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Client and Practitioner Experiences and Perceptions of Virtual Services and Supports for Substance Use or Concurrent Disorders During the COVID-19 Pandemic

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Executive Summary

Key Messages

- This study collected experiences with and perceptions of virtual services and supports (VSS) from people using virtual care for substance use, substance use disorders and concurrent disorders, and people who had not used VSS for these conditions. It also collected data from practitioners delivering virtual care.
- Overall, those using virtual care were satisfied with available VSS and experienced few barriers.
- The levels of comfort and satisfaction with using VSS, experiences of barriers and benefits, and concerns about privacy and security vary by gender and age.
- Policy makers should consider improving practitioner virtual care skills, improving access for vulnerable people and those living in remote locations, and developing privacy and security standards.
- Providers should reassure clients about their privacy when using VSS, ensuring interactions are positive and safe, and offering a mix of virtual and in-person appointments tailored to individual needs and suitability.
- Members of the public may want to explore ways to improve their knowledge of the effectiveness, safety and security of VSS; improve their technical skills; and know their rights to ask for the blend of services and supports that fit their circumstances.

The Canadian Centre on Substance Use and Addiction (CCSA), The Royal Ottawa Mental Health Centre, the Canadian Psychological Association and Canada Health Infoway wanted to understand the abrupt switch from in-person care to virtual care in response to pandemic restrictions. We studied perceptions of and experiences with virtual services and supports (VSS) for substance use (SU), substance use disorders (SUDs) and concurrent disorders (CDs). (CDs are mental health conditions that co-occur with SUDs.) Between February and April 2021, we surveyed 326 people living in Canada who have used VSS for SU, SUDs or CDs during the COVID-19 pandemic and 708 people who had never used VSS for SU, SUDs or CDs. We also interviewed 14 practitioners from across Canada who have provided VSS for SU, SUDs or CDs during the pandemic.

Two-thirds of respondents who had used VSS for SU, SUDs or CDs were satisfied with the virtual services. Almost half of this group agreed that VSS were as effective as in-person services. Two-thirds of the respondents who had **not** used VSS for SU, SUDs or CDs said they did not think VSS would be as effective as in-person services. People in this group were also more likely than those who had used VSS for SU, SUDs or CDs to be concerned about their privacy and security using a virtual platform. The biggest barriers to accessing VSS included the cost of private services, lack of a private space for participating in VSS, and concerns about the client and practitioner being able to build a relationship. Barriers varied by demographic characteristics. Among those using VSS, women were more likely than men to wish to return to in-person services once COVID-19 restrictions are lifted. Those older than 55 years were less likely than younger survey respondents to say they could build a relationship with a healthcare provider virtually.



The qualitative interviews with practitioners uncovered the challenges of delivering virtual care during a pandemic. The main challenge was the steep technology learning curve for practitioners and clients when transitioning to VSS. Certain groups (e.g., people who are marginalized or who do not have internet access) faced barriers accessing services.

In some ways, service delivery was improved through VSS, such as increased accessibility of services to clients with mobility issues or geographical barriers. They also reduced the need for arranging childcare. VSS changed the client-practitioner relationship, in some cases allowing the practitioner to see a client's home over video. In other cases, some clients' behaviours interrupted their care when they turned off their cameras.

Although some clients took very well to VSS, practitioners agreed VSS cannot replace in-person care as other clients did not adapt well. The findings from this work can be used to inform the work of numerous groups.

Policy makers should consider:

- Increasing access to quiet, safe and private spaces, and access to publicly funded internet, equipment and services for those living in remote areas or in vulnerable circumstances.
- Creating, implementing and widely disseminating professional standards to reframe practice and roles in the virtual context, and for privacy and security.
- Providing pre- and in-service training to improve virtual health competencies and confidence.

Practitioners and the organizations that support them should consider:

- Providing technological support and evidence-based training to practitioners.
- Maintaining flexible service provision options after the pandemic that focus on tailoring the mix of virtual and in-person services and supports to each client based on their age, gender and culture, and the broader characteristics of the region.
- Directly addressing privacy concerns with clients and reassuring them with information and a person-centred approach.

Members of the public – whether or not they use substances or have an SUD – should consider:

- Exploring ways to improve their knowledge of the effectiveness, safety and security of VSS; improving their technical skills; and understanding their rights to ask for the blend of services and supports that fit their circumstances.

Findings from this study provide valuable insight into designing VSS for SU, SUDs and CDs post-pandemic as services are unlikely to return to pre-pandemic delivery modalities.

Limitations include the lack of data from those who could not access the internet during the study timeframe and the inability to analyze data by diverse genders and races. More research is needed to increase our understanding of the effectiveness of VSS for these key groups and to establish and implement evidence-based standards. As the pandemic evolves, it will be crucial to gauge the impacts on mental health and SU, and ensure the appropriate level of services are available. It will also be important to further understand if barriers to VSS are different for those using SU, SUD and CD services compared to general health services.



Introduction

The COVID-19 pandemic continues to cause unprecedented changes to health care and society. Beginning in March 2020, many people across the world were advised to stay home and maintain physical distancing to slow the spread of the virus.

This greatly affected how services for substance use (SU), substance use disorders (SUDs) and concurrent disorders (CDs) were delivered, such as treatment, counselling or harm reduction. CDs typically refer to the simultaneous occurrence of a mental and a substance use disorder (Rush et al., 2008; Skinner et al., 2010).

Many services switched to virtual delivery while some stopped. The conditions of pandemic living, including higher levels of stress and increases in substance use, also created an increase in the demand for SU, SUDs and CDs services (Ali et al., 2020; Canadian Centre on Substance Use and Addiction [CCSA], 2020; Centre for Addiction and Mental Health, 2020; Douglas et al., 2020; Marsden et al., 2020). Data has shown that both SU and mental health have been impacted during the pandemic and continue to worsen even as the pandemic eases. For example, a Leger poll (2022) found that 22 per cent of respondents who use alcohol reported increased use in November 2021 relative to the previous months and 29 per cent reported increased cannabis use at this time. Only 19 per cent of respondents who reported problematic SU were accessing treatment services.

At the outset of the pandemic, many organizations and healthcare providers introduced or increased their levels of VSS. The federal government introduced the [Wellness Together Canada](#) website in response to the negative impact COVID-19 had on the mental health of those living in Canada. This portal offers a variety of online and virtual resources, such as self-assessment tools, peer support and counselling. Others started offering consultations with healthcare providers over the phone, video-conference appointments for counselling, websites and apps to book appointments, online requests for prescription renewals and online support groups, such as Alcoholics Anonymous.

Despite this increase in the availability of virtual services, supports and technologies, these services may not work for everyone. Some clients who used in-person services and supports pre-pandemic have declined switching to virtual service options, leaving them without services and supports (CCSA, 2020). Many people living in Canada continue to lack access to services and supports. Barriers faced include lack of access to technology (e.g., computer, high-speed internet) for both clients and healthcare practitioners (Koch, 2020), absence of private spaces from which to use the technology, distrust in the privacy of online options and lack of rapport with new or changing service providers (CCSA, 2020).

Our study aims to explore the experiences of clients using and practitioners delivering VSS for SU, SUDs and CDs across Canada during the pandemic, along with gauging the perceptions of and receptivity to VSS for these conditions among those who have not used such services.

Study Objectives

In partnership with the Royal Ottawa Mental Health Centre, Canada Health Infoway and the Canadian Psychological Association, CCSA undertook this study to capture and understand the perceptions of and experiences with VSS for SU, SUDs, and CDs since the onset of COVID-19. (The language around SU health and disorder is continually evolving. The language used here reflects the language used in the survey.) For this study, VSS are defined as any education, access to health care or treatment (e.g., counselling, peer support) provided through technology, such as telehealth, video conferencing or other apps. This mixed-methods study had the following objectives:



- Explore the experiences and perceptions of people living in Canada about VSS for SU, SUDs and CDs regardless of whether they had accessed VSS for these conditions themselves.
- Capture the perspective of and impacts to those opting out of using VSS for SU, SUDs and CD.
- Investigate practitioners' experiences of delivering VSS for SU, SUDs and CDs, including the perceived challenges to accessing and using VSS for various populations and unique circumstances (e.g., marginalized, remote).

This report is intended for researchers, knowledge brokers, governments, policy makers, health service providers and healthcare or social services administrators. Data from our research will inform recommendations to better implement, increase access to and improve VSS experiences and treatment outcomes for both clients and practitioners. They will support health system planning, such as workforce size and technology needs. Study findings inform [policy recommendations](#) to improve access to services and supports across population groups and improve practitioners' ability to provide effective services and supports.

In spring 2020, we identified the need for data about the effectiveness of virtual care to treat SU, SUDs and CDs during the pandemic. Research had begun on the effectiveness of virtual care for SU, SUDs and CDs, but it was still limited, and Canadian data was lacking. The research done pre-COVID-19 also did not consider the perceptions and experiences of those delivering and receiving virtual care during an unprecedented time such as the pandemic. The switch to virtual care during the pandemic raised concerns about the conditions for those using substances. Specifically, informal consultations with stakeholders highlighted areas of concern, including:

- The abrupt switch to virtual care left certain clients “behind.”
- Anecdotal evidence showed that those who had been in recovery returned to use during the pandemic.
- The availability of SU, SUDs and CDs services declined.
- Vulnerable and underserved populations were disproportionately being affected. These populations included those living in rural and remote areas; those involved in the justice system, whether living in correctional facilities, released during the pandemic or otherwise involved; and people who were experiencing homelessness.

Discussion with provincial and federal governments illustrated a desire to scale up virtual services during and after the pandemic. The goal was to meet the current needs for SU, SUDs and CDs services and supports of those living in Canada and the potential increased future needs because of the conditions of pandemic living. We wanted to determine whether people living in Canada wanted further use and increased access to VSS for SU, SUDs and CDs.

Methods

To harness expertise in this area, CCSA established the Virtual Services and Supports Advisory Committee. The committee included subject-matter experts in substance use and virtual care, healthcare practitioners, representatives of provincial health services, and people with lived and living experience with SU. It included individuals from the Mental Health Commission of Canada, the Canadian Society of Addiction Medicine, the Centre on Addiction and Mental Health, the British Columbia Provincial Health Services Authority, and CCSA's Living and Lived Experience Working Group.



With the committee's guidance, we opted for a mixed-methods approach. First, we conducted a national quantitative survey of clients using VSS for SU, SUDs and CDs. We opted to also include people living in Canada who were not using these services to gauge whether they would be comfortable using such services in the future if the need arose. A national survey was the most effective way of collecting data because it is relatively quick and easy to administer and does not need to be done in person). This data would help support or modify the intent of scaling up virtual care.

Second, we interviewed practitioners to capture the broad array of perspectives that is crucial to understanding this issue. The interviews allowed us to get these key informants' perspectives of clients who use SU, SUDs and CDs services but were not able to access the online survey.

This study received ethics approval from Advarra Institutional Review Board in 2021 and was funded by a contribution agreement from Health Canada.

Quantitative Survey

The survey questions were adapted from three Canadian surveys, covering similar topics. These included:

- The Royal Ottawa Mental Health Centre's Substance Use and Concurrent Disorders Client Survey – Virtual Care Evaluation
- Centre for Addiction and Mental Health's Virtual Client Experience Survey for Mental Health and Addictions
- Canada Health Infoway's National Digital Health Survey

CCSA researchers used questions from these surveys with additional questions to address needed topic areas. Questions were created based on key findings and themes from a literature review about key groups' experiences with VSS for SU, SUDs and CDs (e.g., Connolly et al., 2020; Moreau et al., 2018; Canadian Agency for Drugs and Technologies in Health, 2020). The spring 2020 literature search did not find any similar studies measuring the experiences and impacts of shifting to VSS for SU, SUDs and CDs due to COVID-19.

Project partners and advisory committee members provided content expertise in developing the survey questions to reflect the Canadian context. A draft version of the survey was shared for feedback on the wording of survey questions, survey content and the length of the survey. All feedback was considered and incorporated into the final version of the survey when feasible (Appendix A). The survey was piloted with representatives of the target populations to ensure it was appropriate for and understood by the target audience.

The survey collected general demographic information, as well as data related to any experience with VSS for SU, SUDs or CDs, reasons for not using VSS and thoughts on using VSS for these conditions in the future. It was administered from February to April 2021 by Leger (Market Research and Analytics Company) to people living in Canada using two approaches: their national panel and a web-based link that was shared via email and e-blast to potential participants outside of the panel. (Leger's national panel contains over 400,000 people and delivered the survey to eligible participants who had already agreed to participate in Leger's research.) Non-probability sampling (specifically, snowball sampling) was used to recruit participants for this approach. Snowball sampling was used to recruit further participants for the survey. This approach relied on an initial group of stakeholder organizations to disseminate the survey link to partners and stakeholders who have eligible participants. They in turn further disseminate it among their own networks of people



who work with the target audience. This method was chosen to ensure we reached those aged 18 years and older accessing VSS for SU, SUDs and CDs. The aim was to secure the participation of a large number of respondents from across the country. Respondents had the option of completing the survey in English or French. Compensation was provided to survey participants (Appendix B).

Analysis of the survey data was conducted by Leger using the Statistical Package for the Social Sciences (SPSS) and WinCross and consisted primarily of descriptive statistics. The findings presented in this report include baseline data for entire groups and statistically significant differences between sub-populations, which were assessed using *t*-tests at an alpha level of 0.05. The anonymous data were reported in such a way that no personally identifiable information was provided.

Qualitative Interviews

To collect more detailed data on practitioners' experiences with VSS for SU, SUDs or CDs, we interviewed 14 key informants in March and April 2021, with 12 in English and two in French. Participants were practitioners working in the SU field. They included primary care physicians; psychologists; social workers; counsellors; those referring patients to SU, SUDs and CD resources or treatment; and community-based practitioners working with marginalized populations, rural, remote and Indigenous populations. We recruited them based on recommendations from project partners, the advisory committee, CCSA networks and contacts in the field through snowball sampling. We aimed to capture the contextual complexities of implementing VSS for those delivering services related to SU, SUDs and CDs during the pandemic.

To develop the key informant discussion guide (Appendix C), we searched the literature on PubMed and PsycNET for English peer-reviewed articles published in the last 10 years related to SU health, mental health and virtual care experiences. This retrieved 2,577 articles. The effectiveness of virtual care for SU, SUDs or CDs was not a focus of this review. Findings from the literature search included a smaller number of studies focused on SU compared with studies on mental health or other health issues. Those that did cover SU were often specific to alcohol or tobacco interventions. Numerous studies focused on adolescents or older adult participants but few on the general population. Many studies looked at nurses but few on other types of practitioners, such as addictions specialists.

We also collected grey literature, such as reports or media articles about adapting SU, SUDs and CDs services because of COVID-19. We talked with key partners in harm reduction, mental health and the delivery of SU, SUDs and CD services about the most relevant topics to include in the qualitative portion of the study.

Using topics from the literature search, COVID-19 context and feedback from partners, we created a guide to facilitate semi-structured discussion. Topics included facilitators and barriers to adopting VSS for SU, SUDs or CDs, benefits and drawbacks of VSS, and the impact on clients. To ensure that the discussion guide questions would facilitate a conversation with the participants, and that the guide and informed consent form used language that was easily understood, we conducted a small pilot test. Participant compensation was provided when appropriate (i.e., when the nature of their professional role did not include compensation for participating in research).

We reviewed transcripts of the interviews using standard qualitative methodology where themes, commonalities and outliers were identified. Inductive thematic analysis was used to allow us to interpret the data rather than use the data to support theoretical conceptions, which is the case when using a deductive approach (Patton, 2002). An inductive approach was adopted for our study because it allows for greater flexibility in capturing participants' perspectives and facilitating a more complete understanding of the topic area and related themes that emerge.



Direct quotes from participants were used to support findings. The data were reported in such a way that no single individual is identifiable. This includes any anonymous quotes obtained from respondents that are used to enrich the qualitative results presented in the report.

Results

Quantitative Results

Study Sample

A total of 1,066 online surveys were completed between Feb. 25 and April 11, 2021, using the Leger national panel and an open link. Among the surveys completed, 326 respondents had used VSS during the pandemic for SU, SUDs or CDs. Within that group, 108 were doing so for SU or SUDs alone, while 218 were using services for CDs. We wanted the survey to capture respondents who had declined or stopped SU, SUDs or CDs services because they were switched to virtual delivery. Only 32 people fell into this category, resulting in their removal from the final results. A total of 708 survey respondents had never used VSS for SU, SUDs or CDs. These respondents primarily include those who have no experience of SU, SUD or CDs. Only two per cent of this group had such experience but had used only nonvirtual supports for SU, SUDs or CDs.

Among those using VSS for SU, SUDs or CDs, 54 per cent of respondents identified as men, while the remainder identified as women. Among those who had not used VSS for SU, SUDs or CDs, 48 per cent of the sample identified as men. Because less than one per cent of respondents identified as being a gender other than man or woman, they were excluded from the gender-specific analysis but not from the entire sample. Six were removed from gender analysis for those using VSS and two were removed from people who had not used VSS.

Similarly, it was not possible to report findings based on respondents' racial identity beyond those who identified as White and those who identified as members of another race. For this reason, we do not provide results based on racial identity. Respondents were organized by age into the following categories: 18 to 34, 35 to 54 or 55 and older. See Table 1 for more demographics for this sample.



Table 1: Sample demographics

Demographic	Using VSS for SU, SUDs or CDs, % (<i>n</i> = 326)	Refused VSS, % (<i>n</i> = 32)	Have not used VSS for SU, SUDs or CDs, % (<i>n</i> = 708)
Man	54	50	48
Woman	44	50	52
Indicated a gender other than man or woman	2	0	2
Age 18 to 34 years	41	25	28
Age 35 to 54 years	40	38	35
Age 55 years or older	19	38	37
British Columbia	12	9	13
Alberta	10	6	10
Manitoba or Saskatchewan	7	3	6
Ontario	44	47	40
Quebec	21	31	25
Atlantic province	6	3	7
White	67	60	81
Not Caucasian	33	40	19

Note: Rounding errors may result in totals not being 100 per cent.

People Who Use Virtual Services and Supports

About 41 per cent started using VSS since the pandemic began in March 2020, while 51 per cent began VSS before March 2020. Eight per cent of respondents did not remember when they started. Among those new to VSS since the onset of the pandemic (*n* = 141), telephone consultation was the most used method to access support, followed by virtual visits by video conference. Among this group, 70 per cent said they began using virtual services during the pandemic because of their increased availability. About half of respondents said virtual services were the only option available, as opposed to in person only or in person and virtual.

Among those who had started using VSS before the pandemic (*n* = 185), many also continued to access some of their services in person (43%). The next most common ways services were accessed were telephone consultations (35%) and virtual visits by video conference (25%).

Most (79%) respondents accessed VSS from home, while five per cent accessed them at work and five per cent with a healthcare provider at a health facility. Respondents accessed VSS from other locations such as someone else's home (four per cent), their car (three per cent) or a public space (two per cent).

Overall, respondents noted satisfaction and comfort with using VSS and appreciated a number of benefits. However, there continues to be a preference for in-person settings. More than two-thirds of respondents said they were satisfied with the quality of support and care provided via VSS (68%) and



that they were comfortable meeting a healthcare provider (HCP) virtually (69%). About 75 per cent of respondents agreed VSS save them time, and it prevents the spread of COVID-19. Figure 1 highlights further participant experiences with VSS. Despite a general level of satisfaction and comfort meeting a healthcare provider virtually (69% agree they are comfortable), two-thirds (66%) of respondents noted they feel more comfortable when they meet their healthcare provider in person and almost as many (60%) agree that they prefer in-person or on-site settings to their own surroundings for appointments.

Figure 1: Experiences with virtual services and supports for people who have used them for substance use, substance use disorders or concurrent disorders

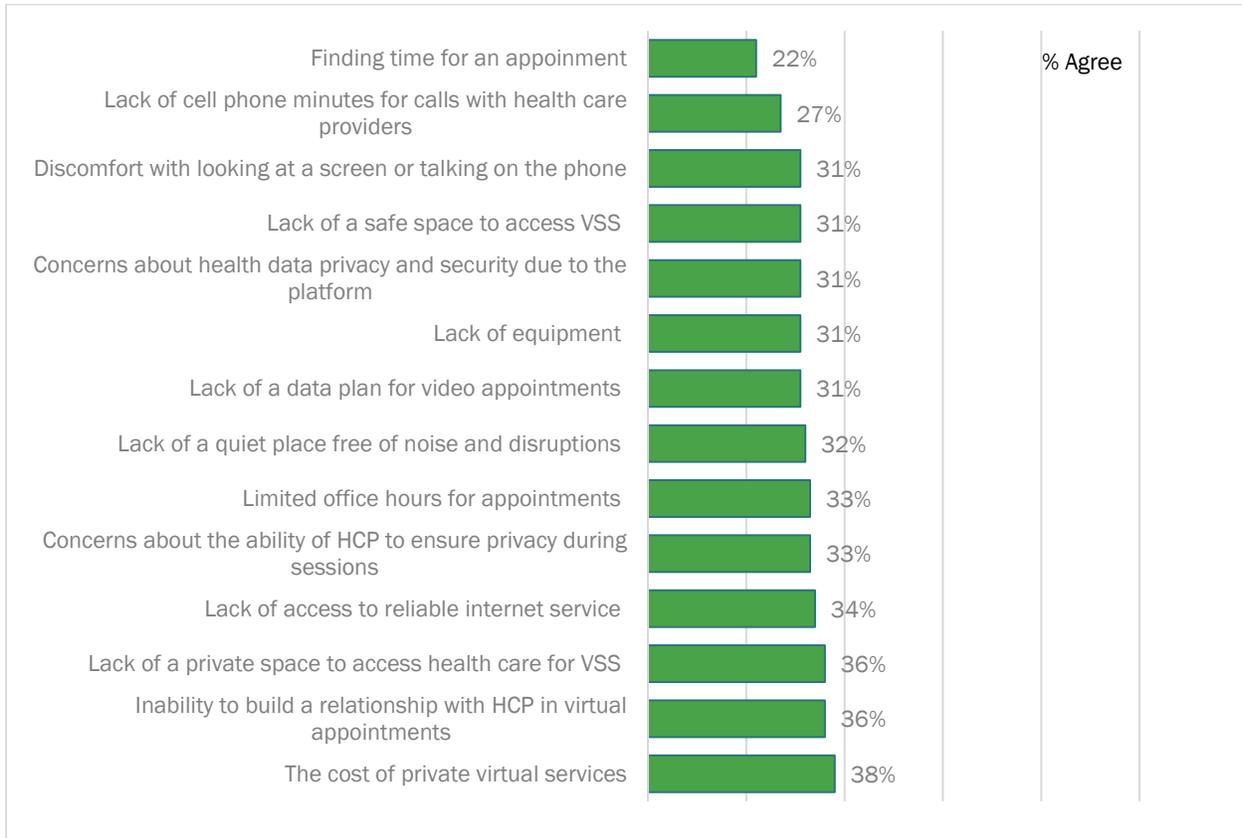


Note. HCP = healthcare provider

Only 48 per cent of respondents agreed that VSS are as effective as in-person supports and a number of barriers were cited. The most common barriers included the cost of private services (38%), the belief that a client is unable to build a relationship with a healthcare provider during virtual appointments (36%), and the lack of a private space to engage in VSS (36%).



Figure 2: Barriers to virtual services and supports among people who have used them for substance use, substance use disorders or concurrent disorders



Note. HCP = healthcare provider

Gender

Among the respondents, women were more likely than men to report that they wish to return to in-person visits with a healthcare provider (52%, compared with 33%). Given they were less concerned with returning to in-person visits, it is unsurprising that men were more likely than women to agree that VSS are just as effective as in-person care (57%, compared with 39%). Men were more likely than women to report that lack of cellphone minutes was a barrier to VSS (31%, compared with 21%).

Age

Survey respondents aged 18–34 years were less likely than other age groups to agree that it is important to have technology that makes accessing their health care as user friendly and convenient as other areas of their lives (18–34: 68%; 35–54: 83%; 55 and older: 82%). Those aged 55 and older were less likely than those in other age groups to cite lack of cellphone minutes as a barrier to accessing VSS (18–34: 25%; 35–54: 31%; 55 and older: 21%).

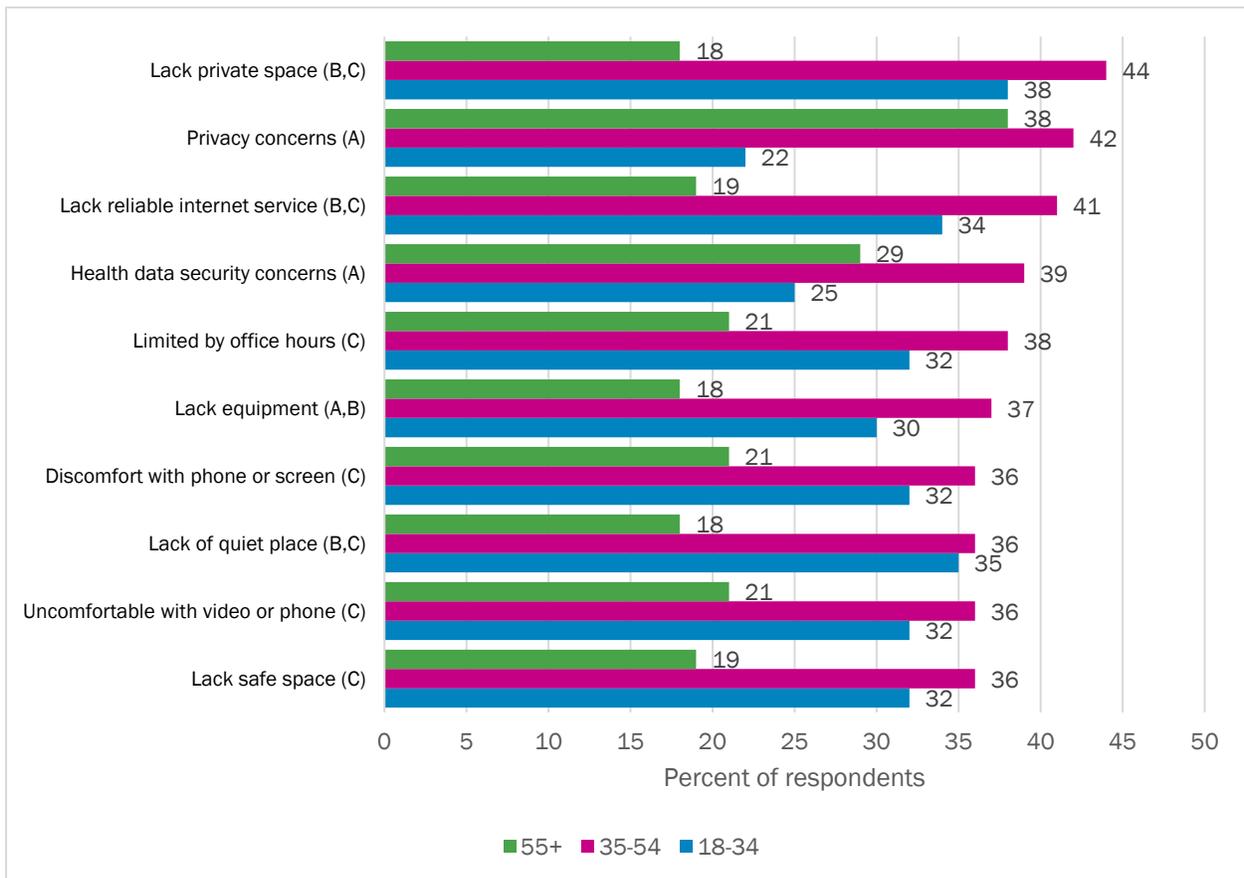
Those aged 35 to 54 were the most likely to be using VSS overall (18–34: 86%; 35–54: 98%; 55 and older: 88%), with video-conference visits in particular (18–34: 22%; 35–54: 42%; 55 and older: 38%). However, they were more likely to have concerns and face certain barriers (Figure 3). For instance, they are more likely than those aged 18–34 to be concerned about privacy during a



session with their healthcare provider (18–34: 31%; 35–54: 40%; 55 and older: 23%) and the security of their health data (18–34: 25%; 35–54: 39%; 55 and older: 29%). Further, compared with those 55 and older, those aged 35–54 were more likely to:

- Lack a safe space (18–34: 32%; 35–54: 36%; 55 and older: 19%) and equipment (18–34: 30%; 35–54: 37%; 55 and older: 18%) needed to participate in VSS;
- Be limited by healthcare professional’s office hours (18–34: 32%; 35–54: 38%; 55 and older: 21%);
- Be less comfortable using a video screen or phone (18–34: 32%; 35–54: 36%; 55 and older: 21%); and
- Be more comfortable with a healthcare provider when they meet in person (18–34: 66%; 35–54: 73%; 55 and older: 53%).

Figure 3: Perceived barriers to virtual services and supports among those using them, by age.



A Significant difference between 18–34 and 35–54.

B Significant difference between 18–34 and 55 and older.

C Significant difference between 35–54 and 55+.

Finally, those aged 55 and older were less constrained by barriers to VSS, compared with those of other age groups. They were less likely to agree that lack of a private space (18–34: 38%; 35–54: 44%; 55 and older: 18%) and lack of a quiet and interruption-free space (18–34: 35%; 35–54: 38%; 55 and older: 18%) were barriers. Reliable internet access (18–34: 34%; 35–54: 41%; 55 and older:



19%) and finding time for appointments (18–34: 26%; 35–54: 25%; 55 and older: 10%) were less likely as well.

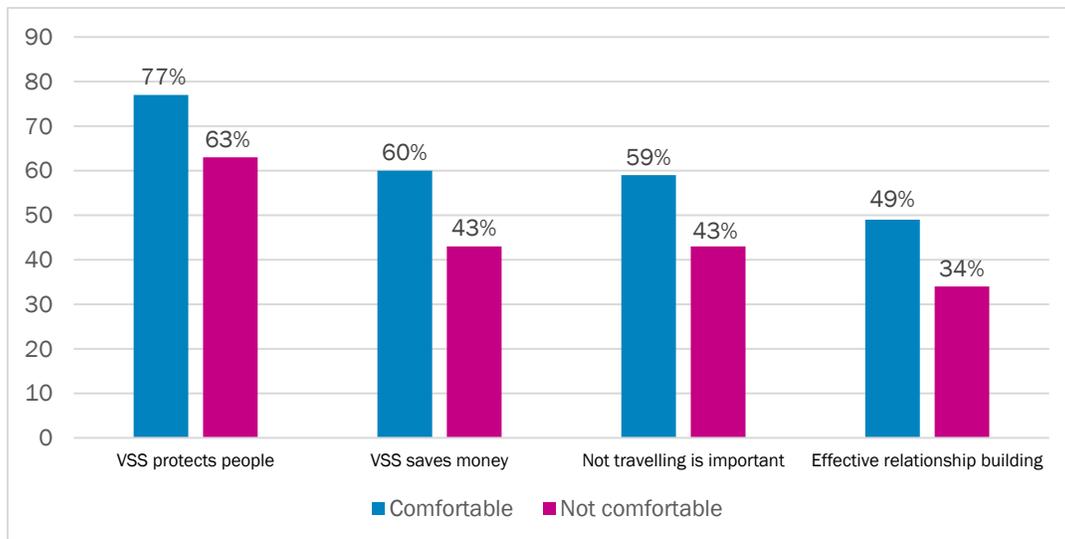
Comfort with Technology

A person’s comfort with technology can affect their experiences with VSS, so we asked survey respondents how comfortable they were with computers, the internet, mobile applications and so on. Generally, perceptions of VSS for SU, SUDs and CDs are better among those who are comfortable with technology (Figure 4). Overall, 83 per cent of those who used VSS for SU, SUDs or CDs were comfortable or very comfortable with technology.

Those who reported comfort with technology were more likely to agree that VSS have helped protect people from COVID-19 (77%, compared with 63%) and saved them money (60%, compared with 43%). Those who are comfortable with technology were also more likely to agree that not travelling is important (59%, compared with 43%) and that VSS are just as effective for building relationships with healthcare providers as in-person services (49%, compared with 34%). Those comfortable with technology were more likely to agree there was enough time allotted for their appointments (70%, compared with 54%), and they are satisfied with the quality of VSS (71%, compared with 54%).

Those who reported that they were uncomfortable with technology were more likely to report barriers related to a private space (45%, compared with 34%), a safe space (43%, compared with 29%) or sufficient data plans (46%, compared with 27%) to be able to participate in VSS. They were also more likely to be limited by practitioner office hours for appointments (50%, compared with 29%).

Figure 4: Perceived benefits of using virtual services and supports by respondent’s comfort with technology



People Who Had Not Used Virtual Services and Supports

Due to the potential to scale up VSS in the future, it was important to understand the perceptions of people who had not used VSS. To capture this, the survey also collected responses from those who had not accessed VSS for SU, SUDs or CDs to gauge their perceptions of VSS and their openness to using VSS in the future. These respondents did not have to identify whether they were experiencing or had ever experienced issues with SU, SUDs or CDs.



Among the 708 respondents, about three-quarters (74%) reported they would be comfortable using VSS to meet a doctor or nurse and attend appointments with a healthcare provider to address SU, SUDs or CDs needs (Figure 5). They were less comfortable using VSS for something that involved others, such as peer support (40%) or group therapy (38%). Only 33 per cent of the people who had not used VSS agreed that VSS were just as effective as in-person supports and services. One-third of these respondents reported it was likely or somewhat likely they will use VSS for SU, SUDs or CDs in the next five years.

Figure 5: Percentage of people who had not used virtual services and supports for substance use, substance use disorders or concurrent disorders who would be comfortable with virtual activities

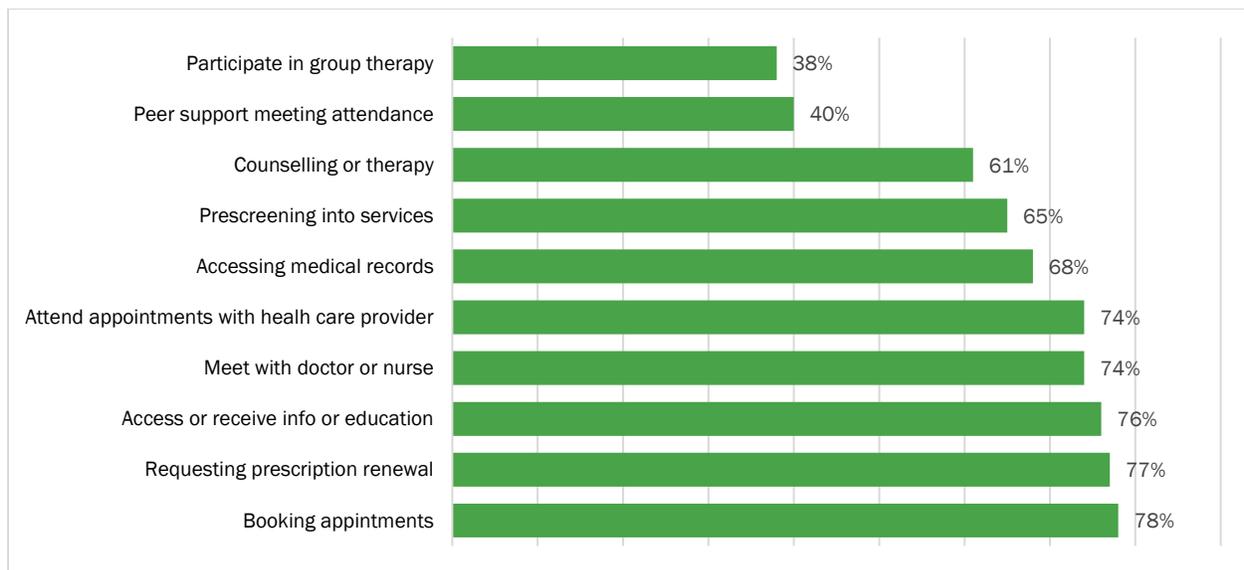
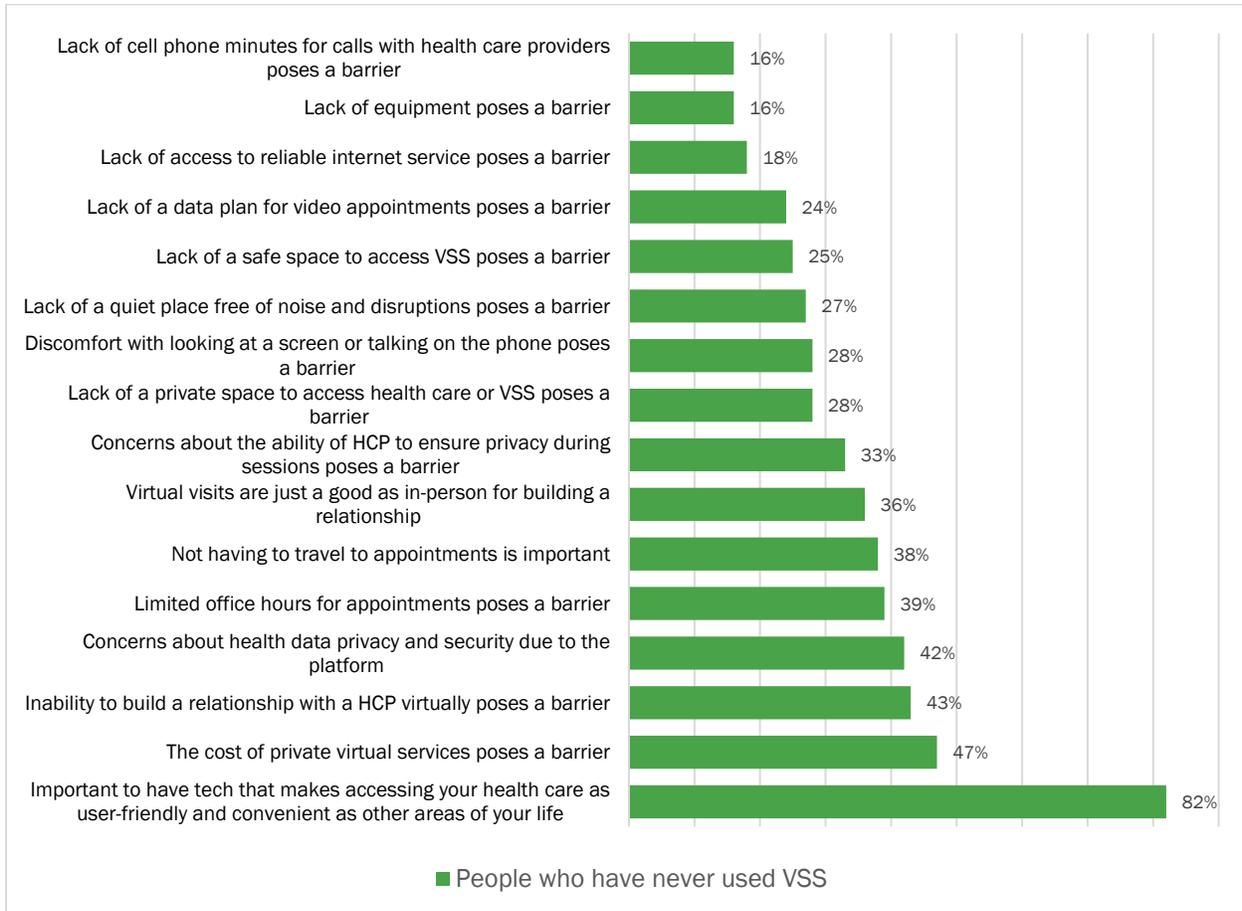




Figure 6: Barriers to using virtual care among those who have never used virtual services and supports for substance use, substance use disorders or concurrent disorders



Gender

Women were more likely than men to agree that not having to travel to appointments is important (42%, compared with 33%). Women were more likely to agree that lack of access to a quiet place, free of noise and disruptions, poses a barrier to using VSS (31%, compared with 23%). Men were more likely than women to agree that they are concerned that their healthcare practitioner cannot ensure privacy during virtual sessions (38%, compared with 29%).

Age

Those ages 18–34 and 35–54 were each more likely than older respondents to agree that finding time for virtual appointments posed a barrier (18–34: 31%; 35–54: 22%; 55 and older: 13%).

Compared with those aged 55 years and older, respondents aged 18–34 were more likely to be comfortable using VSS to access their medical records (18–34: 76%; 35–54: 68%; 55 and older: 63%), using VSS for counselling or therapy sessions (18–34: 68%; 35–54: 62%; 55 and older: 55%) and to attend peer support meetings (18–34: 45%; 35–54: 42%; 55 and older: 35%). Also, when compared with the oldest age group, those in the youngest group were more likely to agree that limited office hours (18–34: 47%; 35–54: 38%; 55 and older: 34%), lack of a private space (18–34:



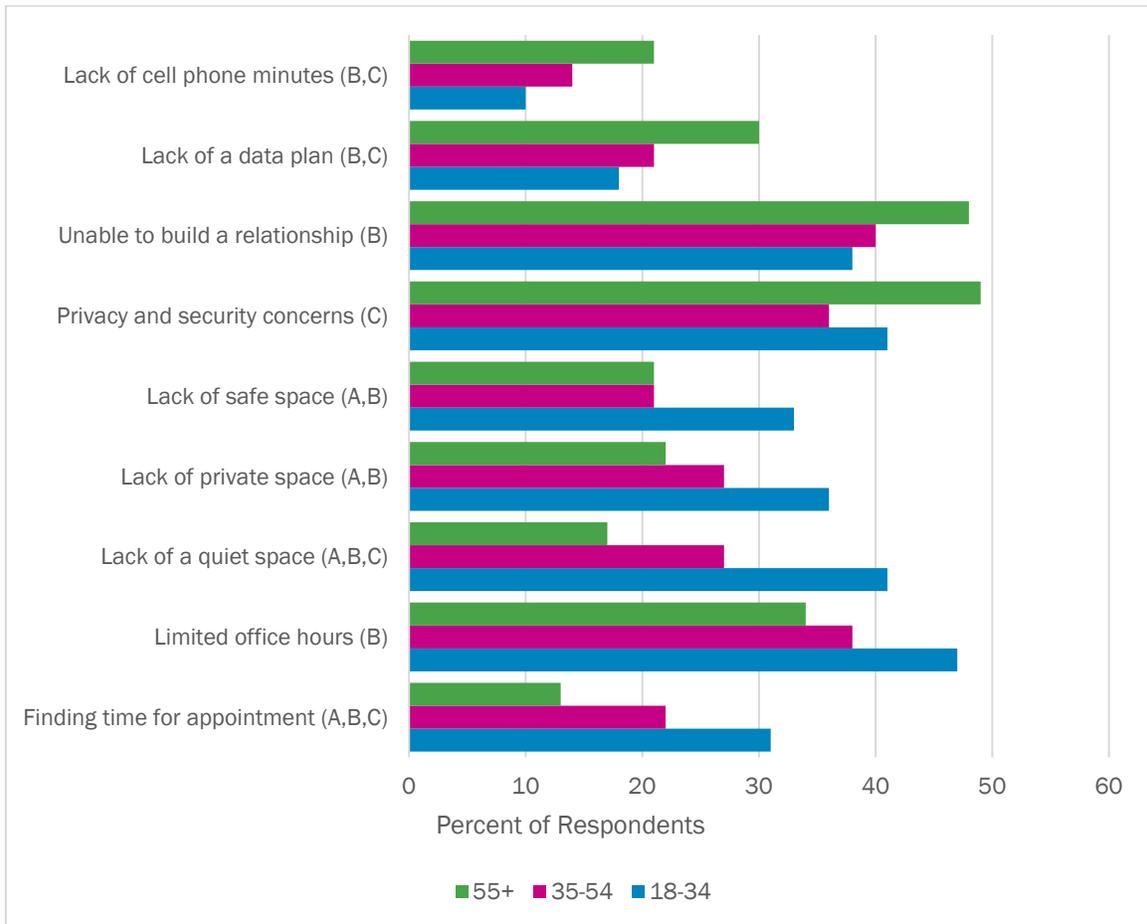
36%; 35–54: 27%; 55 and older: 22%) and lack of a safe space where they could talk with a healthcare provider or access services and supports (18–34: 33%; 35–54: 21%; 55 and older: 21%) posed barriers (Figure 7).

Those aged 35–54 were more likely than younger respondents to agree that virtual visits are just as good as in-person visits (18–34: 30%; 35–54: 39%; 55 and older: 38%).

Those aged 55 and older were more likely:

- Than those aged 18–34-year-olds to see an inability to build a relationship with a healthcare provider virtually (18–34: 38%; 35–54: 40%; 55 and older: 48%);
- Than those aged 35–54 to have concerns about the privacy and security of their health data due to the platform being used (e.g., Zoom) (18–34: 41%; 35–54: 36%; 55 and older: 49%); and
- Than other age groups to lack cellphone minutes (18–34: 10%; 35–54: 14%; 55 and older: 21%).

Figure 7: Perceived barriers to virtual services and supports among those who have not used VSS by age



A Significant difference between ages 18–34 and 35–54.

B Significant difference between ages 18–34 and 55 and older.

C Significant difference between ages 35–54 and 55 and older.



Compared with those in younger age groups, respondents aged 55 and older were least likely to cite lack of access to a quiet place free of noise and disruptions as a barrier (18–34: 41%; 35–54: 27%; 55 and older: 17%) and less likely to agree that not having to travel was important to them (18–34: 43%; 35–54: 45%; 55 and older: 27%), or that virtual care was just as effective as in-person care (18–34: 38%; 35–54: 35%; 55 and older: 27%).

Finally, they were the least likely group to agree they would use VSS for SU, SUDs and CD in the next five years (18–34: 38%; 35–54: 33%; 55 and older: 24%). It is unknown from this data whether or not this is because they do not see themselves having concerns with SU, SUDs or CD or if it is because they are not comfortable using VSS.

Comfort with Technology

Among the people who had not used VSS, 90 per cent reported that they were comfortable with technology. There were no significant differences in the level of agreement about any of the benefits or barriers to using VSS across different levels of comfort with technology.

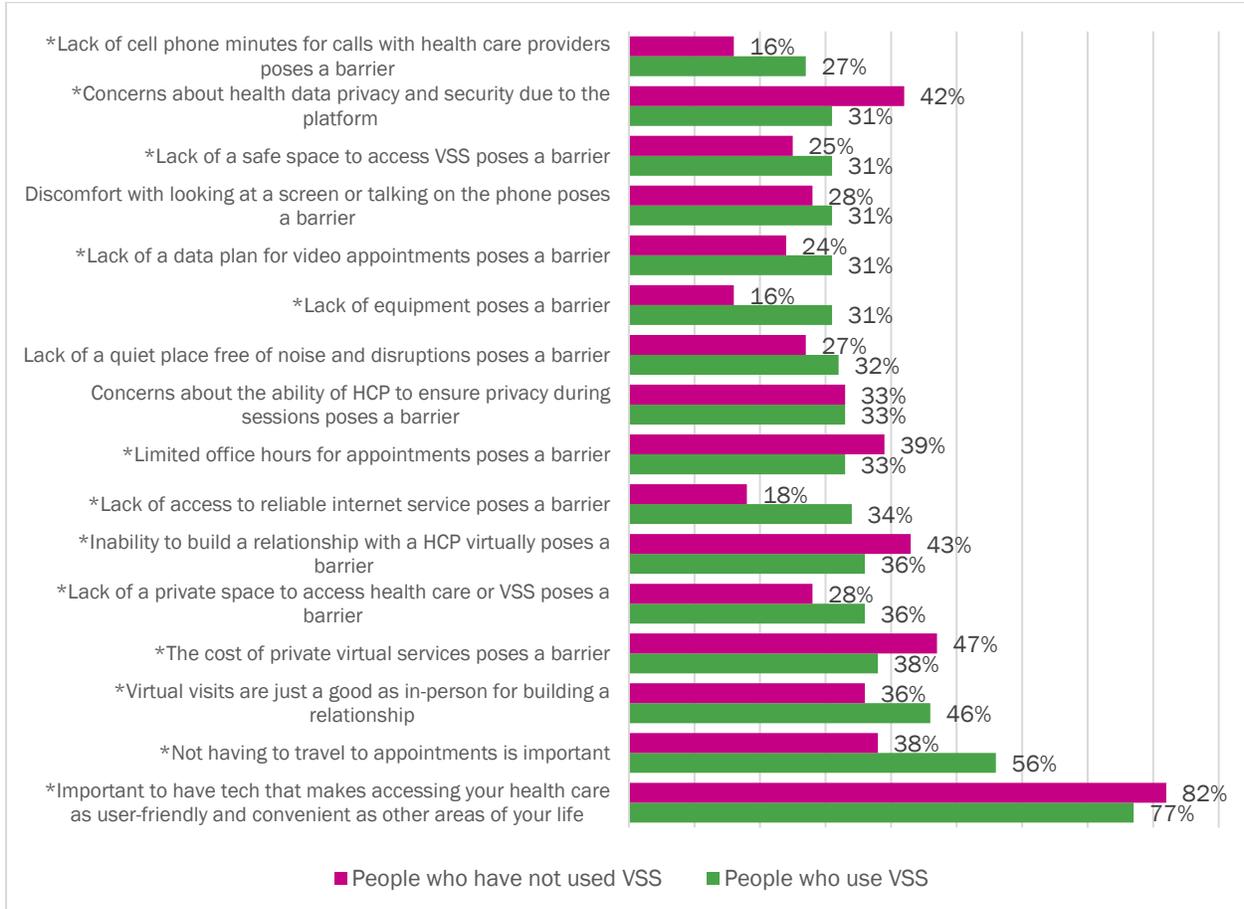
Differences Between People Who Have and Have Not Used Virtual Services and Supports

People who had not used VSS for SU, SUDs or CDs were just as likely as those using VSS to report that they were more comfortable meeting their healthcare provider in person (66%), preferred in-person or on-site settings to their own surroundings (60%) and were comfortable meeting their healthcare provider virtually (65%).

Agreement with various statements about barriers was also similar for users and non-users of VSS for SU, SUDs or CDs. Cost of private sessions and difficulty building a relationship with a healthcare provider were the two most common (43% and 47%, respectively). However, the two groups significantly differed on most other factors. Figure 8 shows all barriers, including those that were not significantly different between these two groups. In this regard, it appears those who use VSS were less concerned about privacy and security as well as relationship building than those who have not used VSS for SU, SUDs or CDs.



Figure 8: Difference in agreement with statements about virtual services and supports among those who have and have not used virtual services and supports



Note. HCP = healthcare provider.

* Significant difference

Qualitative Results

Study Sample

The study sample included 14 practitioners delivering services for SU, SUDs or CDs during the pandemic. They included counsellors, psychologists, social workers, educators and harm reduction workers. Professional services provided by participants included public programs for addiction and rehabilitation, group therapy or meetings, family support services, youth counselling and substance use clinics, and outreach programs. Participants were located across the country including Alberta, Saskatchewan, Manitoba, Ontario and Atlantic Canada.

Findings from the key informant interviews provided context for understanding client experiences, including those clients who could not complete the online survey because they did not have access to a cellphone, computer or internet. It also gave us insight into how practitioners fared during this major change. The following subsections summarize common themes expressed during these interviews. Direct quotes from participants may not reflect terminology traditionally used by CCSA.



Steep Technology Learning Curve for Practitioner and Clients

Most services provided before the pandemic were in person, with telephone, video conferencing and emails used to support in-person care. Practitioners needed to adapt their services because of COVID restrictions by switching to phone or video only. Most did not have a virtual support plan in place and adapted quickly. Many issues that arose were resolved by the end of the first pandemic wave. Challenges included:

- Lack of equipment (e.g., computers, webcams) for practitioners and clients, and limited or no access to the internet for clients;
- Privacy concerns among clients;
- Need for practitioners to amend confidentiality agreements to allow for virtual communication; and
- Lack of supports and funding related to virtual programming (e.g., funding for equipment, technical support for staff).

Many practitioners stressed the importance of strong and available IT support in implementing and sustaining VSS.

Improvements in Service Delivery

Providing services virtually created some benefits. For example, practitioners noted that providing VSS allowed them to become accessible to people who may not have had access to needed services (e.g., those with health, mobility or transportation issues or who live in rural communities). By increasing the number of clients, practitioners could increase awareness of available supports. Practitioners also reported VSS gives them more flexibility and immediacy in their service delivery, and an opportunity to get a better sense of a client's situation by allowing them to see into their homes. It also kept practitioners and clients more protected from COVID-19.

Practitioners were pleased that some clients embraced the virtual care services. For the most part, these individuals were comfortable with technology, had internet or phone services, and had a safe place to meet with the practitioner virtually. Additionally, some clients were accessing services more often because they did not have to travel and were not limited by the need to arrange childcare. One practitioner felt the switch to VSS was a step forward.

A progressive change, challenging but a lot of benefits. At the beginning, I was skeptical of doing things virtually because I really believe in the in-person benefits. It was a new experience for me. I learned new things about the software and also how to build a connection virtually and over the phone. The technology has really supported this. Especially with children and youth, they are very comfortable with technology. I was able to adapt myself fairly easily.

Certain Groups Cannot Use or Access VSS

Priority populations (e.g., homeless, those living in poverty) are less likely to be able to use VSS due to limited or no access to equipment, internet services, or private and safe spaces. This was deeply concerning to practitioners as these groups are traditionally more at risk for SU, reoccurrence of use, mental health concerns, overdose or contaminated drug supply. A few practitioners mentioned some clients have not been able to adjust to the transition away from in-person care, creating greater isolation that has triggered reoccurrence of use. One practitioner elaborated on the issues with VSS for this group.



It really has not worked at all. It is just the population [those who are homeless, experiencing poverty or substance use] that are our clients. There is always a disconnect because of the lack of technology they can access. They don't have phones or computers. It just does not work for this population, and this population is really suffering. We do all of our communication in person. This population is not interested in virtual connections. Trusting the technology is an issue, mental illness. Period. You can't replace that human-to-human connection.

Most practitioners indicated they lost some clients due to the switch to virtual services. Certain groups were more likely to opt out of services because they were virtual. This included older adults, those without internet or needed technology, Indigenous clients, women (especially those with trauma) and people who are new to Canada with limited English. Other client groups who experienced barriers included LGBTQ2SI+ clients and clients living in remote, rural or northern communities.

Effects on Client-Practitioner Relationship

Practitioners reported some challenges to VSS that were not present for in-person care. For instance, sessions are more challenging when clients turn their cameras off, use substances during sessions or leave sessions abruptly. Accountability became more prominent after the switch to VSS, with clients missing sessions entirely. Some practitioners theorized that it was much easier to miss a virtual appointment than an in-person one, making this option more tempting in certain cases.

When it comes to addiction and mental health, accountability comes to mind. With one-on-ones, people show up. But with the online, there is a lot more no-shows or cancellations. It is harder to get a hold of them. It's the accountability. It's easier to make an excuse about internet not working or computer not working.

VSS also decreased the ability of practitioners to read body language and other social cues. While this is clearly the case for phone calls, the loss was also experienced during video calls. Fears or paranoia about technology or being filmed may have prevented some clients from sharing as openly as they would in an office. Some clients also feared that people in their homes may overhear what they were saying. Furthermore, conditions like ADHD may make it more difficult for some clients to focus virtually.

Practitioners Agreed Virtual Care Cannot Replace In-person Care

Once it became clear certain clients were not adapting to VSS, several practitioners indicated they continued in-person services and supports with added safety protocols (e.g., physical distancing, limiting group sizes, masking requirements, meeting outside). Some practitioners said they felt there were benefits to in-person care that cannot be replaced virtually, such as developing trust and rapport, and providing physical resources. They were also aware certain clients would lose access to services if they were not provided in person, and they wanted to ensure continued care.

That said, the switch to VSS led providers and clients to recognize that functional and effective services and supports can be provided through virtual methods. Most practitioners would like to offer a mix of both virtual and in-person care post-pandemic.

I think that a lot of people are down on virtual service having not been great. It's "filled the gap for now, can't wait for us to go back to normal." But this is not the case. This has been good for a lot of clients. Being able to offer services in a variety of ways is beneficial for everyone. In person does not work for everyone. Expanding the model of how we offer services is important. It is just another tool in our toolbox. What a great flexible tool that we have.



Discussion and Implications

Several implications for VSS policy and programming can be considered based on the quantitative and qualitative results of our study. Although two-thirds of respondents using VSS were satisfied, barriers still exist, like cost, internet and equipment availability, and privacy concerns. Approaches to effective implementation of VSS need to be based on gaps, client demographics and the needs of practitioners.

Invest in Virtual Services and Supports

The increased use of VSS and the general levels of satisfaction indicated by survey respondents is consistent with findings from other recent studies (Abacas Data & Canadian Medical Association, 2020; Canada Health Infoway, 2021). Most of our survey respondents were satisfied with VSS and less than half cited any specific barrier. However, there is room to improve and expand VSS, and address barriers to those who are least served. Research indicates that VSS increases access to care for clients in rural and remote locations (Simms et al., 2011), specialist care (Johansson et al., 2017) and opioid agonist therapy. However, many people living in Canada (especially those with lower socioeconomic status, living in more remote communities, older adults and less-educated people) do not have access to VSS due to their lack of computers, smartphones, high-speed internet or knowledge of how to use available technologies (Chan et. al., 2021; Howard et al., 2010; Koch, 2020). This is concerning as a survey conducted between January and May 2021 found people with low income or who were unemployed or laid-off reported higher rates of anxiety, depression, suicidal ideation and SU (Leger, 2021). Future VSS implementation must consider these populations to avoid widening the existing digital and service divide, thus missing a large population that may require VSS.

The need to ensure services continued despite restrictions has resulted in new partnerships and innovations in VSS for SU, SUDs and CDs. For example, Rapid Access Addiction Medicine Clinics that have switched from walk-in access to virtual access and the availability of virtual care as a whole has improved with the creation of national services, such as Wellness Together Canada.

Our study found that most respondents supported government investment in VSS in the future, regardless of whether they were using VSS. However, the cost of private services was cited most frequently as a barrier to accessing VSS. In May 2020, the federal government announced a \$240.5 million investment to develop, expand and launch virtual services and mental health tools to help people in Canada access their regular healthcare providers and specialist health services. This investment will also support federal, provincial and territorial initiatives to expand virtual health services. Ontario (2020) and Alberta (Smith, 2020) have also announced their investments in these technologies targeting SU, SUDs and CDs. These are promising beginnings of bolstering VSS in Canada, but more is needed to ensure quality care. There are currently no professional standards to reframe practice and roles in the virtual context, nor are there security, safety or quality assurance measures in place.

To further support access to and the use of VSS when demand is expected to increase, governments should consider:

- Investing in the development of quality standards for VSS delivered in Canada;
- Investing more in targeted programs to increase broadband internet access to rural and remote areas;



- Funding or a supplemental benefit program to fund internet and technology access for people with lower socioeconomic status;
- Broadly disseminating promising program services, supports and practices that evolved or were developed in response to the pandemic restrictions; and
- Investigating the barriers to equitable access for some population groups and exploring solutions.

Increase Comfort and Skill with Virtual Services and Supports

Encouragingly, a national survey found that 76 per cent of people living in Canada would be willing to use virtual care after the COVID-19 pandemic ends (Canada Health Infoway, 2020). Studies have also shown positive feedback from those using virtual care for SU (Chan et al., 2021; Rost et al., 2017; Saloner et al., 2022, Tonkin-Crine et al., 2013). That said, people who have and have not used VSS for SU, SUDs and CDs have reservations about these services. Our study found that people who have not used VSS for SU, SUDs or CDs were less likely to feel that relationships can be built with healthcare providers on virtual platforms. Many of those who had been using VSS did not feel it was as effective as in-person care. This may be due to the lack of face-to-face interactions that some practitioners noted was needed to develop rapport and trust. Given these concerns, policy makers and service providers should promote virtual care options available along with the potential benefits to clients. For instance, studies show that a virtual platform such as video conferencing can retain the effectiveness of interventions traditionally given in person (Celio et al., 2017). Virtual interventions have been shown to help manage drug cravings and contribute to increased treatment retention and abstinence from illicit opioids (Guarino et al., 2016).

Research indicates that telemental health services are well accepted by primary care providers, especially when they find it easy to use, helpful and feasible in their practice (Malas et al., 2019; Simms et al., 2011). However, provider attitudes could pose a barrier to effective virtual delivery of care (Kurki et al., 2018; Pineros-Leano et al., 2015). Practitioners in our study noted the steep learning curve associated with the switch to VSS. If direct service providers intend on scaling up virtual services, they need to train providers on virtual care and provide logistical and technical support (Honey & Wright, 2018; Interian et al., 2018). Identified educational needs include the determination of patient suitability for virtual care modalities, virtual communication methods and styles, and best practices in the use and implementation of VSS (Abacas Data & Canadian Medical Association, 2020).

Provide Flexibility in Service Offerings

Our findings point to the need to adapt the provision of VSS based on gender, age and other demographics. These may determine a client's success with VSS. For instance, our study found that women were more likely than men to want to return to in-person care once the pandemic restrictions are lifted. Men were more comfortable with VSS overall and satisfied with its effectiveness. This is supported by other research finding a greater level of acceptability of VSS among men (Schmidt-Weitmann et al., 2015). This points to the importance of ensuring both in-person and virtual services are available post-pandemic. Clients may also have varying needs based on their household. Our study found women cited not having to travel to in-person visits as a benefit to VSS, potentially related to the need for staying home to care for children. The significance of motherhood was underscored in a Leger poll (2020). In households with children younger than 13 years old, it was found that females reported higher rates than of increased substance use during the COVID-19



pandemic (37% of , compared with 26% of for alcohol and 48%, compared with 37% for cannabis, respectively). VSS has also shown potential in addressing gender equity with SU and in addressing gender-specific barriers, including travel and caregiving (Sinha & Schryer-Roy, 2018; Stinson et al., 2020; Moreau et al., 2018; Sugarman et al., 2020).

Youth in this study faced significant barriers to virtual care, such as the limitation of practitioner office hours and finding a safe or private space to access care. This may point to the need for real-time supports for youth, such as phone applications or chat functions on websites. Young people have rated social network-based interventions for mental health as highly usable, engaging and supportive. Given their popularity with this population for knowledge seeking and peer-to-peer support, such interventions provide an opportunity to address some of the barriers young people face in accessing qualified mental health support and information and are more likely to be successful when moderated by clinical experts (Ridout & Campbell, 2018). In addition, a diverse menu of accessible virtual services with the option of in-person services is needed for the various needs of different youth (Hawke et. al., 2021).

Virtual appointments and internet- or phone-based apps can complement in-person care, increase access to care, improve outcomes and elicit high levels of client satisfaction. However, they are best when tailored to individuals' treatment needs and client suitability (Holst et al., 2017; Richards et al., 2018; Tarp et al., 2017). Given the variety of client circumstances, preferences and needs, policy makers and service providers should consider ensuring that both virtual and in-person visits are available in a full range of options tailored to individual needs.

Ensure Safety and Privacy

Women and youth noted greater concerns about privacy and the availability of safe and quiet spaces as barriers to using VSS. Previous CCSA research (2020) has also identified the absence of private spaces to confidentially access VSS and the distrust of technology to maintain privacy as barriers to using VSS. Our study found that those who had not used VSS for SU, SUDs or CDs had a higher likelihood of concern about the privacy and security of the virtual platform, compared with those who were using VSS.

Perceptions of safety can be increased through a person-centred approach (Holmström et al., 2016) and effective communication of information about privacy (Celio et al., 2017). To increase safety, decrease the potential for distractions and address privacy concerns, policy makers and service providers should consider:

- Developing places in the community where clients could have a quiet, private space and can access resources and online services, with free Wi-Fi or access to telehealth and virtual care networks. This could include quiet rooms with computers at libraries or community centres. This would be particularly important in rural or remote areas, marginalized populations and potentially for people who live with others, do not have cellphone minutes or data plans; and
- Developing standards for privacy and security for VSS.

Limitations

Given restrictions to in-person data collection during the pandemic, we were only able to survey people who had access to the internet. Members of some of the most vulnerable segments of the population, who likely do not have access to computers, the internet or cell phones, could not access the survey and were likely unaware that it was taking place. This means that a key segment of people with SU, SUDs or CDs were excluded from the survey results. In addition, people who use



substances or who are experiencing severe mental illness may need to be more focused on survival needs such as housing and food than accessing services and supports for their SU, SUD or CD and may lack access to technology. Just as they could not access our survey, this vulnerable key audience would not be able to access VSS to get the help they need (Ali et al., 2020).

The survey sample was relatively small, and there were insufficient responses to report on results by gender beyond men and women. This was similarly the case for reporting results by race. It was also not possible to associate respondent data with the nature of their health condition.

The qualitative interviews captured some information about practitioners' perspectives. However, given the burden they were facing during the pandemic, the sample size was substantially smaller than we had hoped.

The adaptations of VSS have accelerated greatly during the past two years. Familiarity and comfort among practitioners and clients have likely improved since we conducted this research early in the pandemic.

Conclusion

Evidence supports that accessing care for SU, SUDs and CDs virtually can be a positive experience when certain aspects are met, such as functioning technology, strong internet connection and support with technical issues (Celio et al., 2017; Johansson et al., 2017; Nalder et al., 2018; Simms et al., 2011;). Our study further emphasized the importance of supporting clients, practitioners and those across Canada with internet, technological infrastructure and easy-to-adopt virtual services. The findings from our survey will provide valuable input into designing VSS for SU, SUDs and CDs post-pandemic given it is unlikely that the provision of services will return to pre-pandemic delivery models. Not only have many people in Canada adapted to accessing supports and services virtually, but many also appreciate the benefits. When coupled with a forecasted increased use of VSS for SU, SUDs and CDs, these delivery methods are likely to remain an integral part of service delivery in the future.

To maintain and further develop sustainable and effective VSS after the pandemic will need robust policy and infrastructure support. This support must be based on evidence and consider client and practitioner experiences, as well as standards for quality care. This work has already begun in federal, provincial and territorial jurisdictions with the Virtual Care – Policy Framework (Health Canada, 2021) but continued research will be needed. More research is needed on quality standards for implementing VSS for SU, SUDs and CDs that go beyond standards developed specifically to primary care or mental health alone. This also includes tailored VSS for specific groups, such as the LGBTQ2SI+ population and clients living in northern communities. Tailored services should be co-created with and led by members of the target community (Gibson et al., 2011). To ensure virtual care is effective for all participants, more research is needed to understand the experiences of virtual care by race, geography, diverse genders and nature of health conditions.

As the pandemic evolves, it will be crucial to gauge the impacts on mental health and SU, and ensure the appropriate level of services are available. It will also be important to further understand whether barriers to VSS are different for those using SU, SUDs and CDs services compared with general health services. Research can identify whether these services and supports can be nested within the broader support system that addresses the full range of social determinants of health in conjunction with harm reduction efforts.



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Appendix A: Online Survey

Canadians' Experiences with and Perceptions of Virtual Services and Supports for Substance Use, Substance Use Disorders and Mental Disorders During the COVID-19 Pandemic

Demographic and Screening Questions

1. What is your current age? Age in years: _____ *

2. Which province or territory do you live in? *

- O₀₁ British Columbia
- O₀₂ Alberta
- O₀₃ Saskatchewan
- O₀₄ Manitoba
- O₀₅ Ontario
- O₀₆ Quebec
- O₀₇ New Brunswick
- O₀₈ Nova Scotia
- O₀₉ Prince Edward Island
- O₁₀ Newfoundland and Labrador
- O₁₁ Yukon
- O₁₂ Northwest Territories
- O₁₃ Nunavut
- O₆₆ Outside of Canada

[If Q1 = Under 18, OR if Q1 = 18 years AND any province/territory **other than** Quebec, Alberta, Ontario, Saskatchewan, PEI or Manitoba, OR if Q2 = 66 (Outside of Canada) not eligible] Thank you for your time. **END.**

3. Please select the gender you identify with:

- O₀₁ Female gender
- O₀₂ Male gender
- O₀₃ Gender diverse
- O₀₄ Prefer not to say
- O₀₅ Not listed, please specify: _____



4. Please select which group(s) you identify with (check all that apply).

- White
- South Asian (e.g., East Indian, Pakistani, Sri Lankan)
- Chinese
- Black
- Filipino
- Latin American
- Arab
- Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai)
- West Asian (e.g., Iranian, Afghan)
- Korean
- Japanese
- Inuk (Inuit)
- First Nations
- Métis
- Indigenous/Aboriginal (not listed above)
- Not listed, please specify _____
- Prefer not to answer
- Do not know

6. How comfortable do you feel using technology in your daily life? This includes using computers, the internet, mobile applications, etc.

- Very comfortable
- Comfortable
- Uncomfortable
- Very uncomfortable
- Prefer not to answer

7. Have you ever used telephone, video or Internet-based services or supports to address substance use or substance use disorder?

Yes:

- Have you ever used telephone, video or Internet-based services or supports to address substance use or substance use disorder *combined* with a mental health concern?
 - No: Stream 1A
 - Yes: Stream 1B



No:

- Have you ever stopped or declined participation in any services or supports for substance use or substance use disorder because those services were provided via telephone, video or online?
 - Yes (all go to stream 2)
 - Were the services and supports for substance use or substance use disorder *combined* with a mental health concern?
 - Yes
 - No
 - No (all go to stream 3):
 - Have you accessed nonvirtual services or supports for substance use or substance use disorder?
 - Yes
 - Were the nonvirtual services and supports for substance use or substance use disorder *combined* with a mental health concern?
 - Yes
 - No
 - No



Stream 1A: Those who have used or are using virtual services and supports for substance use or substance use disorders

Instructions: Please respond to the following questions based on your experiences with virtual services or supports *for substance use or substance use disorders*.

By virtual services and supports we mean any education, access to health care, treatment or harm reduction provided through technology, such as telemedicine, video conferencing or apps. Examples include counselling, peer support, safer consumption, or group therapy.

Access and Use

1) When did you start using these virtual services and supports?

- Since the onset of COVID-19 (March 2020) → parts a, b and c only
- Before March 2020, but less than 2 years ago → go to d
- More than 2 years ago and less than 5 years ago → go to d
- More than 5 years ago → go to d
- Do not remember → go to d
- Prefer not to answer

a) How have you accessed these services or supports since the onset of the COVID-19?

Please check all that apply:

- In-person visit with a healthcare provider (e.g., doctor, counsellor, treatment provider)
- In-person visit to a harm reduction site
- In-person visit to a peer support
- Virtual video visit with a healthcare provider
- Telephone consultation with a healthcare provider
- Messaging or email chat with a healthcare provider
- Accessing a telehealth service (e.g., 811)
- Accessing a crisis line (e.g., distress centre)
- Smart phone app
- Online peer support
- I did not use any services or supports during this time
- Other (please describe): _____



- Prefer not to answer
- b) Did you seek out or use virtual services and supports because of their increased availability during the pandemic?
 - Yes
 - No
 - Prefer not to answer
- c) When accessing these services, were you offered a choice of in-person or virtual services and supports?
 - No, only virtual services and supports were offered
 - Yes, I was given a choice between *only* virtual services and supports or *only* in-person services and supports
 - Yes, I was given a choice to use a mix of *both* virtual services and supports and in-person services and supports
 - Other options were presented: (please describe) _____
 - Prefer not to answer
- d) What ways have you accessed services or supports? (Check all that apply.)
 - In-person visit with a healthcare provider (e.g., doctor, counsellor, treatment provider)
 - In-person visit to a harm reduction site
 - In-person visit to a peer support
 - Virtual video visit with a healthcare provider
 - Telephone consultation with a healthcare provider
 - Messaging or email chat with a healthcare provider
 - Accessing a telehealth service (e.g., 811)
 - Accessing a crisis line (e.g., distress centre)
 - Smart phone app
 - Online peer support
 - I did not use any services or supports during this time
 - Other (please describe): _____
 - Prefer not to answer



2) Where do you most often access virtual services and supports? (Select one.)

- At home
- Someone else's home (e.g., friend, family member)
- Place of work
- Car
- A public space (e.g., coffee shop)
- Community centre
- Healthcare provider
- Outdoors
- Other (please specify):
- Prefer not to answer

Client satisfaction and perceptions of virtual services and supports

3) How much do you agree or disagree with the following statements about virtual services and supports for substance use or substance use disorders:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Not applicable/ prefer not to answer
I am comfortable with meeting a healthcare provider virtually						
Virtual services and supports are just as effective as in-person supports and services						
Virtual visits are just as good as in-person visits for building a relationship with a health care provider						
I prefer in-person or on-site settings to my own surroundings for appointments						
Virtual appointments are more convenient than in-person appointments						
Not having to travel to healthcare appointments is important to me						
It is important to have technology that makes accessing your health care as user friendly and convenient as other areas of your life						
Using virtual services and supports has helped protect people from COVID-19						
Virtual appointments are easy to access						



Virtual appointments save me time

Using virtual services and supports through apps, texts, emails, and other non-personal contact saves me time

Virtual appointments save me money

4) How much do you agree or disagree with the following statements about virtual services and supports for substance use or substance use disorders?

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Not applicable/ prefer not to answer
There is generally an adequate amount of time allotted for my virtual appointments						
My healthcare provider is able to assess my needs during my virtual visit						
I feel more comfortable with a healthcare provider when I meet in person						
My care provider gives me their full attention during my virtual visit						
Virtual appointments allow me to see healthcare providers sooner than I could have in person						
A healthcare provider is more likely to be on time for a virtual appointment than for an in-person visit						
The quality of the video is good during virtual appointments						
The quality of the audio is good during virtual appointments						
Overall, I am satisfied with the quality of the support and care provided via virtual services and supports						
My experience with virtual visits with healthcare providers has been better than I expected						



5) How much of a barrier, if at all, are the following issues for using virtual services and supports for substance use or substance use disorders?

	A major barrier	Some what of a barrier	Not much of a barrier	Not at all a barrier	Not applicable/ Prefer not to answer
Concerns about the privacy and security of your health data due to the platform being used (e.g., Zoom)					
Concerns that your healthcare practitioner cannot ensure privacy during sessions (e.g., eavesdropping, session being recorded without consent)					
The cost of private virtual services (e.g., paying for services not covered by provincial health plan or insurance)					
Lack of access to reliable Internet service					
Lack of equipment (e.g., computer, phone)					
Lack of data plan for video appointments					
Lack of cell phone minutes for calls with healthcare providers					
Discomfort with looking at a screen or talking on the phone					
Finding time for an appointment					
Limited office hours for appointments					
Lack of access to a quiet place free of noise and disruptions					
Lack of a safe space where I can talk to a healthcare provider or access services and supports					
Lack of a private space where I can talk to a healthcare provider or access services and supports					
Unable to build a relationship with a healthcare provider in virtual appointments					
Not listed, please specify					

6) Once COVID-19 restrictions are lifted and it is safe to resume pre-COVID activities, which format of services and supports for substance use or substance use disorders would you prefer? (Select all that apply.)

- In-person visit with a healthcare provider (e.g., doctor, counsellor, treatment provider)
- In-person visit to a harm reduction site



- In-person visit to a peer support
- Virtual video visit with a healthcare provider
- Telephone consultation with a healthcare provider
- Messaging or email chat with a healthcare provider
- Accessing a telehealth service (e.g., 811)
- Accessing a crisis line (e.g., distress centre)
- Smart phone app
- Online peer support
- Other (please describe): _____
- Prefer not to answer

7) How much of a priority do you feel it should be for government to invest in virtual services and supports for substance use or substance use disorders? For example, increasing the number of virtual healthcare providers and websites or apps.

- Top priority
- Somewhat of a priority
- Neutral
- Not at all a priority
- Prefer not to answer

8) Please share any additional comments about your experience with virtual services and supports for substance use or substance use disorders. For example, what could be improved? What did you like about it?

Thank you for completing our survey. Your feedback will help us improve services and supports for substance use, substance use disorders and mental health disorders across Canada. For more information on this study, please see our **FAQ** page. If you would like to speak to a mental health professional, click on the button below to access a list of help lines you can contact for assistance:



General Help Lines

- **Crisis Services Canada**
Telephone: 1-833-456-4566
- **Centre for Addiction and Mental Health**
Telephone: 1-800-463-2338
- **Wellness Together Canada**
Adults: Text WELLNESS to 741741
Front Line Workers: Text FRONTLINE to 741741
- **Kids Help Phone**
Telephone: 1-800-668-6868
- **First Nations and Inuit Hope for Wellness Help Line**
Telephone: 1-855-242-3310
- **Trans LifeLine**
Telephone: 1-877-330-6366
- **Strongest Families Institute**
Telephone: 1-866-470-7111



Stream 1B: Those who have used or are using virtual services and supports for substance use or substance use disorders combined with a mental health concern

Instructions: Please respond to the following questions based on your experiences with virtual services or supports for **substance use or substance use disorder *combined* with a mental health concern**.

By virtual services and supports we mean any education, access to health care, treatment or harm reduction provided through technology, such as telemedicine, video conferencing or apps. Examples include counselling, peer support, safer consumption, or group therapy.

Access and Use

1) When did you start using these virtual services and supports?

- Since the onset of COVID-19 (March 2020) → parts a, b and c only
- Before March 2020, but less than 2 years ago → go to d
- More than 2 years ago and less than 5 years ago → go to d
- More than 5 years ago → go to d
- Do not remember → go to d
- Prefer not to answer

a) How have you accessed these services or supports since the onset of the COVID-19 (i.e., since March 2020)? Please check all that apply:

- In-person visit with a healthcare provider (e.g., doctor, counsellor, treatment provider)
- In-person visit to a harm reduction site
- In-person visit to a peer support
- Virtual video visit with a healthcare provider
- Telephone consultation with a healthcare provider
- Messaging or email chat with a healthcare provider
- Accessing a telehealth service (e.g., 811)
- Accessing a crisis line (e.g., distress centre)
- Smart phone app
- Online peer support
- I did not use any services or supports during this time
- Other (please describe): _____



- Prefer not to answer
- b) Did you seek out or use virtual services and supports because of their increased availability during the pandemic?
 - Yes
 - No
 - Prefer not to answer
- c) When accessing these services, were you offered a choice of in-person or virtual services and supports?
 - No, only virtual services and supports were offered
 - Yes, I was given a choice between *only* virtual services and supports or *only* in-person services and supports
 - Yes, I was given a choice to use a mix of *both* virtual services and supports and in-person services and supports
 - Other options were presented: (please describe) _____
 - Prefer not to answer
- d) What ways have you accessed services or supports? (Check all that apply.)
 - In-person visit with a healthcare provider (e.g., doctor, counsellor, treatment provider)
 - In-person visit to a harm reduction site
 - In-person visit to a peer support
 - Virtual video visit with a healthcare provider
 - Telephone consultation with a healthcare provider
 - Messaging or email chat with a healthcare provider
 - Accessing a telehealth service (e.g., 811)
 - Accessing a crisis line (e.g., distress centre)
 - Smart phone app
 - Online peer support
 - I did not use any services or supports during this time
 - Other (please describe): _____
 - Prefer not to answer

2) Where do you most often access virtual services and supports?

- At home



- Someone else’s home (e.g., friend, family member)
- Place of work
- Car
- A public space (e.g., coffee shop)
- Community centre
- Healthcare provider
- Outdoors
- Other (please specify):
- Prefer not to answer

Client satisfaction and perceptions of virtual services and supports

3) How much do you agree or disagree with the following statements about virtual services and supports for substance use or substance use disorder *combined* with a mental health concern:

	S t r o n g l y d i s a g r e	Disagree	Neither agree or disagree	Agree	Stron gly agree	Not applicable/ prefer not to answer
I am comfortable with meeting a healthcare provider virtually						
Virtual services and supports are just as effective as in-person supports and services						
Virtual visits are just as good as in-person visits for building a relationship with a health care provider						
I prefer in-person or on-site settings to my own surroundings for appointments						
Virtual appointments are more convenient than in-person appointments						
Not having to travel to healthcare appointments is important to me						



It is important to have technology that makes accessing your health care as user friendly and convenient as other areas of your life

Using virtual services and supports has helped protect people from COVID-19

Virtual appointments are easy to access

Virtual appointments save me time

Using virtual services and supports through apps, texts, emails, and other non-personal contact saves me time

Virtual appointments save me money

4) How much do you agree or disagree with the following statements about virtual services and supports for substance use or substance use disorder *combined* with a mental health concern?

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Not applicable/ prefer not to answer
There is generally an adequate amount of time allotted for my virtual appointments						
My healthcare provider is able to assess my needs during my virtual visit						
I feel more comfortable with a healthcare provider when I meet in person						
My care provider gives me their full attention during my virtual visit						
Virtual appointments allow me to see healthcare providers sooner than I could have in person						
A healthcare provider is more likely to be on time for a virtual appointment than for an in-person visit						
The quality of the video is good during virtual appointments						



The quality of the audio is good during virtual appointments

Overall, I am satisfied with the quality of the support and care provided via virtual services and supports

My experience with virtual visits with healthcare providers has been better than I expected

5) How much of a barrier, if at all, are the following issues for using virtual services and supports for substance use or substance use disorder *combined* with a mental health concern?

	A major barrier	Some-what of a barrier	Not much of a barrier	Not at all a barrier	Not applicable/ Prefer not to answer
Concerns about the privacy and security of your health data due to the platform being used (e.g., Zoom)					
Concerns that your healthcare practitioner cannot ensure privacy during sessions (e.g., eavesdropping, session being recorded without consent)					
The cost of private virtual services (e.g., paying for services not covered by provincial health plan or insurance)					
Lack of access to reliable Internet service					
Lack of equipment (e.g., computer, phone)					
Lack of data plan for video appointments					
Lack of cell phone minutes for calls with healthcare providers					
Discomfort with looking at a screen or talking on the phone					
Finding time for an appointment					
Limited office hours for appointments					
Lack of access to a quiet place free of noise and disruptions					
Lack of a safe space where I can talk to a healthcare provider or access services and supports					
Lack of a private space where I can talk to a healthcare provider or access services and supports					



Unable to build a relationship with a healthcare provider in virtual appointments

Not listed, please specify

6) Once COVID-19 restrictions are lifted and it is safe to resume pre-COVID activities, which format of services and supports would you prefer? (Select all that apply.)

- In-person visit with a healthcare provider (e.g., doctor, counsellor, treatment provider)
- In-person visit to a harm reduction site
- In-person visit to a peer support
- Virtual video visit with a healthcare provider
- Telephone consultation with a healthcare provider
- Messaging or email chat with a healthcare provider
- Accessing a telehealth service (e.g., 811)
- Accessing a crisis line (e.g., distress centre)
- Smart phone app
- Online peer support
- Other (please describe): _____
- Prefer not to answer

7) How much of a priority do you feel it should be for government to invest in virtual services and supports for substance use and mental health? For example, increasing the number of virtual healthcare providers and websites or apps.

- Top priority
- Somewhat of a priority
- Neutral
- Not at all a priority
- Prefer not to answer

8) Please share any additional comments about your experience with virtual services and supports. For example, what could be improved? What did you like about it?



Thank you for completing our survey. Your feedback will help us improve services and supports for substance use, substance use disorders and mental health disorders across Canada. For more information on this study, please see our **FAQ** page. If you would like to speak to a mental health professional, click on the button below to access a list of help lines you can contact for assistance:

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- **Kids Help Phone**
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- **First Nations and Inuit Hope for Wellness Help Line**
Telephone: 1-855-242-3310
- **Trans LifeLine**
Telephone: 1-877-330-6366
- **Strongest Families Institute**
Telephone: 1-866-470-7111



Stream 2: Those who need care for substance use or substance use disorder OR substance use or substance use disorder *combined* with a mental health concern and declined some or all services because of the switch to virtual services and supports since COVID-19

Instructions: Please respond to the following questions based on your opinions of virtual services or supports for substance use or substance use disorders. If relevant, include opinions related to services and supports that, in addition, address mental health concerns.

By virtual services and supports we mean any education, access to health care, treatment or harm reduction provided through technology, such as telemedicine, video conferencing, or apps. Examples include counselling, peer support, safer consumption, or group therapy.

- 1) When did you start using any services or supports for substance use or substance use disorder OR substance use or substance use disorder combined with a mental health concern?
 - Since the onset of COVID-19 (March 2020)
 - Before March 2020, but less than 2 years ago
 - More than 2 years and less than 5 years
 - More than 5 years ago
 - Do not remember
 - Prefer not to answer



2) How much of a barrier, if at all, are the following issues to using virtual services and supports?

	A major barrier	Somewhat of a barrier	Not much of a barrier	Not at all a barrier	Not applicable/Prefer not to answer
Concerns about the privacy and security of your health data due to the platform being used (e.g., Zoom)					
Concerns that your healthcare practitioner cannot ensure privacy during					



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3) Please indicate your level of agreement with the following statements:

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Not applicable/ prefer not to answer
I am comfortable with meeting a healthcare provider virtually						
Virtual services and supports are just as effective as in-person supports and services						
Virtual visits are just as good as in-person visits for building a relationship with a healthcare provider						
I prefer in-person or on-site settings to my own surroundings for appointments						
Virtual appointments are more convenient than in-person appointments						
Not having to travel to healthcare appointments is important to me						
It is important to have technology that makes accessing your health care as user friendly and convenient as other areas of your life						
Using virtual services and supports has helped protect people from COVID-19						

4) How much of a priority do you feel it should be for government to invest in virtual services and supports for substance use and mental health? For example, increasing the number of virtual healthcare providers and websites or apps.

- Top priority
- Somewhat of a priority
- Neutral
- Not at all a priority



- Prefer not to answer

Thank you for completing our survey. Your feedback will help us improve services and supports for substance use, substance use disorders and mental health disorders across Canada. For more information on this study, please see our **FAQ** page. If you would like to speak to a mental health professional, click on the button below to access a list of help lines you can contact for assistance:

General Help Lines

- **Crisis Services Canada**
Telephone: 1-833-456-4566
- **Centre for Addiction and Mental Health**
Telephone: 1-800-463-2338
- **Wellness Together Canada**
Adults: Text WELLNESS to 741741
Front Line Workers: Text FRONTLINE to 741741
- **Kids Help Phone**
Telephone: 1-800-668-6868
- **First Nations and Inuit Hope for Wellness Help Line**
Telephone: 1-855-242-3310
- **Trans LifeLine**
Telephone: 1-877-330-6366
- **Strongest Families Institute**
Telephone: 1-866-470-7111



Stream 3: Those who have never used services for substance use or mental health

Instructions: Please respond to the following questions based on your opinions of virtual services or supports for substance use or substance use disorders. If relevant, include opinions related to services and supports that, in addition, address mental health.

By virtual services and supports we mean any education, access to health care, treatment or harm reduction provided through technology, such as telemedicine, video conferencing, or apps. Examples include counselling, peer support, safer consumption, or group therapy.

1) Please indicate how comfortable you would be using virtual services and supports for substance use or substance use disorder OR substance use or substance use disorder *combined* with a mental health concern:

	Not all comfortable	Not very comfortable	Neither comfortable nor uncomfortable	Somewhat comfortable	Very comfortable	Not applicable/ Prefer not to answer
To access or receive information or education						
For pre-screening into appropriate services						
For meeting with a doctor or nurse practitioner						
For a counselling or therapy session						
To participate in group therapy						
To attend a peer support meeting (e.g., AA)						
To access medical records online						
To send a pharmacy an online request for a prescription renewal						
To book individual appointments with my healthcare provider						
To attend individual appointments with my healthcare provider						

2) Please indicate the extent to which you agree or disagree with each of the following statements:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not applicable/ Prefer not to answer
I am comfortable with meeting a healthcare provider virtually						



Virtual services and supports are just as effective as in-person services and supports

Virtual visits are just as good as in-person visits for building a relationship with a healthcare provider

I prefer in-person or on-site settings to my own surroundings for appointments

Virtual appointments are more convenient than in-person appointments

Not having to travel to healthcare appointments is important to me

It is important to have technology that makes accessing your health care as user friendly and convenient as other areas of your life

Using virtual services and supports has helped protect people from COVID-19

3) How much of a barrier, if at all, are the following issues to your use of virtual services and supports in the future?

	A major barrier	Somewhat of a barrier	Not much of a barrier	Not at all a barrier	Not applicable/ Prefer not to answer
Concerns about the privacy and security of your health data due to platform being used (e.g., Zoom)					
Concerns that your healthcare practitioner cannot ensure privacy during sessions (e.g., eavesdropping, session being recorded without consent)					
The cost of private virtual services (e.g., paying for services not covered by provincial health plan or insurance)					
Lack of access to reliable internet service					
Lack of equipment (e.g., computer, phone)					
Lack of data plan for video appointments					
Lack of cell phone minutes for calls with healthcare providers					



Discomfort with looking at a screen or talking on the phone

Finding time for an appointment

Limited office hours for appointments

Lack of access to a quiet place free of noise and disruptions

Lack of a safe space where I can talk to a healthcare provider or access services and supports

Lack of a private space where I can talk to a healthcare provider or access services and supports

Unable to build a relationship with a healthcare provider in virtual appointments

Not listed, please specify

4) How much of a priority do you feel it should be for government to invest in virtual services and supports for substance use and mental health? For example, increasing the number of virtual healthcare providers and websites or apps?

- Top priority
- Somewhat of a priority
- Neutral
- Not at all a priority
- Prefer not to answer

5) How likely is it that you will use virtual services and supports for these reasons in the next 5 years?

- Very likely
- Somewhat likely
- Neither likely or unlikely
- Somewhat unlikely
- Not likely at all
- Prefer not to answer

Thank you for completing our survey. Your feedback will help us improve services and supports for substance use, substance use disorders and mental health disorders across Canada. For more information on this study, please see our **FAQ** page. If you would like to speak to a mental health professional, click on the button below to access a list of help lines you can contact for assistance:



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Appendix B: Participant Compensation

Participants whose responses were deemed valid were eligible for compensation. Two different compensation methods were used based on the way the respondent completed the survey:

- Those who participated via the **Leger Panel** were already enrolled in a compensation program in which they earn points based on the number of surveys they complete. These points are accumulated and can be redeemed for different rewards such as gift cards (e.g., Visa, Starbucks) or donations. Thus, by completing the study survey they accumulated points in their compensation program.
- Those who participated in the survey via the **live website link**, disseminated through snowball sampling had the option to be entered into a draw to win a \$20 e-gift card. Only those who completed a valid survey could enter and participants had a chance to win 1 of 60 gift cards. Survey responses were numbered as they were received. Once all survey responses were submitted, we used the Stat Trek random number generator to identify the participants that would receive compensation.



Appendix C: Key Informant Interview Guide

Experiences with Delivering Virtual Services and Supports for Substance Use, Substance Use Disorders or Concurrent Disorders during COVID-19

Before the Interview

Send the informant the consent form and interview questions.

Place Call to Informant (Phone or Video)

Good morning / afternoon. This is [name of researcher] calling, for the Canadian Centre on Substance Use and Addiction. I'm calling about the Experiences with Delivering Virtual Services and Supports for Substance Use, Substance Use Disorders or Concurrent Disorders during COVID-19 study.

[Confirm identify of informant]

Is this still a good time to talk with you? Do you have an hour now?

[If not, reschedule consent and interview.]

Thank you. We are grateful for your time and that you are interested in participating in this project.

Before we start the interview, I'd like to explain the study to you and answer any questions you might have. We're using an oral consent process, so I will review the consent form with you by reading from it verbatim to obtain your consent to participate in this study.

Begin Oral Consent Process

[Read verbatim from consent form. Explain study, pausing to answer questions, and obtain oral consent.]

Warm-up Questions

I'd like to begin by asking you some questions about your current position as [insert].

1. Please describe your position as [insert].
 - a. What is your role in providing services or supports related to substance use, substance use disorders or concurrent disorders to clients? [Concurrent disorders are additional conditions that co-occur with substance use disorders; that is, substance use disorders and other mental health illnesses.]
2. Before the start of the COVID-19 pandemic, what format did you most often use to provide services or supports to your clients? In-person, phone calls, videoconferencing, emails, texts?

Provider Experiences Using Virtual Services and Supports

Let's discuss your experiences with transitioning to virtual services and supports due to the COVID-19 pandemic.



3. How have you adapted your provision of services virtually in light of COVID-19?
 - a. Has this been challenging for you? Why or why not?
 - b. Has this been beneficial for you? Why or why not?
4. Did you receive support from your employer or any other source in implementing virtual services or supports?
 - a. If yes, how? Was it adequate?
 - b. If no, how could you have been better supported?
5. Are you satisfied with the remuneration you receive for providing virtual services and supports?
6. How has your experience been using technology to provide virtual care? [Note for interviewer: Probe for all technologies mentioned (e.g., phone, video, etc.).]
 - a. Is there anything that you would need to improve this?
7. Are there any virtual services or supports that you use or may recommend to your clients? For example, apps, digital tools, online assessments, progress trackers, etc.

Perceptions of Clients' Experiences with Virtual Services and Supports

Let's discuss how switching to virtual services and supports during the COVID-19 pandemic has affected your clients.

8. How do you think this change in the way services are provided affected your client's access to services or supports?
 - a. Do you think any aspect of support or care has been lost due to this switch? Have there been any improvements due to this switch?
 - i. How does delivering virtual services or supports compare to providing in-person care (e.g., regarding rapport, compassion, openness, etc.)?
 - b. Are you aware of any concerns among your clients about virtual services or supports (e.g., security, technology)?
 - i. If no, do you think your clients are generally satisfied with virtual services or supports?
9. Were there any clients that opted out of care due to the switch to virtual services? If yes, why?
 - a. Are there any notable difference among clients who opted out of care with regards to gender, age, socioeconomic status, location (e.g., rural vs urban) or ethnicity?
10. Would you say certain clients experience barriers to virtual services or supports? If yes, what kind of barriers?
 - a. Is there any notable difference among your clients with regards to gender, age, socioeconomic status, location (e.g., rural vs urban) or ethnicity?
 - b. Is there any way to better provide services to this group?



11. Once COVID-19 restrictions have been lifted and it is safe to do so, would you prefer to return to in-person care, continue delivering care virtually, or provide a mix of both virtual and in-person care?
12. Is there anything else you'd like us to know?