



Care and Connect

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1 CONTEXT

The Care and Connect team examined how the formal and informal mechanisms of caring and connecting (e.g. long-term care and nursing homes, the provision of medical care, mental health and resilience, societal confidence and personal services) have been shaped by Nova Scotia's experiences with the COVID-19 pandemic, community tragedies of 2020 and issues of institutional racism, which emerged into the broad public conversation during the course of our data collection. Our team aimed to identify a set of significant effects wrought by these events and Nova Scotians' initial responses to them, and then to develop a foundation upon which we can craft a new way forward for reimagining how we value and manifest caring and connecting in our province.

Our team sought opinions, insights and experiences from an interdisciplinary group of healthcare experts to identify the emergent community perceptions and societal challenges faced by Nova Scotians over the first half of 2020. We focused on the needs and challenges of individuals living in rural areas, those in long-term care, Indigenous communities, persons living with addictions, the elderly living at home, the chronically ill, and the general patient populations for whom the closure of medical services and transportation presented real hardships.

COVID-19 forced people and organizations in Nova Scotia, and across the world, to adapt quickly to overcome or address the associated health, societal and economic issues. We discovered that many changes are nearly insurmountable for some individuals and communities, while others have been or could be met with innovative policy and procedural changes and “smart” adaptations to health and civic services and infrastructures. However, some of these adaptations present additional disparities and challenges. For example, the wealthy and healthy seemed to find ways to work around the issues of economic strain and healthcare facility closures, while the less fortunate appear to have struggled to cope with healthcare closures and service changes. While Nova Scotians adapt and change behaviours, policies, services and success metrics for society at large, we must remain aware of and focused on vulnerable populations.

2 PROCEDURE

Our Reimagine project started in May 2020 and interviews concluded in June 2020. The Care and Connect team conducted two virtual focus groups and six individual interviews, consulting with a total of 14 people. All sessions were recorded and electronically transcribed and analyzed using Otter.ai and MaxQDA software. Participants ranged across the caring and connecting healthcare space. The issues and recommendations addressed below are drawn from the comments of the participants and do not necessarily reflect the viewpoints of each contributor. Where strong language is found in the report, those words are direct quotes or near paraphrases (edited for clarity) from the spoken words of the participants.

3 EMERGENT THEMES

Participants raised many of the same issues in their separate conversations and interviews. The word cloud (generated by the analytical software) depicted on the first page of this report, reveals a set of key issues, with substantial concerns about red tape, mental health and Indigenous communities. These concerns could be primed by the specific questions used to provoke discussion. As such, outliers such as red tape and narcotics should be given special consideration as they were not part of the planned discussions.

The team identified the following issues related to healthcare and health services:

- 1. *Vulnerable populations suffered inordinately from the closure of healthcare facilities and other government services.*** Many long-term care facilities closed to non-residents, which resulted in a loss of access to services for non-residents. Poor communication services in rural areas exacerbated the problem. People with pre-existing medical conditions were also at greater risk of illness progression due to the temporary closure of labs and physicians' offices to adapt to the pandemic's new access constraints.
- 2. *A lack of access to opioid addiction services created issues across healthcare especially for at-risk populations.*** Several policy initiatives in this area were insufficiently developed and created their own problems.
- 3. *Overuse of casual workers in the healthcare system revealed a point of structural weakness.*** The over-reliance on casual workers may have contributed to the spread of COVID-19 as well as worker shortages when policies were changed. The value of support and unlicensed workers in healthcare (particularly long-term care) needs to be revisited for the future.
- 4. *Digital health presented both positive and negative narratives.*** The positive narratives seem to point out issues of a systemic nature in the provision of primary medical services. Our participants reported time savings and less bias when they did not visit their physician's office as patients. On the other hand, physicians (particularly specialists) expressed concern at not being able to look at, manipulate or otherwise physically examine patients. Participants also noted that Nova Scotians were reluctant to go to emergency rooms or doctors' offices for fear of becoming infected.
- 5. *The COVID-19 pandemic and other high-profile provincial tragedies and traumas (most notably, the Nova Scotia mass shooting, military accidents affecting provincial citizens and several other publicly visible events) reported in the news and experienced directly by some participants increased stress and possibly emotional fatigue.*** Political and societal discontent regarding the Black Lives Matter and Indigenous Lives Matter movements as well as increased concerns for systemic racism, police brutality and other political and social problems contributed to a generally increased stress level.
- 6. *Role changes, scope expansion and alterations to procedures increased stress across a broad spectrum of provincial citizens, professionals and policy makers.*** First among this stress-inducing theme was the ever-changing protocols and policies necessitated by the evolving knowledge of the virus. Each of the changes added uncertainty to the various professions in which our participants work. Some role expansion was seen as positive and desirable for the future, while other changes concern our participants.

All findings described here derive from issues reported by the participants. Over the several weeks we engaged with our participants, events such as the Black Lives Matter protests changed the direction of later interviews. The analysis we provide attempts to bring a balanced view. For example, when a participant mentioned an issue for that participant's profession, we often noted through news reports and other sources that the issue was also a concern for other aspects of care and connection. Given this, we have augmented the interview and focus group data with verified news reports to provide more dimension to those issues. As another example, if "early licensing" was noted by a member of one profession as an issue, we expanded that issue to all of the affected professions. This both represents a more complete view of the theme and provides some anonymity for the participants.

ANALYSIS AND RECOMMENDATIONS

A high-level analysis of the interview content in light of the prevailing circumstances led to the emergence of three topical themes for investigation and analysis: (i) impact on vulnerable populations, (ii) impact on the healthcare workforce, and (iii) impact on the Nova Scotia community.

Each of these themes was further investigated along with three dimensions/aspects: (a) challenges faced by the respective stakeholders; (b) transformation (innovation) at the service, resource and policy levels that were applied to counter the challenges; and (c) lessons learned from the transformation activities to guide future policy and decision-making.

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I. IMPACT ON VULNERABLE POPULATIONS

a) CHALLENGES

- 1) Fear of COVID-19 caused many people, including seniors and the chronically ill, to stay inside and not refill their medications or seek medical attention. While having people stay inside to reduce the spread of the virus was a key government goal, locking down also created an unintended risk. Patients had lapsed prescriptions, as many thought forgoing their refill was the healthier option. This is an immense barrier as many medications are prescribed for serious chronic issues such as heart problems, blood pressure and other ailments.
- 2) Although digital health was implemented, some medical conditions require direct access (i.e. face-to-face consultation) to a physician or healthcare provider. Transportation challenges were identified as one reason for marginalized populations accessing medical care/medication. Many people did not feel safe on, or have access to, public transportation. Doctors and specialists saw a decrease in the number of patients coming for physician consultation. While the goal of the "stay the blazes home" mandate was to reduce the number of people leaving their homes, the mandate created unintended health risks and consequences for these individuals and communities.

- 3) The reduction of in-person appointments did not mean a drop in patient contacts for physicians as digital health became the norm during the crisis; however, digital health has functional and clinical limits. Tests that are routinely conducted in the medical office still needed to be done, so many doctors suggested that their patients buy medical equipment to self-monitor their blood sugar, blood pressure, heart rate, etc. While some could afford this new expense, many low-income patients could not. As well, the fear of COVID-19 and lack of transportation resulted in some patients not acquiring monitoring equipment. This negatively impacted marginalized populations because they did not have access to proper equipment to monitor their health at home.
- 4) The lack of self-testing devices led to medical professionals relying on patients' disclosure of their vitals and symptoms, which could result in the inability of medical professionals to detect risks and delayed diagnoses. This is a significant challenge as many Nova Scotians were living without proper medical care and treatment during the months of COVID-19. Participants reported that rural communities were heavily impacted by this challenge as many rural patients need pharmacy care and medications to a greater extent because of the higher prevalence of chronic disease and addiction in those communities.
- 5) Of the Canadian provinces, Nova Scotia has the largest proportion of citizens living in rural communities. Digital health and virtual appointments offered some benefits, including reduced waiting times and no requirement to travel to the appointment. However, a shift to digital appointments also highlighted some larger issues faced by rural Nova Scotians. Many rural and remote communities do not have access to good quality high-speed internet service. This is partly due to the cost of internet service, which is also a barrier for many marginalized individuals. During the pandemic, the lack of reliable internet service and its high cost highlighted numerous concerns for marginalized groups and rural communities related to safety, mental health and access to timely medical attention. Not having access to the internet or a reliable phone service puts individuals in a difficult position when health issues arise and they need to contact a medical professional.
- 6) As digital health services advanced during the pandemic and were adopted as healthcare delivery solutions by many services and organizations, a challenge arose for marginalized individuals who do not have the necessary technology, such as a home computer or telephone. Many marginalized groups use public libraries for access to computers and the internet, but these locations were shut down during the pandemic, creating another barrier to healthcare access. People who struggle with the use of technology, especially seniors, also identified challenges in the shift to digital health via products such as Zoom (which allowed physicians to interact with their patients). These technology changes were rapidly introduced to provide access to medical professionals, but many marginalized groups had difficulty navigating these new technology platforms and adjusting to the changes.
- 7) Our discussions highlighted concerns associated with mental health that our healthcare providers have for patients, particularly those who were already marginalized or vulnerable prior to the pandemic. Many mental health issues were exhibited by people during the isolation period; loneliness and isolation are catalysts that increase mental health issues. Lack of internet access and the inability to connect virtually with healthcare providers added to this challenge.

b) TRANSFORMATION (INNOVATION)

- 1) Due to COVID-19, many community outreach organizations shifted to online services to aid clients and continue their work. Prior to the pandemic, online tools were not heavily used by non-profits and other organizations to provide services. COVID-19 pushed groups to increase their online services, and many clients responded positively. The transformation of service delivery modality and the positive user acceptance would not have been discovered had the organizations not provided online versions of their programs.
- 2) The pandemic and especially the quarantine period allowed Nova Scotians to pause their everyday, busy lifestyle and reflect. With the internet being the main medium to socialize during the crisis, Black people and People of Colour had a platform and larger audience. Many people had the time to reflect on, see and understand the inequalities faced by Black people and People of Colour from numerous societal systems including healthcare, and the justice and education systems. This led to increased conversations concerning policy, enrollment, inclusion and equality.
- 3) To reduce inequality, healthcare professions need to be visibly representative of all our communities in Nova Scotia including the African Nova Scotian, Indigenous and LGBTQ+ communities. Reducing inequality among the healthcare professions fits within the more general societal impulse toward creating more equal and inclusive work environments. The present crises and disruptions offer an opportunity for organizations and the government to make changes and shift policy and practice towards mitigating inequalities.

c) FUTURE (LESSONS LEARNED)

- 1) Nova Scotia's population is aging, and the elderly make up a large proportion of the population being treated by medical professionals. Historically, the senior community has faced many barriers to digital care. During the pandemic, digital health technology was used heavily. Some medical professionals noted that they were pleasantly surprised by the technology literacy and learning curve accomplished by many of their elderly patients. Moving forward, it will be important to consider technology adoption and readiness in vulnerable populations when implementing new digital health services.
- 2) The pandemic has allowed healthcare providers to realize a new level of operational efficiency. There have been discussions regarding what services can be delivered by email, what can be done over the telephone and what must be done in person. If elderly patients can access their medical professionals using digital technology (such as computers or phones), they avoid costly and inconvenient travel to the healthcare facility and time spent waiting in a room filled with sick patients. Much research still needs to be done in this area, but technology will help to create a more efficient and accessible healthcare delivery system benefitting both professionals and patients.
- 3) The healthcare community has realized that a shift is occurring in how we must operate and take responsibility to remove inequities that exist both from a patient and a provider perspective. We need to look critically at who is being educated, how they are selected, and what barriers prevent the medical and healthcare professions' providers from being representative of all people and from fully serving all people. We must commit to working to better understand existing barriers and the relationship between marginalized populations

and healthcare providers generally. Provincially, we must educate our members on those barriers and gaps and determine what we need to do to improve, and what improvements will herald fundamental changes in professional responsibilities, outlook and service delivery.

- 4) For those Nova Scotians who are privileged to have a strong, stable and supportive family connection in place, the quarantine period was a time to reconnect and enjoy close family activities. However, for those who do not have a stable home environment, the quarantine period had the potential to be extremely difficult and dangerous, with the risks of increased abuse taking place within the home, and potentially aggravated mental health issues.
- 5) The prevailing situation requires a shift in focus on how, as a province, we should support Indigenous health, Indigenous health workers, People of Colour, women and LGBTQ+ communities, which precipitates change in how we address and educate ourselves across all aspects of society, not just government and work organizations.
- 6) If power truly lies with the people, then the people, themselves, must hold that voice. Ultimately, we will deliver caring and connective healthcare the way people want to have healthcare delivered. Change within our healthcare system is prompted by ordinary people seeing inequality and demanding better services. New opportunity exists to collaborate and support existing movements and organizations that work directly with and for many marginalized and vulnerable populations.

II. IMPACT ON THE HEALTHCARE WORKFORCE

a) CHALLENGES

- 1) Throughout the COVID-19 pandemic, we have seen the reorganization of services within our healthcare system, with many practitioners experiencing a shift in the role they play and the delivery of their services. Medical practitioners who have been managing patients using the recently instituted digital health services have expressed concerns about acquiring the patient information they need; for instance, they report not seeing the full diagnosis as patients were asked to run their own tests, smartphone images not showing true colours and having only restricted or possibly no access to laboratory tests (e.g. X-rays and ultrasounds) as the pandemic took hold. They expressed concerns about the long-term impacts of limited physical access to patients and the backlog of elective surgeries.
- 2) Specialists noted that the impact on patients who regularly come to clinics where they are examined and assessed in person was significant. To minimize exposure to the virus in hospital environments, specialists did not continue to operate their clinics. As a result, they were limited to telephone consults using medical records. Specialists would evaluate symptoms and medications and assess how patients were handling their illness from home. This presented the same challenges as those expressed by physicians pertaining to digital healthcare. Meanwhile, specialists indicated that little changed with the care that they were delivering to patients who were on regular treatments, for example, patients who needed to continue to come into the dialysis unit.
- 3) Healthcare challenges also extended to pharmacies. The role and scope of practices of pharmacists have been expanding in Nova Scotia for some time; however, pharmacists are not paid for delivering digital care such as medication reviews and prescriptions. To be

compensated, they must provide their services in person. During the pandemic, pharmacies stayed open while some physicians' offices were closed and had switched to a digital care model. As such, many people chose to talk to their pharmacist for medical advice; many pharmacists felt unsafe during the pandemic, particularly in the early days, as sick people were coming to pharmacies for medications and advice.

- 4) During the pandemic, pharmacists were given authority to renew prescriptions previously issued by physicians including opioid prescriptions. Pharmacists support continuing the general prescription renewal changes after the pandemic, as concerns exist for a large backlog of prescribing in the healthcare system. However, pharmacists have concerns about handling the renewal of opioids. Medical doctors have a preference for monitoring refills for people with chronic pain who have been on the medications for long periods, not initiating new opioids, and being diligent in recording every prescription for auditing purposes. Participants supported maintaining physician control of these high-risk prescriptions.
- 5) Participants expressed concern with the changes to medication dispensing and delivery practices for individuals taking methadone or other treatment for opioid addiction and the difficulty during COVID-19. Methadone is a treatment that requires witnessing daily doses in many cases. This is a challenge for people who are self-isolating. Some quick changes were made to allow longer carries (larger amounts which allow a patient to visit the pharmacy less often), so these people could take doses home. This change raised concern as the reason these patients are on witnessed daily doses is that they often are not capable of maintaining their medication safely at home. One concern is overdose, and another is the theft of the medication.
- 6) Education-sector concerns were expressed about potential impacts if the uptake in registration slows, or Nova Scotia Community College and private career colleges are not able to begin classes.
- 7) The pandemic highlighted the essential role and contribution the casual workforce plays in the healthcare system, including Continuing Care Assistants (CCAs) and utility (maintenance/cleaning) workers in Nova Scotia. Many medical professionals spoke about these positions being the backbone of the healthcare system. Often these positions are unregulated and without benefits such as health plans and pensions. Casual workers are required to take on multiple part-time positions for different employers and work long hours to earn a living wage. Their work conditions make them vulnerable to illness and create an immense opportunity for transmission of the virus. During the pandemic, new practices were introduced to limit casual healthcare workers from moving between facilities to minimize the risk of infection transfer to long-term healthcare residents. For example, some residents who have their own personal caregivers have not been allowed to continue to use their services. This restriction leaves casual and unregulated healthcare workers in a precarious employment position with a reduced income that further compromises their economic situation with a long-term impact on their wellbeing.
- 8) Pay equity issues surfaced as a significant issue during the pandemic. For instance, in Ontario, most healthcare staff received a pandemic pay raise; excluded were the lab staff, who work with the live viruses and do phlebotomy, which caused a blow to their morale. They felt that they were not being valued by their government; it was not so much about the money (\$4 per hour), but more about the lack of recognition for their work. In Nova Scotia,

pharmacists expressed a similar concern as the hospital pharmacists and hospital pharmacy technicians were left out of the pandemic pay raise. Participants noted a lack of clarity about pandemic pay in Nova Scotia, but most participants believed that pandemic pay would apply to work covered by the Medical Services Insurance.

- 9) Participants expressed concern about what they called the echo pandemic: the echo around mental health, possibly higher rates of suicide, depression and various forms of mental illness. Healthcare managers were conscious of that risk within their own staff because they support the front lines. The Nova Scotia mass shooting heightened this issue, as two of the victims worked for the Victorian Order of Nurses. The shooting heavily affected all healthcare practitioners but impacted the nursing industry significantly. One participant noted, "whether you were a regulated LPN or RN, or part of the continuing care workforce, this was your family." In other parts of healthcare, the participants mentioned a silence among workers after the mass shooting. In reflection, during the conversation this was potentially viewed as the inability to deal with another mental trauma. Concerns over mental fatigue, compassion fatigue, and the prevalence of COVID-19 at the Northwood long-term care facility were driving a lack of self-confidence in workers, who reported feeling that they were neglectful and wondering if they were doing all the right things.

b) TRANSFORMATION (INNOVATION)

- 1) The challenges faced by Nova Scotia healthcare providers have led to many innovative practices. Pharmacists worked at an unbelievable pace and incurred a record amount of overtime in the first six weeks of the pandemic. Pharmacists came up with innovative solutions, such as splitting their teams in half, changing working hours and adapting policies. These changes resulted in strong operational processes and professional feelings about how to effectively and efficiently deliver care going forward.
- 2) Pharmacists identified that a barrier can also present an opportunity to innovate and bridge a gap. A new product called Suboxone, an injectable drug that gives an opioid agonist (relief) treatment for 30 days, eliminates the need for daily visits to a healthcare provider. This product has an immense benefit for individuals who require opioids or methadone to function daily. The federal government is paying for the drug, but the province is not paying for pharmacists to inject it. So, either the patient must pay for the injection or must pay for the pharmacist to deliver the drug to a physician (because pharmacists are not legally allowed to give Suboxone to the patient to take to the physician). Pharmacists do not think the patients should pay for the injection or the cost of delivering the drug to the physician. An opportunity now exists to change the funding model for these injections. This is a national program and, in many provinces, pharmacists do not have the authority to inject the drug, which creates an issue that needs to be resolved with provincial authorities.
- 3) On the front lines of the Nova Scotia Health Authority, the pandemic caused a massive mobilization of staff and training. Participants described the environment as a constant stream of training and re-training. The information was changing rapidly, necessitating continuous updates to training. Expectations for how training is delivered shifted. Training for 15–20 people can no longer be conducted in a training room or rented space; it is imperative to adjust to virtual training, which is widely used in healthcare.

- 4) Provincial regulatory bodies implemented new or relaxed processes to mitigate healthcare issues arising from the pandemic. For example, nursing regulators introduced processes for allowing students to license before their normal 2020 practical session (and other normal requirements including graduation); permitting professionals trained outside Nova Scotia and Canada to license without a customary apprenticeship or coursework period; permitting retired professionals to re-license without fees or other hurdles (testing) sometimes required after a period away from practice; and other concessions to the need to increase capacity. Dietitians who work in public health or outpatient clinics, who would not be seeing patients, were upskilled (trained) to work in the ICU and assist in tube feeding hospitalized patients. Regulators incorporated similar practices to address the anticipated increase in demand for respiratory therapists in the province.
- 5) Digital communication technology is now used more in staff training and patient care. Distance medical appointments are handled through Zoom, Microsoft Teams and WebEx, with both patients and practitioners showing strong technological literacy.
- 6) Nova Scotia implemented a drug information system six years ago, but prior to the pandemic, few family physicians used the system because it took time and was not integrated into their clinical practice systems. Due to COVID-19, more physicians have been working from home where they do not have access to their patients' physical medical records. As a result, there has been increased use of the drug information system for e-prescribing.
- 7) Some psychiatrists and psychologists are using virtual tools and visual aids, which are working well for them. Some will continue with the digital care model post-COVID.
- 8) Peer-support mental health online programming has been successful during the pandemic, particularly in drawing on local Mental Health Cooperatives and similar resources.
- 9) Now, some patients can have their dialysis in satellite facilities. In these satellite facilities, specialists can do a digital health visit on-camera with either the patient or the nurses in the dialysis units, and can go from bed to bed to see the patients and assess them. Although this practice does not constitute a physical exam, specialists can see their patients and talk with them face to face, to assess their health and wellbeing.
- 10) As mentioned, Health Canada expanded pharmacists' scope so they could adapt and renew prescriptions for narcotics and other controlled substances.
- 11) In the first few months of the pandemic, pharmacies made significant human resource innovations to alleviate potential risks to pharmacy coverage and to mitigate concerns for increasing pharmacy demand. There was an immediate need to address pharmacy safe care practices with no existing protocols, combined with a national policy that restricted prescriptions to a 30-day supply. In response, pharmacies split their teams in half, changed their hours and changed their policies to help deliver care more effectively.
- 12) Participants noted the need for more recognition of and resources for casual work positions. The crisis has created an opportunity for change in how employers assess part-time workers and their positions. There is a need for more regulation of these workers to decrease the risk of transmission of viruses during the pandemic. There is an opportunity for the people being

cared for to have more consistent care and to develop relationships with their caregivers, if continuing care assistants are given full-time work and assigned to a specific work location.

- 13) Nursing regulators are challenging themselves to re-examine their policies and practices, particularly policies related to internationally educated nurses who come from diverse professional and training backgrounds.

c) FUTURE (LESSONS LEARNED)

- 1) A key theme from the discussions was the improved communication across healthcare services arising from the response to COVID-19. This included the use of virtual communication, websites and social media sites, which enabled healthcare workers to access information in a timely manner about changing regulations and practices.
- 2) An opportunity exists to recognize all healthcare workers as part of the healthcare process and remove the two-tiered view of regulated and unregulated roles. The need to remove pay equity issues and place value on all roles within the system are significant lessons coming out of Nova Scotia's experience with the pandemic and April's mass shooting.
- 3) Mental health support for healthcare workers was recognized as a significant need arising from the onset of COVID-19. Mental health challenges include the persistent pressure to stay tuned to the latest practices and recommendations for minimizing infection risk, the spread of the virus in long-term care facilities and the generally disturbing daily news coming from around the world. The Nova Scotia mass shooting appears to be the tipping point when organizations placed significant emphasis on support for frontline workers. Practices changed to ensure that the right support and timely information were available. Peer support practices were put in place. In pharmaceutical organizations, experts from the province and from outside the province were doing check-ins to assess the health of personnel. Little thank-you gifts, like boxes of cookies, were hand-delivered to every pharmacy in the province as a way to check in with the teams. Participants indicated that these small but notable acts did have an impact and they noticed a dramatic shift in mental health, wellness awareness and desire for resources and help in that area. As a result, they made a conscious shift in how they were helping their members after that happened.
- 4) The COVID-19 pandemic also highlighted the underlying disparities of income versus value, not just in healthcare but across society. Addressing these disparities and creating a more equitable and inclusive healthcare profession system are essential as we face our provincial future. For example, the groups of people who were essential and continued to work during the lockdown, whether they be grocery store clerks, truck drivers, cleaners in hospitals or personal support workers in long-term care facilities, are the people who were doing work that is critical for a functional system, yet they are usually paid a low wage. Participants highlighted healthcare as an essential service, yet they noted there are people who provide essential services within healthcare that are not given the recognition they deserve (generally among the unlicensed or unregulated occupations). On the one hand, they are experiencing income disparities by earning a minimum wage, while on the other hand, they are expected to take significant risks as they were expected to keep things moving and ensure that people have access to groceries and essential supplies.
- 5) Participants felt that as a result of the pandemic, there will be a focus on continuing care systems, which stepped up to support the regular nursing staff. They stated that if something

good comes from COVID-19, it will be looking at all positions, with more focus on leadership through the organizations, and more opportunity for professional development.

- 6) The pandemic highlights a need for greater diversity in the healthcare workforce, which needs to be representative of the Nova Scotia communities. Indigenous peoples, people with disabilities, Black Nova Scotians and our queer community do not see their own communities represented in the healthcare workforce. We need to increase enrollment of these groups in our healthcare workforce. Educators are working on this initiative, and enrollment is a struggle sometimes, but more students must be admitted to increase the representativeness and inclusiveness of the entire provincial healthcare system.
- 7) Despite all the digital innovations, there are still some people who are paper-based or do not have access to the internet. Therefore, we need accessible healthcare for all to help create opportunities for a blended model. Participants expressed the need to bring back the Patient Portal for access to medical records and the need to set policies for releasing health information directly to patients.
- 8) Some regulations were set aside to help with access to necessary medications such as narcotics. Pharmacists and physicians were able to renew prescriptions or prescribe. Participants stated interest in having pharmacist renewals become a permanent practice.
- 9) Workers are getting used to working from home and are asking to be able to stay at home. The dynamics of the healthcare workforce will likely change to be more of a hybrid system, using a mix of in-person and virtual services, with the comfort of using more communication technology.

III. IMPACT ON THE NOVA SCOTIA COMMUNITY

a) CHALLENGES

- 1) People are avoiding visits to hospitals and other healthcare providers because they are afraid of contracting COVID-19, often despite having serious illnesses that require a healthcare professional. Participants expressed concern that the alternatives to a physician visit, such as phone calls and digital health visits, are not suitable for fully and safely attending to all healthcare situations and all individuals. Medical doctors worry that patients tend to get nervous over the phone and this at times results in them forgetting to mention their current condition and symptoms.
- 2) Although digital health offers certain advantages, this care medium does not benefit all Nova Scotians. Nova Scotia ranks among the lowest in Canada for internet connectivity (The Conference Board of Canada, 2012). A 2018 report estimated that 72,000 households (almost 18% of Nova Scotian households based on the 2016 census) do not have access to high-speed internet. Provincial initiatives, such as Develop Nova Scotia and the Nova Scotia Internet Funding Trust, are responsible for delivering high-speed internet across rural Nova Scotia, with an additional \$15 million in funding allotted to expedite the process in response to COVID-19. Projects began in February to reach half of all unserved or underserved homes in Nova Scotia (Develop NS, 2020). With improved access to high-speed internet, the efficacy and outreach of a digital care program will improve, and a wider group—including rural and marginalized populations—can be reached with digital healthcare services.

- 3) Connectivity is not the only barrier to community members using and benefitting from digital care. As one of our participants noted, while access to a phone and the internet is a necessity for most, many individuals who are already struggling with issues such as unemployment, homelessness or addiction simply do not have the means to connect with available support services. Access to the internet becomes a challenge particularly when public spaces like libraries are closed (though public libraries may not be suitable for digital healthcare consults due to privacy concerns). Another participant suggested that the internet should be provided as a public service and be accessible free of cost for Nova Scotians as an essential service. The pandemic reinforced our reliance on internet connectivity, not only for access to healthcare providers but also as a means to communicate with family and community members to support and comfort each other.
- 4) Mental health and wellness have always been a challenge in Nova Scotia, and this issue has been exacerbated by the pandemic, mass shooting and protests in the province. Our discussions highlighted the impact of these three events not only on healthcare workers but also on the mental wellbeing of the community as a whole. Words like fragile, loneliness and compassion fatigue were used to describe the damage that trauma on top of trauma has had on people. Patients and healthcare providers are experiencing multiple levels of grief for the reported loss of lives, jobs, personal safety, financial income, freedom of movement and social wellbeing.
- 5) Mental health concerns exist beyond the impact of COVID-19, since the underlying social issues contributing to unwellness, both mental and physical, have been present for a long time. For instance, members of our marginalized communities were facing unemployment, under-compensation, racial injustice, food and housing insecurity and limited access to medical services before the COVID-19 pandemic. Perhaps now we will be able to better recognize and attend to these challenges in their entirety, re-imagine our systems and rebuild a healthy and equitable community.

b) TRANSFORMATION (INNOVATION)

- 1) As noted earlier, the challenges that digital care presents to our healthcare providers, vulnerable populations and the community have precipitated innovative solutions and positive outcomes. Digital care has reduced barriers for many Nova Scotians, particularly those in rural areas who may have limited transportation or mobility. Now, instead of traveling to the practitioners, they are able to get a medical consult over a phone or video call. Many healthcare providers reported that they found several patients enjoyed having the option for a phone call rather than a physical appointment. One of the participants who works with the elderly in long-term care noted how impressed they were with the technological literacy and uptake of the residents.
- 2) Digital health has also reduced the risk for immunocompromised (vulnerable) patients to be infected by COVID-19, by avoiding close proximity in a doctor's waiting room to other patients who may be ill. This new consultation medium allows patients to receive a reasonably safe and complete level of care or consultation with their healthcare provider. While the practice began to prevent the spread of COVID-19, the continued practice or some variation may offer additional benefits by reducing the spread of other infections, particularly in the flu season, whilst providing economic, travel and time savings to patients.

- 3) Participants noted that digital health offers the potential for doctor-patient consultations to be more data driven and to minimize the possibilities for unconscious bias to affect decisions. Given recent studies describing unconscious bias in the provision of healthcare to visible minorities, these possibilities deserve further investigation post-pandemic.
- 4) Reducing the number of patients moving through waiting rooms and offices, through digital health and restricting visitors entering care homes, both decreases the risk of infection transmission among patients and residents and creates a safer work environment for healthcare workers. The increased safety measure, promotion of wearing (non-medical and medical) masks and social distancing are all examples of other initiatives that have been implemented specifically for COVID-19 but that can have public health benefits beyond the pandemic. It remains to be seen whether our behaviour change and consciousness of health will be sustained once a vaccine for COVID-19 is developed.

c) FUTURE (LESSONS LEARNED)

- 1) Throughout our provincial history, in times of crisis and hardship, we have seen how Nova Scotians can come together. The COVID-19 pandemic and the many tragedies and societal reckonings we presently face have been no exception. Healthcare providers globally have received public displays of gratitude with community members holding those on the "frontline" in high esteem. In Nova Scotia, we as a society have seen the high commitment and sacrifices of our essential healthcare workers—not only the frontline and more visible doctors, nurses and pharmacists, but also our hospital, clinic and pharmacy support staff, lab technicians, custodians and food service workers. Despite the equal commitment from the entire healthcare workforce, the current situation has again brought to the forefront the pay disparity among our essential workers. This reality remains hidden when policies around remuneration are being made, but now that we have seen the role and contributions of the “unheralded” backroom healthcare staff, the discussion on pay equity should also be part of mainstream conversation about health and healthcare.
- 2) Change is inevitable, particularly after an event that stops the world. The question is what changes will become permanent and what will our "new normal" be? Innovations, experiences and outcomes of the horrific events and societal challenges of 2020 will determine the "new normal" for our province.
- 3) The severity of the equity, diversity and inclusion issues facing our province, illustrated by the Black Lives Matter movement, can be addressed by continued collaboration among the groups presently working to address the issues facing our marginalized populations. Individuals and groups are finding ways to connect and build community, grieve for what/who they have lost and demand change in the following areas:
 - Access and agency
 - Ongoing improvement to internet infrastructure
 - Empowering experts to make care decisions
- 4) Although the uncertainty and trauma of COVID-19 and the provincial tragedies of 2020 undoubtedly presented challenges for the mental health and wellness of all Nova Scotians, participants shared that they felt there was a positive tone in the conversations regarding the future. Many found opportunities to introspect, reconfigure processes and adjust to new norms

for the betterment of self, family and community. Participants noted that the current disruptions and associated challenges provided the time and perspective to reconnect, reconcile, recalibrate and reprioritize their life, something they may not have found the need or opportunity to do if they were not subjected to these difficult times.

- 5) The ultimate goal of any healthcare worker is to provide the best possible care to their patients. While the regulations governing these providers were made with the same goal of improving patient care, too often they get in the way of providing care in the most timely and effective way. Yet, during the pandemic, the regulatory process became a second or even third thought. Medical professionals were given the freedom, in certain situations, to worry about the patient and not worry too much about the protocol. This empowerment of medical professionals and trust in their ability to make timely and informed decisions allows for a more responsive, cohesive and collaborative relationship between care providers and regulatory bodies. Given that both entities have a common goal—better patient care—we see a need to shift from prescriptive regulations and policies to a goal-based approach. Eliminating red tape and outdated procedures will empower patient-facing practitioners and help them focus on providing efficient and effective patient care. The pandemic has demonstrated the efficacy of digital technologies in healthcare. As we move forward, we need to ensure that we identify and capitalize on what works pre- and post-pandemic and re-imagine our healthcare system to better serve patients and healthcare providers.

CONCLUSION

Healthcare institutions have been significantly impacted by the combined effects of COVID-19, the Nova Scotia mass shooting and other concurrent traumas and societal reckonings experienced by Nova Scotians in 2020. The COVID-19 pandemic had the most direct impact on Nova Scotian healthcare services, as frontline, midline and backline healthcare workers had to be innovative to react as the virus-affected individuals in the province, as researchers presented ever-changing understandings of the effects, interventions and recommendations, and as public health agencies (Canada and Nova Scotia) provided incidence rates and public health safety protocols.

Although in these challenging times some interventions were successful, the pressure to respond to an unknown condition increased the stress levels of all healthcare workers. For example, the early licensing of students, temporary licensing of out-of-province professionals, and the return to practice of retired persons created new training needs and demands for supervision. Likewise, expansion of the scope of practice of both licensed and unlicensed healthcare workers generated similar stresses, as many practitioners were required to serve in the emergency departments for frontline triage and treatments. Policies and plans, based on the outcome of such mid-pandemic decisions, should be formulated to not only have concrete evidence-informed contingency plans in place for future emergencies but also to put in place support mechanisms to mitigate the stress levels and long-term risks (such as burnout) to healthcare professionals.

The lockdown of rural communities and long-term care centres and closures of libraries highlighted deficiencies in the communication services and infrastructures that also affected access to integrated digital health systems within the province. As most medical clinics were closed as a precautionary measure to limit the spread, it became apparent that internet and telephone resources need to be more readily available and accessible to all, including vulnerable populations.

The online medical records system (McKesson Canada/RelayHealth) was discontinued March 31, 2020, presenting a barrier to online care; several participants mentioned this as unfortunate timing. The lack of reliable internet and sufficient video communication systems in rural communities and a shortage of available self-testing equipment in rural communities and homeless shelters points to a serious gap in our province's ability to provide care during a crisis. It is entirely reasonable for these communities to isolate during a pandemic and the technology exists to provide healthcare remotely; it should be in place.

The availability of stable, private and accessible digital health consults; digital prescribing, access to lab reports and records; and communication technologies such as Zoom for regular patient care need to be further improved.

Issues around pain management, opioid addiction and recovery highlight barriers in the shifting roles and responsibilities of pharmacists. The province currently pays pharmacists to inject the flu vaccine. The same process should be applied for suboxone. Inconsistencies in regulations led to obscure issues and unintended consequences. For example, to lessen the risks associated with daily contact, supplies of some opioid medications were extended, resulting in longer carries of medication supplies for individuals dealing with drug addictions. More thought should be given to the unintended consequences of such moves. Given that pharmacies were one of the few points of contact in the healthcare system left open throughout the crisis period, better use of the pharmacists and pharmacies, and consideration of the stress put on those services, should have been considered in the policymaking.

The pandemic put into sharp relief the two-tiered character of healthcare work. As one participant noted, some professionals are well paid and many may receive "pandemic pay," while others such as LPNs, care workers, administrative, maintenance and cleaning staff (all essential to the healthcare system) are paid as little as possible and prevented from receiving benefits via casual and part-time worker status. Not only is this an unfair practice, but the disparity also created risk to vulnerable populations through the transit of workers among facilities and homes in order to earn livable wages. As a recommendation, necessary changes to the labour laws or the regulations of health-related work should be implemented to provide secure, regular employment for those professionals interacting with vulnerable populations (such as long-term care facilities) to better protect the clients and fairly compensate the workers for their vital roles.

We note that in a formal setting, most participants were keen to laud the hard work, commitment and ability to cope with change and other stresses, but in an informal setting, many were more forthcoming about the underlying challenges and perceived risks. We have not reported these informal comments in this report, but we feel obliged to suggest that a full, candid and frank discussion of the failures and successes of the care community should be undertaken. Only then can

we learn how to enhance our ability to care for and connect with ourselves as Nova Scotians and to prepare effectively for the challenges that lie ahead.