Digital equity for mental health and addictions in Nova Scotia A Situational Assessment

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Conducted by the National Collaborating Centre for Determinants of Health (NCCDH) for the Mental Health and Addictions Program (MHAP), Nova Scotia Health



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The NCCDH is hosted by St. Francis Xavier University, located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq people.

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Executive Summary

As digital channels are increasingly used across the health care continuum, questions remain about who is benefitting and who is being left behind. To understand the equity implications of digital mental health and addictions services, the Mental Health and Addictions Program (MHAP) within Nova Scotia Health (NSH) contracted the National Collaborating Centre on the Determinants of Health (NCCDH) to conduct a situational assessment involving a review of literature, individual key informant interviews, and focus group interviews. Built around core dimensions of digital equity (access, affordability, digital literacy, relevance, and safety and security), several **key themes** arose around equity-related implications for digital mental health services:

- ➤ Inequities affect access, affordability, digital literacy, relevance, and safety and security concerns with eMH interventions. As a flip side to the same coin, inadequacies in each of these dimensions of digital equity can contribute to increasing the digital divide.
- Communities that live with inequities due to socioeconomic status and structural exclusion (i.e., racism) are less able to use eMH interventions due to lack of digital equity.
- ➤ Building relationships with communities can address lack of trust that communities who live with inequities have towards the health system.

Key considerations for digital mental health programs and services revealed include:

- Access and affordability Collaborating with community agencies and members to understand gaps, needs, and how to address them will be essential to address the social determinants of health inequities necessary to facilitate participation in digital mental health programs and services.
- ➤ **Relevance** Co-creation and co-implementation with diverse communities who live with inequities will ensure culturally safe, inclusive and relevant eMH services.
- ➤ **Digital literacy** Usability and learnability of eMH services requires attention to digital literacy, including the ability to read, understand and communicate, and apply a critical lens to digital sources being used, requiring well-tailored protections, education and tools.
- > Safety and security Personal physical safety, cultural appropriateness of the content, transparency in the process of how data is collected, shared, and analyzed, and credibility of the Mental Health and Addictions Program can be achieved by establishing trust with the community.

Opportunities for digital equity in mental health and addictions programs and services described include:

- Access and affordability Offer technology loaning and support programs, access to free Wi-Fi, high-quality offline and low-tech options, collaborative relationships with community services, and challenging the assumptions that everyone can equally benefit from and use digital services.
- Relevance Co-develop strategies with diverse communities, address cultural safety, collaborate with Canadian and international sectors, collect and monitor data on reach and impact related to inequities, and share stories of where digital services created value and addressed a barrier
- ➤ **Digital literacy** Promote existing programs offering digital literacy supports, and build partnerships to reach communities for building technology competency and skills.
- > Safety and security Promote cyber-safety and digital consumer awareness, review provider training for equity implications, and address digital equity in all aspects of eMH programs and services.

Addressing the structural and foundational considerations and opportunities will require cross sector partnership, including with community members and organizations, to support digital equity for mental health and addictions programs and services in Nova Scotia.

1. Introduction and Overview

a) Background and purpose

Digital channels (internet, cell phones) have increasingly been considered and utilized as a means to communicate with and reach individuals and communities with health and social programs and services. This trend accelerated during the COVID-19 pandemic, due to public health measures put in place to reduce risk. To mitigate the lack of in-person access, governments and service providers are dedicating resources and budgets toward delivery of digital services across the care continuum (public health, community and primary care, mental health and addictions services). However, questions remain about who is benefiting and who is being left behind without access and skills to utilize these digital services.

These questions related to digital equity in mental health and addiction services has led the Mental Health and Addictions Program (MHAP) within Nova Scotia Health (NSH) to conduct a situational assessment to inform decision making in this area. In response to the need to provide equitable, accessible and effective services, MHAP contracted the National Collaborating Centre on the Determinants of Health (NCCDH) to conduct a situational assessment related to digital equity for mental health and addictions services in Nova Scotia. Results of the situational assessment support embedding principles of equity into all aspects of policy, program and service planning and delivery of digital mental health promotion and provide an opportunity to identify what is possible at a provincial level across multiple sectors. The situational assessment includes a review of literature, findings from key informant interviews and focus groups, and considerations for action. Barriers and opportunities were identified for equity-informed decision making in eMental Health (eMH) and virtual care program or service design in Nova Scotia.

The goals for the situational assessment included:

- identify barriers, current efforts and ongoing challenges for inclusion in eMH and virtual care services for mental health,
- provide a list of opportunities and considerations to mitigate barriers and optimize current efforts,
- provide a list of opportunities and considerations for equity-informed improvements in eMH and virtual care program or service design, and
- explore digital equity as a catalyst for change so decision-makers can work to reduce disparities.

Objectives of the situational assessment included:

- provide an overview of literature on digital equity in mental health and addictions,
- profile the perspective and experience of key informants e.g., community service providers, mental health clinicians, those with lived experience of mental health or addiction challenges,
- explore equity-related considerations for the planning and implementation of digital mental health and addictions services, and
- identify strategies and actions to address digital equity within the current context of mental health and addictions programs and services in Nova Scotia.

The project accomplished these goals and objectives using an intentional process including:

- guidance by an Advisory Committee formed by NSH,
- a review of existing reports, policies, government documents, industry or other sector publicly available data (e.g., broadband internet access maps), and

• interviews with leaders (key informants) within and outside of the MHAP program, as well as two focus groups including service providers representing professionals and diverse community groups.

b) Core concepts

A focus on digital equity in mental health promotion goes beyond the digital provision of mental health programs and services to those with mental illness (e.g. treatment) and includes consideration of the social determinants of health, health equity, and upstream approaches. To establish a foundation for the situational assessment, the following core concepts guided the project.

Mental health promotion

Mental health promotion focuses on fostering individual and community mental health through building resilience, creating supportive environments, and addressing inequities through public policy to influence population mental health (Mantoura, 2017).

Social determinants of health

The social determinants of health are the interrelated social, political, and economic factors that create the conditions in which people live, learn, work, and play, and include the following (National Collaborating Centre for Determinants of Health, 2014):

Gender/gender identity

Race/racialization

Ethnicity Indigeneity Colonization

Migrant & refugee experiences

Religion Culture

Discrimination/social exclusion/social

inclusion

Education/literacy

Health literacy

Occupation/working conditions

Income/income security Employment/job security Early life experiences

Disability

Nutrition/food security
Housing/housing security
Natural & built environments
Social safety net/social protection

Access to health service

Health equity

Health equity means that all people (individuals, groups, and communities) have a fair chance to reach their full health potential and are not disadvantaged by social, economic, and environmental conditions (National Collaborating Centre for Determinants of Health, 2014).

Upstream

Upstream interventions and strategies focus on improving fundamental social and economic structures in order to decrease barriers and improve supports that allow people to achieve their full health potential. Downstream interventions and strategies focus on providing equitable access to care and services to mitigate the negative impacts of disadvantage on health (National Collaborating Centre for Determinants of Health, 2014).

Digital equity

"Digital equity seeks to ensure that everyone—especially groups who are historically underserved or underrepresented—has the information technology capacity needed for civic and cultural participation, employment, lifelong learning, and access to essential services." (National Digital Inclusion Alliance, N/D)

Digital divide

"The digital divide is about equity, not infrastructure... Issues of digital equity are deeply rooted, connected and systemic... It is essential to respond to divides with care; they existed prior to current technologies and can be exacerbated by new ones... Innovation that isn't inclusive becomes the agent of further inequity...." (Ahmed & Harper-Merrett, 2020, p. n/a)

c) Key questions and assumptions

While digital delivery of services ensured continued, and in some cases improved access to health and social services during the COVID-19 pandemic, for many people the successful implementation and impact needs to be examined. It cannot be assumed that everyone will benefit equally or fairly, and as a service that works closely with those more marginalized, MHAP has raised questions as to whether these efforts, without mitigation are increasing inequities or creating unfair or unjust pathways to care. The concept of digital equity is gaining traction among health and social service providers as well as policy and decision makers. Although not in wide use yet, many are aware of the equity issues posed by delivery of digital health services throughout Nova Scotia.

d) Core dimensions of digital equity

The situational assessment mapped core dimensions of digital delivery services as they relate to mental health and addictions in Nova Scotia using the following **dimensions of digital equity** adapted from existing frameworks (Resta et. al., 2018; United Nations, 2021). The following dimensions were selected for the situational assessment:

- Access relates to factors that inhibit people from acquiring, safeguarding and using digital devices.
- Affordability of devices and data/high speed is a critical component to digital inclusion.
- Digital literacy skills include the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to address mental health conditions or concerns.
- **Relevant** virtual services comprise a fundamental pillar of digital inclusion for people experiencing mental health and addictions disorders.
- Safety and security considerations are key to ensuring trust in digital services.

Information from the literature review, key informant interviews and focus groups was mapped according to these dimensions with attention to the following factors:

- Barriers and ongoing challenges to equity informed digital services
- Current efforts to improve access and use
- Trends and future opportunities for digital equity

e) Project scope and limitations

The situational assessment took place over a two-month period between February and March 2021. It provides a snapshot of digital equity considerations to support addressing equity in decision making about the planning and delivery of mental health and addiction services in Nova Scotia. The scope of the multi step (literature

review, key informant interviews and focus groups) project included identification of barriers to and opportunities for equity-informed decision making in eMental Health (eMH) and virtual care program or service design in Nova Scotia. It is an early step to gather information to improve digital mental health services in Nova Scotia.

There are several limitations to note. First, there were no dedicated key informant interviews or focus groups with people who have lived experience of mental illness and inequities. This is a perspective that must be central in the development, implementation, and evaluation of any digital mental health programs and services. The information in this report comes from the perspective of those who work directly with end users, many of whom do live with mental illness and inequities.

Second, the methodology of this situational assessment favoured people who have access and are able to use digital services and technology (i.e., remote interviews via Zoom). Key informants and focus group participants were sent invitations through e-mail and the interviews and focus groups were conducted on Zoom. These strategies were used due to COVID-19 pandemic restrictions for in person gatherings.

Third, the literature review process was not an exhaustive or systematic search of research and other literature. Thus, the sources cited here do not represent all options for programs, funding, and other opportunities. The literature review was not designed to determine effectiveness of digital mental health interventions – as such, the sources presented here do not evaluate the effectiveness or impact of these strategies.

Finally, the focus of this project was on digital equity aspects of mental health and addictions services. An assessment of the adequacy or suitability of mental health resources available or how they could benefit from access to internet and cell service, was outside the scope of the project. The project did not assess access to resources by service providers or their comfort level in using digital options to provide mental health services.

2. Literature Review

a) Purpose and method

The purpose of the literature review was to identify relevant academic literature, tools, and resources relevant to digital equity in mental health policy, programs and services.

A web search for resources was conducted using the terms 'emental health', situation assessment digital equity mental health', 'digital equity', and 'digital equity mental health promotion'. The search identified a number of relevant grey literature sources, websites, tools, and frameworks. A Novanet search of academic literature using the term 'digital equity mental health' was conducted for the years 2015-2021 yielded a number of peer-reviewed journal articles. A review of existing reports, policies, government documents, industry, and other publicly available information was conducted. Several relevant resources were revealed through more organic search means, such as searching reference lists, offered by colleagues, and event notifications from other organizations.

As sources were identified, they were included based on their relevance to the core dimensions of digital equity being considered in this project. For the academic literature in particular, a focus on application to addressing principles of equity in digital mental health initiatives was the priority. Relevant sources included peer-reviewed research and journal articles, reports, websites, webinars, and other grey literature.

b) Findings from the literature review

Overall, the review of the literature suggests that "e-mental health is not a 'silver bullet', that equity must be carefully considered, and that there remains a need for flexibility and adaptability in mental health care to ensure that the mode of delivery is appropriate, acceptable and accessible to the end user" (Murphy et. al., 2021, p. 28). The findings are presented in the following table using the core dimensions of digital equity as a frame.

Refer to Appendix A for more detail from the literature sources cited.

Access

Dimensions of digital equity access include hardware, software, connectivity, culturally relevant content, and ability to exchange content (Resta et. al., 2018). Unreliable access to internet is a challenge especially in rural and remote areas (Shaw et. al., 2020) and a 'digital divide' exists where not all communities have equal access to digital infrastructure (Shaw et. al., 2020). Internet is more beneficial for those at higher socioeconomic status (Resta et. al., 2018). As the importance of mobile and internet connectivity grows, it is important to not contribute to the 'digital divide' (Ramsetty & Adams, 2020). Equally important, is to ensure that digital tools do not increase fragmentation in the system among those who do and do not have ability to access and use these technologies, especially among Black and Indigenous peoples (Shaw et. al., 2020).

Collaborating with under-served communities in the development and design of digital strategies is essential (Shaw et. al., 2020). Engaging with representatives of communities that live with inequities to ensure that information and services are relevant and accessible in diverse settings will address the effect of the social determinants on mental health care access is critical (Murphy et. al., 2021).

Digital solutions to healthcare access often leave out those who benefit most from the technologies (van Winkle, Carpenter, & Moscucci, 2017). Transparency, trust, and human-centred approaches are essential components of access for eMH services (Strudwick et. al., 2020). However, "until we can treat these symptoms of marginalization, then, the perception that technology can level the playing field and increase transparency and governmental accountability will remain more of a myth than a reality" (Becker et al, 2020, p. 23).

Affordability

Affordability considers monthly price as well as usage and availability of data (Innovation, Science and Economic Development Canada, 2019). Public policy that addresses the digital divide and cost of home-based and mobile internet and cellular access is necessary for communities who live in low socioeconomic circumstances (Katapally & Kwabia, 2020).

Because communities who have a higher socioeconomic status tend to benefit more from digital interventions, "we need to be very vigilant that people lower in the socioeconomic ladder are not limited to less effective treatment simply because they are less costly" (Muñoz et. al., 2019, p. 6).

Digital literacy

Digital literacy and use of technology determine the ability to interact with healthcare providers through online platforms. Age, education, and living circumstances heavily influence digital literacy, while the type of home internet plan that an individual has does not influence digital literacy (Ipsos Reid, 2016).

Community based interventions can enhance digital literacy skills in addition to addressing increased need for social support and developing independence, especially among older adults (Fang, Siden, Korol, Demestihas, Sixsmith, & Sixsmith, 2018). Gaps in knowledge and technology can be addressed through free courses, materials, and opportunities to learn how to use digital health services (Gratzer et al., 2021). However, "the prevailing notion of 'if you build it they will come' discounts the experience of individuals with limited tech competencies and limited access to digital learning opportunities" (Hoffman, 2019, p. 10).

Relevance

Designing digital technologies should address the needs and capacities of those who live with inequities (Winters, Venkatapuram, Geniets, & Wynne-Bannister, 2020). Representation of Black and Indigenous people of colour (BIPOC) in the development process will contribute to products that are relevant for those they are intended to reach (Friis-Healey, Nagy, & Collins, 2020). Relevance in improved using community centred design and cross-sectoral approaches (Graham, Ostrowski, & Sabina, 2016). "Innovations developed without context may largely benefit health outcomes in one sector of society while inadvertently creating, sustaining, or increasing health disparities in another. This can further perpetuate health inequities through the creating of a new configuration of the digital divide" (Brewer et. al., 2020, p. 2).

Relevance appears to be a stronger influence on the 'digital divide' than the more limited concept of affordability (Ipsos Reid, 2016). The digital divide can perpetuate inequities and in fact, increase them hurdles not related to access exist (Ramsetty & Adams, 2020). These hurdles include language, immigrant status, and transportation. Close consideration of whether ehealth technology will contribute to health equity is essential before investments are made (Hellberg & Johansson, 2016). Equitable implementation requires identifying and addressing potential health inequities and measuring outcomes of digital health policies (Crawford & Serhal, 2020). Outcomes specific to equity can be Identified in early stages of planning digital ehealth strategies as well as in evaluative stages where effectiveness and relevance after implementation is assessed (Antonio & Petrovskaya, 2019).

Community members and developers may measure success of digital strategies differently (Madjedi & Daya, 2016), therefore community members need to be included in planning for digital mental health services (Murphy et. al., 2020). Culturally safe services must include careful consideration of Indigenous values and needs (Hensel, Ellard, Wilson, & Sareen, 2019) as well as relevance to other specific groups. For example, older adults often have to make greater effort to learn new technology use and overcome barriers with less cognitive, physical, financial, and social resources (Seifert et. al., 2019).

Safety and security

Safety and security of online health service options is a concern and barrier to use (Ipsos Reid, 2016). Health professionals who are delivering eMH services should check with people they service to ensure that privacy and security options are suitable (Gratzer et al., 2021). Sufficient consent and privacy policies builds trust between digital service providers and community members.

For racialized communities and others that live with structural inequities, concerns about technological safety and security is compounded by already existing mistrust of the health system within those communities. Mistrust has developed due to lack of inclusion in health system decision making, lack of representation, and research processes (Arevian, Jones, & Chung, 2019). Older adults also have less comfort level and greater concerns with privacy and trust when using the internet for health services (Mangin et. al., 2019).

c) Nova Scotia and Canada digital resources

A number of resources were found during the literature and research process that provide an overview of broadband and cellular coverage in Nova Scotia and across Canada. The following sources and statistics do <u>not</u> represent a complete picture of broadband and internet services and the search conducted was not exhaustive. The following information provides only a snapshot of circumstances. Refer to Appendix B for a detailed list and hyperlinks to the sources.

Broadband and cellular coverage in Nova Scotia

- Coverage of high-speed Internet increased from 2019, covering 70% of NS to 88% by the beginning of 2021 (Develop Nova Scotia, 2021)
- Reported problems: difficulties in establishing internet connections with existing provider services; extremely slow download speeds relative to advertised speeds; unreliable internet connections (Province of Nova Scotia Department of Business, 2016)
- While 99.9% of Household in NS have fixed broadband availability, only 79% have a broadband subscription (Theckedath, 2020)
- In 2015 85% of NS had cellular coverage, with Bell and Telus covering more than 97% of it (Develop Nova Scotia, 2021)

Broadband and cellular coverage in Canada

- 40.8% of Canadians living in rural areas have 50/10/Unlimited broadband subscriptions, and 37.9% have 100+Mbps broadband subscriptions; these types are considered most desirable for fast internet services and uploads/downloads (Theckedath, 2020)
- In 2018, a CRTC study found that Canadian consumers paid less than those in other developed countries for lower-speed services (Level 1 basket) but paid more for higher-speed services (Level 4 basket) (Theckedath, 2020)
- Only about 24% of households in Indigenous communities have access to 50/10 Mbps high speed wireless considered most desirable for fast internet services and uploads/downloads (Innovation, Science and Economic Development Canada, 2019)
- Monthly price is not the only factor in affordability. For example, the data usage available, including
 whether an unlimited data option is offered, is just as important (Innovation, Science and Economic
 Development Canada, 2019)

d) Tools and resources

Several relevant tools were found in the literature for addressing equity in digital mental health interventions. The tools include: a framework for assessing how digital determinants of health may impact digital equity (Crawford & Serhal, 2020); a framework for assessing equity-related impacts of digital health interventions (Were, Sinha, and Catalani, 2019); and a health equity impact assessment tool for considering equity in planning of public health interventions broadly (Ontario Ministry of Health and Long-Term Care, 2012).

A number of resources were found that could be applied to planning and consideration of equitable digital mental health strategies. Several webpages, the majority Canadian, offer links to documents, toolkits, and other resources supporting mental health promotion across care settings. These could function as portals for community members to link to digital mental health services in their province or region. A few webinars explored how to consider aspects of health equity in the planning and delivery of mental health strategies.

These offer considerations for community and other platforms. Several documents and projects were found that describe initiatives in progress as well as an overview of technologies and strategies available.

Refer to Appendix C for a list of tools and resources found, including hyperlinks and indication of which are Canadian.

3. Key informant Interviews

a) Purpose and method

A key part of the situational assessment included gathering expert opinion on digital equity in Nova Scotia through consulting with leaders of a number of sectors that interface with mental health services and the public. Key informant interviews were conducted between late February and mid-March 2021 to inform the discussion about digital equity and mental health and addictions services. Those interviewed were invited to share their views and opinions on the benefits, barriers and opportunities for delivery of digital services for mental health and addictions in Nova Scotia from an equity perspective.

Questions for the interviews were informed by a preliminary review of the literature and by the purpose of the project. As 'digital equity' was the concept to be explored during the interview, it was important to first gain an understanding of the relevance of the concept to the work of the key informants. Interview questions progressed from general to specific, and then future application. Key informants were asked about champions or others

who could be consulted during this project or engaged later.

Interview questions and prompts

- Is the concept of digital equity considered in your work? <u>Prompt</u>: Does this concept resonate with you? How does it apply to your work? How could it apply to your work?
- 2. What is the need for digital mental health and addiction services in Nova Scotia? Prompt: Who has the greatest need? Who would benefit the most? Who would benefit the least?
- 3. What are considerations in planning and implementing digital mental health services? Prompt: What are some equity considerations? What are some barriers? How do you confirm that these are barriers? For service providers? Community?
- 4. Who is already addressing equity in delivery of digital mental health and addiction services? <u>Prompt</u>: What organizations – health and nonhealth? Are there champions or advocates? Who needs to be involved?

Key informants were identified and prioritized by the project Advisory Committee as representative of key stakeholders in Nova Scotia. This list, approved by MHAP, included individuals working in public health, community mental health, francophone, Indigenous and African Nova Scotian organizations, 211 Nova Scotia, health and education systems and involved in delivery of information technology. The e-mail invitation indicated that the interviews would take place using Zoom. It also indicated that a phone interview was possible if preferred, or that if a phone or online interview was not possible, an option to address the questions via e-mail was available.

Key informants were asked to commit to 45 minutes plus a 5-minute check in time to ensure their mic was working. The interview began with a brief description of the project including the definitions of equity and digital equity followed by a discussion. Questions were provided in advance. A statement on confidentiality was included in the invitation, assuring participants that no personal or individual identifying information would be included in the final report.

Reminders were sent to non-respondents, and additional key informants were either approached by the Advisory Committee or secured by invitation following recommendations during initial interviews with key informants. In the end, nine key informants were interviewed via Zoom. Two others offered to participate by email but did not follow through. The nine key informants interviewed for this project were representative of a number of sectors and diverse populations in Nova Scotia. Two of the participants were in leadership positions, one was in a clinical staff position, one provided Information Technology services, and five represented partner organizations such as non-governmental organizations (NGOs), public health, and other government departments.

b) Findings from the key informant interviews

Responses to the interview questions provided a comprehensive picture of the process and impact of the rapid transition to digital delivery of mental health services during the pandemic, and perspectives on digital equity as a result of that experience. At the end of the interview each person offered their key message for this report. Findings are analysed in detail based on dimensions of digital equity and summarized in this section of the report. The findings are presented in the following table using the core dimensions of digital equity as a frame. Refer to Appendix D for more detail.

Access

Barriers and ongoing challenges to equity informed digital services When asked who can benefit from delivery of digital mental health services - the majority of interviewees immediately responded - all of us! Others were adamant that whoever needs digital services should be able to access them free of barriers, with some going so far as to say it is a basic right. There was recognition that some people benefit more than others from access to digital services.

When asked who benefited the most, responses were wide ranging, including those who:

- have grown up with the Internet;
- are connected to digital services already;
- feel safe at home:
- already have tools, devices, capacity to use;
- are without vehicles for whom transportation is an issue because they don't need to leave their community;
- do not have childcare, because they can be at home with their kids;
- are in rural communities as there is less travel compared to in-person appointments;
- have anxiety as there are fewer steps to take for services; and
- work as service providers as they have the opportunity to see clients at home through digital means.

In response to the question about who benefitted the least, the responses were more descriptive than just stating that the opposite of the previous list, and included those who:

- have low digital literacy;
- live with over-crowding at home, partner violence, where it is not safe to meet digitally;
- have limited access to phone, wifi, Internet services;
- lack of financial means to afford a "privilege" of access;
- are parents with children at home, who were a distraction or competed for attention;

- identify as BIPOC, LGBTQ+, refugees; and
- work as therapists who cannot deliver exposure therapy through digital means.

When asked about potential barriers to participating in e-mental health services or digital services in general, the strongest theme that emerged was that Internet access is not available in all of rural Nova Scotia. Other barriers to accessing services identified throughout the interviews have become more visible during the pandemic when many services were closed and not accessible in-person:

- Poor roads, no car, no public transportation, isolation limits a person's ability to reach central access points, such as school parking lots. Need local community access to a phone line and Internet access.
- Skepticism and lack of trust on the part of some groups due to history of lack of investment. Need to focus on relationship building.
- Setting up Internet Service is difficult and complex; setting up a data plan on a phone is
 easier as users have free Wi-Fi access in schools, libraries, coffee shops where Wi-Fi is
 available, including parking lots in the case of buildings being closed during the
 pandemic.

Current efforts to improve access and use

Several examples of efforts to improve access were provided illustrating the responsiveness of organizations during the initial lockdown phase of the COVID-19 pandemic (March-April 2020). Examples included:

- The Canadian Mental Health Association, Nova Scotia Division (CMHA NS) secured funding to provide some clients with cell phones, and SIM cards. However, it soon became evident that even with a cellphone, with no data plan or data only accessible late at night, online services were not easily accessible in rural areas where there was limited access to free Wi-Fi.
- Schools Plus offered support services to students when schools were closed, first through Zoom Telehealth and then through Zoom Education.
- Federal funding was used to enhance infrastructure in the schools and establish access points that would cover school parking lots.
- In an attempt to meet the needs of those who could not access online services at home, an intake team in one area demonstrated flexibility in offering in-person services, scheduling evening hours to provide in-person mental health services where needed.

Trends and future opportunities for digital equity

Interviewees did not offer anything specific to current efforts in digital literacy. Options are mentioned throughout other parts of this report.

Affordability

Barriers and ongoing

A key barrier to affordability of internet and cellular access in Nova Scotia needs to be placed within the Canadian context. Many of the informants identified that the high cost of devices,

challenges to equity informed digital services

Internet and data plans, is a barrier in Canada compared with other countries such as the USA, Mexico, and Europe.

Another related to affordability includes that the cost to provide devices and Internet have sometimes been assumed by NGOs, which drains their already tight operating budgets.

"We raised funds, realigned budgets to send phones, tablets to patients and community members most marginalized - tools went out fast - a Band-Aid solution outside of organizational budget. Once people had phones, we anticipated government or others would provide data plans."

"We are writing proposals and partnering with schools, Schools Plus and libraries to seek resources for devices and connectivity. Writing proposals is like throwing spaghetti against the wall and hoping it sticks."

There was a concern expressed that finances would become more of an issue for community organizations after the COVID-19 pandemic if criteria for federal funding shifts from a focus on improving quality of life in their communities to other areas of priority that might be federally dictated.

"The biggest barrier is lack of resources (for our community). We can provide training but we need resources for devices and the Internet."

Current efforts to improve access and use

Several approaches to improve access to digital services were explored during the pandemic and offered by respondents for consideration:

- Some organizations (Canadian Mental Health Association, NS Division [CMHA NS], Mental Health Foundation of Nova Scotia [MHFNS], Schools Plus) wrote proposals, raised funds to increase access to devices, capacity for digital literacy, individual support, e.g., Schools Plus received federal funds to help with devices, wifi that could be distributed.
- Programs were made available to subsidize the purchase of devices and Internet for seniors, but the opportunities were not widely known.
- Schools Plus has a national program sponsored by Industry Canada and Department of Education which refurbishes retired computers and gives them to NGOs and schools.
 Devices could also be loaned to students.
- NSH collaborated with NS Brotherhood and the Health Association for African Canadians to secure funding for laptops, tablets.

Trends and future opportunities for digital equity

It was strongly recommended that government online delivery of services initiated during the COVID-19 pandemic be strengthened with increased recognition and resources to community organizations. Community groups understand the people they serve and have built relationships with them over time. Making access affordable means providing access at limited cost. One suggestion was to partner with fire stations, legions, community centres which may be more equitable and safer than school parking lots.

Digital literacy

Barriers and ongoing challenges to equity informed digital services

Barriers to digital literacy identified by key informants fit under a number of areas.

- There is an assumption that everyone can benefit equally from digital services.
 "We cannot make assumptions about digital literacy. There are many levels of literacy

 general literacy, health literacy, digital literacy, and all are factors to be considered"
- There is a lot of public misinformation about internet services.
 - "How does the public know the difference between sites like Facebook and Mindwell?"
- The comfort level of staff varies when it comes to offering digital services.
 - "A real challenge to increase capacity to relate digitally. For younger staff it was easier."
 - "A new way to work harder to do but doable takes more time and a bit of trial and error." "Staff needed training, e.g., electronic charting."
- Navigating the internet requires a minimum level of skill as well as seamless and easy Internet access or preference.
 - "dealing with frequent calls for help in filling in online forms, e.g., elderly"
- An aging population highlight seniors as having specific barriers.
 - "Nova Scotia has many elderly people and it's difficult to change old habits to the new reality since COVID"
 - "The barrier is often anxiety as they like familiarity. They may have a phone they use for making calls but nothing else".
 - "Many kids are supported by grandparents with low digital literacy. Some had no device, or Internet access living in rural areas."
- People have varied individual capacity for use of digital services influenced by intellectual challenges, cognitive impairment, disability, mental illness all requiring consideration.
- An increasing number and variety of platforms such as ZOOM, Webex, Teams, and google classroom requires additional learning for use and understanding different applications.

Current efforts to improve access and use

Examples of steps being taken to improve digital literacy throughout Nova Scotia in response to COVID-19 were offered by those interviewed.

- Schools Plus arranged for staff training through IT and learning management systems (LMS) modules. As well, staff have been helping staff.
- In a mental health unit in Cape Breton, building client capacity was individualized. For some already on Zoom, they were taught on Zoom, some needed teaching and came into the clinic.
- Increasing digital literacy among francophone elderly is being lead by La Fédération des femmes acadiennes de la Nouvelle-Écosse and Regroupement des aînés de la Nouvelle-Écosse (RANE).
- Schools Plus offered professional development through Healthy Voices and IWK; provided tips to counsellors, professionals on how to run programs virtually and help them become familiar with various platforms.
- A social worker team in North Preston and surrounding communities connected community workers with younger generations (nieces, nephews) to teach elderly how to use a

computer, phone or tablet. If there was no family member, the worker would "walk them through it" or they could come into clinics for 1:1 instruction.

Trends and future opportunities for digital equity

Computer, phone or tablet. If there was no family member, the worker would "walk them through it" or they could come into clinics for 1:1 instruction.

A strong message came from one person serving African Nova Scotian communities:

"Now is the time! We can offer virtual care and it will only get better. Phones will fizzle out - Young people use social media not the radio.... Training doesn't stop when COVID stops - We can't leave our wisest, elderly community behind - we have to push forward so we are prepared for the next crisis"

Relevance

Barriers and ongoing challenges to equity informed digital services

A very clear message was that not every solution fits – and that people need to be provided with options. Relevance depends on how something is received by an individual. Language, culture, learning style, abilities, mental health and preferences all influence relevance of digital services.

There is a need to explore what people need, consult with communities who do no engage, and how to reach out through our networks to reach those who are not currently engaged digitally or not using the Internet to find out what they need.

Current efforts to improve access and use

A number of current efforts to increase digital services options available were identified.

- Mental Health and Addictions website, which provides universal approaches
- 211 Nova Scotia, which offers a one point of access referral service through phone, text, chat, translation in multiple languages and a website
- Help Line
- Red Cross Friendly Calls
- Laing House online peer support (for eating disorders)
- Archway Counselling Associates phone or videoconference counselling

Trends and future opportunities for digital equity

211 is now a national service with connections and research capacity. 211 Nova Scotia has offered to assist with research in the past and has contact with 3000-4000 Nova Scotians each month. Trained navigators answer the phone and text requests and can help inform the understanding of needs and barriers. 211 NS telephone services were reported as being successful reaching seniors who are less comfortable using digital channels, as well as low-income community members who cannot afford internet or phone data plans. Phone options like 211 NS to access and deliver services also helps reduce isolation for some people who need a person to talk to, as well as connect to multiple services like AA and other addictions and mental health supports.

"I just finished a call from a mom looking for mental health supports with her daughter. She chatted about her frustration that so many of the services offered are online or on the phone, and she felt her daughter would be better served by in person support. The convenience of virtual is not always (best), when we're dealing with human interactions, and people suffering from depression who need to summon the mental fortitude to also deal with technology. Think of our own team meetings, and the very minor challenges we have with (muting and unmuting), background noise, etc. Layer those on to someone

trying to access support for depression, and it becomes an insurmountable obstacle, not worth the effort when you're already in a 'low.' The human connection is challenged in digital forums, and I'd argue that mental health support is the primary arena where human connection is critical."

Safety and security

Barriers and ongoing challenges to equity informed digital services

A number of issues were identified related to safety and security, ranging from security of personal information to personal safety. Issues related to security of personal information identified by key informants included:

- Secure platforms Example: Students can access Zoom for counselling on a Chromebook if it is set up by a professional who is licensed; but cannot access Zoom on Chromebooks for their own purposes as it is less secure.
- Consent Client consent forms and interagency consent form both needed for e-mental health work to share information online.

By far, the most emotional discussion focused on personal safety that surfaced due to the sudden pivot to services being delivered through the Internet when buildings offering in-person services were closed and there was limited access to services other than virtually. While it was reported that some people are more comfortable being interviewed at home, issues related to personal safety were identified by key informants. These issues were magnified during the COVID-19 pandemic and need consideration in future and include:

- The level of safety in homes and the risk of partner and domestic violence.
- The impact of privacy on safety. Examples provided included: overcrowding at home resulting in nowhere to go for a private conversation; a need for private spaces for physicians and clients that are safe; students that cannot be left alone in a room at school.
- A need for emergency referral e.g., if NS 211 receives a suicide threat by text; it is
 picked up by a navigator who encourages a voice channel and a connection with a "real
 person".
- Risk of judgement. Staff have to be careful of their own value judgement and their repercussions.
- The impact of isolation on mental health of staff as well as the public e.g., supports for those who are dealing with childcare, multiple demands for Internet access by children homeschooling, and juggling work expectations.

Current efforts to improve access and use

During the pandemic, some organizations stressed the need for self-care for staff and also provided webinars on mental health and how to manage family and working from home. Some communities provided headsets to be used at home to increase privacy.

Trends and future opportunities

Several ideas for action were identified to address safety and security concerns with digital services and include to:

Create a digital equity assessment tool.

for	dig	ital
equ	iity	

- Identify a digital navigator who can make home visits, and support digital literacy, navigational skills.
- Partner with local communities to provide local access.
- Work with citizens to build digital literacy capacity.
- Acknowledge the value of NGOs and fund them adequately.

Key messages from interviewees

When asked for a key message they would like to have recorded in the report, each of the nine key informants offered a closing message.

- 1. If governments are expecting people to access services online, what are they doing to ensure access that is equitable in terms of cost, location, capacity? We need to consider layers of literacy and ask who are we not hearing from? And how do we reach them?
- 2. Consider individual circumstance of user's ability and capacity. A significant group is disadvantaged by the practice of putting all services online.
- 3. We need to build on what people are doing. Would like to know if there is something specific that comes from this project that provides policy direction.
- 4. Be careful going forward needs differ across communities. Look for what is realistic based on needs.
- 5. I hope government recognizes the need and supports NGO's who are out in the field meeting short term needs with limited opportunity to fundraise (due to COVID-19). "We can help get into communities but hope others recognize the need and respond. We can't fundraise anymore."
- 6. We need to increase access to the Internet through CPA sites and local organizations. I wish federal and provincial governments would be fully able to understand that NGOs are facing COVID realities and that funding is important for survival to support communities.
- 7. Every individual needs access to the Internet, devices and capacity to use them. Don't assume people do, otherwise we leave out a significant portion of the population. We need to solve the problems rather than giving up on digital.
- 8. Canadians live in a sparsely populated country with high demand for the Internet. We need to provide real connectivity at an affordable price for all.
- 9. Rural communities need support black or white! How do we attract people to work there? Need to attract and retain them. Communities who live with inequities are skeptical due to short term, band aid solutions of the past. They need investment.

Summary

Insights gleaned through the key informant interviews were that digital equity as a concept is not a term commonly used in their practice, although it resonated with them. They acknowledged that equity issues were amplified as everything happened so quickly during the pandemic. Many identified the positive aspects of connecting digitally in that access to expertise and support across geographical boundaries improved.

"Some people would rather be in a virtual group with people in another area of the province than bump into them the next day."

Although all key informants identified current issues related to digital equity, they acknowledge the need to improve on and invest resources in digital delivery – that it is the way of the future.

"Build and they will come - Provide and they will learn".

4. Focus Groups

a) Purpose and method

The purpose of the focus groups was to validate findings from the literature, elaborate on findings from key informant interviews, and gather advice on recommendations and actions for consideration. It was anticipated that the focus groups would inform the discussion about digital equity and mental health and addictions services. The focus groups provided an opportunity for participants to share their views and opinions on the benefits, barriers and opportunities for delivery of digital services for mental health and addictions in Nova Scotia, particularly in the post-COVID-19 era.

With the purpose in mind, the first question asked of the focus group was intended to validate and elaborate on findings to date from the literature review and key informant interviews. The other questions were to learn about the priorities they felt were important in future planning of digital services and what, if any, opportunities would support digital equity going forward. Focus groups questions were as follows:

- How is the concept of digital equity considered in your work?
- What are the opportunities to address equity related barriers?
- What are the priorities going forward?

Given the lack of access to end users during this situational assessment, all efforts were made to convene two focus groups representative of diverse communities and stakeholders. To ensure a mixture in the groups, invitations were sent to one group representative of community organizations and one representative of providers of government funded services through various departments such as health, education, and labour. While suggestions for focus group participants was initially guided by the Advisory Committee, NCCDH staff also extended invitations through their networks and to people recommended through the key informant interviews. Each group was invited for a set date and informed that the focus group would be conducted by Zoom in keeping with physical distancing requirements during the pandemic.

Participants were asked to commit to 90 minutes plus a 5-minute check in time to ensure their mic was working. The focus group would begin with a brief description of the project including the definitions of equity and digital equity followed by discussion. Questions were provided in advance. A statement on confidentiality was included in the invitation, assuring participants that no personal or individual identifying information would be included in the final report.

A record of respondents was maintained and one reminder was sent. Additional names for key informants were secured by invitation to ensure voices from diverse communities. In the end, seven people participated in the service provider focus group and eight participated in the community focus group.

b) Findings from focus groups

i. Service Provider Focus Group

Refer to Appendix E for more detail.

Access	
Barriers and ongoing challenges to equity informed digital services	When describing their work, focus group participants identified lack of access to the Internet and devices as a major barrier to full participation in digital service delivery and therefore digital equity. This lack of access is magnified when working with equity-seeking groups such as newcomers where the first language is not English and those with disabilities. Focus group participants identified stigma and mistrust as further barriers to embracing this new way of working. They suggested that people need to be engaged from the beginning with attention to building relationships.
Current efforts to improve access and use	Two initiatives were identified as examples of projects working to improve digital service access: • Healthy Minds program managed by the Department of Labor and Advanced Education, which was requested by post-secondary students and makes mental health services accessible to post-secondary students beyond 9-5:00 pm; and • Virtual Wellness program set up by NSH for 3 zones outside Central Zone., currently being evaluated with a grant from the McConnell Foundation.
Trends and future opportunities for digital equity	Focus group participants did not offer anything specific to this. Options are mentioned throughout other parts of this report.
Affordability	
Barriers and ongoing challenges to equity informed digital services	Barriers to affordability are related to socio-economic circumstances of the people participating. For example, high rates of poverty in First Nations impacts affordability of devices and Internet access. In addition, if people are using their own data they are incurring additional costs unless they access a library or school for Wi-Fi, which during the COVID-19 pandemic was only available in surrounding parking lots. One factor that had not been heard until this focus group is the fact that there is no local call # for Zoom, so anyone without access to Wi-Fi and trying to access Zoom for e-mental health services from a phone, has to pay long distance charges.
Current efforts to improve access and use	During the pandemic, funding was secured for devices and health centres on First Nations in Nova Scotia which opened up access to Wi-Fi. Treatment programs, support groups were offered via Zoom.
	An unexpected benefit was the geographical reach that this access to the Internet allowed. It made it possible a student placement to take place virtually from University of Toronto, and for Health Directors to meet as a group. The view is that working virtually

	does not replace face to face but overcomes distance and creates opportunities that did not previously exist.
Trends and future opportunities for digital equity	Focus group participants did not offer anything specific to this. Options are mentioned throughout other parts of this report.
Digital literacy	
Barriers and ongoing challenges to equity informed digital services	A participant noted that the mental health app "Healthy Minds" has been requested by post-secondary students with low to moderate symptoms to increase access to more mental health services. Post- secondary students are more comfortable accessing the Internet than some other groups and therefore Healthy Minds may not be as desired by everyone.
Current efforts to improve access and use	Focus group participants did not offer anything specific to this. Options are mentioned throughout other parts of the report.
Trends and future opportunities for digital equity	See summary below.
Relevance	
Barriers and ongoing challenges to equity informed digital services	 Barriers to having relevant digital services that were noted by the focus groups related to characteristics of particular options and their broad-reaching nature. Solutions for the masses - Off the shelf products are not so inclusive. Programs that are parachuted in don't always work. "One size does not fit all." Cultural insensitivity - African Canadians do not access programs because they don't see themselves represented in the health system. There is a need to welcome the community when creating programs. Ensuring representation of Black, Indigenous and people of colour on Advisory Committees is necessary. Prescribed solutions – there is a need to think outside the box and be creative by blending online options with outdoor, physically distanced sessions that can be effective when they are also culturally safe.
Current efforts to improve access and use	One clinician in the group talked about the need to pivot very quickly to meet client care needs and stressed the necessity of taking an individualized approach. For example, if there is no Wi-Fi, then problem solve with those in need of services to obtain a cell phone, identify a family member who has a device, or identify locations with access Wi-Fi.

Trends and future opportunities for digital equity	An additional example was offered about a First Nations who held sessions on the beach where they could physically distance as a complement to digital interventions. See summary below.
Safety and security	
Barriers and ongoing challenges to equity informed digital services	Focus group participants identified safety as top of mind. They acknowledged that everyone needs autonomy and privacy. Specific issues were identified for youth who may live in crowded housing and who may have parents who control the phone and take it away, making it difficult for youth to find a safe option to access services.
Current efforts to improve access and use	One solution offered by a clinician working with individual clients was to incorporate secure online programs such as Medeo in her private practice, and then adopt programs recommended by the province when they became available.
Trends and future opportunities for digital equity	See summary below.

Summary

When asked what they saw as priorities in planning the future delivery of e-mental health services, focus group participants put forward a range of actions.

- Partner to advance the conversation begun during this call keep the spirit of collaboration going keep up the momentum.
- Build policy for digital equity supported by sustainable funding.
- Offer diversity and inclusion training to ensure broad representation in the planning process.
- Ensure diverse representation in planning and delivery "nothing for us without us".
- Connect people with community resources as well as those in the health system possibly through having a Community Navigator.
- Be creative complement digital with face to face and look at alternative ways for people to access services, e.g., nature, beaches, space where people can gather.
- Evaluate to see if what we are implementing is effective through quantitative and qualitative means.

Heightened awareness of the need to change and readiness to do things differently was identified as an opportunity to adapt current digital service delivery to meet community needs.

Related to the wider acknowledgement that digital programming will always be part of our world and that we need to increase access, one specific suggestion was to implement a Digital Equity Navigator position

ii. Community Organization Focus Group

Refer to Appendix F for more detail.

Access

Barriers and ongoing challenges to equity informed digital services

In describing the work in which they are engaged, focus group members identified lack of access to the Internet and devices as a major barrier to full participation in digital service delivery and therefore digital equity. They noted that the COVID-19 pandemic amplified a number of equity issues.

"COVID has had an impact on mental health around the world and added to the problem is the issue of connectivity. When government pivoted to digital services to provide access to support, the most marginalized had access to nothing – and for some not even a basic phone. This impeded access to mental health care. The swing to (offering everything as) digital left a whole subset of the population behind."

Decisions were made on the assumption that people had access and could competently use digital services, e.g., students studying from home. However, it was noted "the most vulnerable have no access to devices, can't afford a landline, let alone a cell phone." At the beginning of the pandemic many providers thought it would be easy to go online but soon realized that access to the Internet was limited, particularly in rural areas and in poor weather. "There is a segment of the population, including those who are homeless, disabled, or very low income, who may not have access to any digital means of communication. These very vulnerable people will need to know that such a service exists, and a private place and access to the digital means to use these services, and potentially assistance to access them as well, including transportation and instruction or physical assistance to use the digital equipment."

For a period of time libraries were closed, which is where many people access the Internet. Libraries serve as a hub for community members to access more than just Wi-Fi. This compounds the issue of lack of internet access.

"Community members with multiple and intersecting challenges often present at libraries with complicated situations simply because of socio-economic or mental health issues. For example, they may cancel a phone number because they don't want someone to contact them but they need a phone number is needed to access social services."

A trend over recent years to reduce local public Infrastructure, i.e., pay phones and Community Access Program (CAP) sites are not widely available has made the situation more difficult.

"Everyone moved online to ensure equity and left a subset with nothing - without access to vehicles could not get to a parking lot to access Wi-Fi from adjacent building."

Current efforts to improve access and use

Libraries have been using MiFi units (mobile Wi-Fi access such as turbo sticks, internet on the go sticks etc...) for years and recently purchased MiFi and chrome books for loan to individuals in the Halifax area in an effort to reduce social isolation. They recently received a COVID grant from TD to work in Spryfield/Sambro area and purchased 50 MiFi and chromebooks to loan to community partners. Recently launched, the MiFi will be loaned for 6 months. MiFi uses data and who will pay for that data use is an outstanding question.

Trends and future opportunities for digital equity

Libraries have implemented creative ways to "lend the Internet" by providing Wi-Fi in buildings they do not own. It can be affordable when negotiated with partners to find options. Municipalities such as Stellarton Town Council recently passed a resolution related to unlimited internet access.

Affordability

Barriers and ongoing challenges to equity informed digital services

The view that either people cannot afford Wi-Fi or Internet connection is inadequate was a theme throughout the focus group. One person indicated that while it had many generous donors pay for devices, many youth had no Wi-Fi at home. In an attempt to set up an account for seniors in Pictou County it was learned that it is difficult to set up an Internet account for someone else. A concern was expressed that financial concerns are widening beyond equity-seeking populations, as some people are being told by Canada Revenue Agency to pay back CERB. The result is disconnecting from the Internet.

Current efforts to improve access and use

Two examples of efforts made by community groups in the past year to improve digital equity are:

- Canadian Mental Health Association (CMHA) NS partnered with others writing grant applications to the Atlantic Compassion Fund and secured \$200,000 for devices, Internet access for 1 year in Cape Breton.
- Health Association for African Canadians received funding from the Red Cross to purchase tablets.

Trends and future opportunities for digital equity

See summary below.

Digital literacy

Barriers and ongoing challenges to equity informed digital services

A rhetorical question was asked by a focus group participant – "Do people know how to talk about devices? Do people have visual impairments where they need talking books?"

Before COVID-19, 1:1 training for internet use was available at libraries for those who could access a physical branch. Now, in-person coaching is hard to get but much needed. A practical application of this problem is related to seniors who have never used ATMs or online banking, do not have credit cards and have always paid in cash.

	During the COVID-19 'stay at home' restrictions, people could not leave their house. They could order groceries by phone but it was a challenge to pay for them. "Another element of the digital world is that seniors tend to pay in cash and do not have credit cards – but with COVID they could not get to the grocery story. To order groceries online required a credit card. Volunteers (helping them) cannot take cash."
Current efforts to improve access and use	CMHA NS and other community groups have been working with clients to increase digital literacy.
Trends and future opportunities for digital equity	211 NS is now part of a national service that offers free telephone support with text and chat options.211 NS is in a position to consult with other provinces on the issues identified in this project and learn from and collaborate with them on addressing these issues.
Relevance	
Barriers and ongoing challenges to equity informed inclusion	Participants in this focus group agreed that the COVID-19 pandemic magnified issues to a degree that cannot be ignored. "Access to technology is necessary to access health care." One group member who works with youth reported, "E-mental health is draining even with skilled, literate clients." Many youths would prefer to access clinical mental health services by e-mail or in person rather than on Zoom or other platforms. A critical question we need to ask was posed by the group "who is the individual in front of us? What do they need?" The need for individualized approaches and offering a range of services was stressed.
Current efforts to improve access and use	Laing House is currently revising their intake strategy to a more individualized approach.
Trends and future opportunities for digital equity	See summary below.
Safety/security	
Barriers and ongoing challenges to equity informed inclusion	Focus group participants identified a priority issue of personal safety stressing that accessing the Internet by sitting in a parking lot in a car or without a car is not safe. One focus group participant shared a story of an individual who walked a long distance to a school parking lot to access Wi-Fi and was arrested for loitering.

	While the there were examples of people sitting outside of a library to access free Wi-Fi, other equity related problems were highlighted. "Free Wi-Fi offered outside libraries and schools assumes that people have transportation to get there. Without access to a vehicle and stoppage of public transportation, clients were walking to access Wi-Fi. We have a client who walked a substantial distance to access Wi-Fi in a school ground and was challenged by the police for loitering. And imagine (how they would be treated) if that person was black. The marginalized are further marginalized."
Current efforts to improve access and use	See summary below.
Trends and future opportunities for digital equity	See summary below.

Summary

When asked about what they saw as priorities in planning the future delivery of eMH services, focus group participants reflected on lessons learned during the pandemic and put forward the following suggestions.

- Make the case for equity across Canada when establishing policies and funding for digital equity.
- Transportation is a key component of access and equity.
- Collaboration between government at all levels, corporations and communities is necessary.
- Government needs to coordinate within government.
- NGOs are struggling. There is a need to recognize and fund NGOs.
- A coordinated, people-centred approach is necessary.

When asked the question about opportunities on which future work can build, the following were identified:

- Libraries could provide Wi-Fi in buildings that are not their own.
- Municipalities feel a responsibility for digital services are necessary to collaborate with.
- The presence of and collaboration with a well-established 211 service in NS.

5. Considerations and Opportunities in Digital Equity

Literature published as early as 2016 (Ipsos Reid, 2016; Madjedi & Daya, 2016) forewarned of necessary considerations related to digital equity. They described a path forward, but few actions have been taken globally to address these issues. Since then, lessons have been learned from real-world experience about the potential negative impact of implementing digital health interventions without drawing on equity-related evidence and meaningful engagement with communities. These lessons were strengthened by this situational assessment through the review of the literature as well as the stories and experiences shared by key informants and through

the focus groups. Recent calls to action for addressing the digital divide in the context of the COVID-19 pandemic reinforce the need for attention and action in this area (Alliance for Healthier Communities, 2020; Becker, Washington, Naff, Woodard, & Rhodes, 2020; Katapally & Kwabia, 2020). Across literature, resources, key informant interviews, and focus groups, several themes were consistently identified.

- Inequities affect access, affordability, digital literacy, relevance, and safety and security concerns with eMH interventions. Inadequacies in each of these contributes to increasing the digital divide.
- Communities that live with inequities due to socioeconomic status and structural exclusion (i.e., racism) are less able to use eMH interventions due to lack of digital equity.
- > Building relationships with communities can address the lack of trust that communities who live with inequities have towards the health system.

Key considerations for digital mental health programs and services

Access and affordability – The importance of connectivity and digital access will grow. However, increased broadband access and affordability do not address all aspects of digital equity. Failure to address other social determinants of health inequities will result in numerous communities and populations unable to participate in digital mental health programs and services. Tools and frameworks to assess digital equity can assist in planning, development, implementation, and evaluation of eMH programs and services (see Appendix C). Collaborating with community agencies and members to understand gaps, needs, and how to address them will be essential.

Relevance – The relevance of digital platform and interventions (cultural, language, appropriateness) for individuals needs to be considered both in the planning and selecting of services and in the assessment of impact, especially related to equity. Co-creation and co-implementation with diverse communities who live with inequities (e.g., older adults, Indigenous, African Nova Scotian, under-housed, domestic violence, and immigrants) will ensure inclusive and relevant eMH services.

Digital literacy – Poor usability or learnability of eMH services impacts uptake and limits the potential to benefit from the services. However, digital literacy is not limited to the ability to use and understand digital applications and platforms. It also includes the ability to read, understand and communicate, as well as the ability to apply a critical lens to the digital sources being used – e.g., distinguishing between reliable and unreliable mental health and other information online. Keeping up with the pace of change inherent to digital transformation includes providing people with well-tailored protections, education and tools enabling them to participate effectively in the digital era as informed and capable consumers.

Safety and security –Safety and security concerns relate to more than just data privacy and the technology architecture/platforms themselves. Personal physical safety and security of individuals using digital mental health services plays a significant role in decision-making about eMH service use. Safety in online spaces includes cultural appropriateness of the content, transparency in the process of how data is collected, shared, and analyzed, and credibility of the Mental Health and Addictions Program in offering services. Establishing trust with the community is a key part of fostering safety and security of eMH services.

Opportunities for digital equity in mental health and addictions programs and services:

Access and affordability

- Facilitate and advocate for technology loaning and support programs that offer data plans or portable devices to clients.
- Challenge the assumption that everyone can equally use digital services, and advocate to ensure everyone can be enabled by digital connectivity.
- Explore and promote information on how and where to access free Wi-Fi hotspots.
- Ensure high-quality offline and low-tech options for mental health supports and resources continue to be available and resourced for clients and families.
- Develop collaborative relationships with community services that have infrastructure to support client and family access (e.g., 211, Libraries, CAP sites).

Relevance

- Co-develop and create digital mental health strategies with communities with an intentional focus on diversity and inclusion of groups who experience inequities.
- Strengthening connection with underserved communities so care and communication related to eMH is culturally safe.
- Network and collaborate with other Canadian and international sectors working in eMH around what works, for whom, and under what circumstances (e.g., eMHIC eMH International Collaborative),
- Require minimum disaggregated data sets from eMH service providers to support assessment of how well services reach and impact communities that live with inequities.
- Ensure data monitoring and evaluation of eMH services take into account equity considerations and outcomes relevant to the community.
- Request evidence from eMH service providers that materials/content are developed with input from diverse populations and have had demonstrated effectiveness with those communities.
- Share successes and stories of where digital services created value, improved wellness, addressed a barrier to care, and positively impacted mental health.

Digital Literacy

- Promote existing community-based programs offering digital literacy supports and digital skills education navigation (e.g., NS 211, adult education programs that teach digital skills).
- Collaborate with other sectors to build partnerships to reach communities and build technology competency and skills.

Safety and Security

- Apply tools and frameworks to assess digital equity in all aspects of planning, development, implementation, and evaluation of eMH programs and services (refer to Appendix C).
- Promote cyber-safety education and digital consumer awareness resources on the NS Health website and social media channels.
- Review provider training in virtual services best practices and digital etiquette for safety.
- Build trust through transparent reporting and description of how data is used to inform decision-making.

The depth of this project comes from talking to people through key informant interviews and focus groups. This is what brought out the richness of understanding and an empathy that would not have come from the literature alone.

Many of the issues raised during the situational assessment point to structural and foundational considerations and opportunities. The Mental Health and Addictions Program can work to operationalize those strategic actions that are within their scope of work and mandate. However, the Nova Scotia Mental Health and Addictions Program is only one partner in the health system in Nova Scotia. Addressing the challenges raised in this situational assessment point to broader strategies and interventions to support digital equity that will require cross sector partnership, including working with community members and organizations. Collectively, the findings of this project have reinforced a consistent and strong message:

Keep people at the heart of this movement!

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Appendix A Literature Review sources

<u>Note</u>: This table represents excerpts from the cited articles for <u>quick reference only</u>. This is not an analysis of literature review findings and should not be cited as such.

Access		
Barriers and ongoing challenges to equity informed digital services	Establishing internet connections as well as unreliable internet connections are major challenges in rural areas of NS; 34% of Canadians report not owning a smartphone, and those living in rural and remote areas report not having access to the Internet (Shaw et. al., 2020).	
	Lack of access to health information and care that is linguistically and culturally appropriate and accessible; Lack of access to tele-communication and digital technologies or infrastructure; low digital literacy as a barrier to accessing e-mental health care; Persistent impact of social determinants of health on mental and physical health and access to care (Murphy et. al., 2021).	
	Dimensions of digital equity access include "hardware, software, and connectivity to the Internet; meaningful, high quality, and culturally relevant content in local languages; ability to create, share, and exchange digital content; educators who know how to use digital tools and resources; high-quality research on the application of digital technologies to enhance learning" (Resta et. al. 2018, p. 988).	
Current efforts to improve access and use	Develop Nova Scotia has a goal to improve the high-speed internet coverage to 99% of people in Nova Scotia by the end of 2023.	
Trends and future opportunities for digital equity	"Internet remains more beneficial for those at the highest education levels, with higher social status, not in terms of how extensively they use the technology but in what they achieve as a result of this use for several important domains" (van Deuzen & Helsperzois; quoted in Resta et. al. 2018, p. 66).	
Equity considerations	Importance of mobile and internet connectivity will continue to grow over the next years with the pandemic being one of the major drivers; to not contribute to the digital divide particularly among socially disadvantaged communities (e.g. from rural areas, Indigenous communities) long term investments and strategies need to be implemented (Innovation, Science and Development Canada, 2019/ Shaw et al. 2020 / Ramsetty and Adams, 2020).	

Including representatives from at-risk groups in planning for targeted mental health response to COVID-19; ensuring that information and services are accessible in diverse cultural settings; committing to research and interventions that address the effects of the social, cultural and structural determinants of health on mental health and mental health care access. (Murphy et. al., 2021).

Digital divide; "not all communities have equal access, not all problems are best solved by technology, technology should be designed with under-served communities, cultural appropriateness should be central; determinants of cultural health and attitudes should be addressed particularly in underserved communities; ensure that new digital tools do not lead to a more fragmented system and that data collection and data sharing is in alignment with the needs and wishes of patients and communities, and specifically Black and Indigenous people" (Shaw et. al. 2020, p. 4-5).

Invest in collaborations with diverse communities to address the digital divide; "Promote the design and procurement of digital health technologies in ways that support health equity... Incorporate equity considerations into the development and review of health information policy... invest in strategies that address social determinants of health, co-design strategies with under-served communities" (Shaw et. al. 2020. P. 6-7).

"Digital solutions intended to increase health care access and quality often neglect those that need them most... The key is in leveraging these technologies with: (a) design features that accommodate various levels of technological proficiency (eliteracy), (b) tech-enabled community health workers and navigators who can function as liaisons between patients and clinicians, and (c) analytics and customer relationship management tools that enable health care professionals and support networks to provide the right interventions to the right patients" (van Winkle, Carpenter, & Moscucci, 2017, p. 1116).

"Technical and technological issues can impact the quality of access on a day-to-day basis; access is fluid. Until we can treat these symptoms of marginalization, then, the perception that technology can level the playing field and increase transparency and governmental accountability will remain more of a myth than reality... Steps that can be taken at multiple levels of government to address the disparities in access to computers and the internet... digital equity law/policy, broadbased educational computing programs, governments can partner with industry and community partners to implement the kinds of programs" (mobile hotspots, homework hotspots, wifi on school buses) (Becker et. al. 2020, p. 23-24).

"The importance of trust, transparency, human centeredness, and compassion in the development and delivery of digital mental health technologies; (2) an emphasis on equity, diversity, inclusion, and access when implementing e-mental health services" (Strudwick et. al. 2020, p. 1).

Affordability	
Barriers and ongoing challenges to equity informed digital services	"In 2017, only 37% of rural households had access to 50/10 Mbps, compared with 97% of urban homes 24% of households in Indigenous communities have access to 50/10 Mbps" (Innovation, Science and Economic Development Canada, 2019, p. 5). "Monthly price is not the only factor in affordability. For example, the data usage available, including whether an unlimited data option is offered, is just as important" (Innovation, Science and Economic Development Canada, 2019, p. 13).
Current efforts to improve access and use	(see 3.0 Key Informant and 4.0 Focus Group interviews)
Trends and future opportunities for digital equity	Public policy to address internet inequity - digital divide, cost of home and mobile internet access, especially those who are already in socioeconomically deprived rural communities and inner-city neighbourhoods. Solution - facilitate free Internet and computer access points in community health centres or libraries (Katapally & Kwabia, 2020).
Equity considerations	Within participants who access Internet interventions, those with higher SES appear to benefit more. A practical concern is whether people lower in the socioeconomic scale might get systematically and differentially shunted to digital interventions simply because they are less costly. Eventually, they might lose access to face-to-face interventions, even when they are in need of them. We need to be very vigilant that people lower in the socioeconomic ladder are not limited to less effective treatments simply because they are less costly (Muñoz et. al., 2019).
Digital Literacy	
Barriers and ongoing challenges to equity informed digital services	Interacting with healthcare providers is dependent on the overall digital participation, Age, Education, and living circumstances (rural areas) dependent; no relationship between the type of home internet plan users have and how engaged they are in the digital economy; While 10% people with a high or very high participation in online activities interact with healthcare providers, it is only 1% of those with a low or very low participation. Particularly for those with low or very low user knowledge poses a great barrier (Ipsos Reid, 2016).

Current efforts to improve access and use	Community interventions (schools, community health centres, libraries, etc) "may result in multiple positive outcomes including increased social participation, reduced loneliness and social isolation, improved self-care and disease management, enhanced self-confidence, and greater independence" (Fang, Siden, Korol, Demestihas, Sixsmith, & Sixsmith, 2018, p. 314).			
Trends and future opportunities for digital equity	"Once the barrier of cost is removed, the second challenge relates to technology-related self-efficacy and social support. Older adults with little or no exposure to ICTs are insecure and uncomfortable with their ability to access eHealth. Hence, social support is necessary and a key requirement to facilitate training, practice, and encouragement so older adults can become comfortable with using technologies to access eHealth services" (Blaschke et al., 2009; cited in Fang, Siden, Korol, Demestihas, Sixsmith, & Sixsmith, 2018, p. 313).			
Equity considerations	"Individuals experiencing mental illness may own smartphones but may not have the technical skills to participate in the digital world and to utilize health-related technology to its fullest potential The prevailing notion of "if you build it, they will come" discounts the experience of individuals with limited tech competencies and limited access to digital learning opportunities. As a result, people with serious mental illness (SMI) often cannot access the very tools that are being developed for their benefit" (Hoffman, 2019, p. 10).			
	"Technology gap, with some lacking access to basic technology like smart phones and/or the Internet. Hospitals and clinics could offer "digital rooms" where patients can drop by and use computers. Smart phones should be offered to people who can't afford them. Rural areas need consistent and affordable broadband access. Knowledge gap, with some not knowing how to use computers. Digital literacy could be addressed with free courses and resources, giving people the opportunity to learn and understand how to use digital mental health care" (Gratzer et. al. 2021, p. 7).			
Relevance				
Barriers and ongoing challenges to equity informed digital services	"Need to establish systematic ways to ensure that potential health inequities are identified and addressed in digital health policies, strategies, and programs so that existing health inequities are not reinscribed onto our virtual health landscapes Need to be purposeful in implementing digital health in an equitable way and in measuring health outcomes through an equity lens. If we do not collect health equity data, we cannot monitor health equity outcomes" (Crawford & Serhal, 2020).			
	"Diminished accessibility to technology based on various societal and social factors, sometimes referred to as the digital gap or digital divide, can perpetuate inequity based on various social factors The digital gap does not occur solely due to accessibility to the Internet, and the reasons for slow adoptability of telehealth by various populations are several and			

sometimes intertwined with other hurdles not related to access" (e.g., immigrants, insurance coverage, transportation) (Ramsetty & Adams, 2020, p. 1148). "Internet use among older adults is predicted by age, gender, education, income, health, prior experience with technology, use among the members of one's social network, and contextual factors. From a developmental perspective, people become more vulnerable as they grow older. Therefore, they have to make a greater effort to learn to use new technologies and often have to overcome the barriers arising from having fewer cognitive, physical, financial, and social resources" (Seifert et. al. 2019, p. 568-569). Current efforts to improve Difficulty with scaling-up (e.g., what is developed in urban settings doesn't work for all Indigenous communities). Recognize that "success" in the eHealth initiative may be measured differently by the implementation team and the community itself; access and use community involvement in every stage of development, implementation, and evaluation (Madjedi & Daya, 2016). "Digital options should become part of a menu offered to patients, guided by evidence and their interest (and resources)" (Gratzer et al. 2021, p. 6). Trends and future The digital divide is commonly thought to be driven primarily by income inequality but, in fact, lack of affordability is only a opportunities for digital barrier for a fraction of Canadians. Instead, a more salient issue is that of relevance (Ipsos Reid, 2016). equity Including representatives from at-risk groups in planning for targeted mental health response to COVID-19 - committing to research and interventions that address the effects of the social, cultural and structural determinants of health on mental health and mental health care access (Murphy et. al., 2020). **Equity considerations** Need to focus on the socio, technical, economic and political context of outcomes for different populations and a need to develop equitable strategies in eMental health; Outcomes are specific to equity, and can be applied both proactively in designing equitable ehealth strategies, and reactively to evaluate distribution of health and well-being after ehealth implementation (Antonio & Petrovskaya, 2019). "The predominant view in the eHealth policy sector that individual/citizens/ patients can and want to self-manage through eHealth applications is an assumption of an ideal type of citizen/patient that may be counterproductive from a health equity perspective. However, in order to shrink existing health gaps in a population, eHealth technology ... must be critically examined in terms of whether they will contribute towards health equity before investments are made" (Hellberg & Johansson, 2016, p. 5).

Need culturally appropriate and effective services, with careful consideration of Indigenous values and local community needs (Hensel, Ellard, Wilson, & Sareen, 2019).

Innovations developed without context may largely benefit health outcomes in one sector of society while inadvertently creating, sustaining, or increasing health disparities in another. "This can further perpetuate health inequities through the creation of a new configuration of the digital divide—a paucity of culturally informed or culturally useful health informatics or digital health interventions" (Brewer et. al. 2020, p. 2).

"There must be a synergistic balance between providers being empowered to effectively choose and evaluate digital products on an individual basis for their patients, and more transparent and accessible information on individual products" (digital specialist or 'digital navigator') (Friis-Healy, Nagy, & Collins, 2020, p. 12).

"Under-representation of BIPOC in the product development process has potentially reinforced structural inequalities in our healthcare system by limiting availability of products that are culturally inclusive and effective" (Friis-Healy, Nagy, & Collins 2020, p. 10).

"Emerging technologies, when accompanied by sound policy and coordinated community action, may reduce health disparities both in specific cities or regions... Using digital health technology as a strategy for equity should include community-centered design and implementation strategies as well as a cross-sectoral approach that takes into account social determinants of health" (Graham, Ostrowski, & Sabina, 2016, p. S164).

"The design and implementation of digital health should address the needs of the worst off through their participation... requires developing a deep understanding of the relationship between technology and the intersectional disadvantage the worst off face on an everyday basis" (Winters, Venkatapuram, Geniets, & Wynne-Bannister, 2020, p. 262).

Barriers and ongoing challenges to equity informed digital services Current efforts to improve access and use Concerns about online security and lack of motivation are barriers to use of digital health services (Ipsos Reid, 2016). Current efforts to improve access and use

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families to see whether digital privacy policies are suitable for them" (Gratzer et. al. 2021, p. 6).
"Significant risk of worsening or creating new fissures in trust between the users of technologies and those creating them and using the data they produce" (Arevian, Jones, & Chung, 2019, p. 216) due to insufficient consent and privacy policies. There is a "risk of research studies not including enough participants from different racial/ethnic groups due to combinations of mistrust of communities, limited access, and recruitment of convenience samples from academic medical centers that may not adequately reflect different racial/ethnic groups" (Arevian, Jones, & Chung, 2019, p. 216).
Older adults have concerns related to privacy, trust, and comfort using the Internet for ehealth (Mangin et. al., 2019).

Appendix B Nova Scotia and Canada Digital Resources

Internet for Nova Scotia Initiative	Develop NS	2021	Since the first Internet for Nova Scotia Initiative projects were announced in February 2020, approximately 31,000 of a total of 87,200 homes and businesses already have the network in place to provide new or improved high-speed internet. From May 2019 covering 70% to beginning of 2021 covering more than 88% of households and businesses. 99% coverage should be reached by end of 2023.
Best cell phone coverage in NS (article)	Whistle Out	2019	Cell phone coverage in NS at a glance; Bell - 97.17% covering 54.070 km²; Rogers - 70.93% covering 39.448 km²; Telus - 97.17% covering 54.070 km².
Canadian cellular towers map (website)	Steve Nikkel	2021	Cell tower map for Bell, Rogers, Telus, others.
Modernization of the nova scotia coordinate referencing system through active control technology	Bond, J. GEOMATICA Vol. 69, No. 4, 2015, pp. 419 to 431	2015	85% of NS has cellular coverage.
In the time of COVID-19, slow Internet is more than an annoyance (news article)	Andrew Lupton,CBC news	2020	According to the CRTC: numbers from 2017, only 37 per cent of rural households in Canada had access to 50/10 Mbps, compared with 97 per cent of urban homes.
Review of Alternatives for Rural High Speed Internet (report)	Province of Nova Scotia- Department of Business	N/D	According to the CRTC: 99% of Nova Scotians have access to internet speeds of at least 1.5 Mbps; difficulties of high speed internet coverage; Reported Problems from lack of broadband services: Difficulties in establishing internet connections with existing provider services; Extremely slow download speeds relative to advertised speeds; Unreliable internet connections.
Compare Canadian Coverage Maps from All Carriers	Compare Cellular	2021	Bell, Telus, Rogers, Freedom Mobile, Sasktel, Videotron, Bell MTS, Popular cell phone plans.

The State of Broadband Internet in Canada	D. Theckedath; Library of Parliament	2020	Data from 2018; share of Canadians aged 15 and older using the Internet rose from 83% in 2012 to 91% in 2018; In 2018, a CRTC study found that Canadian consumers paid less than those in other developed countries for lower-speed services, but paid more for higher-speed services.
High-Speed Access for All: Canada's Connectivity Strategy	Innovation, Science and Economic Development Canada	2019	In 2017, only 37% of rural households had access to 50/10 Mbps, compared with 97% of urban homes; Only about 24% of households in Indigenous communities have access to 50/10 Mbps.; monthly price is not the only factor in affordability. For example, the data usage available, including whether an unlimited data option is offered, is just as important.
Canada ranks on top of Internet affordability: Economist	Brian Jackson, itbusiness.ca	2017	In terms of affordability, Canada's Internet providers actually ranked 12 out of 75 overall. Even in rich countries, large portions of the population are left unconnected in the 21st century.
Government Makes Investments in Family Doctors (news release)	Government of NS	2019	Family physicians who enroll their patients in MyHealthNS, the province's personal health record that enables patients to view test results electronically, will be able to receive up to \$12,000 per year for using technology to communicate with their patients.
Households with access to the internet at home by geography	Stats Can	2021	Statistics by province and year.
Canadian internet use survey	Stats Can	2019	Overall, 94% of Canadians had home Internet access. Among those who did not have home Internet access, reasons included the cost of Internet service (28%) and equipment (19%), and the unavailability of Internet service (8%). In Nova Scotia, 88.5% of residents 15 years of age and older use the internet (2018).
Canada's internet factbook	Canada Internet Registration Authority (CIRA)	2020	Internet and digital options used in Canada during Covid.

Appendix C Tools and Projects, digital equity and mental health

Tools			
A systematic approach to equity assessment for digital health interventions: case example of mobile personal health records	Were, Sinha, and Catalani	2019	assessing equity impacts of digital health interventions in Kenya using the HEIA.
Digital Health Equity and COVID-19: The Innovation Curve Cannot Reinforce the Social Gradient of Health	Crawford & Serhal	2020	Canadian; Digital Health Equity Framework for assessing ways how digital determinants of health may impact digital health equity.
Health Equity Impact Assessment (HEIA) Workbook	Ontario Ministry of Health and Long-Term Care	2012	Canadian; Tool to assess health equity impact of public health strategies, including digital equity interventions.
Web Pages		•	
Bridge the Gap	Bridge the Gap	2021	Online mental wellness resources, Canadian/provincial.
eMentalHealth.ca	Children's Hospital of Eastern Ontario (CHEO)	2021	Canadian; online directory of MH resources.
Mental Health and Wellbeing	Government of NS	2021	Canadian Resources & links.
eMental Health Tools and Services	Chartered Professional Accountants Atlantic	2021	Canadian Resource links.
Digital equity – First Nations technology council	First Nations Technology Council	2021	Canadian Web links, funding opportunities.
National Digital Equity Center	National Digital Equity Center	2021	Resources & support for communities.
Digital divides and health equity	САМН	2020	Canadian; resource links.
<u>Digital Equity Toolkit</u>	Consortium for School Networking	2018	Digital equity initiative, online toolkit.

Webinars			
Assessing and reducing health disparities in virtual care	Alison Crawford	2021	Canadian Webinar.
Digital Platforms for Social Service Delivery	Federation of Community Social Services of BC	2020	Canadian Webinar – scroll down webpage about half-way to access recording.
eMental health	Thunderbird Partnership	2019	Canadian webinar.
Documents			
Research Snapshot: Digital Interventions to Support Population Mental Health during COVID-19: A Knowledge Synthesis	Evidence and Exchange Network for Mental Health and Addictions	2020	Canadian overview of research findings.
Caring in a Digital World: Introducing Disruptive Change to Mental Health Care	Mental Health Commission of Canada	2020	Canadian eMental health conference program.
Newfoundland and Labrador Stepped Care 2.0© E-Mental Health Demonstration Project Final Report	Mental Health Commission of Canada	2019	Canadian project implementation report.
Rural eMental Health	Carleton University	2019	Canadian research report.
Digital interventions for mental health	Doneva, R.	2016	SWOT of mental health digital interventions and overview of technologies available.
Projects		l	
Implementing a Youth Mental Health Apps Database in Canada	Wisdom-2-Action	2021	Canadian research project.
eMHIC eMental Health International Collaborative	еМНІС	2021	International network of professionals working in e-mental health; Mental Health Commission of Canada (MHCC) is a funder.

Appendix D Key Informant Interviews (content grid)

Note: numbers in brackets do <u>not</u> represent citations – they represent number of respondents.

	Access	Affordability	Digital Literacy	Relevance	Safety/Security
Barriers and	Who can benefit - all of us! (5).	1. Cost of devices, Internet and	1. Cannot make assumptions re	1. Need for research - Who are	1. Overcrowding; partner violence - not
ongoing	Whomever needs access to services	data plans, (5) is a Canadian	literacy – general literacy, health	we not hearing from? How do we	safe to meet digitally (4).
challenges to	should be able to access services	barrier compared with other	literacy, digital literacy (2).	reach out through our networks	2. Some feel safe and more comfortable
	barrier free - Should be a basic right	countries such as USW, Mexico,	2. Public misinformation - How	to reach those who are not	at home - helpful to service providers as
equity informed	(4).	Europe (1).	does the public know the difference	currently engaged digitally or not	they see clients at home (2).
digital services	1. Benefit the most – Those who have	2.Cell phones often cheaper that	between sites like Facebook and	using the Internet? How do we	3. Need to consider those who are not
	grown up with the Internet; those who	landline and Internet (1).	Mindwell? (1) .	know what they need? (2)	safe at home; or have childcare, eldercare
	are connected; some feel safe at	3.Costs have been assumed by	3. Comfort level of staff. A real	2. Cultural relevance important –	responsibilities (2).
	home, helpful to service providers as	NGOs - Finances an issue for	challenge to increase capacity to	need to see themselves in the	4. First Nations report that even with
	they see clients at home; those who	NGO budgets. They raised	relate digitally. For younger staff it	tools (1).	technology there is no where to go to find
	have tools, capacity; those without	funds, realigned budgets to send	was easier. (1) A new way to work -	3. Language is also important.	privacy with 2-3 families in a home (1).
	vehicles; childcare issues; for those in	phones, tablets to patients and	harder to do but doable- takes	Acadian and francophone people	5. Required extra client consent for staff
	rural communities there is less travel;	community members most	more time and a bit of trial and	need services in their own	and families to work from Zoom - had to
	anxiety - fewer steps.	marginalized - tools went out	error. Needed training, e.g.,	language when in a crisis. Need	be assured by staff working in home office
	2. Benefit the least – those with over	fast - a bandaid solution outside	electronic charting.	to build a platform that is free	(1).
	crowding at home, partner violence –	of organizational budget. Once	4. People have varied capacity	and bilingual for everyone who	6. Interagency consent forms for those
	not safe to meet digitally, limited	people had phones, anticipated	influenced by intellectual	needs it (1).	with complex needs requires written
	access to phone, Wi-Fi Internet; lack of	government or others would	challenges, cognitive impairment,	3. Have services over the phone	consent. Had to work with privacy folks to
	financial means to afford a "privilege";	provide data plans. (1)	disability, mental illness - all require	so people can speak in their own	develop a new digital form to ensure
	low digital literacy (5), parents with	4. Finances could be an issue for	consideration (2)	language. Staff report that it is	compliancy (1).
	kids at home (1), BIPOC, LGBTQ+,	community organizations Post-	5. May not have skills – 211 deals	easier to disengage on screen	7. Need mechanism for emergency
	refugees (1). Also therapists who	COVID when criteria for federal	with frequent calls for help in filling	than in person (1).	referral, e.g., 211 may receive a suicide
	cannot deliver exposure therapy (1).	funding shifts the focus from	in online forms, e.g., elderly (1).	4. Depending on diagnosis, digital	threat by text; it is picked up by a
	3. Internet access not available in all of	determinants of health (1).	6. NS has many elderly people and	interactions could increase	navigator who encourages a voice channel
	rural Nova Scotia (7). Need a	5. Schools Plus received federal	"its difficult to change old habits to	symptoms, e.g. think they are	and a connection with a "real person".
	community centre where there is a	funds to help with devices, wifi	the new reality since COVID" The	being spied on and won't engage	8. Staff mental health at risk working in
	phone line and Internet access (1).	that could be distributed.	barrier is often anxiety as they like	(1).	isolation at home.
	4. Poor roads, no car, no public	6. Biggest barrier is lack of	familiarity. (2) "They may have a	5. Need to find a format that can	9. Staff have to be careful of value
	transportation, isolation limit ability to	resources. We can provide	phone they use for making calls but	be texted - vulnerable families	judgement. "Not all they see in the home
	reach central access points (1), such as		nothing else".	text only.	environment needs to be reported."

school parking lots (1).	training but we need resources	7. Many kids supported by	6. Need for central intake line to	10. Need private spaces for clinicians and
5. Setting up a data plan on a phone	for devices and the Internet.	grandparents with low digital	set up in-person meeting or	safe spaces students who are in a different
easier than setting up Internet		literacy. Some had no device, or	Zoom call to assess best line of	school than the clinician. Students cannot
Service, which costs, as users have free		Internet access living in rural areas	treatment and provide a list of	be left alone without an adult.
wifi access due to school, library wifi		(1).	options as visual, non-verbal cues	11. Secure platforms - Students can access
availability in parking lots (1).		8. The variety of platforms such as	important (1).	Zoom for counselling on a Chromebook if
6. Skepticism and lack of trust on the		ZOOM, Webex, Teams, google	7. Need to offer options (5) – not	it is set up by a professional who is
part of marginalized groups due to		classroom requires additional	everyone is comfortable with	licensed; but cannot access Zoom on
history of lack of investment. Need		learning (1).	screens. How do people prefer	Chromebooks for their own purposes as it
focus on relationship building.		9. Intergeneration approach and	to access services? E.g., Text a	is less secure.
		commitment to training brings	preference for teens Not every	12. A physician may prefer to speak on the
		results in communities.	need can be met through screens	phone, however visual symptoms cannot
			- food security. E.g., mailed food	be assessed which could jeopardize
			boxes, recipes that could be	patient safely. Digital provides access to
			cooked together via Zoom.	visual cues.
			8. Now is the time! we can offer	
			virtual care and it will only get	
			better. Phones will fizzle out -	
			Young people use social media	
			not the radio. Digital services	
			need resources, training and	
			adaptation to need.	
			9. Be creative - use all	
			technologies including speakers	
			on firetrucks to get messages out.	
			to the hard of hearing or those	
			not online.	

Current efforts
to improve
digital equity

- 1. With COVID, some clients received cell phones, SIM cards from CMHA NS. Soon evident that even with a cellphone, with no data plan or data only accessible late at night. Online services not easily accessible ibn rural areas (1).
- 2. Intake team in one area offered evening hours (1).
- 3. Schools Plus offered services when schools were closed, first through Zoom Telehealth and now through Zoom Education.
- 4. Federal funding was used to enhance infrastructure in the schools and establish access points that would cover the parking lot.

- 1. Organizations (CMHA NS, MHFNS, Schools Plus) wrote proposals, raised funds to increase access to devices, capacity for digital literacy, individual support (3).
- 2. Programs are available to subsidize purchase of devices and Internet for seniors and elderly, but not widely known. IT at Dept. of Education is frequently contacted for information.
- 3. Schools Plus has a national program sponsored by Industry Canada and Dept. of Ed which refurbishes government retired computers and gives them to NGOs and schools. Devices could be loaned to students.
 4. NSH collaborated with NS Brotherhood, Health Association for African Canadians, to secure

funding for laptops, tablets.

- 1. Staff training was offered through IT and LMS learning modules. As well, staff were helping staff (1).
- 2. In a mental health unit in Cape Breton, building client capacity was individualized some already on Zoom, some needed teaching and came into the clinic (1).
- 3. Increasing digital literacy amongst francophone elderly is being lead by FFANE and RANE (Elderly Association of Nova Scotia).
- 4. Schools Plus offered Professional development through Healthy Voices and IWK; provided tips to counsellors, professionals on how to run programs virtually and help them become familiar with various platforms.
- 5. Social worker team in N.Preston and surrounding communities connected community workers with younger generation (nieces, nephews) to teach elderly how to use a computer, phone or tablet. If no family member, the worker would "walk them through it" or they could come into clinics for 1:1 instruction. "Training doesn't stop when COVID stops We can't leave our wisest, elderly community behind we have to push forward so we are prepared for the next crisis".

- 1.Mental Health and Addictions website provides universal approaches (1).
- 2. 211 offers a one point of access for referral to services through phone, text, chat, translation services and a website.
- 3. A number of other organizations are offering support using mixed approaches: Men's Help Line, Red Cross Friendly Calls, Laing House- Laing online- Peer support, Archway Counselling Assoc. Phone or Videoconference counselling, Channel of Peace Counselling Services- Skype Counselling.
- 1. Some Organizations stressed self-care and also provided webinars on mental health and how to manage family and working from home.
- 2. Some communities provided headsets to increase privacy.

Trends and future opportunities for digital equity	Connectivity Nova Scotia - 2023 guiding the rural connectivity.	Government- initiated online delivery during COVID can be strengthened with increased recognition and resources of community organizations (3). Community groups are tapped in - understand the people they serve (1). Partner with fire stations, legions, community centres may be more equitable and safer than school parking lots (1).		1. Research - 211 has offered to assist with research as to needs and barriers as they have contact with 3-4000 Nova Scotians each month. Now national, can help with the question: Who are we not hearing from? **To provide supportive evidence of the reach of 211 to marginalized populations, 211 NS Navigators were consulted their testimonials are included in the final report. 2. There is opportunity through technology - there needs to be a new focus on accessibility which describes several categories such as impaired vision, accessible and non-accessible PDF screen readers. New platforms need to be created carefully with a user experience perspective.	
Key messages	1. If governments are expecting people to access services online, what are they doing to ensure access that is equitable in terms of cost, location, capacity. We need to consider layers of literacy – and ask who are we not hearing from? And how do we reach them?	2. Consider individual circumstance of user's ability and capacity. A significant group is disadvantaged by the practice of putting all services online.	3. Need to build on what people are doing. Would like to know if there is something specific that comes from this project that provides <i>policy direction</i> .		5. Hope government recognizes the need and supports NGO's who are out in the field meeting short term needs with limited opportunity to fundraise (due to COVID). Increase Internet access to CAP sites, and local organizations. "We can help get into communities but hope others recognize the need and respond. We can't fundraise anymore".

	6. I wish federal and provincial governments would be fully able to understand that NGOs are facing COVID realities and that funding is important for survival to support communities.	7. Every individual needs access to the Internet, devices and capacity to use them. Don't assume people do, otherwise we leave out a significant portion of the population. We need to solve the problems rather than giving up on digital.	8. Canadians live in a sparsely populated country with high demand for the Internet. We need to provide real connectivity at an affordable price for all.	9. Rural communities need support - black or white! How do we attract people to work there? Need to attract and retain them. Marginalized communities are skeptical due to short term, band aid solutions of the past. They need investment.	
Insights	-"I focus on equity but digital equity is not a term I use — appreciate being educated" (3).	- "Much of the conversation is about connectivity, although people recognize inequities" (1).	"Digital equity is a new concept that builds on equity work" (1.)	"Digital equity resonates conceptually - maturing through COVID as it happened quickly" (2).	"A positive impact is the access to expertise and support across geographical boundaries" (2) "Some people would rather be in a virtual group with people in another area of the province than bump into them the next day."
	"Everyone is reliant on connectivity with family and friends - needed by all" (1).	Going digital allows for service delivery during storms (1). Cancellation rate lower with people who booked online (1).	Many kids were less stressed during COVID as families had more money with CERB. Word of mouth is that kids are doing well.	There needs to be a new focus on accessibility which describes several categories such as impaired vision, accessible and non-accessible PDF screen readers. New platforms need to be created carefully with a user experience perspective.	"Build and they will come - Provide and they will learn."
Ideas for action	Create a digital equity assessment tool.	If the expectation is to be online, there needs to be free support offered to learn skills to navigate. Identify a Digital navigator who can make home visits.	With adequate government funding small community organizations can help to increase capacity and expand service boundaries locally by offering central points of access close to home. And also work with citizens to build digital literacy capacity.	Acknowledge the value of NGOs and fund adequately.	Internet access must be solved.

Interviewees - 9	Leadership & Administration - 2 Clinical Staff - 1
	NSH Stakeholders - 1
	Partners - 5

Appendix E Service Providers Gov't Focus Group (content grid)

Note: numbers in brackets do <u>not</u> represent citations – they represent number of respondents.

	Access	Affordability	Digital Literacy	Relevance	Safety/Security
Barriers and ongoing challenges to equity informed inclusion	 Greatest demand related to withdrawal support - access to devices, wifi low. Can't assume that people have devices or wifi. Strong Internet needed throughout NS. People with disabilities need accessible technologies with their needs built in from the beginning. Trust and stigma could be a barrier. Need to focus on relationship building (1) Language a barrier - especially the newcomer community. 	1. No local call # for Zoom so someone has to pay long distance charges. 2. Using their own data and incurring costs, unless congregating around a library or school for wifi. 3. High rates of poverty in First Nations impacts affordability of devices and Internet access.	Healthy Minds was requested by post-secondary students with low to moderate symptoms to increase access to more mental health services. Post- secondary students are more comfortable accessing the Internet.	1. Culturally sensitive - African Canadians do not access programs because people don't see themselves represented. Need to welcome the community when creating programs - be consciously aware. Ensure BIPOC representation on Advisory Committee. (1) 2. No one solution works: Off the shelf products are not so inclusive. (1). Programs that are parachuted in don't always work (1) 3. Blending online sessions with outdoor, physically distanced sessions effective when culturally sensitive.	1. First Question - How can I see people safely? 2. Students need private spaces. 3. Everyone needs autonomy and privacy 4. Currently many youth have no privacy - live in crowded houses and often parents may take the phone.

Current efforts to improve inclusion	1. Healthy Minds program made mental health services accessible to post secondary students beyond 9-5. 2. Virtual Wellness program set up for 3 zones outside Central Zone. Being evaluated with a grant from McConnell Foundation.	During COVID funding was secured for devices and health centres on First Nations opened for access to wifi. Treatment programs, support groups were offered via Zoom. Allowed for a student placement virtually from U of T. Also allowed Health Directors to meet as a group. Does not replace face to face but overcomes distance.		Clinician needed to pivot very quickly in meeting the needs of clients for care, stressed the need to take an individualized approach- if there is no wifi, then problem solve around it. Make suggestions, cell phone easiest. Drive where there is access to wifi. If no phone, who is a family member who has a device where you can have a private conversation? Might take 2-3 times. Needs to be reassuring but it works.	A solution adopted by a clinician working with individual clients was to incorporate secure online programs such as Medio in private practice, and then adopt programs recommended by the province when they became available.
Trends and future opportunities for digital equity	Nova Scotia Connect 2023.				
Key Priorities		Partner in advancing the conversation begun during this call - keep the spirit of collaboration going - keep up the momentum (5).	3 Connect community resources to the system - possibly through having a Community Navigator.	4. Build policy for digital equity supported by sustainable funding.	5. Diversity and inclusion training needed to ensure broad representation in the planning process.
	6. Ensure diverse representation - "nothing for us without us" (2).	7. Evaluate if what we are implementing is effective - quantitative and qualitative.	8. Be creative - complement digital with face to face - look at alternative ways for people to access services, e.g., nature, beaches, space where people can gather.		

Opportunities	1. Awareness of the need for	2. The virtual world increases	3.Wider acknowledgement	
	change (2).	access in some ways - promote the	that digital programming will	
		positives.	always be part of our world	
			and work to increase access -	
			create a Digital Equity	
			navigator.	

Participants - 7	Leadership & Administration - 2		
•	Clinical staff - 1		
	NSH Stakeholders - 0		
	Partners - 4		

Appendix F Community Org Focus Group (content grid)

Note: numbers in brackets do <u>not</u> represent citations – they represent number of respondents.

	Access	Affordability	Digital Literacy	Relevance	Safety
Barriers and ongoing challenges to equity informed inclusion	1. COVID has had a huge impact - "most vulnerable have no access to devices, can't afford a landline, let alone a cell phone." (1). 2. Assumed people had access, e.g., students told to study from home (2). 3. During COVID libraries closed, left the wifi on for access outside the building (1). Elderly would sit outside to access it (1). 4. Everyone moved online to ensure equity and left a subset with nothing - without access to vehicles could not get to a parking lot to access wifi from adjacent building. 5. At the beginning thought it would be easy to go online but soon realized that access to the Internet was limited. Rural areas have limited Internet connection (2). 6. Poor weather a barrier; reduces connection. 7. Reduced local public Infrastructure, i.e., pay phones and CAP sites are not widely available.	1. People can't either afford wifi or Internet connection is poor (2) 2. (some NGOs) had many generous donors pay for devices - but youth had no wifi at home. 3. Difficult to set up an Internet account for someone else. 4. Financial concerns are widening beyond marginalized populations as some people have to pay back CERB, so disconnect from the Internet to cut costs.	1. Do people know how to talk about devices? Do people have visual impairments where they need talking books? 2. Before COVID, 1:1 training was available at libraries for those who could access a physical branch. 3. Many seniors do not have credit cards, always pay in cash, but they could not leave the house. A challenge to order groceries and pay for them.	1. COVID magnified issues to degree we cannot ignore. Access to technology is necessary to access health care. 2. "E-mental health is draining even with skilled, literate clients." Many would prefer to access clinical mental health services by e-mail. 3. Some people prefer face to face vs virtual. 4. "We need to ask - who is the individual in front of us? What do they need?"	1. Sitting in a parking lot in a car or without a car is not safe. One person who walked to a school parking lot was arrested for loitering. 2. Racism is prevalent - "imagine if that was a black person sitting outside that building".

Current efforts to improve inclusion	 Libraries have been using mobile wifi units for years. Recently purchased "mifis" and chromebooks for loan to individuals in the Halifax area. Received a COVID grant from TD to work in Spryfield/Sambro area. Purchased 50 mifis and chrombooks to loan out through community partners. Recently launched. Mifis will be loaned for 6 months. One of the unknowns is that a mifi uses data - and the question is who pays? 	1. CMHA NS partnered with others writing grant applications to the Atlantic Compassion Fund and secured \$200,000 for devices, Internet access for 1 year in Cape Breton. 2. Health Association for African Canadians Received funding from the Red Cross - purchased tablets and received a donation for wifi for 3 months.	Seniors Network Coordinator continues to receive calls from seniors in Pictou County.	Laing House is currently revising their intake strategy to a more individualized approach.	
Trends and future opportunities for digital equity	Libraries have been seeking creative ways to lend the Internet and there is a way to do it by providing wifi in buildings the library does not own. It is affordable needs negotiations to work. Stellarton Town Council has recently passed a resolution re Internet Access.		211 now a national service offers free telephone support; text, chat features Challenges being reported with use of digital solutions and that homeless, disabled are struggling. Can learn from other provinces and collaborate on addressing these issues.		
Key Priorities	Make the case for equity across Canada - establish policies <u>and</u> funding for digital equity (8).	2. Transportation is key.	3 Collaboration between government agencies at all levels, corporations and communities needs to be pursued.	4. Government needs to coordinate within government.	5. Need to recognize and fund NGOs - "stop falling on NGOs".
Opportunities	1. It is affordable and possible for libraries to provide wifi in buildings that are not their own.	Municipalities have an interest - Collaborate with municipalities.	The presence of 211 - an established service in Nova Scotia.		