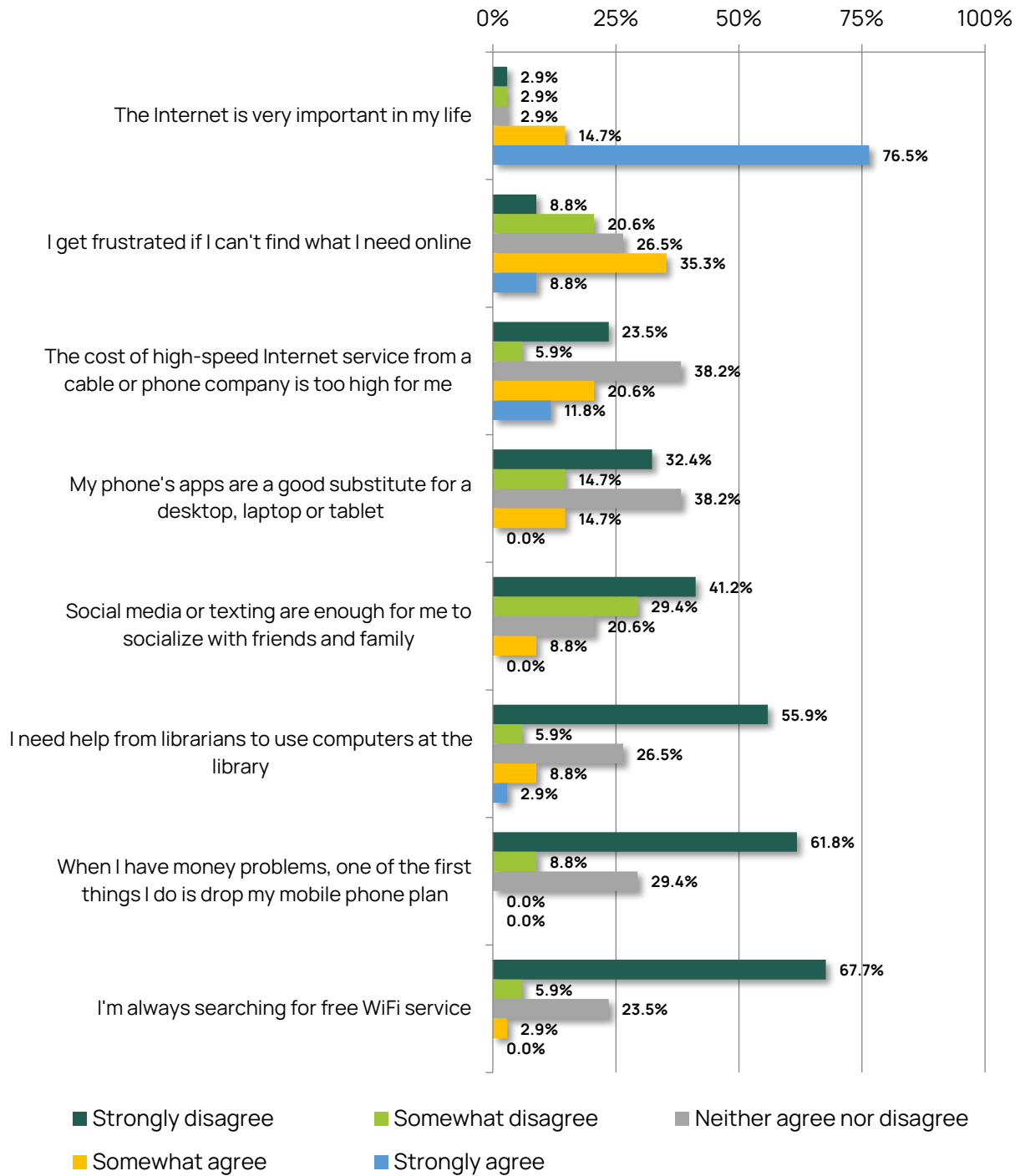- Neither agree nor disagree: 23.5%
- Somewhat agree: 2.9%
- Strongly agree: 0.0%

9.4.11 Question 11: How often do you use the Internet to do the following things?

Figure 27 – Question 11: How often do you use the Internet to do the following things?

Daily ■ Weekly ■ Monthly ■ Rarely ■ Never
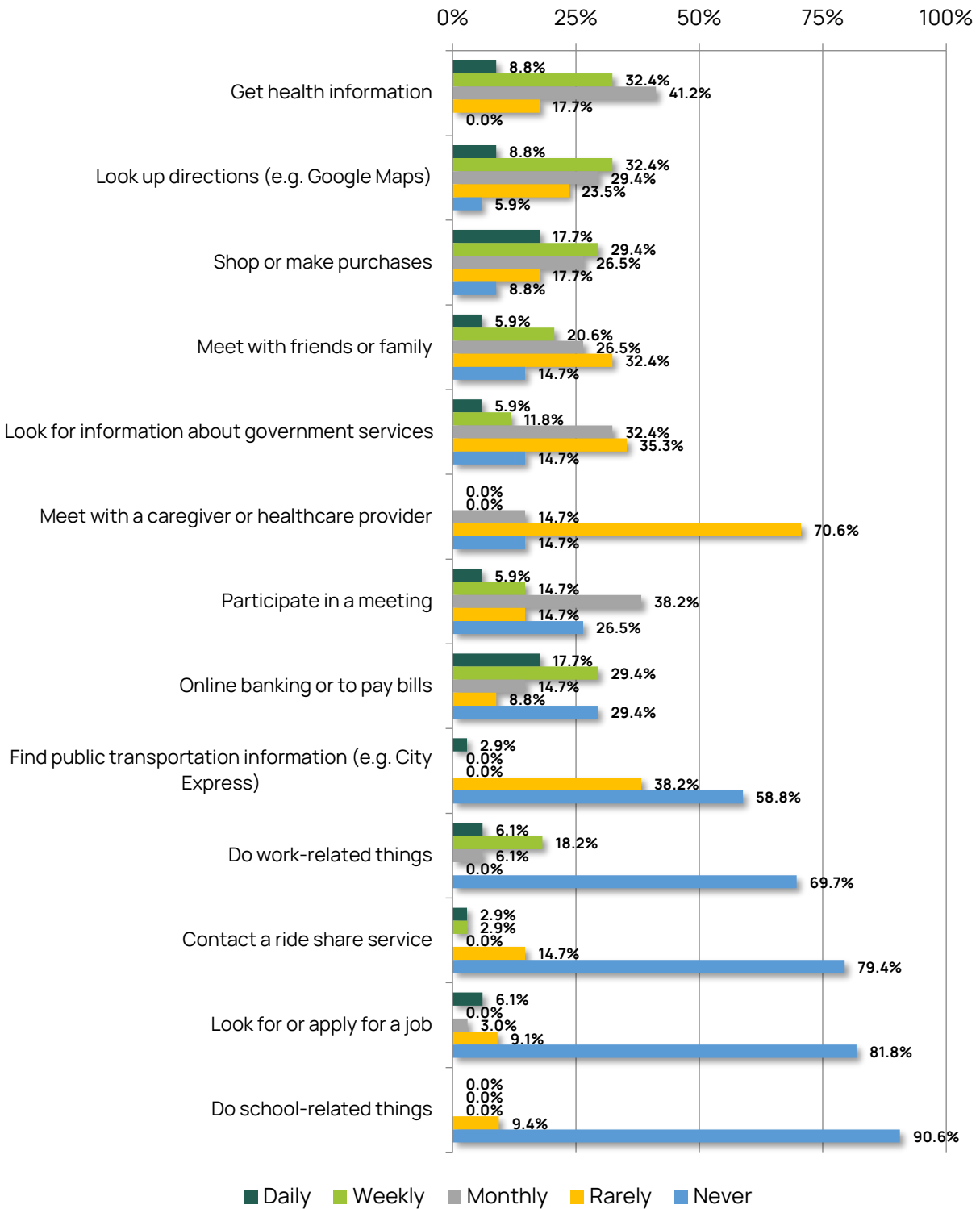
9.4.12 Question 12: How often do you access the Internet on the following devices?

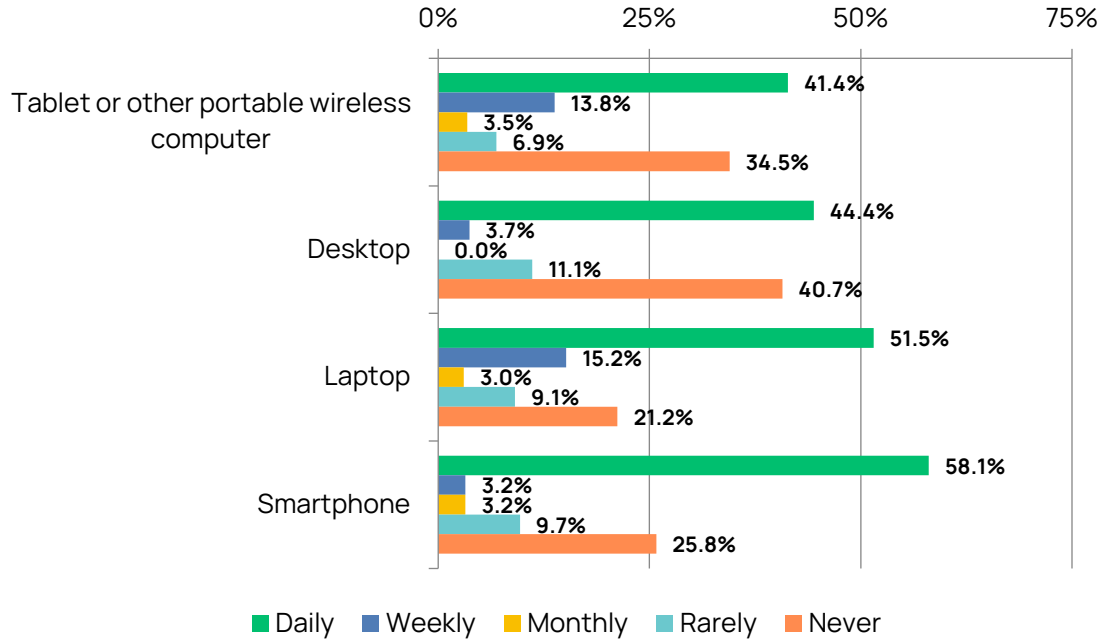*Figure 28 – Question 12: How often do you access the Internet on the following devices?*

9.4.13 Question 13: If you wanted to use the Internet, do you feel you know enough to do that on your own, or would you need someone to help you?

Figure 29 – Question 13: If you wanted to use the Internet, do you feel you know enough to do that on your own, or would you need someone to help you?
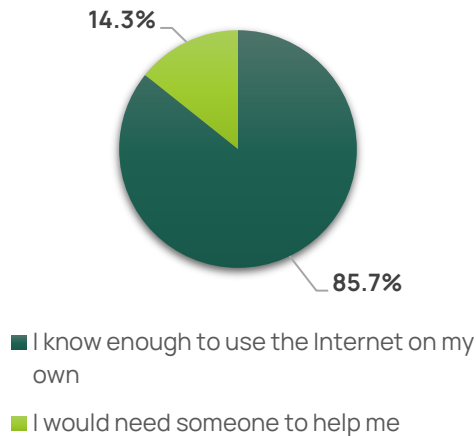
9.4.14 Question 14: Please identify reasons why you do not use the Internet.

Figure 30 – Question 14: Please identify reasons why you do not use the Internet.

Answer Choices	Responses	
An internet connection is too expensive	0.00%	0
Broadband (high speed) Internet is not available	0.00%	0
I am concerned about safety and privacy online	50.00%	1
I do not have enough time	0.00%	0
I am not interested	50.00%	1
I have someone who will do it for me	50.00%	1
I have no one to teach me how to go online	0.00%	0
My English-language skills make using the Internet too difficult	0.00%	0
My computer or device is too old, or broken, to use the Internet	0.00%	0
I do not need a computer or Internet for work	0.00%	0
Using the Internet is too difficult	100.00%	2
Other (please specify)	50.00%	1
	Answered	2
	Skipped	2

9.4.15 Question 15: Do any school-age children live with you at least part-time?
No respondents indicated any school-aged children lived with them.

9.4.16 Question 16: Please select the Town/City where you live.

Table 21 – Question 16: Please select the Town/City where you live.

Answer Choices	Responses	
Chesterfield	2.50%	1
Dublin	5.00%	2
Greenfield	2.50%	1
Hancock	15.00%	6
Jaffrey	15.00%	6
Keene	17.50%	7
Nelson	2.50%	1
New Ipswich	5.00%	2
Peterborough	27.50%	11
Swanzey	5.00%	2
Westmoreland	2.50%	1
	Answered	40
	Skipped	4

9.4.17 Question 17: Which of the following categories best describes your employment status?

Table 22 – Question 17: Which of the following categories best describes your employment status?

Answer Choices	Responses	
Employed, working full-time	2.50%	1
Employed, working part-time	12.50%	5
Not employed, looking for work	0.00%	0
Not employed, not looking for work	0.00%	0
Retired	80.00%	32
Disabled, not able to work	5.00%	2
	Answered	40
	Skipped	4

9.4.18 Question 18: What is your gender?

Table 23 – Question 18: What is your gender?

Answer Choices	Responses	
Male	10.26%	4
Female	89.74%	35
Other	0.00%	0
	Answered	39
	Skipped	5

9.4.19 Question 19: What is your race or ethnicity?

Table 24 – Question 19: What is your race or ethnicity?

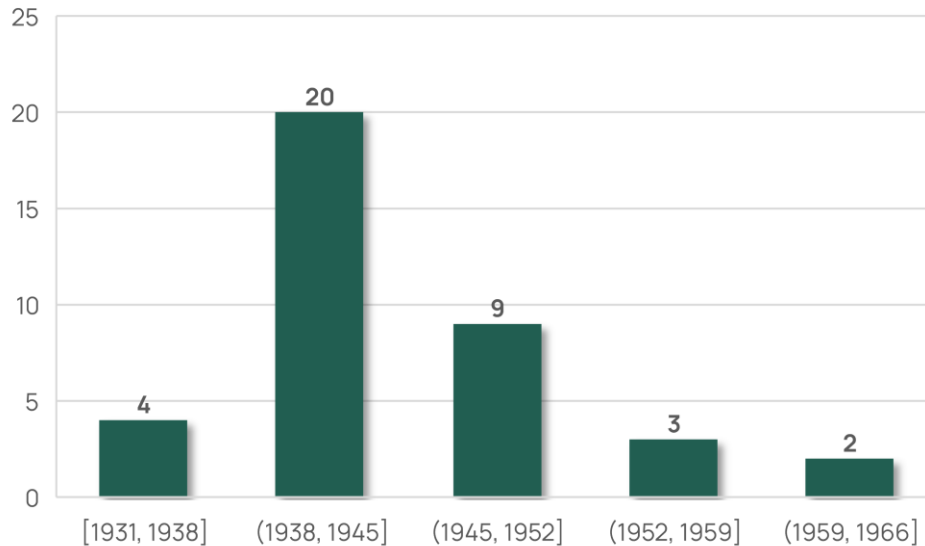| Answer Choices	Responses	
Asian	0.00%	0
Black or African American	0.00%	0
Hispanic or Latino	0.00%	0
Middle Eastern or North African	0.00%	0
Multiracial or Multiethnic	0.00%	0
Native American or Alaska Native	0.00%	0
Native Hawaiian or other Pacific Islander	0.00%	0
White	100.00%	36
Another race or ethnicity, please describe below	0.00%	0
Self-describe below:		2
	Answered	36
	Skipped	8

9.4.20 Question 20: Do you have a medical condition or disability that makes it harder for you to use the Internet?

Table 25 – Question 20: Do you have a medical condition or disability that makes it harder for you to use the Internet?

Answer Choices	Responses	
No	89.74%	35
Yes (please specify)	10.26%	4
	Answered	39
	Skipped	5

9.4.21 Question 21: What year were you born?

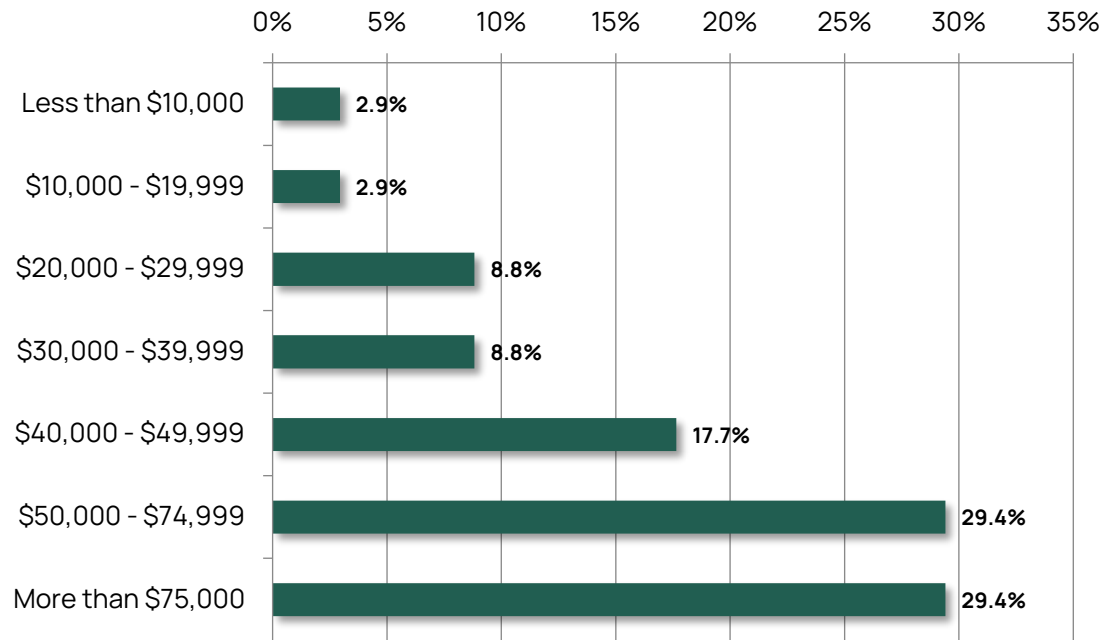*Table 26 – Question 21: What year were you born?*

9.4.22 Question 22: What is the highest level of education you have completed?

Table 27 – Question 22: What is the highest level of education you have completed?

Answer Choices	Responses	
Graduated from high school	12.82%	5
1 year of college	5.13%	2
2 years of college	5.13%	2
Graduated from college	30.77%	12
Some graduate school	7.69%	3
Completed graduate school	38.46%	15
	Answered	39
	Skipped	5

9.4.23 Question 23: Last year, what was your total household income?

Table 28 – Question 23: Last year, what was your total household income?

Income	Percentage
Less than $10,000	2.9%
$10,000 - $19,999	2.9%
$20,000 - $29,999	8.8%
$30,000 - $39,999	8.8%
$40,000 - $49,999	17.7%
$50,000 - $74,999	29.4%
More than $75,000	29.4%

9.5 ORGANIZATIONAL QUESTIONNAIRE

The following pages contain the organizational survey used to better understand existing digital literacy curriculum and issues related to digital literacy that impact their ability to serve their clients, members and customers.

Monadnock Region Digital Literacy and Access Needs Assessment

Welcome

Organizational Questionnaire

Through support from the Monadnock United Way, and in response to the COVID-19 pandemic, a group of local social service agencies led by the Keene Senior Center, is undertaking a regional needs assessment focused on digital literacy and access. There are substantial resources in support of broadband, telehealth and digital equity on the horizon. Planning activities such as this needs assessment can be beneficial in making the most of these opportunities. As defined by the National Telecommunication and Information Administration:

"*Access* considers the availability of high-speed, reliable internet and related equipment, including having Internet connections and technology at home or in community institutions (e.g., free public Wi-Fi, public computer centers).

Digital Literacy measures an individual's ability to use the Internet and modern technologies, such as computers and smart phones."

Of particular interest is your organization's role in using technology to improve the quality of life for older adults - from social engagement to accessing services and supports to staying healthy.

To conduct the needs assessment, Southwest Region Planning Commission (SWRPC) needs input from your organization to better understand the digital literacy issues related to your organization, clients and customers. The inventory and analysis of the information will inform a report and recommendations: from identifying funding and technical assistance opportunities to replicating successful practices.

The questionnaire below may be completed online or in writing at your convenience. Please contact Henry Underwood at SWRPC at 603-357-0557 or hunderwood@swrpc.org for questions about the project, questionnaire, or to schedule a meeting.

Monadnock Region Digital Literacy and Access Needs Assessment

Contact Information

1. What organization are you representing?

[   ]

2. What is your name?

[   ]

3. What is your title?

[   ]

4. If applicable, indicate the program or program(s) that will be the focus of your response.

[   ]

5. What is your phone number?

[   ]

6. What is your e-mail address?

[   ]

7. What is your mailing address?

[   ]

8. Does your organization serve adults aged 65 and older?

○ Yes

○ No

Monadnock Region Digital Literacy and Access Needs Assessment
Current Technology-based Services

In this section, we want to learn about the **online or technology-based services currently offered by your organization to serve your clients, members or customers.**

9. What online or technology-based services does your organization or program currently offer?

	Service Offered	Utilization Tracked	Outcomes Tracked
Telephone	☐	☐	☐
Website	☐	☐	☐
Social Media	☐	☐	☐
Dedicated mobile app	☐	☐	☐
Virtual meeting platform (e.g. Zoom)	☐	☐	☐
Real-time telemedicine	☐	☐	☐
Patient monitoring	☐	☐	☐
Case management	☐	☐	☐
Online courses	☐	☐	☐
Online newsletter	☐	☐	☐
E-mail	☐	☐	☐
Text message	☐	☐	☐

Other (please specify)

[   ]

10. Please describe the impact and positive outcomes of online or technology-based services utilized by your organization as they pertain to your members, clients or customers.

[   ]

11. What do you perceive as barriers to improving the impact of online technology-based services? How about developing or adopting new online or technology-based services?

☐ Lack of trained staff

☐ Lack of available funding

☐ Knowledge, skills and abilities of clients

☐ None of the above

Other (please specify)

```
```

12. Are there specific online or technology-based services you would like to offer but are unable to? Please name the technology-based service(s) and explain why.

```
```

13. How has the COVID-19 pandemic changed client engagement practices and services?

```
```

14. What are your clients or customers being excluded from without access to online or technology-based services?

- [ ] More participatory role in society

- [ ] Social engagement opportunities

- [ ] Educational opportunities

- [ ] Current Digital Literacy Training and/or Resources

- [ ] None of the above

Other (please specify)

Monadnock Region Digital Literacy and Access Needs Assessment

Current Digital Literacy Training and/or Resources

In this section, we want to learn about any **online or technology-based training currently offered by your organization to your members, clients or customers**.

15. What [digital literacy](#) training and resources do you currently offer?

☐ Components of a computer

☐ Mouse and keyboard use as well as usually some keyboarding

☐ Using an internet browser

☐ Creating and using an email account

☐ Basics of word processing

☐ Privacy, security and data protection

☐ Finding trusted sources for additional learning

☐ Using a smartphone and/or apps

☐ Facebook/social media for beginners

☐ Computer coding or programming

☐ None of the above

Other (please specify)

┌─────────────────────────────┐
│   │
│   │
│   │
└─────────────────────────────┘

16. What digital literacy trainings have you tried and found to work well?

┌─────────────────────────────┐
│   │
│   │
│   │
└─────────────────────────────┘

17. What digital literacy trainings have you found to be ineffective or not sustainable?

┌─────────────────────────────┐
│   │
│   │
│   │
└─────────────────────────────┘

18. Does your organization assist people in getting access to a high-speed internet connection?

☐ Internet service such as cable, fiber optic or DSL service

☐ Cellular data plan for a smartphone or mobile device

☐ Other (please specify)

[   ]

☐ None of the above

19. Does your organization assist people in getting access to an any of the following types of computers?

☐ Desktop or laptop

☐ Smartphone

☐ Tablet or other portable wireless computer

☐ Some other type of computer (please specify)

[   ]

☐ None of the above

Monadnock Region Digital Literacy and Access Needs Assessment

Assessing Digital Literacy of Your Clients and Customers

In this section, we want to learn about the **digital literacy level of your members, clients or customers**.

20. What do you see as critical [digital literacy](#) and access issues for your members, clients or customers? Your organization?

[   ]

21. Have you conducted any kind of assessment of the digital literacy levels of your members, clients or customers before?

○ Yes

○ No

If yes, please make arrangements to share the information by contacting Henry Underwood at hunderwood@swrpc.org or 603-357-0557.

22. Have you collected information about access to high-speed internet from your members, clients or customers?

○ Yes

○ No

If yes, please make arrangements to share the information by contacting Henry Underwood at hunderwood@swrpc.org or 603-357-0557.

23. What do you feel are the best ways to reach your members, clients and customers about their needs and concerns related to digital literacy and access?

SWRPC | Southwest Region Planning Commission

Monadnock Region Digital Literacy and Access Needs Assessment
Wrap-Up

24. Are there other individuals within your organization that could help answer these questions? Please provide their name(s) and contact information.

25. Other than yourself, who can serve as a conduit for engaging your members, clients or customers about their own experiences and needs related to technology? Please provide their name(s) and contact information.

26. Name other organizations we should encourage to participate in this questionnaire.