Closing the Digital Divide in Timiskaming

Evaluation Report

June 23, 2022

Services de santé du TIMISKAMING Health Unit

Report authored by Timiskaming Health Unit.

For a list of contributors to this project and their roles, please see here.

For more information, please contact Amanda Mongeon, Manager of Community and School Health, at mongeona@timiskaminghu.com

Prepared by:

Robert Northcott, Public Health Promoter

Reviewed by:

Kerry Schubert-Mackey, Director Strategic Services and Health Promotion

Amanda Mongeon, Manager of Community and School Health

Closing the Digital Divide in Timiskaming

Contents

Key Messages

Overall, the results of this evaluation indicate the program was successful in addressing the digital divide and reducing the severity of this issue during the COVID-19 pandemic.

Both project recipients and referral partners were able to share their valuable insights on the local state of the digital divide through this evaluation.

Over the course of this project, 401 unique clients were serviced, and when accounting for household members an estimated 723 people were helped over the course of this project. The target audience of this project was older adults and people who experience financial hardship. Of the 401 clients who were served, 83% were people who made $25,000 or less per year, and 47% were people 50 years of age or older.

Devices helped to support project clients in accessing online learning and health and well-being information. Clients also identified the top unintended impacts experienced over the course of the project, which included confusion trying to operate device and cybercrime as the two most mentioned unintended impacts.

Barriers to project success included budget/funding limitations, challenges of project sunsetting, and the need for support and additional follow up for clients and referral partners.

Top facilitators of project success identified by referral partners included easy, efficient and timely processes, opportunities given to clients and/or community, and community partner involvement. Conversely, clients identified top facilitators of project success as reasonable wait time to receive device, support available in language of choice, and being treated with dignity and respect when needing information about the project.

Top barriers to digital inclusion beyond the duration of the project included affordability, challenges with Internet connection and availability, and lack of support available in regard to digital literacy. The top two facilitators to digital inclusion beyond the duration of the project were affordable quality Internet services at home and public places with free Wi-Fi.

Future initiatives addressing the digital divide need to consider the importance of high-level approaches to address this complex issue. Addressing locally relevant issues, including digital literacy, ongoing access to devices and Internet services, and addressing the root inequities in Internet service cost and quality in rural areas are vital considerations for future efforts locally.

Closing the Digital Divide in Timiskaming

Executive Summary

Summary

Background

The 'Digital Divide' refers to gaps between people in their ability to access and use Internet connected technology, such as smartphones and personal computers.[1] The ability to learn, work, and socialize with others online is vital, a fact highlighted within the COVID-19 pandemic.

The goal of the ***Closing the Digital Divide in Timiskaming*** project was to address inequity through the provision of technology and Internet to families experiencing low-income and older adults experiencing barriers to accessing digital technology. Selected recipients identified by community partners received a new device (i.e., cellphone, tablet, or laptop), and/or cellular data, or a MiFi hub for a predetermined number of months. Recipients were not required to return the device at the end of the project.

The reason for this evaluation was to gather data to inform implementation decisions and support accountability and transparency related to use of resources during the COVID-19 pandemic. It was designed to answer five evaluation questions:

1) How many project participants qualified as either an older adult or someone with financial hardship?[i]

2) To what extent did the devices and services provided to recipients support them over the course of the project?

3) What unintended impacts (both positive and negative) were experienced by participants over the course of the project?

4) What barriers and facilitators did program participants experience over the course of the project?

5) What barriers and facilitators to digital inclusion will participants face beyond the conclusion of the project?

Findings can be used to guide future work addressing the digital divide or to help guide other interested parties in replicating a similar device distribution program.

Key Findings

Note: While the data gathered and analyzed through this evaluation did indicate that a majority of the evaluation objectives were met, there were significant limitations (see *Limitations* section for more detail). As such, the results should not be interpreted as being representative of broader populations.

Data for the evaluation came from participant registration information (n=430) and participant and referral partner surveys (n=53 And n=30, respectively). Of the 53 clients who responded to the survey,

[i] For the purposes of this evaluation question, the term 'financial hardship' was used to define people living with lower income (i.e. people who make at or below $25,000 annually).

73% were people who made $25,000 or less per year, and 53% were people 50 years of age or older. Project participants were asked about their demographic information, the supports afforded by the project devices/services, barriers and facilitators, and unintended impacts they experienced. From these responses, the program has been well received by those living with low income and older adults as well as community partners in the THU catchment area. Overall, the results of this evaluation indicate the program was successful in addressing the digital divide and reducing the severity of this issue during the COVID-19 pandemic. Furthermore, the evaluation findings suggest that the project may have impacts in addressing digital exclusion beyond the life of the project, however affordability and access to quality Internet services and digital literacy are likely to remain ongoing challenges.

Project Reach

This project served 401 clients, and when accounting for household members, helped an estimated 723 people. Of the 401 clients who were served, 83% were people who make $25,000 or less per year, and 47% were people 50 years of age or older.

Project Impact

According to both clients and referral partners, devices helped to support project clients primarily with accessing online learning and health and well-being information. Unintended impacts identified by clients included confusion trying to operate their device and cybercrime.

Project Barriers and Facilitators

Barriers to project success included budget/funding limitations, challenges of project sunsetting, and the need for support and additional follow-up for clients and referral partners. According to referral partners, facilitators of project success were easy, efficient and timely processes, opportunities given to clients and/or community, and community partner involvement. From a client perspective, facilitators were reasonable wait time to receive device, support available in language of choice, and being treated with dignity and respect when needing information about the project.

Beyond the duration of the project, barriers to digital inclusion included affordability, challenges with Internet connection and availability, and lack of support available for digital literacy; facilitators were affordable quality Internet services at home and public places with free Wi-Fi.

Conclusions

Overall, the results of this evaluation indicate the program was successful in addressing the digital divide and reducing the severity of this issue during the COVID-19 pandemic. Evaluation findings suggest that projects like the Closing the Digital Divide in Timiskaming project could be used to address digital inequities, support access to health and social services, and facilitate social inclusion during a pandemic situation when public health measures are in place. Future initiatives addressing the digital divide need to consider the importance of high-level approaches to address this complex issue. Addressing locally relevant issues, including digital literacy, ongoing access to devices and Internet services, and addressing the root inequities in Internet service cost and quality in rural areas are vital considerations for future efforts.

Closing the Digital Divide in Timiskaming

Evaluation Report

Background

Program Description

A group of community partners in the Timiskaming Health Unit area began meeting regularly in March 2020 to identify opportunities to collaborate and mitigate COVID-19 related health and well-being disparities. Partners identified barriers to technology for population groups such as those living with low income and seniors as a gap needing to be addressed. The discrepancy between those who have access to communication technologies and those who do not is referred to as the digital divide.[1] This divide results from several factors, including the high cost of accessing electronic devices and services, lack of digital technology skills, and limited Internet connectivity in rural Northern Ontario.[2, 3]

Access and effective use of the Internet has been coined as a "super social determinant of health" as it allows for many other social determinants of health to be addressed. [4] The lack of equitable access to technology has been a long-standing issue for vulnerable populations, including older adults and those experiencing low-income .[5, 6] The global COVID-19 pandemic has exacerbated this and a host of other pre-existing equity issues.[7]

In response to the COVID-19 pandemic, the Government of Ontario enacted emergency orders under the Emergency Management and Civil Protection Act on March 17, 2020.[8] Several public health measures were implemented to mitigate the impact and transmission of COVID-19, including the closure of schools, non-essential businesses, and government offices. Mental and physical health services moved to online delivery; government financial supports required online applications; students were required to participate in distance learning; employees began working from home, and social exchanges were limited to virtual interactions (Appendix 1).

With funding from the Ministry of Municipal Affairs and Housing's Social Services Relief fund via the District of Timiskaming Social Services Administration Board, as well as United Way and Temiskaming Foundation and partnership with Canadian Mental Health Association Cochrane-Timiskaming, Timiskaming Health Unit and various local community partners, the Closing the Digital Divide in Timiskaming project was implemented from October 2020 until June 2022. The project goal was to address inequity during the COVID-19 pandemic by providing technology and Internet connectivity to families experiencing low-income and older adults experiencing barriers to accessing digital technology. Selected recipients identified by community partners received a new device (i.e., cellphone, tablet, or laptop), and/or cellular data, or a MiFi hub for a predetermined number of months. Recipients were not required to return the device at the end of the project. A logic model for the project is in Appendix 2 and a list of project member roles and responsibilities in Appendix 3.

Findings from a process evaluation conducted in January 2021 and lessons learned by THU are summarized in Appendix 4.

Evaluation Type, Purpose and Scope

The purpose of this evaluation was to gather data that could inform implementation decisions and support accountability and transparency related to use of resources during the COVID-19 pandemic. A process and outcome evaluation was designed to increase stakeholder understanding of the reach and impact of the Closing the Digital Divide in Timiskaming program, identify program implementation barriers and facilitators and perceived barriers and facilitators to maintaining digital inclusion once the program ends.

Evaluation data were collected while the intervention was taking place; survey distribution and data collection were conducted from October 26, 2021, to January 19th, 2022. To guide the evaluation and ensure utility, project stakeholder groups were identified along with their evaluation interests and roles (Appendix 5).

Evaluation Questions

The following main evaluation questions were determined to achieve the main evaluation objectives:

1) How many project participants qualified as either an older adult or someone with financial hardship?[ii]

2) To what extent did the devices and services provided to recipients support them over the course of the project?

3) What unintended impacts (both positive and negative) were experienced by participants over the course of the project?

4) What barriers and facilitators did program participants experience over the course of the project?

5) What barriers and facilitators to digital inclusion will participants face beyond the conclusion of the project?

Note: When these evaluation questions are discussed in other locations of this report, they are addressed under the following headings:

Project Reach	**Evaluation Question 1**
Project Impact	**Evaluation Questions 2 & 3**
Project Barriers and Facilitators	**Evaluation Questions 4 & 5**

Questions, sub-questions, indicators, data sources and collection methods can be found in the evaluation matrix (Appendix 6).

Evaluation Plan Summary

The next section of this report summarizes the Closing the Digital Divide project evaluation plan.

[ii] For the purposes of this evaluation question, the term 'financial hardship' was used to define people living with lower income (i.e. people who make at or below $25,000 annually).

Design and Approaches

A project logic model (Appendix 2) was developed to guide the evaluation design and process. Using a participatory and utility-driven approach, these tools were shared with partners and revised according to feedback received.

Prior to conducting the "Closing the Digital Divide" process and outcome evaluation, the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (2018) was consulted to ensure that all ethical considerations, parameters and regulations were followed to protect the participants involved in this study.[9] The First Nations principles of OCAP (ownership, control, access, and possession) were also reviewed and considered in planning this evaluation.[9]

Methods

Qualitative and quantitative data were gathered from referral partners and project clients over the course of the project using both online and paper surveys. Convenience sampling was used as an inexpensive, time-efficient, and easy sampling approach; this was especially helpful given the capacity limitations imposed by COVID-19 [10, 11]

The intended audience of this evaluation included project referral partners, project clients, and other individuals interested in learning about and/or implementing projects that address the digital divide.

Questions about client sociodemographic information were included in both the application forms and client surveys. These questions were used as an approximate way to determine how well this project reached its target audience.

Client reach and demographic data was collected via the application form developed for this project. This form was filled out by either the client themselves or a referral partner on behalf of the client and was subsequently forwarded to Timiskaming Health Unit for processing. Referral partner surveys were available in an online survey format using Survey Monkey, whereas bilingual client surveys were available in online and paper formats. Client surveys were either completed independently or assisted by the client's referral partner. To minimize bias, a guidance document was provided to referral partners.

Prior to data analysis, data cleaning was conducted. The proportion of missing values in the data was examined; missing values were flagged and excluded from data analysis. Partially completed surveys were also flagged in this process; partially completed responses were included in data analysis, unless the client or referral partner wished to have their responses withdrawn from the evaluation.

All statistical analyses were performed using Stata Software Package. Descriptive statistics for sociodemographic variables were analyzed, frequencies and proportions were calculated for closed-ended questions, and where appropriate, proportion tests were utilized to assess significant differences between groups. Double sided P-values, 95% confidence intervals (CI), and standard error estimates were calculated alongside all parameters for the quantitative data.

An inductive content analysis approach was used for open-ended responses. Rough themes were developed using up to the first 100 responses or until saturation was reached. This initial coding was done independently by two reviewers, then a refined coding schema was created as a group effort by these reviewers. This was an iterative process and continued until both reviewers were satisfied with

the quality of the finalized code book, which was then applied to all responses. Appendix 7 summarizes the data analysis plan.

Evaluation Findings

Evaluation findings detailed below are based on the analysis of 430[iii] client application forms, 30 referral partner survey responses and 53 program recipient survey responses. Of the project recipient surveys, 50.9 % were completed independently and 47.2% were assisted by the referral partner. The client survey had 53 individual respondents out of a possible 295 clients who would have been able to provide feedback at the time of survey closure. As a result, the client survey had a response rate of 18.0%. Conversely, the referral partner survey had 30 respondents out of a possible 64 who would have been capable of providing feedback at the time of survey closure. As such, the referral partner survey had a response rate of 46.9%

Project Reach

Project application forms were used to track the number of unique applicants who applied to the project, as well as demographic information about these clients to determine the reach of the project. Of the 430 applications received by the project as of 5/4/2022, a number of these applications were excluded from the unique client count, due to repeated applications from some clients (15) or due to the devices never being retrieved by the client (5). Additionally, devices that were returned to the project (5) and clients who passed away (4) were also excluded from this final count. This left the project with a remaining 401 unique clients.

On the application form, clients were asked to answer how many household members would benefit from the client receiving this device. Based on the answers provided to this question by the 401 unique clients, it was estimated that 723 total people were able to benefit from this project. Of the 401 unique clients served, 83% were people who make $25,000 or less per year, and 47% were people 50 years of age or older.[iv]

Adjusted Reporting Numbers

It should be noted after the previous analysis was conducted, THU was notified that an additional 3 clients never retrieved their assigned devices. This changed the final number of unique clients from 401 to 398. The approximate proportions of clients who were classified as making $25,000 or less per year and people 50 years of age or older remained unchanged.

Adults over the age of 50 accounted for approximately 53% of our client survey respondents. There were no significant differences between age groups noted during quantitative analysis.

[iii] This number includes applications that were submitted up to and including the date of 5/4/2022; this number includes applications that were filtered out of the final analysis for various reasons, such as repeat applications from the same person or devices that were not retrieved from referral partners, etc.

[iv] This number was cited as an estimate for a variety of reasons, including the fact that living conditions of clients could have changed over the duration of the project, as well as the fact that unique households were not tracked until the 3rd wave of device distributions.

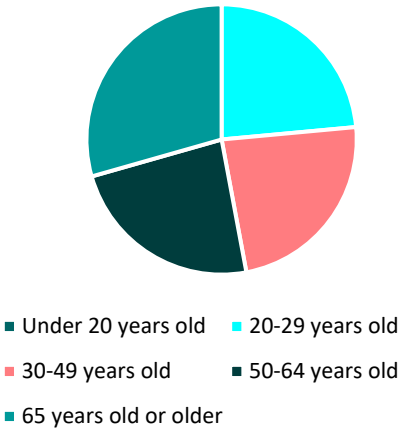
A large portion of the client survey respondents were people who experienced low income; individuals who made under $25,000 per year made up approximately 73% of our client survey responses.

Figure 1: Client Survey Respondent Sociodemographic Profile (Note: 51 people responded to these questions)

Income Bracket

	Percentage of Client Survey Respondents
Less than $10,000 per year	13.70%
$10,000-25,000 per year	58.80%
$25,001-40,000 per year	11.80%
$50,001-70,000 per year	2%
$70,000 or more per year	2%
Prefer not to answer	11.80%

Age group



Project Impact

Significantly greater proportion of clients (47.2%) were provided with laptops compared to any other device/technology. MiFi devices with data plans, cellular tablets and smartphones were the next most common devices requested (each at 17%) followed by non-cellular tablets (13.2%). Less requested technologies were call/text packages with no cellular data and smartphone data plans (3.8%).

Nine out of 10 client respondents (88.7%) indicated that the project was extremely or somewhat helpful in accessing devices whereas seven out of 10 (71.4%) indicated the project was extremely or somewhat helpful for accessing Internet services.

Referral partners strongly agreed or agreed that the project was helpful related to increasing access to devices (96.6%) and Internet services (89.7%).

When asked to rank in what ways the technology devices and/or Internet services were supportive, over 70% of clients and referral partners noted the supportive nature of the devices/services provided in accessing online learning (75.0% and 80.0%) and accessing health and well-being information (75.0% and 86.7%). A lower percentage of clients found the devices / services to be extremely or somewhat helpful for securing or supporting work (33.3%), accessing health care (57.7%), and applying for financial supports (49.1%) when compared to the opinions of referral partners when asked a similar question on work (63.3%), health care (58.0%), and financial supports (48.0%). Additional information on program recipient and referral partner perspectives can be found in Table 1 and Figures 2 and 3.

Table 1: Client and Referral Partner Survey Respondent Opinion on Helpfulness of Supports Provided

Helpfulness of device/Internet Services Provided	Client Perspective (Extremely Helpful or Somewhat Helpful)	Referral Partner Perspective (Strongly Agree or Agree)
Accessing virtual social gatherings	78.9	*Not Asked*
Accessing online learning	75.0	80.0
Securing or supporting work[v]	33.3	63.3
Accessing health care	57.7	86.7
Accessing health and well-being information	75.0	86.7
Applying for financial supports	49.1	76.7

Figure 2: Client Survey Respondent Opinion (Note: 49 people responded to this question)

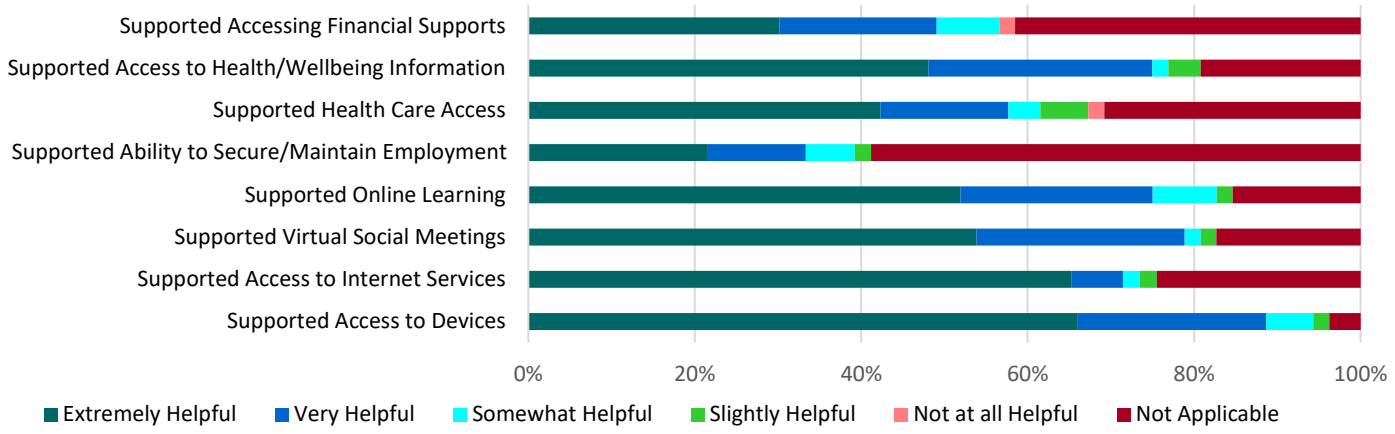
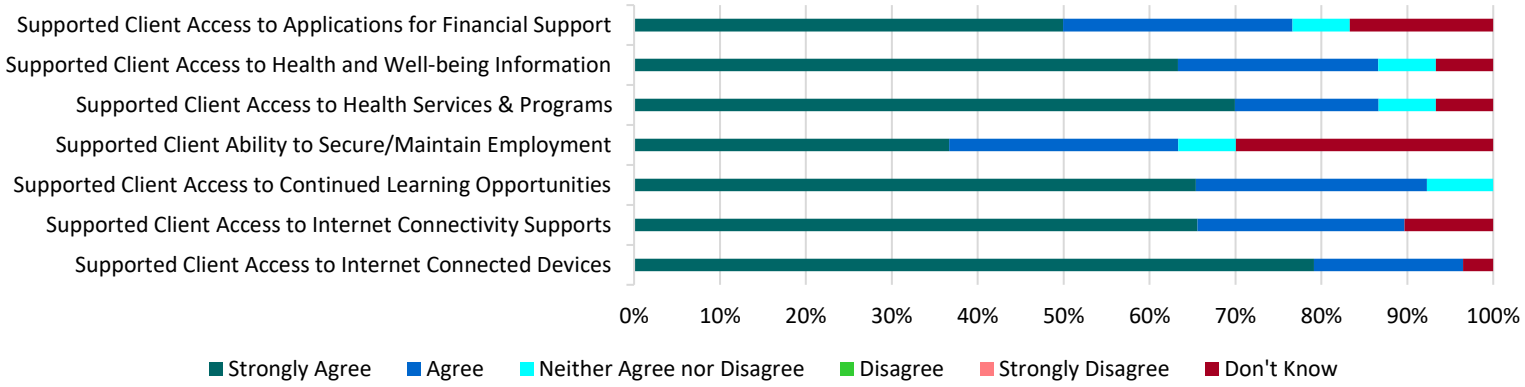


Figure 3: Referral Partner Survey Respondent Opinion (n=30)



[v] It is worth noting that the "securing or keeping work or a job) support category had a notable amount of "not applicable" responses from clients– one likely explanation for this phenomenon is the high amount of program applicants who would not actively be seeking work (due to reasons such as receiving disability supports or being retired).

When client survey respondents were asked open questions about how helpful the technology and/or Internet supports provided through the project were, the top 3 themes (12-13 mentions) were "social connections", "continued education", and "accessing news"; "social connections" and "continued education" were also mentioned 5 times each in response to an open-ended question. These themes were followed by the themes of "important communications", "increased job performance", "critical commentary", "personal entertainment", and "other", with anywhere from 3-5 mentions each; "critical commentary" and "personal entertainment" were also mentioned 1-2 times in response to an open-ended question. For additional info on these themes, please see Appendix 8.

- *"With the laptop I'm able to use discord, or other voice apps like it, and talk with multiple people all over the world and locally! I suffer from extreme clinical depression and all the actual voice conversations help to fight the depression this time of year especially."*
- *"My daughter has been able to do online homework when there's been snow days recently. I've been able to apply for new jobs, get more information about the COVID situation, look into furthering my education, etc."*
- *"It's very nice to have the Internet now so I can keep in touch with my daughter and family."*
- *"I never would have been able to pass my semester without this laptop, so I am super grateful."*
- *"Not helpful – no access or help setting up laptop so was unable to use."*

Client Survey Respondents

Additionally, open-ended questions elicited responses from clients that expressed further themes of "positive sentiment" (9 mentions) about how the project impacted their lives, and one additional comment on a negative impact of the project ("reduced physical exercise").

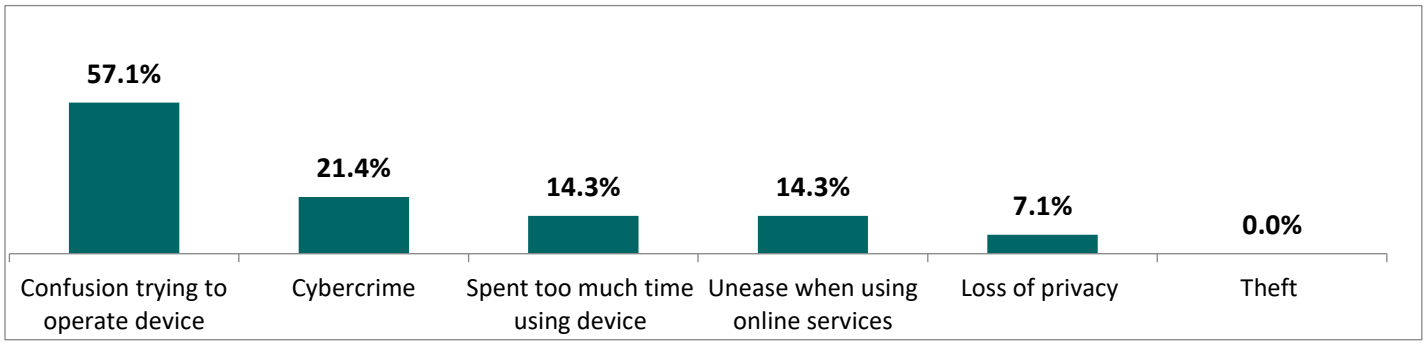
Referral partners also answered an open-ended question that allowed them to share their thoughts on the impact of the project. The top theme (10 mentions) was "general positive commentary on project impacts". The 4 next most prevalent themes (2-3 mentions) were a "not applicable" theme, "continued demand for the project", "commentary on data charges", and "additional supports and needs". For additional info on these themes, please see Appendix 8.

- *"Thank you for providing this service! It provided our clients a means to participate in training, life and so much more during the pandemic."*
- *"Please bring it back. It is a wonderful necessary project!"*
- *"This was a wonderful and timely project and services to mitigate the digital divide and the Federal and Provincial government bodies need to implement permanent funding to allow all Canadians equal access to information and services."*
- *"What a great initiative! Thank you! I wish it could last longer."*
- *"I feel as though better barriers to avoid data overcharges should be implemented, and maybe if there is an issue with one of the clients using the program, that someone from the digital divide program should be reaching out to the clients."*

Referral Partner Survey Respondents

When program recipients were asked about their experiences related to select technology challenges during the project, over half of respondents indicated confusion trying to operate the device (57%), just over 1 in 5 identified cybercrime and none identified theft. See Figure 4 for additional details.

Figure 4: Unintended impacts experienced by clients over the course of the project. (Note: 14 people responded to this specific question)



Project Barriers and Facilitators

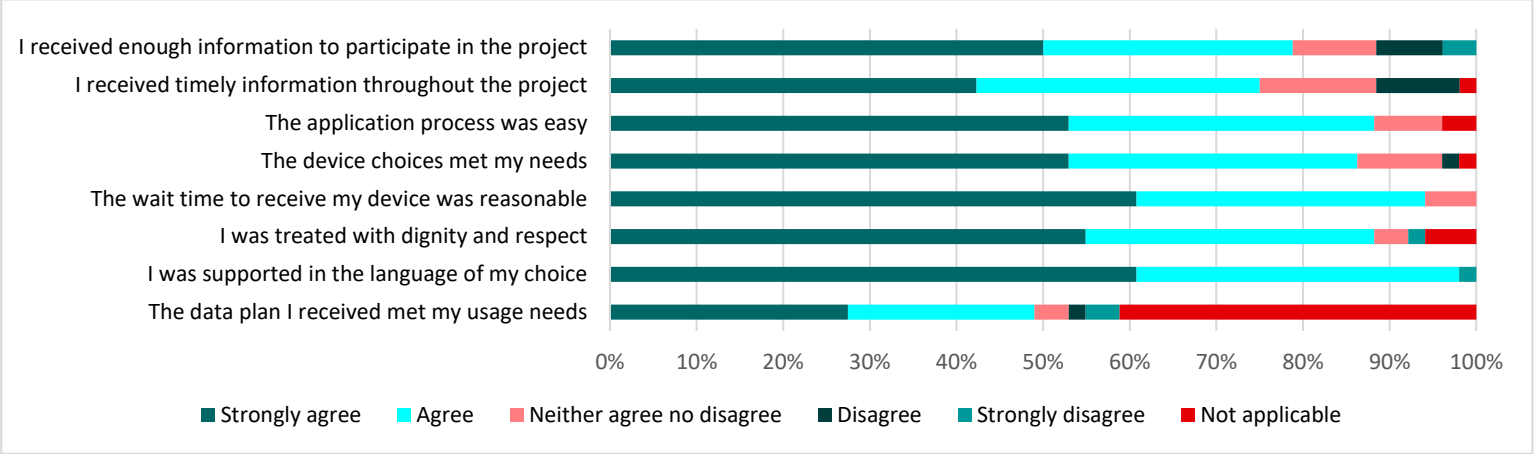
Open-response comments from clients identified specific challenges or difficulties with device set up and hardware/software issues. 80% or more of respondents strongly agreed or agreed that the following were project facilitators:

- Application process was easy
- Device choices met needs
- Wait time to receive device was reasonable
- Treated with dignity and respect
- Supported in the language of their choice

75% or more of respondents strongly agreed or agreed that they received timely information throughout the project and that they received enough information to participate in the project.

Approximately half (49%) strongly agreed or agreed that the data plan met their needs. 41% of respondents indicated that this question was “Not Applicable”. See Figure 5 for additional details.

Figure 5: Client level of agreement regarding project facilitators. (Note: 52 people answered this question)



When referral partners were asked an open-response question to identify factors that contributed to project success, the top facilitation theme that they identified was "efficient, easy and timely processes" (16 mentions), followed by themes of "opportunities given to clients and/or community" (9 mentions), and lastly "community partner involvement" (4 mentions). When referral partners were asked a similar question to identify barriers to project success, the top theme was a "not applicable" theme (6 mentions), where referral partners explicitly stated that they had no feedback in response to this question. The next 3 barrier themes were "budget/funding limitations", "challenges of project sunsetting", and the "need for support and additional follow up for clients and referral partners" (5 mentions, respectively). Finally, "unanticipated issues" (4 mentions) and "concerns regarding evaluation follow up" (2 mentions) were the least frequently mentioned barrier themes. For additional information on these barriers and facilitators, please see Appendix 8.

Facilitator Comments:

- *"Application process was extremely inclusive and accessible to all."*
- *"Clients would not have been able to remain connected during the pandemic without the support of the program."*
- *"The quick service was amazing and much appreciated when a client is in crisis"*

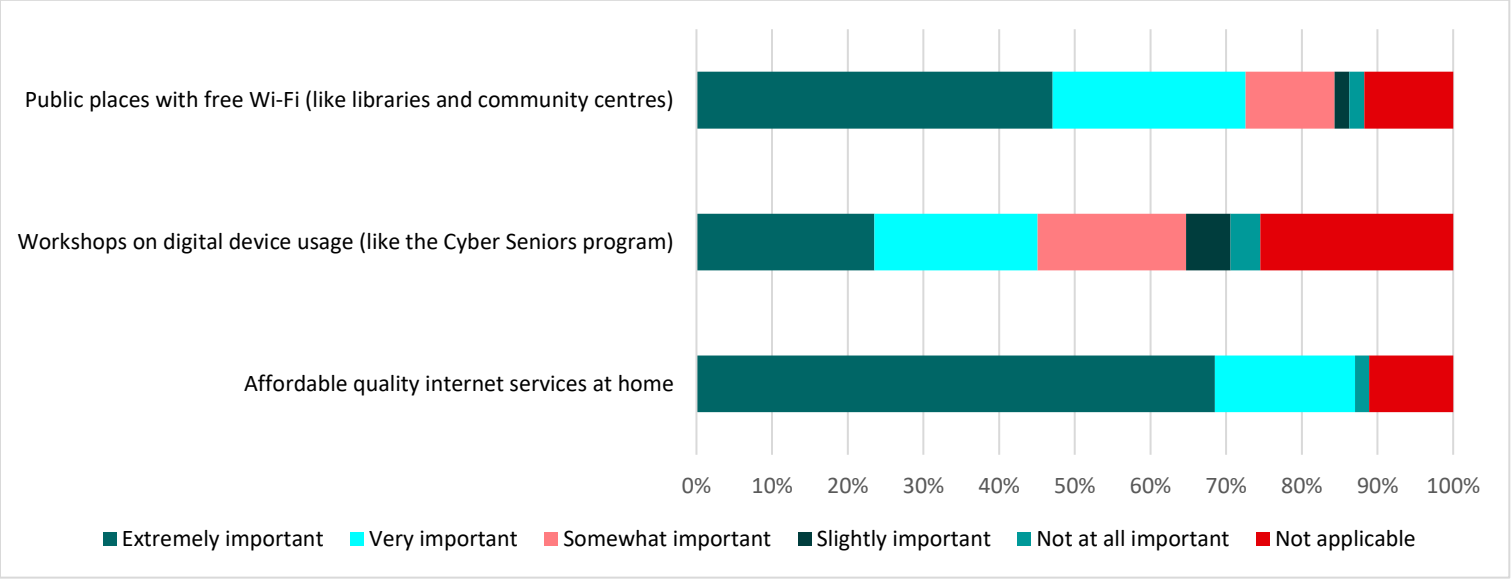
Referral Partner Survey Respondents

Barrier Comments:

- *"Need more support for clients to learn how to use the devices/Internet."*
- *"Limited digital skills and adaptive technology (accessibility for deaf/blind) for seniors to allow them to use devices as intended."*
- *"Funding is limited. There are still many that can benefit from the project."*
- *"Clients we refer do not necessarily remain "attached" to us; concerns re: follow-up and consent."*
- *"The cell phone was misused @ times due to lack of understanding of appropriate use on part of the client despite repeated instruction."*
- *"The success of the project would be increased by keeping it going."*

In considering digital access following the project, the majority of respondents identified affordable quality Internet services at home, as well as public places with free Wi-Fi as extremely or very important (92% and 73%, respectively). A minority (45%) of client survey respondents identified workshops on digital device usage as being extremely or very important. For more information, see Figure 6.

Figure 6: Client opinion of facilitators to digital inclusion beyond the duration of the project. (Note: 51 people responded to this question)



Client survey respondents provided additional information on factors that will be important for them after the Digital Divide project has ended, citing "faster Internet speeds" (2 mentions) and "the importance of Internet connected devices and services for specific demographics" (2 mentions) as important themes. One client also expressed concerns regarding the ability to keep local programming addressing the digital divide open to in-person visits.

- *"The areas of free Internet around town having high enough kbps for the Internet to work properly for more than one person."*
- *"COVID could cancel all library actions."*

Client Survey Respondents

Clients also identified additional barriers to future access and use of online technology, with the most notable theme being "affordability" (11 mentions), followed by "challenges with Internet connection and availability" (5 mentions); these findings coincide with the quantitative findings expressed in Figure 6 above, which emphasizes the importance of these factors to local digital inclusion. Additional concerns were noted, including the "lack of support available in regard to digital literacy" and the barriers this posed (3 mentions). Lastly, singular clients also identified barriers of "lack of service provider choice" and "device accessibility concerns".

- *"Won't face anything new. Only 1 provider – only Internet is through Xplornet – satellite feed. If lived in other locations, would have more choice – here there is no choice... Price you pay for living in a rural setting. "*
- *"Cost will be an issue because that's why I didn't have Internet access at home before COVID."*
- *"No Internet again!!"*
- *"Poor eyesight with small screens a problem even with enhancing size of text."*

Client Survey Respondents

Over 8 out of 10 respondents indicated that they would continue to use the device they received once the project is done (85%) as compared to those who said they would not (6%).[vi] This was a statistically significant difference.

[vi] All 53 client survey respondents answered this question, however 9% of these respondents gave a 'not applicable' response option, which is why these results do not sum up to 100%.

Limitations

A number of limitations of the evaluation design used for this project are important to acknowledge. Sample bias is a limitation due to a variety of factors. Client loss to follow up was a factor due to the nature of the project as well as ability to reach project recipients who are underserved and difficult to reach. Convenience sampling strategy limits the applicability of the results to other jurisdictions, and the results should not be interpreted as being representative of broader populations .[12] The evaluation occurred while participants were still using Internet packages from the project, which may have limited the ability to accurately gather data on participant expectations when the project ends.

The surveys used matrix/grid questions, which have been reported to be associated with undesirable survey issues, which can include increases in missing data, survey breakoff, and repeat Likert scale responses (straight lining).[13]

Discussion

Overall, the Closing the Digital Divide project was positively received by recipients and referral partners.

Project Reach

The evaluation identified that the project reached the target population subgroups, with 83% of clients being people who experience low income, and 47% of clients being people 50 years of age or older. The project was designed to have low barriers to access to increase project uptake among the target population. Furthermore, the project was successful in providing access to devices and Internet services. The majority of referral partners who attended a validation presentation were in agreement with the interpretation of the findings relating to objective 1 of the evaluation (Appendix 9).

Project Impact

The evaluation also identified to what extent the Closing the Digital Divide project supported access to health and social services and social inclusion. Overall, the project was supportive of clients accessing virtual social gatherings, online learning, as well as health and well-being information. Interestingly, there were differences in opinion regarding how supportive the devices / services were between clients and referral partners; notably, clients indicated lower ratings for all categories, with sizable differences in the categories of securing or supporting work, accessing health care, and applying for financial supports. A higher percentage of referral partners agreed that the devices / services were supportive of their clients compared to responses provided by the clients themselves with no referral partners indicating disagreement with any of the support categories. Most qualitative responses validated the quantitative data. Additionally, the open response questions yielded additional insights into how devices/services were supportive for clients.

There were differences noted in referral partner and client perception of the supportiveness of the devices and services. These differences seem to indicate that clients did not find the devices or services to be overly useful for securing work, accessing health care, or accessing financial supports. There may

be a multitude of reasons for this difference in perception, for example a lack of awareness/ability to use Internet connected devices and services for these essential purposes. The majority of referral partners who attended a validation presentation were in agreement with the interpretation of the findings relating to objective 2 of the evaluation (Appendix 9). One referral partner suggested that a potential reason for the difference in opinion on these supports between referral partners and clients is that clients may not have the expertise or understanding required to use their devices / services in some of these ways.

> *"…there needs to be some education around – everyone knows how to access social media, but a lot of people may not know how to access their healthcare provider through technology. A lot of people may not know how to look for jobs through technology or look for housing through technology. So, I think there needs to be a parallel education stream with providing the technology…"*
>
> Referral Partner Validation Presentation Attendee

The evaluation identified a number of negative unintended impacts that the project had on clients, the most frequent of which was confusion in operating the provided device. This finding coincides with feedback received from other areas of both the client and referral partner surveys, which indicated a greater need for digital literacy supports. The next most common unintended impacts included experiencing cybercrime, spending too much time using the device, unease when using online services, and loss of privacy. In the client survey, zero respondents selected device theft as an unintended impact experienced during the project.

The frequency of the 'confusion in operating device' theme was not a surprising finding, given the recurrence of challenges with digital literacy in both the client and referral partner surveys. The theft and cybercrime unintended impacts were both issues that were heard occasionally from referral partners through the course of the project, as well as during the validation presentation. The majority of referral partners who attended the validation presentation had a neutral opinion of the interpretation of the findings relating to objective 3 of the evaluation (Appendix 9). Interestingly, theft was indeed underreported in the client survey – one of the referral partners expressed concern about the underreporting, as well as a possible explanation for this phenomenon.

> *"…when we do branch out to the more marginalized population, there is a greater risk of theft. And that concerns me a little bit, on how we – if this will be a continuing project, how do you compensate or take this into consideration. I think the zero point there cannot be neglected, because this is for those on low income, not just the elderly… It stands to reason that the response is zero because they didn't have the device any longer to respond to the survey."*
>
> Referral Partner Validation Presentation Attendee

Project Barriers and Facilitators

The evaluation identified a number of barriers and facilitators; of note referral partners identified the top 3 facilitators of project success as being: "efficient, easy, and timely processes", "opportunities given to clients and/or community", and "community partner involvement". Of these facilitators, timeliness of processes was noted as being particularly important, especially in cases where clients required urgent access to supportive services. "Community partner involvement" was another important facilitator from

the perspective of referral partners, as the trust and connections of these partners allowed the project to get devices into the hands of community members in need.

There were a number of barriers identified by referral partners, including “budget/funding” and “challenges of project sunsetting”. Referral partners noted budget related concerns and the impact they had on accessibility of the program meant that many clients were not able to access the project, and that need still exists in the community. Other concerns noted by referral partners include “need for support and additional follow-up” and “unanticipated issues”. These barriers are interrelated, as providing additional digital literacy supports may have helped to address usage charge issues experienced during the project.

There was a high degree of agreement among clients for many facilitators of project success (such as wait time to receive devices, language of choice support, and being treated with dignity and respect by project staff), however in some areas there were notably lower scores for these facilitators, and as such the lack of agreement for these facilitators can be considered as barriers to client participation in the project. Of note among the project facilitators is the “device choice” category – while there was a high level of agreement with this facilitator, feedback received in other areas of the client and referral partner surveys indicated room for improvement in this area (for instance, expanding device availability to include options that better address accessibility needs - such as larger screens to accommodate people who experience eyesight challenges).

As for the barriers to project success, there was a notable lack of agreement around the data plans meeting client usage needs. One possible explanation for this is the high level of “not applicable” responses indicating that many clients did not choose to receive data plans. Other areas where there was a relative lack of agreement from clients were regarding the amount of information received and the timeliness of information received with client and referral partner comments indicating that additional client follow up would have been beneficial.

Results indicate that the low barrier, community-driven approach that was used here was a major strength of the project, and that further efforts to strengthen community organization and member involvement (through actions such as more frequent updates / communications with referral partners and community members alike) would be advisable for future work in this area. Furthermore, these findings indicate that clients and referral partners were generally satisfied with the timeliness and accessibility of the devices and services distributed through the project, however some clients did note that there is room for improvement in both the device choices available and the ability of the data plans to meet usage needs. Future work in this area should consider consulting with clients on their device and service needs. Lastly, funding limitations and project sunsetting challenges were both cited as barriers to the success of this project. Both barriers emphasize the importance of addressing the root issues of the digital divide, as all temporary projects addressing the digital divide will continue to suffer from these issues. The majority of referral partners who attended the validation presentation agreed with the interpretation of the findings relating to objective 4 of the evaluation, although one did express surprise at the limited number of referral partners who noted their involvement as a facilitator of project success, and another raised the question of the ethics of providing an ongoing service and then withdrawing support for this service (Appendix 9).

"… going back to one of the facilitators as the partner involvement, I am a little bit surprised that it didn't come up as higher."

"Currently writing a paper on the ethics of providing services and then withdrawing services, and people becoming dependent on services, and then the services are not sustainable (particularly in the food sector). But it seems to me that this raises a question here as well…"

Referral Partner Validation Presentation Attendee

As for facilitators for future digital inclusion, the facilitator identified by clients as being the most important was "affordable quality Internet services at home". The second most important facilitator identified by clients was "public places with free Wi-Fi"; when considering the support for this facilitator and the higher levels of support for the home Internet service facilitator, it may seem that clients have a preference for using Internet connected devices at home compared to public spaces. There may be a number of reasons for this preference, including greater comfort for using devices for personal communications, health care appointments, or financial services when not in a community setting. Lastly, the facilitator with the lowest level of importance was "workshops on digital device usage", which is an interesting finding considering the calls from referral partners and clients alike for more of these types of supports. This may indicate that only certain groups within the community have a need for these workshops, and that others within the community feel comfortable with their current level of digital literacy.

For the future barriers to digital inclusion identified by clients, the most popular barrier identified by clients was the "not applicable" response option, indicating clients did not predict facing additional challenges to digital inclusion once the project had ended. The second-most popular barrier identified was "availability/cost concerns", which indicated many clients predicted that both the cost and availability of Internet services would continue to pose challenges to them in the future. An additional future barrier identified by clients was a lack of support in using devices, a finding which further reinforces the need for additional digital literacy and training supports in future local initiatives.

Client responses to future barriers were clear in that issues of affordability of devices and services are likely to continue to be a major issue into the future. These findings again emphasize the importance of addressing the root causes of the digital divide, as the COVID-19 pandemic has highlighted that affordable access to quality Internet services is as essential as access to any other basic service. These responses also offer insight into the importance of additional digital literacy supports. While digital literacy workshops were the lowest ranking future facilitator identified by clients, they were also cited as a notable future barrier to digital inclusion. Considering how often the need for additional digital literacy supports recurred in both the client and referral partner survey responses, it is important to acknowledge that there is likely a notable need for such supports among clients who self-identify as having low digital literacy. The majority of referral partners who attended the validation presentation had a neutral opinion of the interpretation of the findings relating to objective 5 of the evaluation (Appendix 9). The additional qualitative feedback we received from validation presentation attendees highlighted that the wording of the some of the questions relating to this evaluation objective caused some unease, although further discussion between referral partners acknowledged that this is an inherent challenge in surveys of this nature.

"Yeah so, I have been very supportive and positive all the way through with the objectives. This one however, I think quite frankly that the questions posed were quite ambiguous and were open to --- almost, not quite leading questions but were open to misinterpretation."

"Something else that may be taken into factor here, depending on when people got their digital device, were we in total lockdown, were we in partial lockdown, were the schools open, were the providers offering online support, in person support – all these things can come into play and affect the results of the survey.

Referral Partner Validation Presentation Attendees

Based on the evaluation findings and a targeted search of available literature on the digital divide, a number of needs related to the digital divide in Timiskaming include:

1. Digital literacy among older adults and community members who experience low income
2. Funding to address issues of digital equity beyond the project
3. Infrastructure limitations
4. Public places with free Wi-Fi
5. Affordable, quality devices and Internet services at home

In conclusion, it would appear that the program has been well received by those living with low income and older adults as well as community partners in the THU catchment area. Overall, the program was successful in addressing the digital divide and reducing the severity of this issue during the COVID-19 pandemic. Furthermore, the evaluation findings suggest that the project may have impacts in addressing digital exclusion beyond the life of the project, however affordability and access to quality Internet services and digital literacy are likely to remain ongoing challenges.

Considerations for Future Work

The evaluation findings provide support for the Closing the Digital Divide project, suggesting that such a program could be used to address digital inequities and support access to health and social services. Similar programs may facilitate social inclusion during a pandemic situation when public health measures or recommendations are in place.

If a project similar in nature to the Closing the Digital Divide project is replicated in the future, it is advised that the following factors be taken into consideration in the planning process:

1) Consider the need for robust concurrent digital literacy education, especially for aiding people with digital literacy concerns in accessing healthcare, looking for housing, and other essential functions
2) Consider the need for robust theft prevention and online security education for clients. Specific things to consider in this domain include educating clients about the importance of device locking, and how to use device tracking applications in collaboration with local authorities. Additionally, education sessions and links to resources to help recognize and prevent scams and fraudulent activities are vital considerations for clients with low levels of digital literacy.

3) Consider the intricacies of cellular and Internet service provider services, including the differences between prepaid and postpaid cellular/data plans and which service providers are capable of reaching areas in which your clients live.
4) When acquiring devices, consider the advantages and disadvantages of acquiring refurbished, preowned, or new devices for the project (and look to take advantage of bulk purchasing / specific sales to maximize the reach of the project).

For additional challenges and considerations to consider when planning a project of a similar nature, please see Appendix 4.

Considerations for Future Efforts:

Further initiatives addressing the digital divide need to consider the importance of upstream approaches[vii] to address this complex issue. While providing devices and services to community members through this project was a necessity, it was an acute solution to a long-standing problem that will continue to be an issue into the future. Modifying upstream factors, such as higher cost and lower quality of Internet services in rural areas, as well as factors that affect social determinants of health (such as education and income) will help to address the root causes of the digital divide. [15, 16]

To address the digital divide, a broader strategy and several specific considerations have been sourced from other rural areas in Ontario.[17] Future efforts could consider the broad strategic approach laid out by Digital Equity Ottawa and apply and adapt considerations from this group to the local context of Timiskaming (Appendix 10).

Local partners in Timiskaming have already begun to progress through some of these steps, with partners convening and collaborating during the COVID-19 pandemic. Additionally, there has been the implementation and evaluation of a device and service distribution pilot project targeting those living with low-income and senior residents, a microgrant program to develop/bolster digital equity programs through local organizations, and provincial election advocacy deliverables on the importance of addressing the digital divide.

Based on the feedback from the evaluation results and what we heard from partners through the validation process, there are key areas of the digital divide that are particularly relevant to address locally, including digital literacy, ongoing access to devices and Internet services, and addressing the root inequities in Internet service cost and quality in rural areas. Some promising areas of future work to address the digital divide include:

1) Establish a local device upcycling program (possibly as a social enterprise, if there is interest in this among community partners)
2) Expanding community Wi-Fi hotspots (to increase local access to Internet services for all community members)

[vii] Upstream approaches refer to strategies and interventions that improve larger social / economic structures to address inequities in health. [14]

3) Strengthen collective advocacy efforts addressing the issue of the digital divide among community organizations, and continue to advocate for effective upstream solutions to this issue
    a. Specifically, affordable access to quality Internet services in rural areas has been a persistent issue for Ontarians, and while infrastructure investments are ongoing, this only addresses the availability and quality aspects of this issue, and not the affordability aspect. Coordinated advocacy efforts among local organizations could help to address this aspect of the digital divide.
4) Encourage the development of digital literacy among community members through the implementation of digital literacy workshops and supports.
    a. Many of the unintended impacts experienced by project members could have been mitigated through the implementation of more robust digital literacy supports.

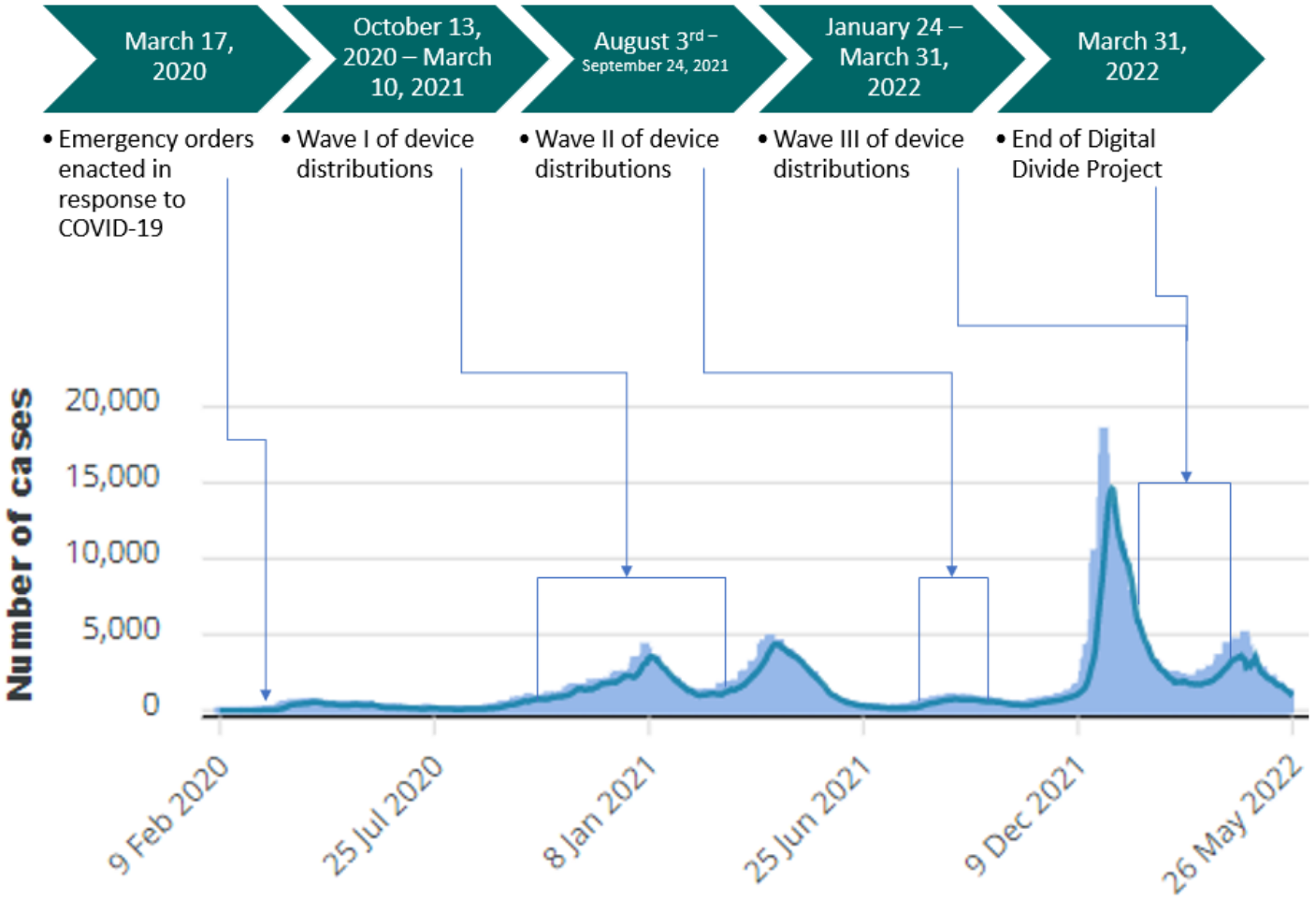
References

1. Greenfield, Emma. (2020). Digital Equity for Indigenous Communities [Internet]. Available from https://www.socialconnectedness.org/digital-equity-for-indigenous-communities/
2. Cullen, R. (2001). Addressing the digital divide. *Online Information Review, 25*(5), 311-320. Doi https://doi.org/10.1108/14684520110410517
3. Northern Policy Institute. (2016). *The Digital Divide: Internet Access in Northern Ontario.* Available at https://www.northernpolicy.ca/article/the-digital-divide-Internet-access-in-northern-ontario-26289.asp
4. Sieck, C. J., Sheon, A., Ancker, J. S., Castek, J., Callahan, B., & Siefer, A. (2021). Digital inclusion as a social determinant of health. *npj Digital Medicine, 4*(52). Doi https://doi.org/10.1038/s41746-021-00413-8
5. Chan, B. L., Bakken, S., Brown, S. S., Houston, T. K., Kreps, G. L., Kukafka, R., Safran, C., and Stavri, P. Z. (2004). Bridging the Digital Divide: Reaching Vulnerable Populations. *Journal of the American Medical Informatics Association, 11*(6), 448-457. Doi https://doi.org/10.1197/jamia.M1535
6. Choi, N. G. and DiNitto, D. M. (2013). The Digital Divide Among Low-Income Homebound Older Adults: Internet Use Patterns, eHealth Literacy, and Attitudes Toward Computer/Internet Use. *Journal of Medical Internet Research, 15*(5), e93. Doi doi:10.2196/jmir.2645
7. Ramsetty, A. and Adams, C. (2020). Impact of the digital divide in the age of COVID-19. *Journal of the American Medical Informatics Association, 27*(7), 1147-1148. Doi https://doi.org/10.1093/jamia/ocaa078
8. Government of Ontario. (2020). *Ontario Enacts Declaration of Emergency to Protect the Public.* Available at https://news.ontario.ca/en/release/56356/ontario-enacts-declaration-of-emergency-to-protect-the-public
9. Government of Canada. (2018). Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans. Available from https://ethics.gc.ca/eng/documents/tcps2-2018-en-interactive-final.pdf
10. Acharaya, A. S., Prakash, A., Saxena, P., and Nigam, A. (2013). Sampling: Why and How of it? *Indian Journal of Medical Specialties, 4*(2), 330-333. Doi 10.7713/ijms.2013.0032
11. Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review, 33*(4), 357-370. Doi https://doi.org/10.1016/j.dr.2013.08.003
12. Andrade, C. (2020). The Inconvenient Truth About Convenience and Purposive Samples. *Indian Journal of Psychological Medicine, 43,*(1), 86-88. Doi 10.1177/0253717620977000
13. Couper, M. P., Tourangeau, R., Conrad, F. G., and Zhang, C. (2013). The Design of Grids in Web Surveys. *Social Science Computer Review, 31*(3), 322-345. Doi https://doi-org.subzero.lib.uoguelph.ca/10.1177/0894439312469865
14. National Collaborating Centre for Determinants of Health. (n.d.). *Glossary of Essential Health Equity Terms.* Accessed June 13, 2022. Available from https://nccdh.ca/glossary/entry/upstream-downstream
15. Beaunoyer, E., Dupéré, S., and Guitton, M. J. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. *Computers in human behavior, 111*, 106424. Doi 10.1016/j.chb.2020.106424

16. McNally, M. B., Rathi, D., Joseph, K., Evaniew, J., and Adkisson, A. (2018). Ongoing Policy, Regulatory, and Competitive Challenges Facing Canada's Small Internet Service Providers. *Journal of Information Policy, 8*(1), 167-198. Doi https://doi.org/10.5325/jinfopoli.8.1.0167
17. Digital Equity Ottawa (2021). *Boosting the Signal: Pathways to Improving Digital Equity in Eastern Ontario.* Accessed April 8, 2022. Available from: https://neighbourhoodequity.ca/digital-equity-ottawa/
18. Cyber Seniors. (n.d.) *About Us.* Accessed April 21, 2022. Available from https://cyberseniors.org/about/
19. TechSoup. (n.d.). *Donations and Discounts for Nonprofits.* Accessed April 21, 2022. Available from https://www.techsoup.ca/
20. Digital Main St. (n.d.). *Helping Main Street Go Digital.* Accessed April 21, 2022. Available from https://digitalmainstreet.ca/
21. Canadian Internet Registration Authority. (n.d.). *My Internet Performance Test.* Accessed April 21, 2022. Available from https://performance.cira.ca/
22. NEOnet. (n.d.). *Wireless Hotspots Project.* Accessed April 21, 2022. Available from https://www.neonet.on.ca/projects/completed-projects/broadband/wireless-hotspots-project/
23. Hunt, R. (2021). *Mobile WiFi Hotspots for Loan at TSPL by Rebecca Hunt.* Accessed April 21, 2022. Available from https://www.temiskamingshores.ca/en/news/mobile-wifi-hotspots-for-loan-at-tspl-by-rebecca-hunt.aspx
24. Connecting Families. (n.d.). *Welcome to Connecting Families.* Accessed April 21, 2022. Available from https://www.connecting-families.ca/welcome

Appendices

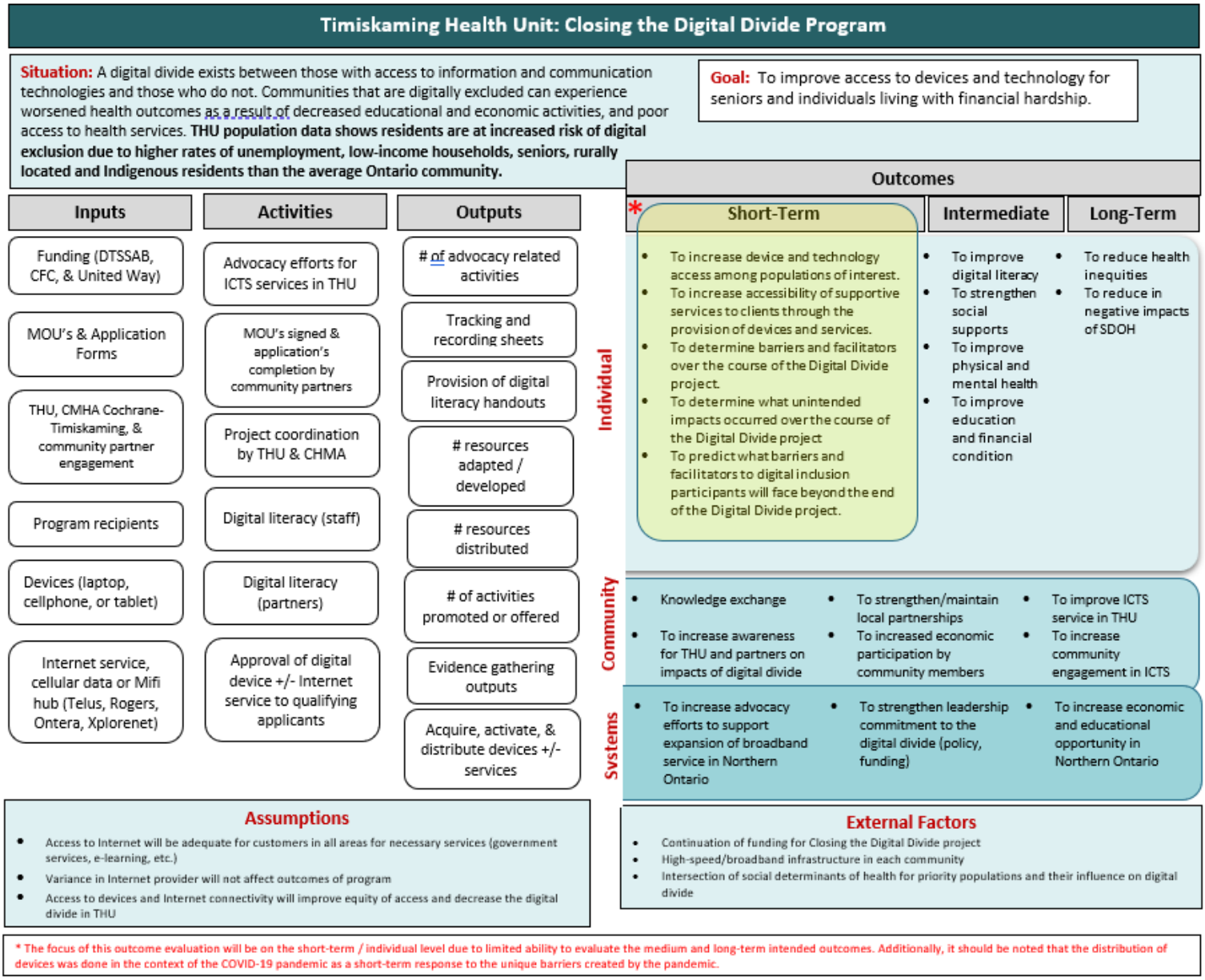
Appendix 1: **Combined Timeline of the Closing the Digital Divide in Timiskaming Project and New COVID Cases in Ontario**



Please note that the new case data graph used in this visualization was sourced from:

Government of Ontario. (2022). *Case numbers, spread and deaths.* Accessed May 26, 2022. Available from [Case numbers, spread and deaths | COVID-19 (coronavirus) in Ontario]

Appendix 2: Closing the Digital Divide Project Logic Model



Appendix 3: Project Roles and Responsibilities

Program Manager: Kerry Schubert-Mackey (Director Strategic Services and Health Promotion / Amanda Mongeon (Manager of Community and School Health) THU
Responsibilities: The Program Manager was responsible for supporting the project through various high-level means, including regular consultation on the general direction of the outcome evaluation, key project decisions and management of project resources. Due to capacity challenges brought on by COVID-19, this role had to be transferred partway through the project.

RPPA Evaluation Lead: Adrienne Gullekson, RPPA THU
Responsibilities: The RPPA Evaluation Lead was responsible for supporting the project through outcome evaluation design consultation(s), providing feedback on the data collection tools, and constructing the online outcome evaluation survey.

RPPA Evaluation Support: Walter Humeniuk, RPPA THU
Responsibilities: The RPPA Evaluation Support was responsible for supporting the project through consultation on the outcome evaluation protocol, the design of data collection tools, and hypothesizing project sunsetting scenarios.

Project Advisory Support: Lorna Desmarais, Public Health Promoter THU
Responsibilities: The Project Advisory Support was responsible for performing all day-to-day project activities in wave 1 of the project. Once responsibilities of day-to-day project activities were transferred over to the Evaluator, the Project Advisory Support was responsible for providing regular consultation for day-to-day activities.

Project Reporting and Guidance: Angela Peters-Carlson (Director of Corporate Services), CMHA
Responsibilities: The Director of Corporate Services at CMHA was responsible for guiding project reporting efforts to funders, as well as providing high-level guidance to the project.

Financials Kim Bielek, CMHA: Accounts Payable
Responsibilities: CMHA personnel were responsible for holding the funds for the project and for paying commercial partners for devices purchased and services rendered during the course of the project.

Funding Sources:
Responsibilities: Funding for the project was provided by the United Way Centraide North East Ontario, Community Foundations Canada, the Temiskaming Foundation, and the Ministry of Municipal Affairs and Housing's Social Services Relief Funding via the District of Timiskaming Social Services Administration Board.

Outcome Evaluation Designer: Ashley Bowering, UW MHE Practicum Student
Responsibilities: The Outcome Evaluation Designer was responsible for developing the initial outcome evaluation proposal for the project, as well as the initial drafts of the outcome evaluation data collection tools.

Epidemiologist: Celine Butler THU
Responsibilities: The Epidemiologist at THU was available for consultation when refining the data analysis plan for the outcome evaluation. Additionally, she also assisted in the ethics review process for this project.

Epidemiologist: Meera Mahmud THU
Responsibilities: The Epidemiologist at THU was available for consultation when refining the data analysis plan for this outcome evaluation. Additionally, she also assisted in reviewing and selecting appropriate qualitative data analysis tools for this project, as well as with qualitative and quantitative coding processes.

Project Referral Partners: For a detailed list of all referral partners, please see Appendix 13.
Responsibilities: Project Referral Partners were responsible for referral of clients to the project. Later on in the project, Referral Partners were responsible for assisting some clients with completion of outcome evaluation surveys, as well as with the distribution and collection of surveys.

Timiskaming Health Unit Staff: THU
Responsibilities: Several Timiskaming Health Unit staff were responsible for transporting Digital Divide devices to locations that were accessible to clients, and for helping to securely distribute these devices to clients.

Project Coordinator and Evaluation Lead: Robert Northcott, Public Health Promoter THU
Responsibilities: The Lead Evaluator was responsible for conducting day-to-day activities of the second and third waves of the project. Additionally, the evaluator was responsible for refining the outcome evaluation design, the data collection tools, and for overseeing all evaluation activities associated with this project.

Appendix 4: Implementation Challenges from the Closing the Digital Divide in Timiskaming Project

In January 2021, a process evaluation was conducted for the Closing the Digital Divide in Timiskaming project. From this process evaluation, a number of early implementation challenges were identified by referral partners and corrective actions were taken accordingly (see table below):

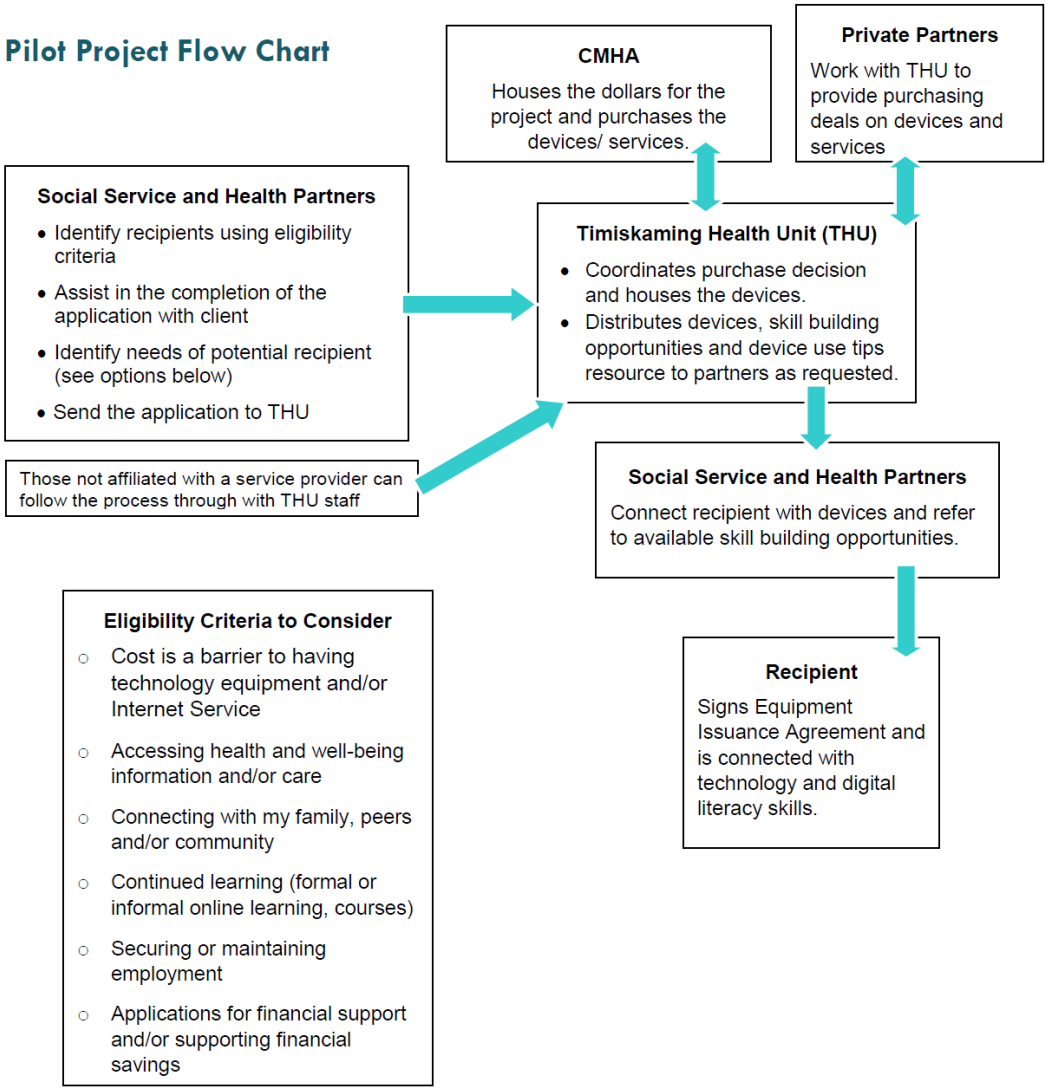
Problem Identified in Process Evaluation:	Solution Implemented:
Obtaining client signatures due to COVID-19 pandemic restrictions.	Referral partners were permitted to sign on behalf of clients provided verbal consent was explicitly provided by the client.
Lack of space on project application form to explain client circumstances that would qualify them for the project.	Additional space was added on application form for this purpose.
Limited access to Internet / cellular services in outlying locations of the THU catchment area.	Additional Internet / cellular service providers were utilized by the project to better service these clients.
Need for project documentation in client's language of choice.	Additional selector was added to application form indication preferred language of client (and documentation was provided in this language).
Provide additional supports for seniors lacking digital skills.	Contact information for project lead was added to distributed materials for clients to contact, and additional digital literacy programs were established / bolstered through microgrant initiative.

Over the course of this project, various lessons about the challenges of conducting a digital equity project of this nature were learned by THU. It is our hope in sharing these lessons that other organizations who are looking to address the Digital Divide will be able to benefit from this knowledge exchange. These challenges included:

- Loopholes with service plan charge safeguards
- Recipient understanding of cellular plan features and challenges with technology jargon
- Supply issues and shipping delays relating to COVID-19 pandemic
- Funding gaps and the impact this had on project accessibility
- Limited Internet service provider selection for remote areas
- Project uptake lower than expected among health system partners (possibly due to high-capacity challenges imposed by COVID-19 pandemic)
- Application protocol modification throughout project

Appendix 5: Stakeholder Groups & Pilot Project Flow Chart

Stakeholder Group	Program and Potential Evaluation Interest	Role in Evaluation
Local partners agencies who referred clients to the program	- Support program delivery - Impacted by the program delivery - Will use evaluation findings.	- Define program & context - Contribute evaluation perspective - Collect data - Apply findings
Timiskaming Health Unit (program lead agency)	- Support program delivery - Impacted by the program delivery - Will use evaluation findings.	- Define program & context - Identify data sources - Collect data - Interpret & disseminate findings - Apply findings
CMHA	- Support program delivery - Impacted by program delivery	- Define program & context - Contribute evaluation perspective - Collect data
Program Recipients	- Impacted by the program delivery	- Contribute evaluation perspective
Stakeholders interested in adopting the program	- Will use evaluation findings	- Apply findings



Appendix 6: Data Collection Plan

Objective	Evaluation Question	Measure or Indicator	Data Source	Who	When	How
Objective 1: To determine how many project participants qualify as either an older adult or someone with financial hardship at the end of the Digital Divide project.	EQ 1A: How many participants who qualify as an older adult (over 50 years of age) were served over the course of the project?	Number of older adult participants	Client tracking sheet (which pulls info directly from applications submitted)	Lead Evaluator	Available anytime past September 24, 2021	For the duration of the project, the data will be stored in a password encrypted Excel tracking sheet. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	EQ 1B: How many participants who face financial hardship were served over the course of the Digital Divide project?	Number of participants who face financial hardship	Client tracking sheet (which pulls info directly from applications submitted)	Lead Evaluator	Available anytime past September 24, 2021	For the duration of the project, the data will be stored in a password encrypted Excel tracking sheet. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
Objective 2: To determine to what extent the devices and services provided over the course of the Digital Divide project supported clients.	CEQ 2A: How helpful were the technology and/or Internet service supports in the following areas? (5-point Likert scale with N/A option as well)	Helpfulness of project supports	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	CEQ 2B: Please tell us about any other ways the technology and/or Internet supports benefitted you: (Open response)	Benefits of project	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	REQ 1: Please rank the following questions by your level of agreement with the statement: (5-point Likert scale with N/A option as well)	Rank order of project supports	Referral partner outcome evaluation survey	Referral Partners / Lead Evaluator	Late October for distribution, early November for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
Objective 3: To determine what unintended impacts (both positive and negative) were experienced over the course of the Digital Divide project.	CEQ 3A: Did you experience any of the following as a result of having the technology devices and/or cellular/data services (Choose all that apply):	Negative unintended impacts of project	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	CEQ 3B: Please tell us about any other experiences or ways the technology devices and/or access to Internet impacted you: (Open response)	Negative/positive unintended impacts of project	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
Objective 4: To determine what barriers and facilitators were experienced over the course of the Digital Divide project.	CEQ 4: How much do you agree or disagree with the following statements? (5-point Likert scale with N/A option as well)	Barriers/facilitators of project success	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	REQ 2: Please describe any factors that you feel contributed to project success: (Open response)	Facilitators of project success	Referral partner outcome evaluation survey	Referral Partners / Lead Evaluator	Late October for distribution, early November for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).

Objective	Evaluation Question	Measure or Indicator	Data Source	Who	When	How
	REQ 3: Please describe any factors that you feel limited the success of the project: (Open response)	Barriers of project success	Referral partner outcome evaluation survey	Referral Partners / Lead Evaluator	Late October for distribution, early November for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
Objective 5: To predict what barriers and facilitators to digital inclusion participants will face beyond the conclusion of the Digital Divide project.	CEQ 5A: Once the project is done, do you think you will continue to use the devices you received (e.g. smart phone, tablet or laptop)?	Continued intention to use device	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	CEQ 5B: What challenges to accessing and using online technology do you think you will face after the Digital Divide project has ended? (Open response)	Barriers to digital inclusion beyond project	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).
	CEQ 5C: How important do you think each of these factors will be for you after the Digital Divide project has ended? (5-point Likert scale with N/A option as well)	Facilitators of digital inclusion beyond project	Client outcome evaluation survey	Referral Partners / Lead Evaluator	Late November for distribution, mid-January for collection (one-time occurrence)	Data will be extracted from SurveyMonkey in the form of an Excel sheet. This sheet will be password encrypted for the duration of the project. Beyond the project, the data will be handled according to THU protocol (please see ethics section for more detail).

Appendix 7: Data Analysis and Interpretation Plan

Data Analysis Plan		
Data Type	**Data Analysis Technique**	**Responsible Person(s)**
Qualitative Data	Development of code book via coding responses until saturation is reached	Lead Evaluator + Epidemiologist
	Coding of open-ended responses	Lead Evaluator + Epidemiologist
	Reliability assessment of code book themes	Lead Evaluator + Epidemiologist
Quantitative Data	Conducting of statistical analysis	Epidemiologist
	Visualization of descriptive statistics	Lead Evaluator

Data Interpretation Plan			
Data Interpretation Steps:	**Who**	**When**	**How**
Drawing Conclusions	Lead Evaluator	Upon completion of qualitative and quantitative data collection and analysis	Review of quantitative and qualitative data to determine how well project objectives have been met.
Interpreting Conclusions	Lead evaluator, Epidemiologist(s), Project Director.	Upon completion of previous step.	Initial interpretation done by Lead Evaluator. Initial interpretation was reviewed by all other parties involved and refined accordingly.
Validating Conclusions	Lead Evaluator, Project Director, Project Stakeholders	Upon completion of previous step.	Project conclusions were presented in both written and verbal formats to internal health unit staff and with external stakeholders. During verbal presentations Q&A opportunities were available to discuss and justify conclusions in further detail.
Justifying Conclusions	Lead Evaluator, Project Director, Project Stakeholders	During final reporting and presentation stages of outcome evaluation	Final conclusions and recommendations were included in knowledge exchange presentations.

Appendix 8: Qualitative Evaluation Project Feedback

Client Open Feedback on Supports Provided by Project

Theme Identified	Client Evaluation Question 1i:	Client Evaluation Question 2B:
Social Connections	5 mentions	13 mentions
Continued Education	5 mentions	13 mentions
Accessing News	-	12 mentions
Important Communications	-	5 mentions
Increased Job Performance	-	4 mentions
Critical Commentary	1 mention	3 mentions
Personal Entertainment	2 mentions	3 mentions
Other	-	3 mentions
Mental Health	1 mention	1 mention

Referral Partner Opinions on Impact of Project

Theme Identified	Frequency of Mentions
General Positive Commentary	10 mentions
N/A	3 mentions
Continued Demand for Project	3 mentions
Commentary on Data Charges	3 mentions
Additional Supports and Needs	2 mentions
Increased Client Agency	1 mention

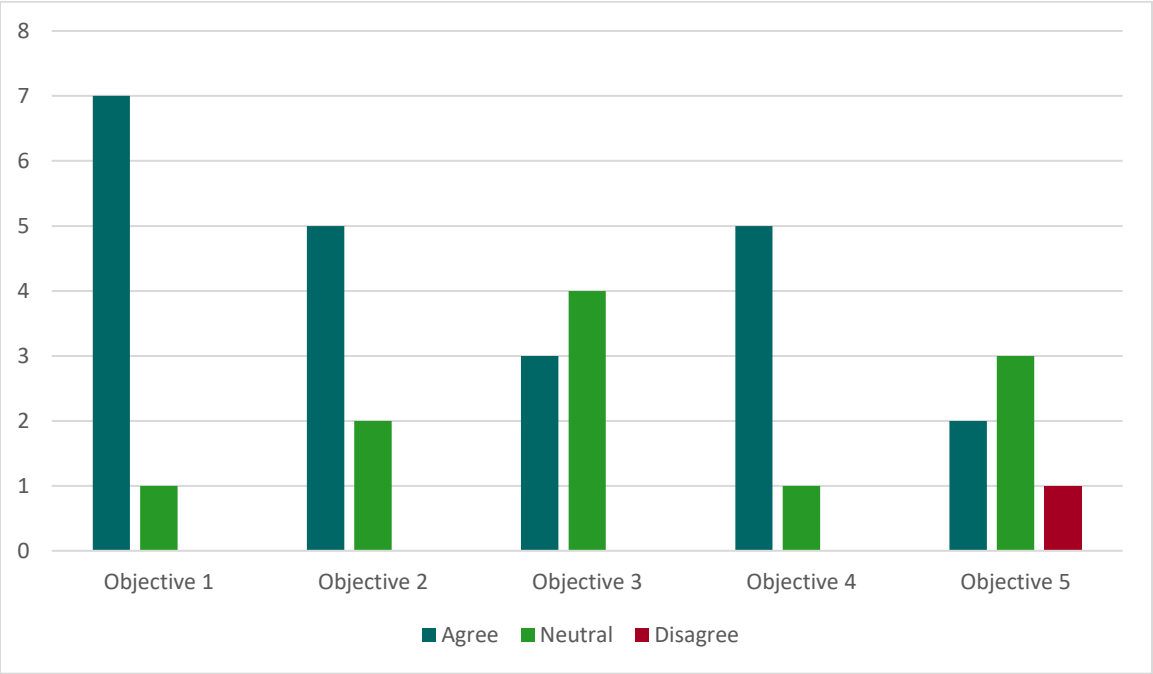
Referral Partner Opinions on Barriers and Facilitators of Project Success

Facilitators	Mentions	Barriers	Mentions
Efficient, easy and timely processes	16 mentions	**Budget / funding limitations**	5 mentions
Opportunities given to clients and/or community	9 mentions	**Challenges of project sunsetting**	5 mentions
Community partner involvement	4 mentions	**Need for support and additional follow up for clients and referral partners**	5 mentions
		Unanticipated issues	4 mentions
		Concerns regarding evaluation follow up	2 mentions
		N/A	6 mentions

Additionally, the host organization (which also acted as a referral partner for this project) carried out its own debrief and added the insights from this session into the referral partner evaluation survey.

Facilitators	Barriers
Continued need	Logistical challenges due to COVID, such as issues with signature collection, shipping delays, etc.
Raised profile of the digital divide issue	Possible exclusion of unattached community members
THU management	THU maturity regarding foundational standards protocols
Wrap around support for devices	
Cultural approach	
Client focus and respect	
Support of other tech access programs	

Appendix 9: Validation Presentation Polling Results



Appendix 10: Localized Adaptations of Digital Equity Ottawa Considerations for Addressing Digital Equity in Rural Locations

Broad Strategic Approach for Digital Equity in Rural Areas *(as per Digital Equity Ottawa Document)*[17]

1) Convene the community
2) Maximize what already exists
    a. "Conduct digital asset mapping for each community."
    b. "Identify "low hanging fruit" opportunities to expand what already exists."
    c. "Ensure what already exists is communicated effectively to the community."
3) Pilot Innovation
    a. "Seek funding for promising pilot program opportunities, including initiatives that have been pilot tested in other jurisdictions and adapted to the local conditions."
    b. "Review pilot programs annually to assess impact, adjust where needed, and scale up the most effective concepts."
4) Implement population-specific strategies
    a. "Embed digital equity into existing population-based services and strategies, such as programs for seniors, low income residents, families with children, and other communities of unique need."
    b. "Identify gaps and new opportunities for key demographic groups who are currently digitally-excluded, tailored to their specific needs."
5) Advocate strategically
    a. "Collaborate with neighboring communities and other key players to advocate for program and policy change that improves digital equity in the community."

Issue: Further Work / Follow up Needed to Develop Digital Literacy Among Community Members	
Considerations from Digital Equity Ottawa:	**Potential Local Adaptation of Considerations:**
1) "Offer additional digital literacy programs specifically for seniors. This could be: - 1a) Intergenerational: youth trained to provide tech support to others in the community, including seniors. This could be integrated with high school volunteer hours, and would provide valuable job-skills for youth. - 1b) Senior to senior tech support and training programs: Seniors providing training and support to other seniors. This would also have the added benefit of reducing isolation amongst seniors. - 1c) Agencies build simple-to-use tech into existing programs for seniors, such as in the delivery of exercise and social activities. This increases the tech skills of seniors without being as daunting as a tech-training program."	1a) Coordinate with local secondary schools and agencies with tech support capacity to develop mutually beneficial program. Possible opportunity for collaboration with existing Cyber Seniors program.[18] 1b) Approach older adult community support groups to gauge interest in developing a senior-to-senior tech support program. 1c) Approach senior oriented programs (i.e. fall prevention / stroke recovery courses) and gauge interest for integrating tech use into these programs.
2) "Increase digital literacy programs for marginalized youth and under-employed adults. This could be combined with innovative solutions for connectivity, such as training (and potentially employing) residents to build and maintain hotspots, offer HelpDesk support, and provide other tech services."	2) Collaborate with social service organizations to determine areas where a pilot project using this approach would be most beneficial to community members. Possible opportunity to leverage existing tech support of organizations (i.e. municipal / library tech support expertise).
3) "Place greater emphasis on digital literacy skills, including workplace skills, explicitly taught in the standard school curriculum."	3) Advocate the increasing importance of digital literacy skills to local schools / schoolboard.

4a) "There is a need for greater availability of affordable digital literacy courses (such as using computers, software packages and more) to the general public, as well as better promotion of what already exists. This could be provided through post-secondary institutions and could be delivered through virtual learning in order to address transportation challenges."	4a) Collaborate with institutions such as Contact North and Northern College to promote tech accessibility initiatives.
4b) "Better promotion of affordable software options for the not-for-profit sector, for example: - Better promotion of TechSoup Canada and similar initiatives providing discounted software licenses - A greater understanding and adoption of open-source software."	4b) Collaborate with social service organizations, schools, and libraries to promote open source / reduced-cost software packages (TechSoup).[19]
5) "All libraries have a permanently funded technology support position, which can coach community members with their basic digital literacy needs."	5) Encourage collaboration among social service agencies and local libraries to boost advocacy for permanent funding for such a position.
6) "E-business training broadly available for small businesses who wish to pivot to more digital models, such as e-stores and virtual services."	6) Bolster existing Digital Main Street Model / expand efforts to advertise this opportunity to local businesses.[20]

Issue: Lack of Stable Funding to Address Issues of Digital Equity / Short Duration of Existing Digital Equity Projects	
Considerations from Digital Equity Ottawa:	**Local Adaptation of Considerations:**
1) "Municipalities and Anchor institutions form digital equity committees responsible for coordinating efforts across departments to simplify and facilitate digital equity projects."	1) Build upon currently assembled community collaborative to develop a local digital equity committee to coordinate efforts addressing issues of digital equity.
2) "Increase data collection and build socio-demographic analysis into assessments of digital equity projects and funds, for example: - 2a) Determine geographic areas with no Internet connection and population groups with low connectivity rates. - 2b) Track true Internet speeds in rural communities where CIRA Performance Test numbers are low. This should be further assessed in regard to areas with a high proportion of seniors, low-income populations, families with children and so on. - 2c) Gather data related to digital literacy skills, access to devices and the digital capacity of the not-for-profit sector. "	2a) Work with community members and local Internet service providers to determine areas of low / no connectivity and document these areas. 2b) Incorporate voluntary usage and reporting of CIRA Performance Test among clients of future digital equity / device distribution projects to clarify the quality of service they experience.[21] 2c) Assess digital literacy skills, device access and digital capacity of community collaborative member organizations.
3) "Municipalities and Anchor Institutions (schools, health care, libraries, publicly owned utilities, etc.) conduct Digital Asset Audits to better understand how their assets can be leveraged in filling digital equity gaps and opportunities. - 3a) Assets audited could include physical assets like fiber connections and poles as well as intangible assets like software licenses and digital literacy content. - 3b) Hydro Ottawa and Hydro One create an inventory of their assets and make that information available publicly or to service providers for planning. - 3c) Housing authorities, school boards, hospitals, libraries, etc., assess their assets that can be leveraged for digital equity initiatives."	3a) Collaborate with municipalities and Internet service providers to conduct audit of local physical and intangible assets that could be leveraged to address digital equity issues. 3b) Participate in broader advocacy efforts to see the creation of an asset inventory for Hydro One. 3c) Collaborate with local stakeholders to assess assets that are relevant to digital equity initiatives.
4) "Funders allow and encourage organizations to include connectivity and devices as standard budget lines in funding applications, similar to	4) Advocate alongside community collaborative members to encourage funding sources to recognize the importance of digital connectivity and devices as necessary for social service clients to thrive.

food or space rentals, so that organizations can develop their digital capacity and meet the virtual and digital needs of their clients."	
5) "The sector build tech and tech skills into a larger number of their existing programs (such as recreational programs for youth, social programs for seniors, skills development programs for underemployed residents, and so on), in order the develop the capacity of residents."	5) Encourage community collaborative members to examine all existing programs and new programs through a digital equity lens and encourage the incorporation of connected devices in these programs when beneficial.
6) "Stakeholders advocate for a comprehensive effort to address existing equity issues in the digital divide at the federal, provincial, municipal and community levels. For example: Advocating for Canada to develop a National Digital Equity Strategy."	6) Work with community collaborative members to develop digital equity advocacy campaigns targeting all levels of government.

Issue: Addressing Infrastructure Limitations	
Considerations from Digital Equity Ontario:	**Local Adaptation of Considerations:**
1) "Municipalities simplify their approval and consent processes for infrastructure projects. This could include the use of Municipal Access Agreements (MAA) for individual carriers to access municipal rights-of-way and install wireline connections."	1) Collaborate with municipal stakeholders to streamline processes relating to the development of infrastructure that influences digital equity.
2) "Municipalities consider a Municipal Levy on property tax bills to assist with cost, similar to other basic services and infrastructure. This would provide a fund to offset cost of infrastructure and/or other digital equity programs."	2) Engage with community members and municipality to see if this would be a viable way for local municipalities to fund infrastructure projects that address the digital divide.
3) "Governments, crown corporations and community housing providers plan for connectivity in construction projects, rather than adding connectivity later, which is significantly more costly. For example, Dig Once policies and new housing projects should be pre-wired for gigabit level connectivity during the initial build."	3) Work with local government stakeholders to incorporate Dig Once policies in permits for new infrastructure and housing projects.
4) "The requirements for Federal broadband funding and loan programs be adjusted such that they are less prohibitive to smaller providers, including community groups and smaller ISPs, as such groups are often invested in the most underserved community."	4) Community collaborative members engage in advocacy campaign to Federal government to adjust broadband funding and loan programs to encourage entry of smaller providers into Timiskaming.

Issue: Availability and Cost Concerns Remain a Continuing Issue for Clients	
Considerations from Digital Equity Ontario:	**Local Adaptation of Considerations:**
1) "Community groups and agencies implement new device lending or device gifting programs, geared towards low-income residents, ideally offered in locations where residents seek other services. Libraries are optimal for device lending programs. Donations could be sought from the private sector"	1) Encourage development of device lending programs at local libraries using lessons learned from *Closing the Digital Divide* pilot project. Additionally, development of a local device donation / upcycling program is recommended as a cost-effective way to distribute devices in the community. Refine application process for device lending / gifting programs to better account for client accessibility needs.
2) "Community groups consider a social enterprise in the rural areas for refurbishing out of cycle computers, which can be sold to the public at an affordable cost. Such programs could also include tech training opportunities for the community."	2) Approach local libraries and tech support providers to gauge interest in a pilot project involving community members learning tech skills and refurbishing computers for sale at affordable rates.
3) "Agencies collaborate on the creation of a centralized supply and demand portal for the repurposing of surplus devices. For example, when institutions and the private sector upgrade equipment, the surplus equipment can be available free of charge to low-income households."	3) If the device donation program and/or the device refurbishment program above are successful, investigate development of central supply and demand portal for refurbished / donated devices. If approved, consult community members during development of portal to account for accessibility needs.

Issue: Need for Public Places with Free Wi-Fi	
Considerations from Digital Equity Ontario:	**Local Adaptation of Considerations:**
1) "Existing publicly accessible digital equity resources (such as public Wi-Fi locations and digital literacy resources) be provided to community members and organizations in an easy-to-use format, such as a digital equity map of the community.	1) Previous work has been done locally that aligns with this recommendation.[22] This work should be updated to include any newly developed public Wi-Fi locations, as well as links to digital literacy resources.
2) "Communities assess opportunities for increasing Public Wi-Fi Hotspots"	2) Collaborate with local social service organizations and businesses to boost their public Wi-Fi signals beyond the doors of their establishments and increase hours of availability of these resources to community members.

Issue: High Need for Affordable, Quality Internet Services at Home	
Considerations from Digital Equity Ontario:	**Local Adaptation of Considerations:**
1) "Libraries and/or other service providers consider providing portable hotspot lending programs for households with no or unreliable Internet connections."	1) A hotspot lending program does currently exist at one local library.[23] Additional funding has been provided to local libraries in the form of grants to pilot hotspot lending programs.
2) "Municipalities consider seeking opportunities to build (or partner in building) community broadband networks, particularly in areas where market supply of high-speed Internet is not viable."	2) Consult with existing municipal networks in Canada (such as Rhyzome Networks, O-NET, and The Mamawapowin Technology Society) to determine the feasibility of a municipal network approach in Timiskaming.
3) "Rural municipalities consider a subsidy program to offset the initial cost for lower income rural customers."	3) Consult with community members and municipality stakeholders to investigate a pilot program subsidizing vulnerable groups in need of connectivity.
4) "The federal government extend the Connecting Families Initiative to rural residents, so that rural families in need have access to high-speed Internet service packages for $10 per month from participating Internet Service Providers."	4) Community collaborative work with community members to advocate to Federal government to expand this program to areas within Timiskaming and to reduce barriers to entry for the program.[24]

Appendix 11: Digital Divide Project Referral Partner Organization List

Digital Divide Project Referral Partners:
Centre d'education des adultes
Canadian Mental Health Association
Cochrane Temiskaming Resources Centre
Contact North
CSCT
Doreen Potts Health Centre
DTSSAB
Employment Options
Keepers of the Circle
Literacy Council of South Timiskaming
March of Dimes
Matachewan First Nation
MCCSS
Metis Nation of Ontario
Mino M'shki-ki Indigenous Health Team
Native Women's Support Group
NEOFACS
Nipissing Mental Health Housing and Social Services
Northern College
Ontario Disability Support Program
Pavilion Women's Shelter
Salvation Army Kirkland Lake
Temiskaming Hospital
The Literacy Council of North Timiskaming
Timiskaming Home Support
Timiskaming Child Care

Appendix 12: Referral Partner Outcome Evaluation Survey Detailed Results

The project supported client access to Internet connected devices				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	5	16.67	6.8	6.84 - 35.26
Don't know	1	3.33	3.28	0.43 - 21.63
Strongly Agree	23	76.67	7.72	57.61 - 88.82
null	1	3.33	3.28	0.43 - 21.63
The project supported client access to Internet connectivity supports				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	7	23.33	7.72	11.18 - 42.39
Don't know	3	10	5.48	3.10 - 27.84
Strongly Agree	19	63.33	8.8	44.32 - 78.94
null	1	3.33	3.28	0.43 - 21.63
The project supported client access to continued learning opportunities (including formal or informal learning courses)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	7	23.33	7.72	11.18 - 42.39
Don't know	4	13.33	6.21	4.88 - 31.58
Neither agree nor disagree	2	6.67	4.55	1.57 - 24.19
Strongly Agree	17	56.67	9.05	38.10 - 73.53
The project supported client ability to secure or maintain employment				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	8	26.67	8.07	13.52-45.83
Don't know	9	30	8.37	15.95-49.19
Neither agree nor disagree	2	6.67	4.55	1.57-24.19
Strongly Agree	11	36.67	8.8	21.06-55.68
The project supported client access to health services and programs (including mental health)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	5	16.67	6.8	6.84-35.26
Don't know	2	6.67	4.55	1.57-24.19
Neither agree nor disagree	2	6.67	4.55	1.57-24.19
Strongly Agree	21	70	8.37	50.81-84.05
The project supported client access to health and well-being information				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	7	23.33	7.72	11.18-42.39
Don't know	2	6.67	4.55	1.57-24.19
Neither agree nor disagree	2	6.67	4.55	1.57-24.19
Strongly Agree	19	63.33	8.8	44.32-78.94
The project supported client access to applications for financial support				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Agree	8	26.67	8.07	13.52-45.83
Don't know	5	16.67	6.8	6.84-35.26
Neither agree nor disagree	2	6.67	4.55	1.57-24.19
Strongly Agree	15	50	9.13	32.15-67.85

Appendix 13: Client Outcome Evaluation Survey Detailed Results

Are you doing this survey yourself, or are you a referral partner completing this survey on behalf of someone else?				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
I am completing this survey for myself	27	50.9	7.05	32.51 - 60.11
I am a referral partner completing this survey on behalf of someone else	25	47.2	7.05	39.89 - 67.49
Technology supports received:				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Laptop	25	47.2	7	35.39 - 62.79
Mi-fi device with data plan	9	17.0	5.34	9.29 - 30.95
Cellular tablet	9	17.0	5.34	9.29 - 30.96
Smartphone	9	17.0	5.34	9.29 - 30.97
Non-cellular tablet	7	13.2	4.82	6.56 - 26.48
Tablet Cellular data plan	4	7.5	3.76	2.90 - 19.50
Other (please describe)	2	3.8	2.72	0.95 - 14.81
Smartphone data plan	2	3.8	2.72	0.95 - 14.81
Call/text package with no cellular data	1	1.9	1.94	0.26 - 13.20
Helpfulness of technology and/or Internet supports in accessing devices (like laptops, tablets or phones)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	35	66.04	6.6	52.41 - 78.41
Very helpful	12	22.64	5.76	12.19 - 35.27
Somewhat helpful	3	5.66	3.29	1.86 - 17.12
Slightly helpful	1	1.89	1.94	0.26 - 13.20
Not at all helpful				
Not applicable	2	3.77	2.72	0.95 - 14.81
Helpfulness of technology and/or Internet supports in accessing Internet services (like phone data plans, Mi-Fi plans or cellular tablet plans)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	32	65.31	6.91	52.31 - 79.57
Very helpful	3	6.12	3.01	1.05 - 16.32
Somewhat helpful	1	2.04	2.15	0.29 - 14.55
Slightly helpful	1	2.04	2.15	0.29 - 14.56
Not at all helpful				
Not applicable	12	24.49	6.47	15.22 - 40.97
Helpfulness of technology and/or Internet supports in accessing virtual social meetings (like calling friends with your device)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	28	53.85	7.11	40.79 - 68.62
Very helpful	13	25.00	6.14	14.26 - 38.74
Somewhat helpful	1	1.92	2.02	0.27 - 13.71

Slightly helpful	1	1.92	2.02	0.27 - 13.72
Not at all helpful				
Not applicable	9	17.31	5.53	9.68 - 32.09
Helpfulness of technology and/or Internet supports in accessing online learning (like online classes or how-to videos)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	27	51.92	7.13	38.87 - 66.78
Very helpful	12	23.08	5.96	12.70 - 36.56
Somewhat helpful	4	7.69	3.91	3.02 - 20.24
Slightly helpful	1	1.92	2.02	0.27 - 13.72
Not at all helpful				
Not applicable	8	15.38	5.28	8.23 - 29.80
Helpfulness of technology and/or Internet supports in securing or keeping work or a job (like working from home or applying for a new job)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	11	21.57	5.86	12.44 - 35.90
Very helpful	6	11.76	4.6	5.38 - 24.64
Somewhat helpful	3	5.88	3.36	1.89 - 17.44
Slightly helpful	1	1.96	1.98	0.27 - 13.45
Not at all helpful				
Not applicable	30	58.82	6.98	43.71 - 71.07
Helpfulness of technology and/or Internet supports in accessing health care (connecting with a health care provider, mental health services)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	22	42.31	6.98	28.93 - 56.29
Very helpful	8	15.38	5.18	8.07 - 29.26
Somewhat helpful	2	3.85	2.77	0.97 - 15.09
Slightly helpful	3	5.77	3.36	1.89 - 17.44
Not at all helpful	1	1.92	1.98	0.27 - 13.45
Not applicable	16	30.77	6.48	18.73 - 44.35
Helpfulness of technology and/or Internet supports in accessing health and well-being information (like information on signs of an illness, how to prevent illness)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	25	48.08	7.07	34.32 - 61.98
Very helpful	14	26.92	6.2	15.53 - 40.18
Somewhat helpful	1	1.92	1.98	0.27 - 13.45
Slightly helpful	2	3.85	2.77	0.97 - 15.09
Not at all helpful				
Not applicable	10	19.23	5.66	10.94 - 33.72
Helpfulness of technology and/or Internet supports in applying for financial supports (like applying for grants or getting e-transfers)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely helpful	16	30.19	6.48	18.73 - 44.35
Very helpful	10	18.87	5.43	9.48 - 31.51
Somewhat helpful	4	7.55	3.84	2.96 - 19.86
Slightly helpful				
Not at all helpful	1	1.89	1.98	0.27 - 13.45

Not applicable	22	41.51	6.98	28.93 - 56.29
Results of having the technology devices and/or cellular/data services? Please choose all that apply				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Confusion trying to operate device	8	57.14%	13.23	29.34 - 81.07
Cybercrime	3	21.43%	10.97	6.26 - 52.69
Spent too much time using device	2	14.29%	9.35	3.10 - 46.46
Unease when using online services	2	14.29%	9.35	3.10 - 46.47
Loss of privacy	1	7.14%	6.88	0.81 - 41.99
Theft				
I have received enough information to participate in the project				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	26	50.0	7	38.0 - 65.68
Agree	15	28.8	6.35	17.12 - 42.27
Neither agree or disagree	5	9.62	3.84	2.96 - 19.86
Disagree	4	7.69	3.92	3.02 - 20.24
Strongly disagree	2	3.85	1.98	0.27 - 13.45
Not applicable				
I received timely information throughout the project				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	22	42.31	7.02	30.71 - 58.21
Agree	17	32.69	6.7	22.04 - 48.42
Neither agree or disagree	7	13.46	4.24	4.13 - 22.27
Disagree	5	9.62	3.84	2.96 - 19.86
Strongly disagree	1	1.92	1.98	0.27 - 13.45
Not applicable				
The application process was easy				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	27	52.94	7.11	40.79 - 68.62
Agree	18	35.29	6.89	24.24 - 51.30
Neither agree or disagree	4	7.84	3.91	3.02 - 20.24
Disagree				
Strongly disagree				
Not applicable	2	3.92	2.01	0.97 - 15.09
The device choices met my needs				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	27	52.94	7.11	40.79 - 68.62
Agree	17	33.33	6.7	20.81 - 47.22
Neither agree or disagree	5	9.80	4.32	4.21 - 22.69
Disagree	1	1.96		
Strongly disagree				
Not applicable	1	1.96	2.02	0.27 - 13.71
The wait time to receive my device was reasonable				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**

Strongly agree	31	60.78	6.89	48.70 - 75.76
Agree	17	33.33	6.7	20.81 - 47.22
Neither agree or disagree	3	5.88	2.83	0.99 - 15.38
Disagree				
Strongly disagree				
Not applicable				
When I needed information about the project I was treated with dignity and respect				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	28	54.90	7.07	42.73 - 70.44
Agree	17	33.33	6.8	22.51 - 49.27
Neither agree or disagree	2	3.92	2.01	0.97 - 15.09
Disagree				
Strongly disagree	1	1.96	2.02	0.27 - 13.71
Not applicable	3	5.88	2.83	0.99 - 15.38
I was supported in the language of my choice				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	31	60.78	6.89	48.70 - 75.76
Agree	19	37.25	6.8	22.51 - 49.27
Neither agree or disagree				
Disagree				
Strongly disagree	1	1.96	2.02	0.27 - 13.71
Not applicable				
The data plan I received met my usage needs				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Strongly agree	14	27.45	6.48	18.73 - 44.35
Agree	11	21.57	5.86	12.44 - 35.90
Neither agree or disagree	2	3.92	1.98	0.27 - 13.45
Disagree	1	1.96	2.02	0.27 - 13.71
Strongly disagree	2	3.92	2.77	0.27 - 13.45
Not applicable	21	41.18	6.93	27.18 - 54.36
Once the project is done, do you think you will continue to use the device you received (e.g. smart phone, tablet or laptop)?				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Yes	45	84.91	4.51	75.80 - 94.72
No	3	5.66	1.94	0.26 - 13.20
Not applicable	5	9.43	4.16	4.05 - 21.87
How important do you think each of these factors will be for you after the Digital Divide project has ended? Public places with free Wi-Fi (like libraries and community centres)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely important	24	47.06	7.11	31.38 - 59.21
Very important	13	25.49	6.31	15.85 - 40.90
Somewhat important	6	11.76	4.68	5.49 - 25.10
Slightly important	1	1.96	2.02	0.27 - 13.71
Not at all important	1	1.96	2.02	0.27 - 13.71
Not applicable	6	11.76	4.68	5.49 - 25.10
How important do you think each of these factors will be for you after the Digital Divide project has ended?				

Workshops on digital device usage (like the Cyber Seniors program)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely important	12	23.53	6.07	12.97 - 37.23
Very important	11	21.57	5.86	11.41 - 34.98
Somewhat important	10	19.61	5.66	10.94 - 33.72
Slightly important	3	5.88	3.49	1.97 - 18.12
Not at all important	2	3.92	2.88	1.01 - 15.68
Not applicable	13	25.49	6.25	14.56 - 39.46
How important do you think each of these factors will be for you after the Digital Divide project has ended? Affordable quality Internet services at home				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Extremely important	37	72.55	6.31	59.10 - 84.15
Very important	10	19.61	5.53	9.68 - 32.09
Somewhat important				
Slightly important				
Not at all important	1	1.96	2.02	0.27 - 13.71
Not applicable	6	11.76	3.42	1.93 - 17.77
Age group				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Under 20 years old				
20-29 years old	12	23.53	6.14	14.26 - 38.74
30-49 years old	12	23.53	6.14	14.26 - 38.74
50-64 years old	12	23.53	6.14	14.26 - 38.74
65 years old or older	15	29.41	6.45	17.48 - 43.03
Income (yearly)				
Response Option	**Frequency**	**Percent**	**SE**	**95% CI**
Less than $10,000 per year	7	13.7%	5.00	6.83 - 27.47
$10,000-25,000 per year	30	58.8%	7.02	44.70 - 72.23
$25,001-40,000 per year	6	11.8%	4.32	4.21 - 22.69
$40,001-55,000 per year				
$55,001-70,000 per year	1	2.0%	2.02	0.27 - 13.71
$70,000 or more per year	1	2.0%	2.02	0.27 - 13.71
Prefer not to answer	6	11.8%	4.68	5.49 - 25.10