



Office of the Auditor General of Ontario

Value-for-Money Audit
Virtual Care: Use
of Communication
Technologies for
Patient Care



December 2020

Virtual Care: Use of Communication Technologies for Patient Care

1.0 Summary

Virtual care, unlike traditional in-person health care, uses technologies to enable remote communication between patients and health-care providers, as well as between health-care providers. While many of the technologies required to deliver virtual care, such as smartphones, computers and email, have been around for decades, virtual care is still an emerging area of health care.

Although virtual care does not replace traditional in-person care, there has been a significant increase in the interest of virtual care as an option, driven by a public demand for convenience and timely access to health-care services. Over the last five years, the number of virtual-care visits between physicians and patients through the Ontario Telemedicine Network (Telemedicine Network) has increased by over 250%, from about 320,000 visits in 2014/15 to over 1.2 million visits in 2019/20. Recently, the COVID-19 pandemic has significantly accelerated the increase in demand for virtual care.

The Ministry of Health (Ministry) primarily funds virtual-care services for Ontario patients in three ways: funding to the Telemedicine Network; payment of physician billings for virtual care; and payment to an external service provider operating

Telehealth Ontario. The Telemedicine Network, established in 2006 and made into a division of Ontario Health in April 2020, is the only Ministry-funded provider of video-visit technology that enables physicians to deliver care virtually. The Telemedicine Network's mission is to "inspire and accelerate virtual-care solutions that better connect people and care across Ontario's health care system."

In 2019/20, the Ministry provided approximately \$31 million in funding to the Telemedicine Network and spent almost \$90 million on physician billings for care that was provided to patients virtually through the Telemedicine Network. The Ministry also paid approximately \$28 million in 2019/20 to the external service provider operating Telehealth Ontario, a 24-hour-a-day, seven-day-a-week telephone line that allows callers to ask health-related questions and receive information or advice from a nurse.

Our audit found that although the Telemedicine Network has been around for almost 15 years and the Ministry has initiated health strategies that focus on digital technology in recent years, Ontario's progress on integrating virtual care into the health-care system remains slow. For example, the Ministry had not established any long-term vision or goals and targets, and it only began allowing physicians to bill for virtual-care video

visits outside of the Telemedicine Network when necessitated by the COVID-19 pandemic. By comparison, other jurisdictions and private companies have adopted multiple technologies (such as phone calls and secure messaging) that have been working well and are more convenient for patients to access.

Our audit began in November 2019. When the COVID-19 pandemic was declared in mid-March 2020, the Ministry took action to reduce billing restrictions and enable providing more virtual care. It did so by introducing temporary billing codes that allow physicians to use and bill for virtual-care services provided over the phone or through a non-Telemedicine Network video platform. However, barriers to billing for virtual care have not been fully removed and will continue to exist because these temporary virtual-care billing codes are only intended for use during the COVID-19 pandemic. As well, the Ministry continues to have limited oversight of physician billings for virtual care. In addition, services offered by Telehealth Ontario and those offered through the Telemedicine Network are currently not integrated, meaning the Telemedicine Network and Telehealth Ontario continue to operate in silos.

The following are some of our significant findings.

Historically Slow Progress on Expanding Virtual Care

- **The Ministry has not set specific long-term goals and targets for virtual care where achievement can be evaluated.** Although the Ministry has initiated digital health-care strategies over the last five years and its 2019 Digital First for Health Strategy aims to expand virtual care in Ontario, the Ministry has not identified specific long-term goals and related targets for what it wants virtual care to look like in the future. As a result, it is difficult to evaluate the effectiveness of the Ministry's efforts in moving virtual care forward, and progress has remained slow.

- **Virtual care is not always available for patients in Ontario's publicly funded health-care system.** The Ministry provides funding specifically for virtual-care services only when physicians use the Telemedicine Network's platform to interact with their patients and it is the physician's choice of whether and when to offer patients virtual care. Therefore, in order to bill for virtual-care services, physicians must register with the Ministry and use the Telemedicine Network's platform. While the Ministry has increased access to virtual care by allowing physicians to bill Ontario Health Insurance Plan (OHIP) for virtual-care services provided through other platforms or by telephone during the COVID-19 pandemic, the changes are temporary. If these temporary changes are removed and a physician decides not to offer virtual care, patients who want virtual care may have to seek other options such as private companies offering virtual care at a cost.

Virtual Care Availability is Limited

- **Limited virtual-care delivery options restrict access to virtual care.** The Ministry funds physician billings for video visits through the Telemedicine Network platform. A report released in June 2019 by the Premier's Council on Improving Healthcare and Ending Hallway Medicine recommended that the Ontario government work with health-care providers to increase access to virtual visits for patients who want them and include phone calls, secure email and texting as virtual-care options. We noted that Kaiser Permanente, one of the leading health-care providers in the United States, has included all of these technologies in its delivery of physician care and, prior to COVID-19, virtual care through video and telephone accounted for approximately 15% of all scheduled visits between its physicians and patients,

with the majority being through telephone. However, virtual-care video visits through the Telemedicine Network accounted for less than 2% of all physician billings in Ontario in 2019/20. Almost 60% of the physicians who responded to our survey indicated that more than half of their patient care could be safely and appropriately provided virtually through video conferencing, telephone and secure messaging. Our survey of physicians also found that 85% of respondents indicated that virtual care through the use of video conferencing, telephone and secure messaging had not been well integrated into the delivery of health care in Ontario.

- **Private virtual care availability has proliferated to fill gaps.** Gaps between virtual-care availability and demand have provided an opportunity for private companies to offer virtual-care services to patients outside of the public health-care system. These private companies offer more timely and convenient access to virtual care for patients who are willing and able to pay, but create risks to patient continuity of care. These private companies operate outside the purview of the Ministry.

Weak Provincial Oversight of Virtual Care Billings

- **Ministry has limited oversight of unreasonable virtual-care visits and billings.** The Ministry has not made adequate efforts to monitor and review questionable patterns of virtual-care usage through the Telemedicine Network and related billings by physicians. We identified numerous cases where physicians had significantly high virtual-care billings and reported seeing an unusually high number of patients in a single day. For example, a physician working in a primary-care practice had virtual-care billings of \$1.7 million in 2019/20 and saw as many as 321 patients virtually in a single

day. This physician also billed the Ministry for another \$1.9 million for insured services (for example, in-person care) in 2019/20. We also found examples where physicians billed the Ministry for virtual-care visits through the Telemedicine Network, but their billings and visit counts did not match or exist in the Telemedicine Network's records. For example, a physician billed the Ministry approximately \$860,000 for almost 17,500 virtual-care visits in 2019/20, but the Telemedicine Network's records showed that this physician had less than 4,000 visits through the Telemedicine Network platform. The Ministry is unaware of these discrepancies because it does not compare physician billing data with the Telemedicine Network's data to verify that physicians are appropriately using the Telemedicine Network for virtual-care billing purposes.

Integration and Co-ordination of Virtual-Care Services

- **No integration exists between the Telemedicine Network and Telehealth Ontario.** While the services offered by both the Telemedicine Network and Telehealth Ontario constitute virtual care, they currently operate in silos with limited co-ordination and no integration of their services. There have been discussions between the Ministry, Telemedicine Network and Telehealth Ontario since 2017 on how the services offered by the organizations could be integrated to support modernization. We also noted an opportunity to have Telehealth Ontario assist in connecting callers virtually with physicians when necessary, a practice that is currently available in other jurisdictions such as Australia.
- **Virtual care is not well integrated into publicly funded primary-care services.** While primary care accounts for the majority of patient care in Ontario, there has been limited progress on incorporating virtual care

into primary-care services in Ontario. The Telemedicine Network noted a gap in access to primary-care services and began a pilot project in 2017 to enhance access to virtual primary care by allowing multiple technologies (video, phone call and secure messaging) to be used in the delivery of care. An interim evaluation of this project yielded positive results, showing that the majority of virtual care was conducted through texting and 99% of patients indicated they would use virtual care again.

Cost-Efficiency and Effectiveness of Virtual Care

- **The Ministry of Health has limited insight into the effectiveness of Telehealth Ontario services.** While Telehealth Ontario offers health advice and suggestions on appropriate next steps to callers, the Ministry does not regularly review the service by following patients after their calls to see whether they followed the advice given and if it was effective in addressing callers' health concerns. In 2015, the Ministry conducted a one-time analysis and found 38% of callers were successfully referred away from an unnecessary emergency department visit, but 42% of callers that were advised to see a physician still visited an emergency department within 10 days of their call.
- **Limited measures are in place to assess the effectiveness of virtual-care services.** Limited work has been done to evaluate the impact of virtual care on patient outcomes and the health-care system in Ontario. While the Telemedicine Network has measured the financial impacts of virtual care on the health-care system, it has very limited access to data on patient interactions with the health-care system to determine whether patients had to seek additional care after a virtual-care visit, such as visiting an emergency department.

We also found that while the Ministry reviews various data and program evaluations as part of its review of virtual care, it needs to do more to continually evaluate the impact of virtual care on patient outcomes.

Impacts of COVID-19 Pandemic on Virtual Care Availability and Use

- **The COVID-19 pandemic triggered the Ministry to accelerate the expansion of virtual care.** It was not until mid-March 2020, when the COVID-19 pandemic was declared, that the Ministry temporarily reduced billing restrictions for virtual care by introducing temporary virtual-care billing codes and allowing physicians to bill for virtual care provided through non-Telemedicine Network platforms or by phone. As a result of the pandemic, the number of video visits between a physician and a patient through the Telemedicine Network platform increased by over 80%, from an average of 104,000 per month in January and February 2020 to an average of about 190,000 per month between March and August. During the pandemic, physician billings for the temporary virtual-care billing codes were significant at approximately \$142 million per month between March (the first month they became available) and August 2020. Through our survey of physicians, we also noted that 86% of respondents indicated that if the impact of COVID-19 lessens, they would likely offer more virtual care than prior to COVID-19 if the Ministry continues to allow billing for virtual care using telephone or any videoconferencing platform.
- **The Ministry temporarily expanded access to virtual care, but created patient data security and privacy risks.** As a result of the COVID-19 pandemic, the Ministry implemented temporary billing codes that allowed physicians to bill for virtual-care services provided through phone or video, including

video visits outside the Telemedicine Network platform. Although this expanded patient access to virtual care, it also increased data security and privacy risks, which both the Ministry and Telemedicine Network have historically cited as reasons for not allowing the use of non-Telemedicine Network platforms before the pandemic.

- **Telehealth Ontario experienced long wait times despite expanded capacity and resources.** When the COVID-19 pandemic was declared, Telehealth Ontario became a key point of contact for Ontarians wanting to inquire about their symptoms and the need for a COVID-19 assessment. In March 2020, the first month of the COVID-19 pandemic, Telehealth Ontario received approximately 80,000 calls (with about 70% related to COVID-19), an increase of 116% from February 2020. However, despite increasing staff by 214% (from about 200 staff pre-COVID-19 to about 600 staff) to assist with call volumes and increasing the number of phone lines by over seven times (adding 3,300 more phone lines to the existing 450 phone lines), callers continued to face long wait times to receive advice. In January and February 2020, the average wait time was between 30 minutes and one hour. In March, the average wait time, including time spent waiting for a call-back from Telehealth Ontario, increased significantly to 21 hours for a COVID-19-related call and 38 hours for a non-COVID-related call. While the average wait time decreased in April 2020, it was still significantly long, at about 8 hours for a COVID-19-related call and 17 hours for a non-COVID-related call.

Overall Conclusion

Our audit concluded that the Ministry of Health (Ministry), in working with the Ontario Telemedicine Network (Telemedicine Network), does not have effective systems and procedures in place to

enable patient-focused virtual-care services in a cost-effective manner to meet Ontarians' needs and in accordance with applicable standards and guidelines. Specifically, the Ministry is using incomplete information when making decisions related to virtual care as it does not know how many physicians offer virtual care outside of the Telemedicine Network. As well, the Ministry still does not have long-term goals and targets for virtual care and, as a result, progress has continued to be slow on successfully integrating the use of virtual care with the rest of Ontario's health-care system. The Ministry's oversight of physician billings for virtual-care services through the Telemedicine Network is limited, which restricts its ability to confirm that physicians are providing quality virtual-care services and billing for such services in accordance with billing policies. During the COVID-19 pandemic when virtual interactions between physicians and patients increased significantly, so did data security and privacy risks.

We also found that limited work has been done to evaluate the impact of virtual care on patient outcomes and the health-care system in Ontario. As well, the Ministry has limited insight into the effectiveness of Telehealth Ontario services because it focuses on call-time metrics rather than service outcomes.

This report contains 13 recommendations, consisting of 28 actions, to address our audit findings.

OVERALL MINISTRY OF HEALTH RESPONSE

The Ministry of Health (Ministry) appreciates the work of the Auditor General and welcomes the recommendations in the report. Ontario has recognized the value of virtual care for over a decade and has been working to expand access to it for years. Most recently, the Ministry's Digital First for Health strategy contains a clear, robust and tangible strategy for virtual care that is enhancing its availability and integration throughout Ontario's health system. This is

evidenced by the speed the Ministry was able to implement virtual-care visits outside of and within the Ontario Telemedicine Network when necessitated by the COVID-19 pandemic.

Further, we have been working on the integration of virtual care and Telehealth Ontario for well over a year in the Ministry's current work on implementing a Health Care Navigation Service which will ensure all Ontarians know where to start in seeking reliable health-care information and advice to become connected to the right care, at the right place, no matter where they live and no matter what symptoms, issues and needs they have.

The Auditor General's recommendations support the Digital First for Health strategy and our work already underway. As the Ministry continues to implement the Digital First for Health Strategy, it will continue to engage stakeholders as well as using a data-driven approach in establishing the best practices in the delivery of virtual-care services in Ontario while ensuring value for money in its use of taxpayer funds while protecting their privacy. The Ministry looks forward to working with Ontarians to make our health system one of the most integrated, patient-centred, modern and sustainable health-care systems in the world.

OVERALL RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) appreciates the Office of the Auditor General for its timely and pragmatic recommendations on how to increase the impact and improve the effectiveness of virtual health-care delivery in Ontario. Ontario Health (Ontario Telemedicine Network) welcomes the opportunity to use and build on the insights provided in this report to guide our work with the Ministry of Health, and other partners and stakeholders, to further advance the provincial spread of virtual care

and accelerate the realization of its benefits for patients and caregivers—and the health-care system overall.

With many committed partners, Ontario has developed one of the largest and most comprehensive and utilized telemedicine networks in the world. As a result, thousands of Ontarians benefit every day from faster, more convenient access to health care, particularly in Northern, rural, remote and under-served populations, such as people living with mental health and addictions and the Francophone and Indigenous communities. Implementation of the Auditor General's recommendations, a number of which are already under way, will expand the gains made to date, increase choice when it comes to virtual-care options, and continue to inspire innovative solutions and models of care that empower patients and health-care providers alike. The COVID-19 pandemic, for all the challenges it continues to present, has generated greater awareness and acceptance of virtual care as an essential and equitable channel for safe, convenient health-care delivery in Ontario, supporting care at home as well as hospital services, including the provincial emergency Telestroke service and the Virtual Intensive Care Unit programs.

Ontario Health (Ontario Telemedicine Network) supports the Auditor General's overall focus and recommendations on the rapidly emerging area of consumer-oriented virtual primary care, in which Ontario's progress has been more incremental than the specialty care noted above. Using these insights as a guide we will remain committed to ensuring the accessibility and modernization of virtual primary care is a priority, while promoting safety, security and continuity of care for patients.

2.0 Background

2.1 Overview of Virtual Care

2.1.1 What is Virtual Care?

Virtual care, which is often used interchangeably with telemedicine, is a non-traditional care approach where health-care services are not delivered in person. Virtual-care interactions between patients and their health-care providers (for example, a physician), as well as between health-care providers (for example, between a primary-care physician and a specialist), occur remotely using different forms of communication or information technologies.

Figure 1 shows common forms of technology for delivering virtual care visits, including telephone, video conferencing, and secure messaging such as email and text. **Figure 2** compares the patient pathway of virtual care versus traditional in-person care.

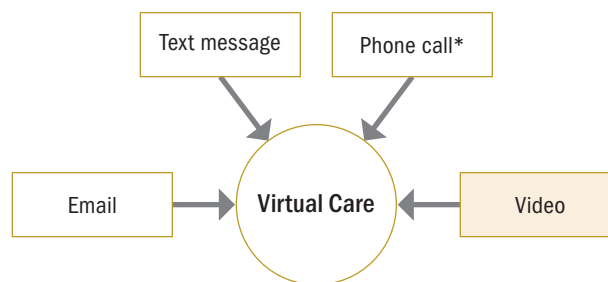
While virtual care can help improve access to and the quality of health-care services via the use of technology, it is meant to be a supplemental care option, but not a replacement, for traditional in-person care.

It is primarily up to physicians to use their professional judgment to determine whether virtual care is an appropriate option to address a patient's needs and, if so, which technology to use. For example, a primary-care physician with a diabetes patient may determine that a phone call is sufficient for the purpose of issuing requisitions for blood tests and discussing the results of those tests with the patient. Another example is a dermatologist (a physician specializing in skin conditions) who may determine video conferencing rather than phone calls with patients is effective for the purpose of diagnosing and prescribing medication.

The availability of virtual care and the decision of which technology to use are influenced by the billing policies in place. In Ontario, the Ministry of Health (Ministry) only allows fee-for-service phys-

Figure 1: Common Ways to Deliver Virtual-Care Visits

Prepared by the Office of the Auditor General of Ontario



Video was the only direct billable virtual-care delivery option before the COVID-19 pandemic. During the pandemic, the Ministry has temporarily allowed physicians to offer and bill for other virtual care methods provided to their patients including phone calls as well.

* Telehealth Ontario offers callers advice on health-related questions over the phone.

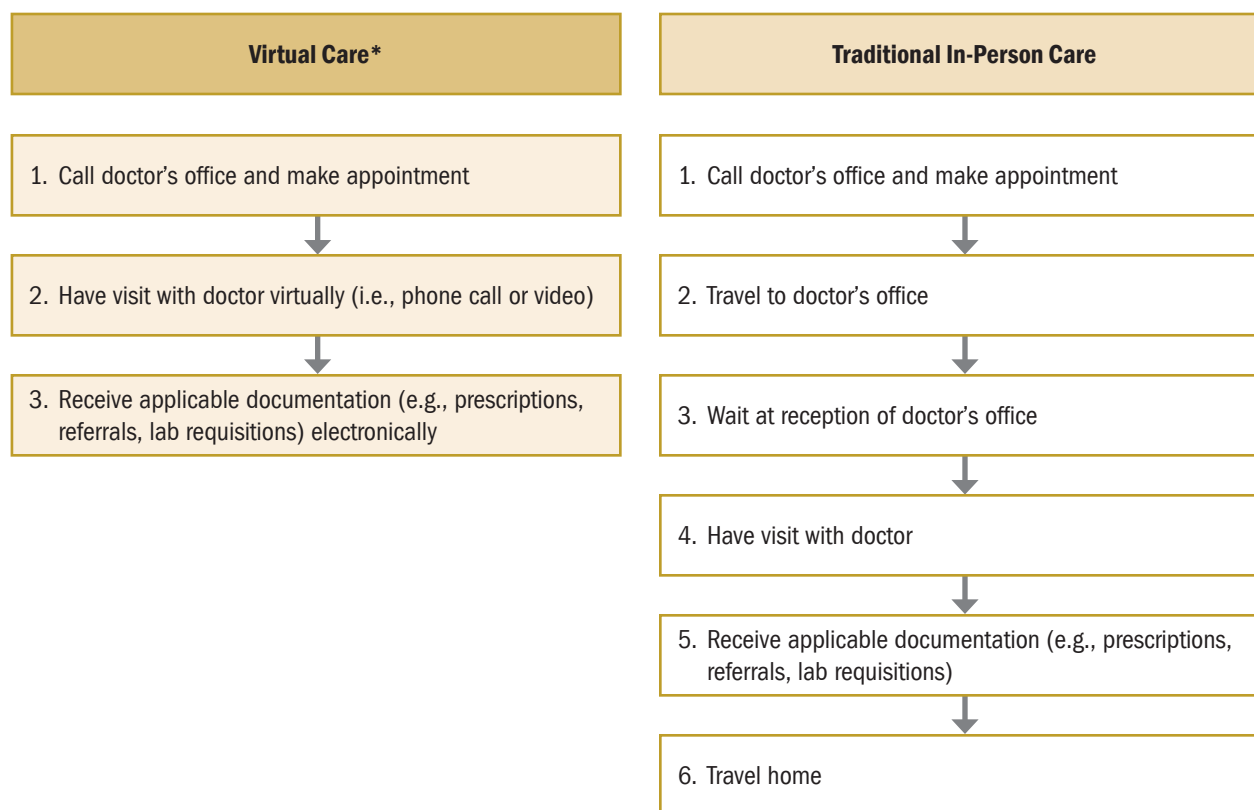
icians to bill for virtual care if it is provided through video conferencing through the Ontario Telemedicine Network (Telemedicine Network) (see **Section 2.2.2**), although some physicians working in capitated payment models (that is, who receive a fixed fee per patient per year regardless of how often that patient seeks care) may use other technologies without any specific remuneration for the use of those technologies (see **Section 4.3.2**). In response to the COVID-19 pandemic, the Ministry introduced temporary billing codes that allowed physicians to bill for virtual care provided through phone or video, including video through a non-Telemedicine Network platform (see **Section 4.6.1**).

2.1.2 Convenience and Importance of Virtual Care

Although virtual-care technologies have been around for decades, there has been a recent explosion of interest in pursuing digital health strategies across Canada according to a report released in February 2020 by the Virtual Care Task Force, co-chaired by members of the Canadian Medical Association, the College of Family Physicians of Canada, and the Royal College of Physicians and Surgeons of Canada.

Figure 2: Comparison of Virtual Care and Traditional In-Person Care

Prepared by the Office of the Auditor General of Ontario



* Assumes a patient accesses virtual care from their home. If the patient does not have the tools necessary to access an appointment from home (i.e., laptop, camera, etc.), he or she will be required to travel to the closest site, such as a Ontario Telemedicine Network host site (see Figure 5), where those tools are available.

Virtual care has been implemented across Canada for various uses, including:

- **Medical Appointments (Virtual-Care Visits).** Allows patients to connect with physicians and receive care through technologies such as phone calls and video rather than travelling to a physician's clinic. This form of virtual care is the key focus area of this audit report.
- **Remote Monitoring.** Allows health-care providers to monitor patients (for example, vital signs) remotely, such as a cardiac patient in need of heart monitoring.
- **Electronic Prescriptions.** Gives health-care providers the ability to write prescriptions remotely, especially for patients who require regular refills of medication.

- **Health Information Exchange.** Allows health-care providers to share health information among themselves and with their patients.

Virtual care offers mutual benefits to patients and health-care providers. It not only increases access and enables patients who live remotely or have illnesses or disabilities to avoid unnecessary travel to see a health-care provider, but also allows health-care providers to see patients without having to commute between clinics. Studies and research have noted that incorporating virtual care into any health-care system results in a number of benefits. For example:

- **Improving access to and equity of care:** Virtual care enables patients to access services from a physician even if the physician is located outside of the patient's region, which

is particularly beneficial for patients who live in a rural or remote area with little or no access to a local physician, or who have to travel and incur costs (for example, transportation and parking) to see a physician.

- **Increasing the timeliness of care:** Virtual care allows patients and/or their primary-care physician to connect and consult with a specialist quicker and, in some cases, eliminate the need for the patient to see the specialist in person.
- **Increasing the cost-effectiveness of health care:** Virtual care helps reduce unnecessary emergency department visits and costly hospitalizations by allowing health-care providers to remotely monitor and check up on their patients.

Virtual care becomes even more important during times of contagious illnesses and viruses. In 2020, the COVID-19 pandemic forced the provincial government to advise all Ontarians to stay indoors and avoid leaving their home unless absolutely necessary. As noted in **Section 4.6**, a national poll released by the Canadian Medical

Association in June 2020 found almost half of Canadians have used virtual care during the pandemic and 91% have been satisfied with their experience. To ensure that patients have continuous access to care without subjecting them to the risks of going outdoors, many health-care providers started offering patients the option of receiving care virtually during the pandemic (see **Section 4.6**).

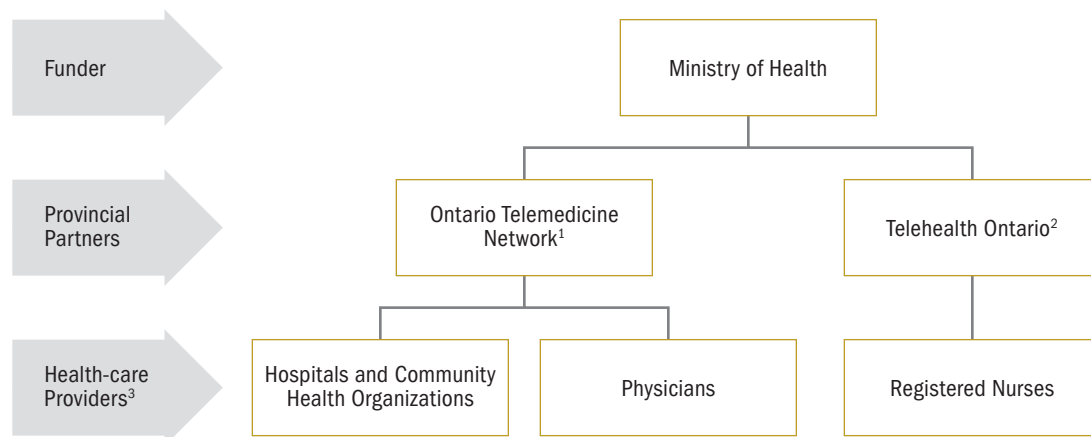
2.2 Management and Delivery of Virtual-Care Services in Ontario

2.2.1 Roles and Responsibilities of Key Parties Involved

Figure 3 outlines the key parties involved in the management and delivery of publicly funded virtual-care services in Ontario. The key parties include the Ministry of Health (Ministry), the Ontario Telemedicine Network (Telemedicine Network) within Ontario Health, Telehealth Ontario, and health-care organizations and providers, including hospitals, clinics, physicians, and nurses.

Figure 3: Parties Involved in the Delivery of Virtual Care in Ontario

Prepared by the Office of the Auditor General of Ontario



1. As a result of *The People's Health Care Act, 2019*, which enacts the *Connecting Care Act, 2019*, a number of provincial agencies (e.g., Cancer Care Ontario, Health Quality Ontario, and eHealth Ontario) integrated into a single agency called Ontario Health. The Ontario Telemedicine Network was integrated into Ontario Health as of April 1, 2020.

2. Telehealth Ontario is run by a third-party service provider through a contract with the Ministry.

3. In December 2019, the government announced the establishment of 24 Ontario Health Teams across the province. Ontario Health Teams provide a new model of organizing and delivering care that could better connect patients and health-care providers (including hospitals, physicians, and home and community care providers) in their communities. At maturity, Ontario Health Teams plan to offer patients digital access to their health information and a variety of options for virtual care.

The Ministry of Health

The Ministry of Health (Ministry) is responsible for establishing policies related to virtual care in Ontario; setting out strategies, goals and objectives for virtual-care services; funding and overseeing services provided by the Telemedicine Network and Telehealth Ontario as discussed below; and paying physicians for billings related to virtual care (see **Section 2.2.2**).

In Ontario, the Ministry has acknowledged the importance of virtual care moving forward and released its Digital First for Health Strategy in November 2019 (see **Section 4.1.1**). This strategy looks at the broad use of digital tools and technologies in the health-care system, and virtual care is one of the areas included in this strategy. More specifically, the strategy aims to make health care simpler, easier, and more convenient for patients using digital tools including virtual care.

The Ontario Telemedicine Network

The Ontario Telemedicine Network (Telemedicine Network) was created as a transfer payment

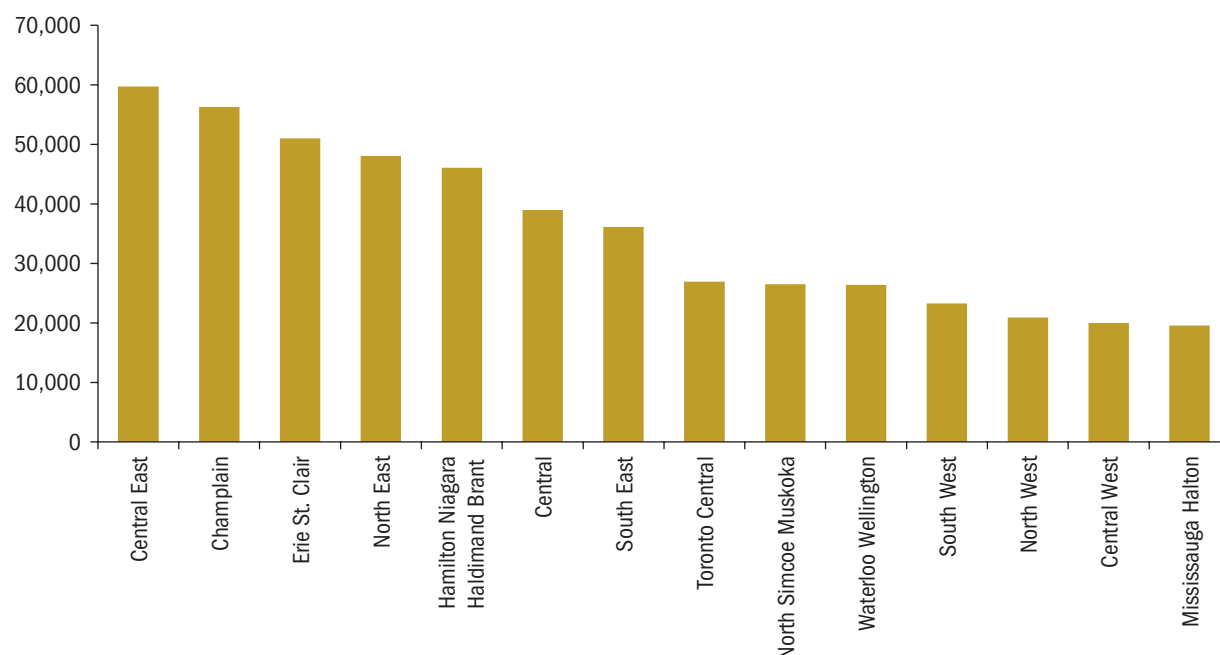
agency in April 2006 to facilitate provincial access to virtual care, and it is the only Ministry-funded provider of a platform that enables health-care providers to connect over video with patients. The Telemedicine Network was the result of a merger of three provincially funded telemedicine (virtual care) organizations: CareConnect in Eastern Ontario, NORTH Network in Central and Northern Ontario, and VideoCare in Southwestern Ontario. The Telemedicine Network, which has been integrated into Ontario Health since April 2020, is also overseen by Ontario Health's Board.

With the establishment of the Telemedicine Network in 2006, virtual care became accessible in more regions in Ontario and is now being used by patients living throughout the province. **Figure 4** shows the number of patients in each Local Health Integration Network region that, based on physician billings, had at least one virtual-care visit with a physician in 2019/20.

The Telemedicine Network provides a platform and related support for health-care providers and patients to connect virtually. It is the responsibility

Figure 4: Number of Patients Receiving Virtual Care by Local Health Integration Network, 2019/20

Source of data: Ministry of Health



Note: The patient count was calculated using physician billing data for virtual-care services. This number does not account for all patients receiving virtual care in Ontario, as discussed in **Section 4.3.2**.

of the health-care provider to register with the Telemedicine Network to connect with their patients and other health-care providers through the platform.

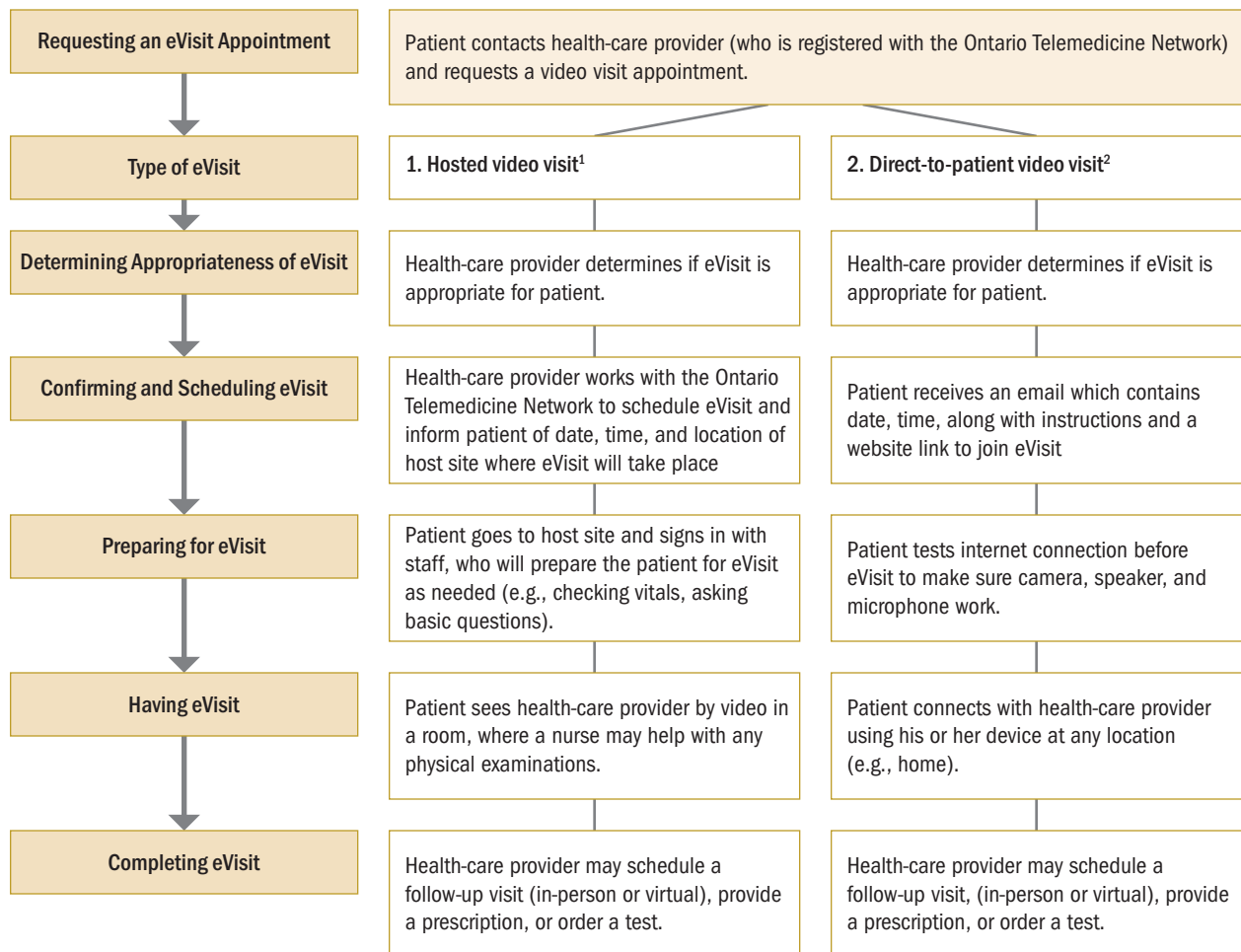
There are two primary virtual-care services currently available through the Telemedicine Network in Ontario: eVisit and eConsult.

- 1) **eVisit:** This is a video visit that takes place between a physician and a patient through the Telemedicine Network and is the key focus area of this audit report. **Figure 5** illustrates the patient care pathway for two types of eVisit, each involving a different location of virtual-care delivery.

- **Hosted video visit:** A video visit that takes place at a host site, which can be located in a number of settings (such as a hospital, health clinic, community centre, or pharmacy) and provides patients with the required tools and resources for a video visit, often including a computer with a camera and microphone. This type of video visit has been available for patients since 2006 when the Telemedicine Network was formed.
- **Direct-to-patient video visit:** A video visit that can take place at any location (such

Figure 5: Patient's Pathway for an eVisit

Prepared by the Office of the Auditor General of Ontario



1. Hosted video visits take place at a host site that provides patients with the technology and equipment (e.g., camera, microphone, laptop) required to receive care virtually. Host sites can be in a number of settings, such as a hospital, health clinic, community centre, or pharmacy. Hosted video visits have been available as a billable form of virtual care since 2006 when the Ontario Telemedicine Network was formed.
2. Direct-to-patient video visits take place at a location of the patient's choosing, and the patient provides the necessary technology and equipment required to receive care virtually. They became a billable form of virtual care in November 2019.

as a patient's home) as long as the patient has the appropriate tools and technologies to enable a video visit (such as a laptop with camera and microphone). Direct-to-patient video visits began as a pilot in 2015, but became billable in November 2019 for specialists, practice-designated physicians (physicians designated in a specific area of practice, such as addictions or pain management, but not considered specialists), and primary-care physicians that are delivering care to their rostered (or registered) patients. Physicians that do not fall within these categories (such as a primary-care physician providing care to walk-in patients) are unable to bill for direct-to-patient video visits.

- 2) **eConsult:** This is a consultation that takes place between health-care providers, often between a primary-care physician and a specialist, to consult about a specific patient's conditions including discussing possible diagnosis, care advice, and the need for an in-person referral to the specialist. The eConsult program in Ontario is managed by the eConsult Centre of Excellence housed at The Ottawa Hospital. **Figure 6** provides an overview of how an eConsult works.

The Telemedicine Network also operates or supports other virtual-care initiatives and programs, some of which are included in **Appendix 1**.

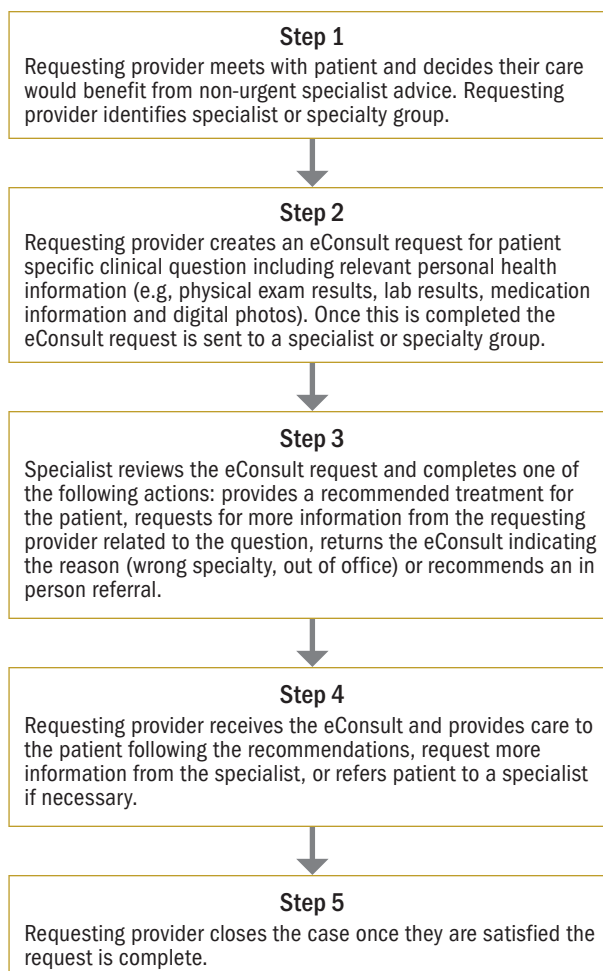
Telehealth Ontario

Telehealth Ontario, established in 2001 and run by a third-party service provider through a contract with the Ministry, is a free, confidential telephone service that anyone in Ontario can call to ask health-related questions or seek health-care advice. The Ministry's current contract with the service provider is set to expire by the end of 2020/21.

It is available 24 hours a day, seven days a week, and callers can connect with either a nurse or a non-clinical staff member depending on the reason for the call. Once a caller reaches a nurse, the

Figure 6: Health-Care Provider's Pathway for an eConsult

Prepared by the Office of the Auditor General of Ontario

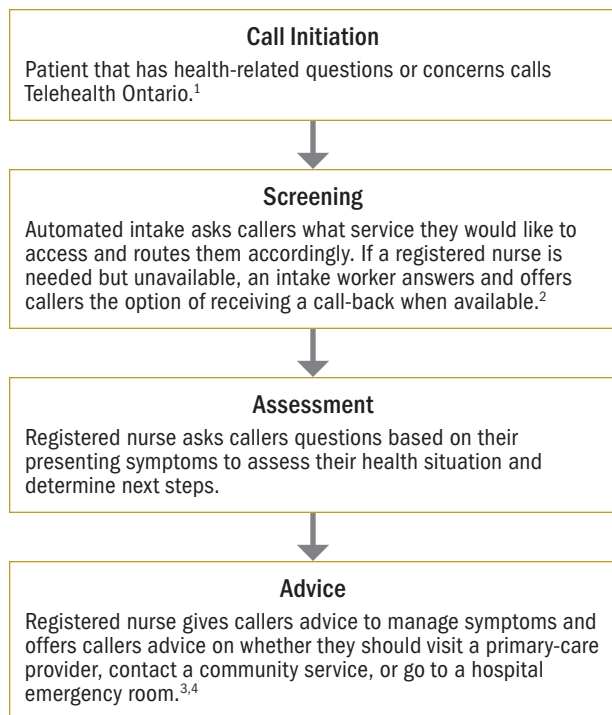


Note: The Ontario eConsult program was created with funding from the Ministry of Health to enable timely and equitable access to specialist advice for all health-care providers over the Ontario Telemedicine Network platform in two ways: (1) access to a group of specialists by clinical area; or (2) access to individual specialists by name or practice.

nurse uses decision support software that provides guidelines for handling the symptoms identified by the caller. Using the software in conjunction with their professional judgment, the nurse provides advice and information to the caller on appropriate next steps. This service is designed to give callers general advice on appropriate next steps for health concerns, but does not replace visiting or speaking with health-care professionals such as a physician. **Figure 7** shows the steps involved in accessing services through Telehealth Ontario.

Figure 7: Patient's Pathway of a Telehealth Ontario Call

Prepared by the Office of the Auditor General of Ontario



1. Anyone can contact Telehealth Ontario when they have health-related questions or concerns, including for illnesses or injuries that may need medical care, illnesses that do not go away or keep coming back, and mental health concerns.
2. An operator may ask callers for their Ontario Health Insurance Program (OHIP) card number, which is optional and is not required to access Telehealth Ontario services.
3. Registered nurses with Telehealth Ontario use decision support software that provides guidelines for handling symptoms along with their professional judgement to advise callers on appropriate next steps.
4. Registered nurses with Telehealth Ontario do not diagnose illnesses or prescribe medicine. Instead, they offer advice to help callers manage their symptoms and direct them to the most appropriate source of care based on their health condition and presenting symptoms.

2.2.2 Funding for Virtual-Care Services

The Ministry primarily funds virtual-care services in three ways: funding to the Telemedicine Network within Ontario Health; payment of physician billings for virtual care provided through the Telemedicine Network; and funding for Telehealth Ontario.

The Ministry funds the Telemedicine Network to develop and support solutions for health-care providers to virtually connect with their patients through video visits. In 2019/20, the Ministry provided approximately \$31 million to the Telemedicine Network, representing an increase of 30% compared to 2009/10, as shown in **Figure 8**.

The Ministry also pays for physician billings related to services provided virtually. **Figure 9** shows the amounts paid by the Ministry for physician billings for virtual care since 2014/15. Ministry expenditures on physician billing for virtual care provided to patients increased almost 400%, from approximately \$18 million in 2014/15 to almost \$90 million in 2019/20 (this amount does not include billings for virtual care using temporary billing codes introduced in mid-March 2020 during the COVID-19 pandemic, as discussed in **Section 4.6**). During the same period, the number of virtual-care visits delivered by physicians through the Telemedicine Network platform increased from approximately 320,000 in 2014/15 to about 1,240,000 visits in 2019/20.

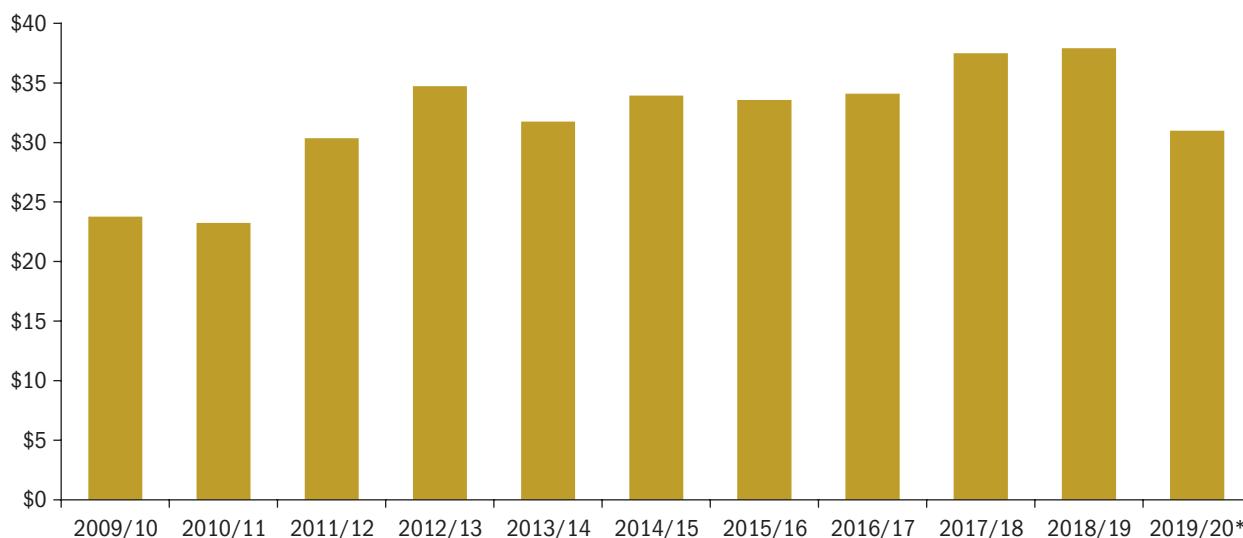
Last, the Ministry pays an external service provider to operate Telehealth Ontario's 24/7 telephone service to provide Ontarians with access to health advice. Expenditures in 2019/20 were approximately \$28 million, representing a decrease of about 32% compared to 2009/10. This decrease was primarily a result of changes made to the funding agreement between the Ministry and the service provider in 2014/15 to lower the base funding given decreasing call volumes, as shown in **Figure 10**. Prior to 2015, the Ministry guaranteed approximately \$36 million in funding to Telehealth Ontario based on a minimum service level of 900,000 calls. In 2015, the Ministry renegotiated the guaranteed funding to approximately \$26 million based on a service level of 625,000 calls because of a decreasing trend of call volumes. In recent years, the total number of calls has not exceeded the base volume of 625,000 funded by the Ministry.

Major Changes to Virtual Care During the COVID-19 Pandemic in Ontario

The COVID-19 pandemic has changed the future of health-care delivery by creating a new necessity for virtual care. On March 14, 2020, the Ministry expanded access to virtual care in response to COVID-19 to reduce the risk to patients and health-care providers of contracting or spreading the virus,

Figure 8: Ministry of Health Funding to the Ontario Telemedicine Network, 2009/10–2019/20 (\$ million)

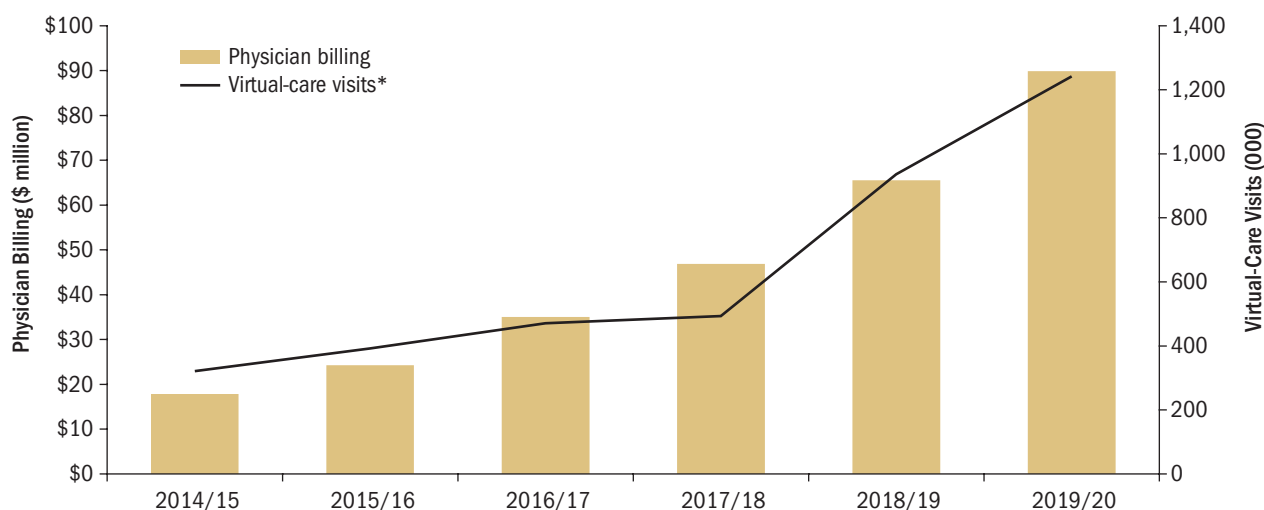
Source of data: Ontario Telemedicine Network



* Ministry funding to the Ontario Telemedicine Network in 2019/20 was approximately 18% or (about \$7 million) lower than in 2018/19 because of a funding cut across the health-care sector in Ontario. This funding cut primarily affected staffing costs of the Ontario Telemedicine Network, which reduced its number of staff from 258 to 213.

Figure 9: Physician Billing for Virtual Care and Number of Virtual-Care Visits, 2014/15–2019/20

Sources of data: Ministry of Health and Ontario Telemedicine Network



* Virtual-care visits only include eVisits (or video visits) between a physician and a patient per the Telemedicine Network's records. The Telemedicine Network conducted a review of data in late 2020 and made adjustments to appropriately identify virtual care visits that took place between a physician and a patient beginning with 2018/19 data, which resulted in an increase in virtual care visits reported.

and to reduce the strain on in-person health-care services. Specifically, to encourage and enable wider virtual-care adoption across the province, the Ministry:

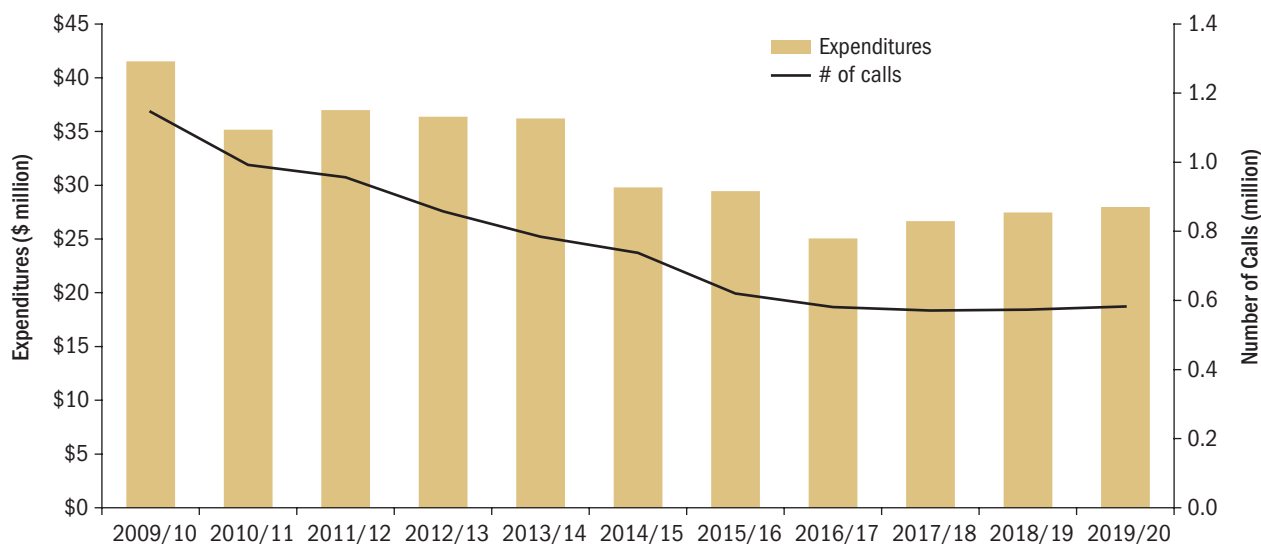
- approved temporary billing codes to allow fee-for-service physicians to bill for virtual

care provided over the phone or through video; and

- allowed physicians to use any platform to have video visits with patients rather than requiring the use of the Telemedicine Network platform to bill for virtual care.

Figure 10: Telehealth Ontario Expenditures and Number of Calls, 2009/10–2019/20

Source of data: Ministry of Health



During the COVID-19 pandemic, the use of virtual care has increased significantly. For example:

- In May 2020, only two months after the Ministry approved temporary billing codes, almost 23,000 physicians provided virtual care and billed for it through these temporary codes.
- The percentage of patient encounters with their physicians virtually via the Telemedicine Network platform and virtual care increased from 1% in April 2019 to 45% in April 2020.
- The number of video visits between a physician and a patient through the Telemedicine Network platform increased by 80%, from an average of 104,000 per month in January and February 2020 to an average of about 190,000 per month between March and August.

Section 4.6 discusses and provides more details on the changes and development of virtual care and the associated issues in Ontario.

3.0 Audit Objective and Scope

Our audit objective was to assess whether the Ministry of Health (Ministry), in association with the Ontario Telemedicine Network (Telemedicine Net-

work) within Ontario Health, has effective systems and procedures in place to:

- make virtual-care services available and offer them in an equitable and cost-efficient manner to meet Ontarians' needs and in accordance with applicable standards, guidelines and legislation; and
- measure and report on the results and effectiveness of virtual-care services and initiatives in meeting their intended objectives.

In planning for our work, we identified the audit criteria (see **Appendix 2**) we would use to address our audit objective. These criteria were established based on a review of applicable legislation, policies and procedures, internal and external studies, and best practices. Senior management at the Ministry and Telemedicine Network agreed with the suitability of our objectives and associated criteria.

We conducted our audit between November 2019 and August 2020. We obtained written representation from the Ministry of Health and the Telemedicine Network management that, effective October 22, 2020, they had provided us with all the information they were aware of that could significantly affect the findings or the conclusion of this report.

We conducted our work at the Telemedicine Network where we:

- interviewed senior management and staff responsible for managing and overseeing the delivery of virtual-care services in Ontario;
- reviewed applicable policies, guidelines, reports and briefing notes related to virtual-care services in Ontario;
- obtained and analyzed data to identify usage, uptake, trends, gaps, and outcomes of virtual-care services in Ontario; and
- reviewed strategic plans and related performance measure targets and results.

We also conducted work at the Ministry where we:

- obtained and analyzed data related to physician billing for virtual-care services and Telehealth Ontario services;
- interviewed senior management and staff responsible for overseeing the work of Telehealth Ontario; and
- reviewed strategic plans, reports, and briefing notes related to virtual care in Ontario.

We contacted the service provider contracted by the Ministry to operate Telehealth Ontario to understand its operations and service delivery.

We also conducted a survey of Ontario physicians in collaboration with the Ontario Medical Association to get a better understanding of virtual care in Ontario. We received responses from approximately 400 physicians.

We met with organizations and physicians that use and provide virtual care through the Telemedicine Network to obtain their views on virtual-care services in Ontario and identify areas for improvement. **Appendix 3** shows the organizations we contacted.

In addition, we met with some past Telemedicine Network board members to obtain their opinions on the direction of the Telemedicine Network and virtual care in Ontario as well as what barriers exist.

We also contacted stakeholders including the Association of Family Health Teams of Ontario, the College of Physicians and Surgeons of Ontario, the

Ontario Medical Association, and one of the largest private companies offering virtual care in Ontario to discuss the strengths and weaknesses of virtual care in Ontario.

Further, we reviewed virtual-care practices and spoke with staff in other jurisdictions including Kaiser Permanente (which is one of the leading health-care providers in the United States) and British Columbia's Office of Virtual Health. We also reviewed relevant research and studies in Ontario and other jurisdictions to identify best practices in the delivery of virtual-care services.

We engaged an independent adviser with expertise in the field of virtual care to assist us on this audit.

4.0 Detailed Audit Observations

4.1 Progress of Expanding Virtual Care Remains Slow in Ontario

While virtual-care technologies have been available for decades and the Telemedicine Network has been around for almost 15 years, the expansion of virtual care remains slow in Canada and Ontario. For example, in Ontario, the Ministry has still not adequately defined virtual care, or outlined a framework in its digital strategies for what virtual care should look like in Ontario, nor has it developed any measurable long-term goals and targets. As such, virtual care is not always available for patients to access in Ontario's publicly funded health-care system. Having an overall strategy on virtual care in Ontario is critical given that virtual care has evolved to become a necessity during the COVID-19 pandemic (see **Section 4.6**) and that the World Health Organization noted many countries that had suppressed COVID-19 transmission have experienced a repeat of increasing cases.

4.1.1 Ministry Has Not Set Long-Term Goals and Targets for Virtual Care

While the Ministry has initiated digital health-care strategies over the last five years, it did not incorporate virtual care into its strategy until late 2019. Although now part of its 2019 strategy, it still has not set long-term goals and measurable targets for virtual care availability and usage in Ontario.

In November 2016, the Ministry implemented the Patients First: Digital Health Strategy aiming to create a modernized, integrated and patient-centred health-care system. The strategy focused on modernizing patient access to personal health information and expanding the use of digital health datasets for research and innovation. It had three objectives: enhance access to health information and services; strengthen quality, effectiveness and accountability; and stimulate innovation and growth.

It was in November 2019 that the Ministry publicly acknowledged the importance of virtual care by including it in its Digital First for Health Strategy. The 2019 strategy recognized some of the gaps between virtual-care availability and the needs identified by Canada Health Infoway's report in 2018 (see **Section 4.2**). To address these gaps, the 2019 strategy aimed to:

- expand availability of video visits with more health-care providers offering it as an option to patients;
- enable health-care providers to use other virtual-care tools and communication methods beyond video visits, such as secure messaging, to meet the needs of their patients; and
- enable patients to book appointments online.

The Ministry also identified some short-term goals that it is aiming to achieve by 2021/22. For example:

- at least one in five people throughout the province will have a virtual-care encounter; and
- up to one in four people throughout the province will have access to online appointment booking.

However, the Ministry neither specifically laid out how virtual care fits into the future of Ontario's health-care system nor set any long-term goals and measurable targets for virtual care (such as requiring primary-care providers offer virtual care as an option for their patients). This makes it difficult to evaluate the effectiveness of the Ministry's efforts in moving virtual care forward.

Through our discussion with various health-care providers, we noted general agreement that the Telemedicine Network was considered a pioneer of virtual care in Ontario and played a significant role in getting virtual care to the point it is at now. However, technology has advanced tremendously since its inception in 2006, but neither the Ministry nor Telemedicine Network have kept up with the pace of innovation.

RECOMMENDATION 1

To achieve the virtual-care objectives in its Digital First for Health Strategy (Strategy), we recommend that the Ministry of Health:

- specifically define what virtual care includes and how it fits into the provincial health-care system in terms of technology and physician billing;
- revisit its existing Strategy in light of the COVID-19 pandemic and lessons learned;
- identify annual and long-term targets for virtual care availability and use; and
- measure and publicly report on its results against these targets.

MINISTRY RESPONSE

The Ministry supports this recommendation. The Ministry has defined virtual care in its current Digital First for Health Strategy, but will further consider the current definition as it revisits future versions of the Digital First for Health strategy (the strategy) and as part of broader efforts to increase the availability of virtual care in Ontario's health system. The Ministry is also considering options for

OHIP-insured virtual care physician services in the future, which will require negotiation with the Ontario Medical Association.

The Ministry will consider the lessons learned from the COVID-19 pandemic and will use this to inform future revisions of the Digital First for Health Strategy as well as broader efforts to increase the availability of virtual care in Ontario's health system.

The Ministry regularly revisits its strategy and as part of future revisions will enhance its existing virtual care targets. The Ministry's planning horizons are determined by the government's multi-year planning cycle.

4.1.2 Virtual Care Was Not Always Available for Patients

Virtual care was not always convenient or available for Ontarians prior to the COVID-19 pandemic. This has led to the proliferation of private virtual care in recent years to fill this gap, as discussed in **Section 4.2.3**.

In Ontario, any licensed physician can provide care to their patients virtually in their practice. Availability of virtual care to patients is a function of several factors, including physician choice of whether and when to offer virtual care and what methods to use, such as phone or video. However, if a physician intends to bill for virtual-care services through the Ministry's Telemedicine Network program, he or she must offer video visits to their patients through the Telemedicine Network platform and both the physician and the patient must attend the visit. The Ministry compensates physicians who use the Telemedicine Network platform to provide virtual-care services.

Physicians are not allowed to charge patients for virtual-care services provided through the Telemedicine Network platform. However, physicians and the organizations they work for are allowed to charge patients for services provided virtually through other technologies (for example, non-video visits using phone calls, emails and text

messages, or video visits through non-Telemedicine Network platforms), as discussed in **Section 4.2.3**. Beginning March 14, 2020 due to the COVID-19 pandemic, the Ministry allowed physicians to bill OHIP using temporary billing codes for virtual-care services without having to use the Telemedicine Network platform (see **Section 4.6**).

According to a report released by the Virtual Care Task Force in February 2020, "if medical practices are truly patient centred, virtual care needs to respond to patient demand for convenient access, on patients' terms." Failing that, patients may choose to pay for private virtual care because the provincially funded option of using the Telemedicine Network platform may not be available through their physician or does not meet their needs.

In Ontario, if a physician wants to bill for virtual-care services through the Ministry's Telemedicine Network program, he or she must register with the Ministry, use the Telemedicine Network platform for a video visit, and schedule a time that works for both the patient and the physician. So, the availability of publicly funded virtual care in Ontario is driven by physician choice instead of patient demand.

In contrast, private companies offering virtual care at a cost charged directly to patients appear to allow more convenient access to care than the publicly funded model. That is, patients determine when and how they would like to access services (for example, through phone, video, or secure messaging) and the physicians working for these private companies would accommodate the patient's request. They may require patients to switch technologies in certain cases. For example, physicians may require patients to switch from phone to video during their virtual care visit if physicians need to visually see the patient to diagnose and provide appropriate care.

RECOMMENDATION 2

To provide Ontarians with convenient virtual-care options, we recommend that the Ministry of Health, in collaboration with the Ontario

Telemedicine Network within Ontario Health, review its policies and structures around physician delivery of and billing for virtual care to identify ways of expanding the availability of virtual-care options in Ontario.

MINISTRY RESPONSE

The Ministry supports this recommendation. The Ministry regularly revisits its strategy and as part of future revisions, will engage Ontario Health (Ontario Telemedicine Network) and other stakeholders to review the policies and frameworks around physician delivery and billing of virtual care with a view of expanding the availability of virtual care options in Ontario.

The Ministry recognizes the importance of providing patients with more choice on how to access care virtually. As part of the ministry's Digital First for Health strategy, the Ministry is working toward introducing the ability to use technologies other than what is currently offered by the Ontario Telemedicine Network and modalities, including secure messaging.

Additionally, temporary OHIP fee codes effective March 14, 2020 have expanded the availability of virtual-care physician services in Ontario by allowing physicians to bill OHIP for certain insured virtual care services provided over the phone or through video (and allowing physicians to use any platform for video visits). The Ministry is also considering options for OHIP-insured virtual care physician services in the future, which will require negotiation with the Ontario Medical Association.

ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation and will continue to work with the Ministry of Health to identify and support additional ways of expanding the availability of virtual-care options in Ontario that make health-care more accessible to patients.

Ontario has developed one of the most extensive and utilized telemedicine networks in the world that allows Ontarians living in every region of the province to connect with their healthcare providers. Between January and September 2020, over 585,000 Ontarians benefited from this service. In order to further increase availability, Ontario Health (Ontario Telemedicine Network) recently launched a “verification” process that allows health-care providers to use their technology solutions of choice, that meet a minimum set of standards designed to ensure safe, secure, easy to use video visits and secure messaging.

Ontario Health (Ontario Telemedicine Network) also works with partners across the province to provide additional virtual-care options for patients with a range of chronic health conditions, through online and remote monitoring support.

4.2 Significant Gaps Exist between Virtual Care Availability and Needs

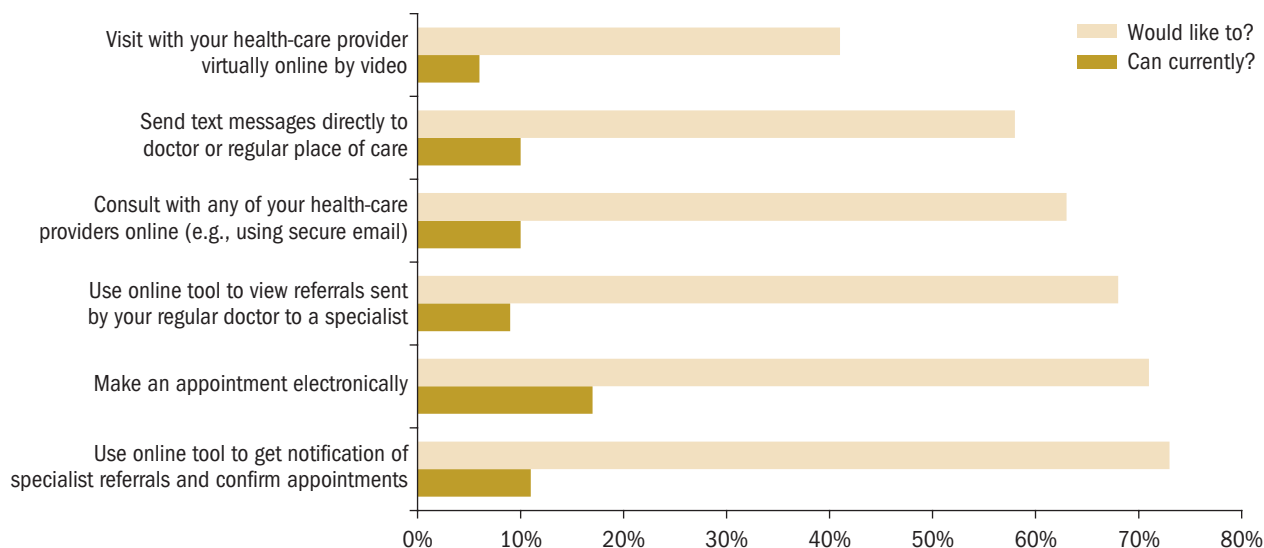
According to Canada Health Infoway's report, *Connecting Patients for Better Health, 2018*, there are significant gaps between what virtual-care services patients want and what virtual-care services they can access (see **Figure 11**). For example:

- 63% of Canadians would like to be able to consult with their health-care provider online, such as using e-mail, but only 10% are currently able to do so.
- 58% of Canadians would like to send text messages directly to their doctor or place of care but only 10% are currently able to do so.
- 41% of Canadians would like have video visits with their health-care provider, but just 6% of them are currently able to do so.

These gaps also exist in Ontario, where publicly funded virtual care is not driven by patient demand, but by physicians who decide whether they want to offer virtual-care services and can only bill for such services (prior to COVID-19) when

Figure 11: Virtual-Care Survey Results—What Canadians Want Vs. What they Can Get

Source of data: Canada Health Infoway's *Connecting Patients for Better Health*, 2018



they use the Telemedicine Network platform (see **Section 4.1.2**). The Ministry and Telemedicine Network have not done enough to remove restrictions and barriers to virtual care, leading to gaps between virtual care availability for patients and patient demand for such services. Some barriers were only temporarily removed during the COVID-19 pandemic when the Ministry implemented temporary billing codes to encourage physicians to offer virtual care to patients (see **Section 4.6**).

4.2.1 Concerns with the Telemedicine Network Platform Restrict Uptake and Usage of Virtual Care

In Ontario, prior to the Ministry's introduction of temporary billing codes during the COVID-19 pandemic, physicians wanting to provide virtual care and bill for those services had to use the Telemedicine Network platform. However, the uptake and usage of virtual care has remained low because the Telemedicine Network platform is not always reliable and user-friendly to meet physicians' needs. Our review of Telemedicine Network data found that only a small group of physicians accounted for most virtual-care visits provided through the Telemedicine Network platform.

In 2019/20, approximately 7,300 physicians provided about 1.2 million video visits to their patients through the Telemedicine Network platform. However, we found that:

- these 7,300 physicians only account for about 20% of the 37,000 physicians with an active licence to practise in Ontario;
- almost 84% (over 6,000) of the 7,300 physicians had fewer than 100 video visits with their patients in 2019/20 while only 6% (just over 400) had more than 500 video visits (see **Figure 12**); and
- some 200 physicians accounted for 64% (almost 800,000) of the total 1.2 million video visits.

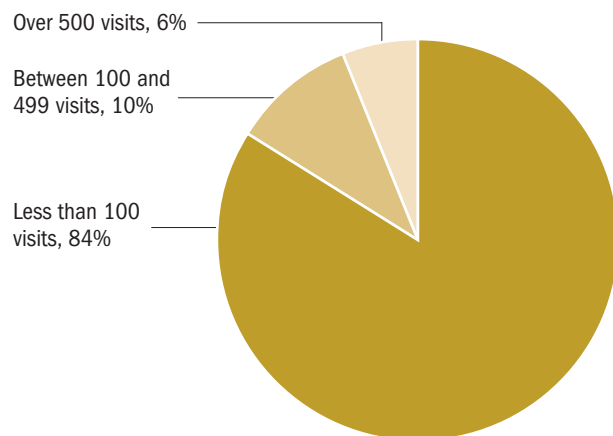
In each of the last five fiscal years since 2015/16, about 200 physicians were responsible for most video visits through the Telemedicine Network platform (see **Figure 13**). In April 2016, the Telemedicine Network's board of directors also raised this as a concern given 200 physicians were responsible for almost 80% of total clinical activity on the Telemedicine Network that year. The board indicated that broadening the active user base will help mitigate risks associated with relying on only a small group of physicians. While the Telemedicine Network has made progress in expanding its user

base, as noted above, the top 200 physicians in terms of usage still accounted for about 64% of total video visits through the Telemedicine Network in 2019/20.

Through discussion with various health-care providers that use the Telemedicine Network, including physicians working at hospitals, family health teams, and primary-care clinics, we identified the following concerns that may have resulted in the low uptake and usage of virtual care.

Figure 12: Breakdown of Number of Video Visits per Physician Using the Ontario Telemedicine Network, 2019/20*

Source of data: Ontario Telemedicine Network



* In 2019/20, about 7,300 physicians provided about 1.2 million video visits to their patients through the Ontario Telemedicine Network.

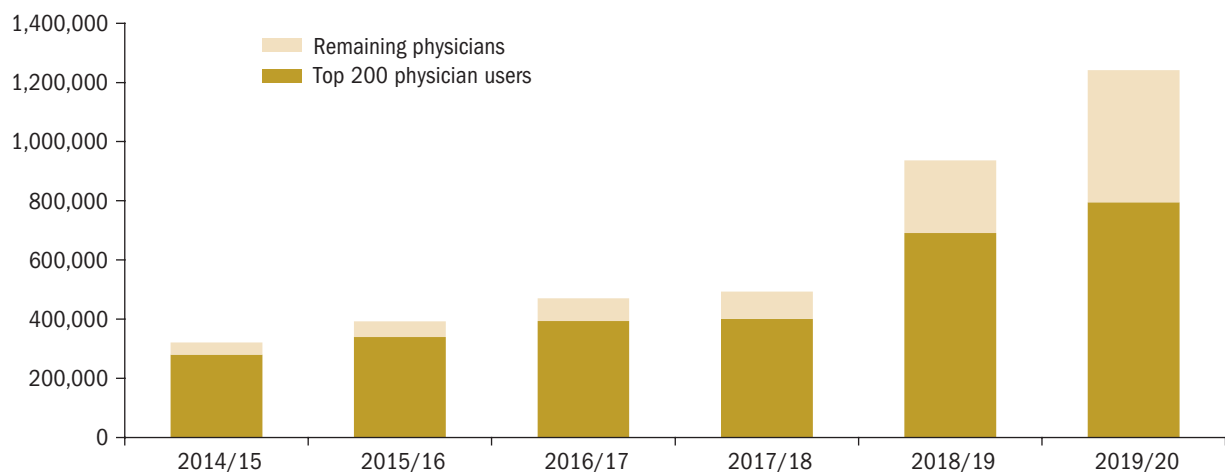
- **Barriers to accessing and recording**

medical information: While accessing and recording health information is a foundational part of physician care, the Telemedicine Network platform operates as a silo and does not integrate with all electronic medical records (EMRs) that health-care providers use to record their patients' medical history. To illustrate, health-care providers have to open the Telemedicine Network platform to conduct a video visit, but at the same time, they have to open their EMR separately to pull up a patient's medical history and document patient information such as symptoms and prescribed medication. Providers cannot use the Telemedicine Network platform to make notes during their video visit and then transfer those notes into their EMR. And, given the variety of EMRs being used across Ontario, integrating the Telemedicine Network platform with all existing EMRs could be very costly and time-consuming. Concerns about incompatibility between EMRs have been raised in various reports in the past. For example,

- Our Office's 2016 audit on Electronic Health Records' Implementation Status found that "the Ministry did not require all community-based physicians (such

Figure 13: Breakdown of Volume of Video Visits Through the Ontario Telemedicine Network, 2014/15–2019/20

Source of data: Ontario Telemedicine Network



Note: The Ontario Telemedicine Network conducted work to address issues with virtual care visit data beginning in 2018/19.

as family doctors) to use a standardized Electronic Medical Record software. Individual community-based physicians who want to manage their patients' health information electronically can select the software of their choice." Therefore, since not all the EMRs in use in Ontario are interoperable and compatible with each other, connecting various EMRs with the Telemedicine Network is challenging.

- A report released in February 2020 by the Virtual Care Task Force noted that "impediments in health information technology interoperability...impair the exchange of health data across health care delivery points". It also indicated that "digital interoperability across all points of the health care system is essential to support virtual care."
- **Technical issues:** The Telemedicine Network does not always provide clear and reliable video quality throughout virtual-care visits. Concerns about the reliability of the Telemedicine Network have been raised before. According to a study done by Laurentian University in 2016, health-care providers had reported technical difficulties in as many as one in five Telemedicine Network video visits when adding virtual care to their services. This study cited the reliability of technology as one of the reasons why both patients and physicians hesitate to use telemedicine (virtual care).
- **Administrative burdens:** Scheduling video visits requires more effort than scheduling in-person visits. First, the health-care provider and patient must find a date and time that works for both parties. Then, the health-care provider must sign into the Telemedicine Network to enter the scheduled details and book the virtual care video visit.

We noted that other jurisdictions in Canada do not have any government-funded virtual-care platform like the Telemedicine Network in place.

Instead, they focus on supporting health-care providers with integrating virtual care into their services. For example, the Office of Virtual Health in British Columbia works directly with health-care providers and offers guidance and support to help integrate virtual health into their services. This includes identifying and exploring virtual-care opportunities, sharing knowledge with regards to information privacy, and providing project support and coaching during integration.

RECOMMENDATION 3

To provide Ontarians with an opportunity to access care virtually through a reliable platform in a timely and convenient way, we recommend that the Ministry of Health, in collaboration with the Ontario Telemedicine Network (Telemedicine Network) within Ontario Health:

- engage physicians and other users who have used the Telemedicine Network, and those who have chosen not to, to identify their specific concerns and issues with the platform, identify opportunities for improvement, and implement appropriate solutions; and
- study virtual-care delivery models or practices in other jurisdictions to determine whether the Telemedicine Network's roles should be revisited or changed going forward given the evolution of virtual care since it was established.

MINISTRY RESPONSE

The Ministry supports this recommendation and is already planning to make improvements to virtual care by, for example, introducing a virtual visit solution verification process that will allow a broader range of technology to be used for virtual care in Ontario. As part of the rollout of the virtual visit solution verification process, the Ministry will engage Ontario Health, physicians who have used and not used the Ontario Telemedicine Network, and other stakeholders to address concerns and issues raised with

the current virtual-care models with a view to identify opportunities for improvement, and implement appropriate solutions.

The introduction of the verification process for virtual visits solutions is based on provincial standards. These standards will set the path to encourage integration of virtual-visit solutions across point-of-service solutions (for example, video visits with electronic medical records).

At the same time as setting up the virtual visit solution verification process, the Ministry, as part of the future revisions of the strategy, will conduct a jurisdictional scan to determine the appropriate roles and responsibilities of the Ministry, Ontario Health (Ontario Telemedicine Network), and other health-system supports in the delivery of virtual care in Ontario.

The Ministry is working with the Centre for Digital Health Evaluation to conduct research in areas related to virtual care, with the primary focus being to learn from the experiences of clinicians and patients who have used virtual care during the pandemic and to better understand its impact. The Ministry will be using these research outcomes to inform virtual-care policy, along with other expert advice, research evidence and data.

The Ministry is also considering options for OHIP-insured virtual-care physician services in the future, which will require negotiation with the Ontario Medical Association.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation. Ontario Health (Ontario Telemedicine Network) is committed to engaging with stakeholders to improve our products and services. Ontario Health (Ontario Telemedicine Network) has established processes to capture feedback from users, including semi-annual surveys and invited user testers, which directly inform improvements to the

videoconferencing platform and supporting services such as scheduling. Ontario Health (Ontario Telemedicine Network) acknowledges there is room for improvement in engaging health-care providers who do not use our platform and will consider ways to accomplish this as part of the virtual visits verification process referenced above.

Ontario Health (Ontario Telemedicine Network) continues to study innovative virtual-care programs and best practices from other jurisdictions, consulting with the Ministry of Health and other partners regarding their application in Ontario. This process has already generated new models of health-care delivery in Ontario such as online mental health support and patient-initiated primary-care visits using secure messaging. As a result of its innovation and leadership in virtual care, Ontario Health (Ontario Telemedicine Network) has for years fielded inquiries from health system leaders and planners from outside Ontario who seek advice and support on advancing virtual care in their jurisdictions.

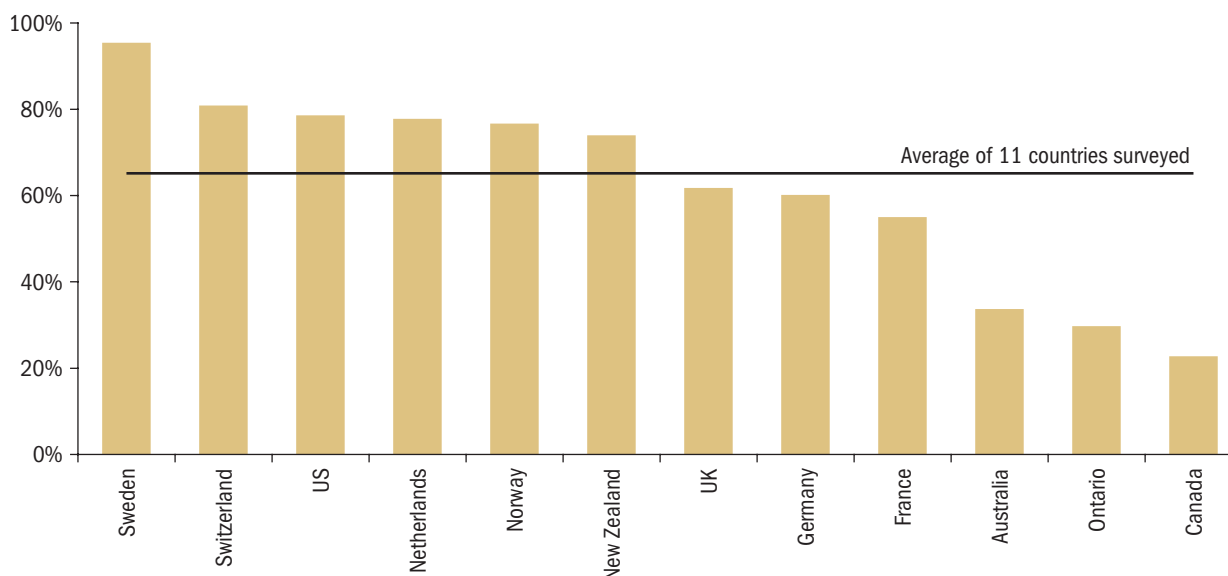
4.2.2 Limited Virtual-Care Delivery Options Restrict Access to Virtual Care

Technologies have evolved significantly since the inception of the Telemedicine Network in 2006. However, prior to COVID-19, physicians could only bill for video visits when they used the Telemedicine Network platform. This has impacted the availability of virtual care for Ontarians. Virtual-care visits through the Telemedicine Network accounted for less than 2% of all physician visits billed in Ontario in 2019/20.

According to the 2019 Commonwealth Fund International Health Policy Survey of Primary Care Physicians, only about one in five (or 23%) primary-care doctors in Canada offer their patients the option to interact via email or a secure website. Canada ranked the worst in the survey of 11 high-income countries. While the rate in Ontario (30%)

Figure 14: Percentage of Primary-Care Physicians Offering Patients the Option to Communicate Medical Questions via Email or Secure Website

Source of data: 2019 Commonwealth Fund International Health Policy Survey of Primary Care Physicians



was slightly higher than that in Canada, it was still well below the average rate (65%) of the countries included in the survey (see **Figure 14**).

The Premier's Council on Improving Healthcare and Ending Hallway Medicine released a report in June 2019 that confirmed the existence of barriers to virtual-care visits in Ontario. The report recommended that the Ontario government work with health-care providers to increase access to virtual visits for patients who want them and include phone calls and secure messaging (such as email and texting) as virtual-care options in addition to video visits. We noted this is particularly important for individuals with limited or no access to certain tools and technology necessary for video visits. For example, individuals living in Northern or remote communities may not have sufficient internet access to allow for a video visit. This is consistent with a finding from our Office's 2020 audit on Indigenous Affairs in Ontario, which confirmed that certain Indigenous communities cannot access virtual health-care services because of limited access to basic Internet services. While the Enhanced Access to Primary Care pilot project is working to address these limitations in Ontario (see **Section 4.4.2**), more work needs to be done.

Through our review of studies and practices in other jurisdictions, we noted that Ontario is behind in allowing multiple technologies to be used to deliver virtual care. For example, Kaiser Permanente (Kaiser) in the United States allows patients to communicate with physicians through all forms of virtual care listed in **Figure 1**, including telephone and video. Prior to the COVID-19 pandemic, approximately 15% of Kaiser's scheduled appointments were done through telephone or video visits while 85% were in person. Since the start of the pandemic, approximately 80% of Kaiser's visits were through scheduled phone or video visits and only 20% were in person.

Some physicians we spoke with indicated that more of their patient interactions could have been done virtually if other appropriate virtual-care options, beyond video visits through the Telemedicine Network, had been in place and had been billable. Through our survey of physicians done in collaboration with the Ontario Medical Association, we found that almost 60% of respondents indicated that more than half of their patient care could be safely and appropriately provided virtually such as through video conferencing, telephone and secure

messaging. As well, in response to our survey question of whether virtual care (prior to COVID-19) through the use of video conferencing, telephone calls and secure messaging had been well integrated into the delivery of health-care in Ontario, over 85% of respondents disagreed or strongly disagreed.

Despite patient demand for and the benefits of offering more virtual-care delivery options beyond video visits, it was not until mid-March 2020 when the COVID-19 pandemic was declared that the Ministry temporarily reduced billing restrictions by allowing physicians to bill for care provided through either video platforms other than the Telemedicine Network or phone calls (see **Section 4.6**).

4.2.3 Private Virtual Care Has Expanded to Fill Gaps, but Created Inequity and Risks to Continuity of Care

Gaps between virtual-care availability and demand have provided an opportunity for private virtual care to expand in Ontario's publicly funded health-care system. While private virtual care helps fill the gaps by offering services directly to patients for a fee, it also creates inequity between those who can afford it and those who cannot within the context of a public health system.

Based on our research, we found multiple private virtual health-care companies that charge patients in Ontario for a range of services, such as access to medical advice, prescriptions, medical notes, and lab work requisitions. These companies use their own platforms (that is, non-Telemedicine Network platforms) that allow patients to go online to connect with a physician through secure messaging (chat), phone, or video. They offer different pricing and service packages, such as approximately \$50 to \$100 per visit depending on the time of day, or membership plans for unlimited visits ranging from a few hundred dollars to over \$1,000 per year. Patients either pay out of pocket or through their private insurance plans.

We reviewed practices across Canada and found that, unlike Ontario, video visits can be billed by

physicians and are paid for by the government in British Columbia. One large private company offering video visits charges patients in Ontario, but not patients in British Columbia, where video visits are billed to the province's health insurance plan.

Having timely and convenient access to health-care services is one of the main reasons that Ontarians may choose to pay for virtual care offered through private companies. With the publicly funded model in Ontario, according to Health Quality Ontario's Measuring Up 2018 report, approximately 60% of patients had to wait two or more days to see their regular primary-care physician. Based on our discussion with one large private company offering virtual care and our review of its publicly available details, we found that it offers almost immediate access to a physician regardless of where a patient lives in Ontario. For example, a patient in Thunder Bay can go online to connect with a physician virtually within minutes as long as the patient has paid for the service. However, best practice for health care involves receiving care from a regular primary-care physician who has the patient's history of health. If a patient is accessing private virtual care, it is likely they are not connecting with their regular primary-care physician. In these cases, their continuity of care is often interrupted, meaning they may not be receiving care according to best practice.

While private companies offer patients timely and convenient access to virtual care, their existence has also created other risks and concerns. Because these companies operate outside the purview of the Ministry, this also raises concerns about the Ministry's lack of knowledge and oversight of their practices (see **Section 4.3.2**)

RECOMMENDATION 4

To provide Ontarians with more options to access care virtually in a convenient way, we recommend that the Ministry of Health, in collaboration with the Ontario Telemedicine Network within Ontario Health:

- engage virtual-care providers in other jurisdictions and in the private sector to learn about and apply best practices in the delivery of expanded virtual care in Ontario; and
- evaluate the feasibility of allowing physicians to bill for virtual-care services provided through multiple technologies outside of the Telemedicine Network (for example, secure messaging, or phone calls) and implement changes that protect data security and privacy, and enable the Ministry to monitor the reasonableness of billings.

MINISTRY RESPONSE

The Ministry supports this recommendation and will continue to regularly engage stakeholders, virtual-care providers and patients to establish best practices in the delivery of potential future virtual services care in Ontario.

The Ministry recognizes the importance of providing patients with more choice on how to access care virtually. As part of the Digital First for Health strategy, the Ministry is working toward introducing the ability to use technologies other than what is offered by the Ontario Health (Ontario Telemedicine Network) and modalities, including secure messaging.

Additionally, temporary OHIP fee codes allow physicians to bill OHIP for certain insured virtual-care services provided over the phone or through video (and allow physicians to use any platform for video visits). The Ministry is also considering options for OHIP-insured virtual care physician services in the future, which will require negotiation with the Ontario Medical Association.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation. Working closely with the Ministry of Health, Ontario Health (Ontario Telemedicine Network) will continue to engage with a wide range of stakeholders in

Ontario and beyond to identify and implement opportunities to improve and expand virtual care options in Ontario.

With the support of the Ministry of Health, Ontario Health (Ontario Telemedicine Network) launched two initiatives that allow physicians to bill for virtual visits using other technologies. In 2017, the Enhanced Access to Primary Care pilot program allowed patients in selected regions to interact with their family physicians using third-party platforms enabling a combination of secure messaging (texting), video visits and phone calls. In 2018, Ontario Health (Ontario Telemedicine Network) partnered with several health-care organizations to allow them to choose their preferred telemedicine platform and have their physicians bill for providing virtual visits on that platform. Both pilots informed the creation of privacy, security and operational standards and protocols that form the basis of the provincial virtual visits standards that Ontario Health (Ontario Telemedicine Network) has since created. Ontario Health (Ontario Telemedicine Network) has shared the lessons learnt from these pilots with the Ministry of Health to help inform provincial policies and strategies to enable billing for virtual visits using multiple technologies.

4.3 Limited Provincial Oversight on Virtual-Care Visits, Billings and Availability

According to an article released in 2015 by the Journal of Medical Regulation (which publishes studies and best practices relevant to medical regulators), regulation and oversight continue to be necessary in any health-care delivery system. Therefore, no matter whether health-care services are provided in person or virtually, it is critical to have adequate oversight on the quality, billing, and availability of services.

However, the Ministry continues to have limited insight into virtual care in Ontario through the

Telemedicine Network program because there are limited oversight mechanisms in place. We found that the Ministry has done little work to identify and review physicians with unusual trends and patterns of virtual-care usage and billings under the Telemedicine Network program. This concern could lead to even greater financial consequences during the COVID-19 pandemic when virtual interactions between physicians and patients increased significantly.

4.3.1 Ministry Has Limited Oversight on Unreasonable Virtual-Care Visits and Billings

While incorporating virtual care into the health-care system can improve timeliness of care for patients, there is a risk that services may not be provided in accordance with expectations. In traditional health-care delivery (that is, in-person care), the Ministry conducts post-payment reviews on physicians to see whether they complied with billing policies. However, it has not sufficiently reviewed questionable and unreasonable patterns

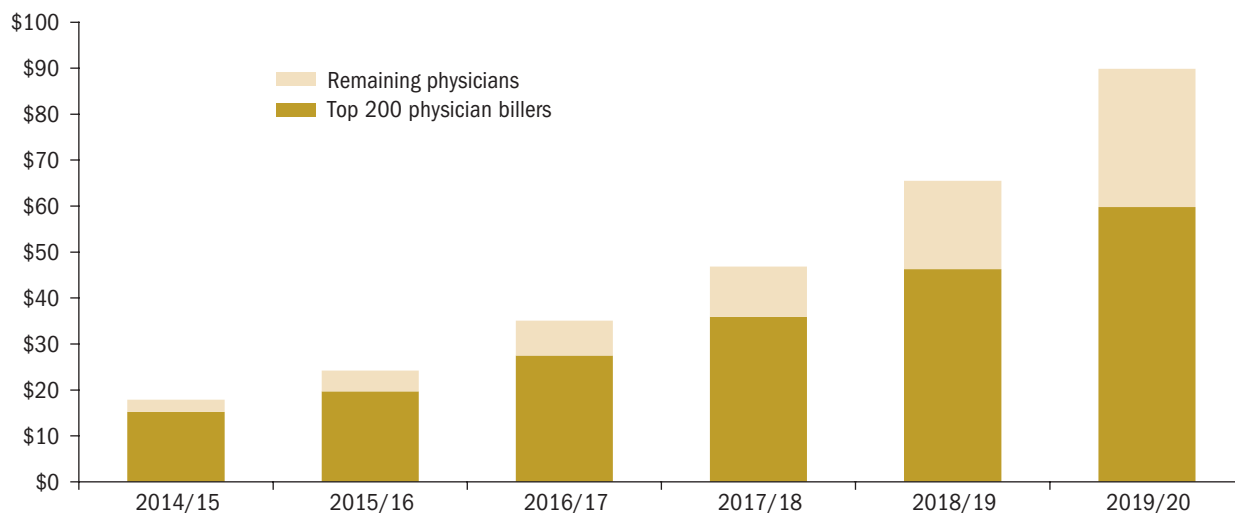
of virtual-care usage and billings by physicians using the Telemedicine Network platform.

There are two components in physician billings for providing virtual care: a fee for services provided to patients and a telemedicine premium for providing that care virtually. The telemedicine premium (\$35 for the first virtual-care visit and then \$15 per subsequent virtual visit per day), introduced over 10 years ago, was originally meant to cover additional expenses incurred by physicians when they had to travel to sites that offered the necessary technology to deliver virtual care. Although the Telemedicine Network began allowing physicians to use their own devices (a laptop, for example) for virtual-care visits in 2012, the telemedicine premium was kept until April 2020 when the Ministry started phasing out the premium to align virtual-care billings with in-person care billings.

According to physician billing data from the Ministry (see **Figure 15**), total virtual-care billings for services provided to patients increased significantly by approximately 400% over the last five years, from about \$18 million in 2014/15 to about \$90 million in 2019/20. However, about 200

Figure 15: Physician Billings for Virtual-Care Services (\$ million), 2014/15–2019/20

Source of data: Ministry of Health



Note: Total amount in each year includes physician billing for direct services provided to patients and a telemedicine premium for providing that care virtually. As a result of increased virtual-care usage, telemedicine premium payments to physicians increased by almost four times, from under \$5 million in 2014/15 to over \$20 million in 2019/20. As of April 1, 2020, the telemedicine premium has been removed for some providers. The Ministry expects the telemedicine premium to be phased out completely by March 31, 2021, at which time physicians providing care virtually will be paid the same amount as physicians providing care in person.

physicians accounted for over 60% of total virtual-care billings in each year from 2014/15 to 2019/20. Most of these high billers had at least \$100,000 in virtual-care claims each year.

Numerous Physicians Had Unusually High Billings for Virtual-Care Services

Based on our review of physician billing data from the Ministry, we identified numerous cases where physicians had significantly high virtual-care billings and reported seeing an unusually high number of patients in a single day (see **Figure 16**). Many of the physicians with the highest virtual-care billings worked in primary-care practices and addictions clinics. For example:

- One physician who worked in a primary-care practice had virtual-care billings of \$1.7 million in 2019/20 and reported seeing as many as 321 patients virtually in a single day. This physician also received \$1.9 million for non-virtual-care services (including care provided in person).
- Another physician working in an addiction clinic billed the Ministry \$900,000 for virtual-care services and another \$1.4 million

for non-virtual-care services. This physician reported seeing as many as 239 patients virtually in a single day.

We inquired with the Ministry to better understand their review process of physician billings for virtual care, and found that there is no review process specifically for virtual-care billings. The Ministry selects physicians for review based on their overall billings, but does not take virtual-care billings into consideration when determining which physicians to review. Instead, the Ministry informed us that it may review virtual-care billing data after a physician has already been selected for a review.

Of the 250 highest-billing virtual-care physicians over the last two years, we noted that about 15% had been selected for review in the last five years based on their overall billings. However, these reviews examined only their insured (in-person) services and none examined the approximately \$90 million physician billings for virtual care in 2019/20. Most of those reviews resulted in billing education letters being sent to the physicians, indicating the possibility that virtual-care billings were also not following Ministry policy. For example, one post-payment review of a physician (the same one

Figure 16: Examples of Physicians with Unusually High Virtual-Care Patient Visits in a Single Day, 2019/20

Source of data: Ministry of Health

Example	Virtual Care			Non-Virtual Care			Total Physician Billings (\$ million) ²
	Max. # of Patients Seen in a Day ¹	Avg. # of Patients Seen in a Day ¹	Billings (\$ million) ²	Max. # of Patients Seen in a Day ¹	Avg. # of Patients Seen in a Day ¹	Billings/ Payments (\$ million) ²	
Physician A	321	73	1.7	314	28	1.9	3.6
Physician B	296	77	1.0	106	37	0.4	1.4
Physician C	239	55	0.9	237	93	1.4	2.3
Physician D	180	60	0.9	406	191	2.1	3.0
Physician E	164	56	0.8	270	160	1.5	2.3
Physician F	174	66	0.8	183	83	0.6	1.4
Physician G	176	45	0.7	290	143	1.3	2.0
Physician H	99	34	0.6	264	150	1.4	2.0
Physician I	140	29	0.5	116	19	0.5	1.0
Physician J	143	36	0.5	93	45	3.2	3.7

Note: This table is based on physician billings submitted to the Ministry of Health.

1. These visit counts are based on the days a physician billed for a particular type (virtual or non-virtual) of care. For example, a physician may have only offered virtual care on one day and non-virtual care on another day.

2. The billing amounts are approximate and rounded.

we noted above with \$1.7 million virtual-care billings in 2019/20) from 2017 noted serious concerns with the physician's billing practices, including:

- delegating services to non-physicians (that is, having a non-physician perform a service that should have been done by the physician);
- double-billing for some services that were already paid for; and
- billing for phone calls to patients, which was not permitted (prior to COVID-19).

The Ministry estimated that this physician made inappropriate billings (excluding virtual care) of approximately \$940,000 between April 2014 and November 2016, none of which had been repaid to the Ministry at the time of our audit.

This is not the first time our Office has raised concerns about the lack of Ministry oversight related to physician billings. In 2016, our Office's audit on Physician Billing found that the Ministry did not follow up on many cases of possible inappropriate billings by physicians, nor did it investigate many anomalous billings where some physicians' billings were significantly higher than those of their peers.

Physician Billings for Virtual Care Do Not Align with Records of Virtual-Care Visits

Prior to the Ministry's introduction of temporary billing codes during the COVID-19 pandemic, physicians wanting to bill the Ministry for virtual-care visits with patients had to use the Telemedicine

Network to connect with patients. Therefore, the number of virtual-care visits for which a physician bills the Ministry's Telemedicine Network program should align with the number of virtual-care visits in the Telemedicine Network's records. However, the Ministry did not check and verify these numbers as part of its oversight responsibility before paying physician billings for virtual care.

We found significant discrepancies between the two data sets for 2019/20. **Figure 17** provides examples of these discrepancies. Specifically,

- We noted cases where the number of virtual-care visits being billed by some physicians did not align with the Telemedicine Network's record of visits by those physicians. For example, a physician billed the Ministry approximately \$860,000 for almost 17,500 virtual-care visits in 2019/20, but the Telemedicine Network's records showed less than 4,000 virtual-care visits by this physician.
- We also noted over 150 physicians billed the Ministry for virtual-care visits with patients in 2019/20, but had no patient activity reported in their account on the Telemedicine Network platform. For example, one physician billed the Ministry \$113,000 for 2,200 visits with patients in 2019/20, but there were no corresponding virtual-care visits recorded in the Telemedicine Network's records.

We inquired with the Telemedicine Network and found that one possible reason for the difference in data could be physicians using a nurse's or

Figure 17: Examples of Virtual-Care Billings That Did Not Align with Records of Virtual-Care Visits, 2019/20

Sources of data: Ministry of Health and Ontario Telemedicine Network

Example	Virtual-Care Billings from Ministry Records* (\$)	# of Virtual-Care Visits	
		Ministry Records*	Ontario Telemedicine Network Records
Physician K	1,400,000	29,500	10,401
Physician L	860,000	17,500	3,902
Physician M	550,000	9,600	1,477
Physician N	320,000	1,700	16
Physician O	113,000	2,200	0
Physician P	96,000	1,400	0

* The amounts and numbers are approximate and rounded.

administrative staff member's account to schedule virtual-care visits rather than their own account. However, the Telemedicine Network does not have any reliable way to identify all such cases. The Ministry is also unaware of these cases because it does not share any physician billing data with the Telemedicine Network to verify that physicians are using the Telemedicine Network as required for billing purposes.

As a result, there is a risk that these physicians were not providing virtual-care visits through the Telemedicine Network or may have submitted ineligible billings similar to the example noted earlier where a physician was delegating services to non-physicians or billing for phone calls to patients, neither of which was permitted.

Based on our review of publicly available reports from other jurisdictions, we noted cases where virtual care was not being provided in accordance with requirements, confirming that there are risks of inappropriate billings when monitoring is not done. For example, in 2018, the Office of Inspector General of the United States Department of Health and Human Services conducted a review of claims related to virtual care (referred to as telehealth in the United States) to determine whether they met requirements. The review looked at approximately \$14 million in claims and identified incidences where telehealth services were not provided in accordance with requirements. The report noted that these deficiencies occurred because there was no oversight to disallow payments and it recommended strengthening the means of monitoring telehealth services, such as conducting regular post-payment reviews, and educating practitioners on telehealth requirements. While health-care systems and practices in the United States and Ontario differ, the deficiencies identified by this review indicate the importance of oversight of virtual-care claims.

No Proactive Actions Have Been Taken to Review and Assess Appropriateness of Virtual-Care Visits

While some health-care providers told us that it is possible to see a high volume of patients virtually in a day if patients are stable and do not require a lot of physician time, the Ministry, in working with the Telemedicine Network, has not proactively identified and reviewed physicians' high virtual-care usage to determine the reasonableness and appropriateness of their patient visit counts.

We noted that the College of Physicians and Surgeons of Ontario (College), which has a mandate to monitor and maintain standards of practice and discipline physicians who demonstrate professional misconduct or incompetency, released a telemedicine policy in 2014. This policy indicated that telemedicine (virtual) care must meet the same legal and professional obligations that apply to care provided in person. As well, it is up to physicians to use their professional judgment to determine whether telemedicine is appropriate and enables them to provide the required standard of care. However, we noted that the Ministry does not share virtual-care visit data with the College. As a result, the College is not able to identify physicians with unusually high virtual-care visits that warrant reviews on their own. The College is typically only made aware of a physician's virtual-care activity after the physician has already been selected by the College for review.

RECOMMENDATION 5

To detect, deter, and reduce inappropriate billings for virtual-care services, we recommend that the Ministry of Health, in collaboration with the Ontario Telemedicine Network within Ontario Health:

- develop a framework for monitoring virtual-care visit and billing data continuously as well as identifying red flags and risks that warrant further reviews;
- conduct reviews when unreasonable or unusual trends are noted;

- collaborate with the College of Physicians and Surgeons of Ontario to evaluate the quality of virtual care being provided by physicians with an unreasonable number of virtual-care visits;
- develop criteria for following up on cases of inappropriate billing and taking disciplinary actions to deter and prevent recurrences; and
- evaluate the effectiveness of the above actions taken in preventing, detecting, and reducing inappropriate virtual-care billings.

MINISTRY RESPONSE

The Ministry accepts this recommendation and agrees to develop a framework to improve on its current monitoring of virtual-care visits and billing data within the Ontario Virtual Care Program, as well as identifying red flags and risks that warrant further reviews.

The Ministry will continue to conduct reviews when unreasonable or unusual trends are noted with respect to virtual care.

The Ministry agrees to collaborate with the College of Physicians and Surgeons of Ontario to evaluate the quality of virtual care being provided by physicians with an unreasonable number of virtual care visits within the Ontario Virtual Care Program.

The Ministry also agrees to collaborate with the College of Physicians and Surgeons of Ontario to develop criteria for following up on cases of inappropriate billing within the Ontario Virtual Care Program and taking disciplinary actions to deter and prevent recurrences.

As well, the Ministry agrees to evaluate the effectiveness of the above actions taken in preventing, detecting, and reducing inappropriate virtual-care billings within the Ontario Virtual Care Program.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) supports this recommendation and will continue to support the Ministry of Health's review processes as requested within the parameters of the appropriate legislation and regulations.

4.3.2 Ministry Has Incomplete Information on Virtual-Care Availability and Needs

While the Telemedicine Network was the only authorized platform that allows physicians to bill the Ministry for virtual care prior to the introduction of the Ministry's temporary billing codes during the COVID-19 pandemic, not all virtual-care visits in Ontario were delivered this way. Although not billable to the Telemedicine Network program, physicians could provide virtual care privately through non-Telemedicine Network platforms (see **Section 4.2.3**). Because of this, the Ministry does not know the extent and current usage of virtual care in the province.

There are also physicians earning an annual salary or falling under capitated primary-care models, such as those in family health organizations that receive a fixed annual payment per registered patient and do not need to bill the Ministry for each patient visit. These physicians do not have the same billing reason to use the Telemedicine Network as physicians under the fee-for-service model. Instead, they may choose to offer virtual care through a non-Telemedicine Network video platform or another technology such as a phone call or secure messaging. Therefore, the capitated payment model lends itself better to the use of virtual care. In recent years, about 40% of Ontario's approximately 14,000 primary-care physicians worked in models where compensation was primarily based on capitation payments, and patients registered with these physicians and physicians receiving a salary may have greater access to virtual care than patients registered with fee-for-service physicians.

The 2020 report by the Virtual Care Task Force also identified that there are issues in adapting the fee-for-service payment model for virtual care. Prior to COVID-19, fee-for-service physicians would not receive any compensation if they used telephone, email or text to communicate with their patients, and the report noted this as a hindrance to the usage of virtual care. In contrast, the capitated payment model will provide physicians with an incentive to incorporate virtual care into their practice because it allows them to provide more convenient and timely care without affecting their billing.

We noted that since the Ministry has not done any work to determine what forms of virtual care are being used outside of the Telemedicine Network, there is no way to know the full availability and use of virtual care across the province. There is also limited information on what percentage of virtual care in Ontario is provided through the Telemedicine Network and why physicians may be using other platforms and technology. As a result, the Ministry is unable to exercise adequate oversight of all virtual care in Ontario and is using incomplete information when making decisions related to virtual care.

RECOMMENDATION 6

To make informed decisions on virtual care, we recommend that the Ministry of Health, in collaboration with the Ontario Telemedicine Network within Ontario Health, work with stakeholders (such as the College of Physicians and Surgeons of Ontario and the Ontario Medical Association) to collect information on the availability of virtual care provided outside of the Ontario Telemedicine Network and the usage of such services across the province.

MINISTRY RESPONSE

The Ministry supports this recommendation. The Ministry, in collaboration with Ontario Health (Ontario Telemedicine Network), will work with stakeholders to collect information

on the availability of virtual care provided outside of the Ontario Telemedicine Network and the usage of such services across the province as part of revisiting future updates of the strategy.

The Ministry is working with the Centre for Digital Health Evaluation (CDHE) to conduct research in areas related to virtual care, with the primary focus of learning from those that have used virtual care during the pandemic and to better understand its impact. In addition to the research being conducted by CDHE, the Ministry is conducting data analysis on virtual care based on billings, literature review, and jurisdictional scans to understand the virtual care landscape and inform best practices. The Ministry will use these research outcomes to inform virtual care policy, along with other expert advice, research evidence, and data.

Information on the availability of virtual-care physician services provided outside of the Ontario Telemedicine Network is also becoming available with the introduction of the temporary OHIP fee codes. The Ministry is also considering options for OHIP-insured virtual care physician services in the future, which will require negotiation with the Ontario Medical Association.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation and has launched a virtual visits verification process that includes provisions for approved technology providers to report on virtual visits use through their respective platforms.

4.4 Virtual Care is Fragmented with Limited Integration with the Health-care System

4.4.1 Potential Exists for Coordinating and Integrating Services Between the Telemedicine Network and Telehealth Ontario

Although the services offered by both the Telemedicine Network and Telehealth Ontario constitute virtual care using communication technologies, they primarily operate in silos with limited co-ordination and integration of their services.

We noted that there have been discussions between the Telemedicine Network and Telehealth Ontario on how the services offered by the two organizations could be integrated to support modernization and efficiency. Both organizations also held discussions with or submitted proposals to the Ministry outlining some possible areas for enhancement and integration.

Currently, Telehealth Ontario does not connect callers with physicians unless they are accessing the Telephone Health Advisory Service (see **Section 4.4.2**), while the Telemedicine Network requires a physician to schedule and initiate a virtual-care visit with a patient. Integrating the services provided by the Telemedicine Network and Telehealth Ontario, however, could allow for a new model where patients can be virtually connected to physicians when needed. In response to COVID-19, a service called the Ontario Virtual Care Clinic was launched that allows patients to go online and connect virtually with an on-call primary-care physician. While not directly integrated, Telehealth Ontario is able to refer callers needing to speak with a physician to this service.

The various health-care providers and past Telemedicine Network board members we spoke to agreed that there is an opportunity for integration of services between Telehealth Ontario and the Telemedicine Network to improve patient access to care. We also noted that the Ministry conducted a jurisdictional review in 2018 and identified best practices of services like Telehealth Ontario. This

review noted some unique practices in Australia and the United Kingdom that are currently not available in Ontario, but that highlight the possibilities of a more integrated model:

- Australia has integrated after-hours and weekend physician care through its Health-direct service, which offers callers access to 24-hour-a-day health advice. A registered nurse assesses a caller and if the assessment finds that the caller needs to speak with a general practitioner (physician), the nurse may offer the caller either a phone or video call-back from the general practitioner within 15 minutes to an hour, depending on the urgency of the health issue. Australia also goes one step further by offering callers the option to receive an electronic record of the virtual care they received, sent either directly to the caller or to their regular general practitioner.
- Through the National Health Service in the United Kingdom, callers speak with a trained adviser on the phone and can be virtually connected to a nurse, dentist, pharmacist, or general practitioner, depending on the caller's situation.

We also reviewed practices at Kaiser Permanente in the United States and found that it has integrated its physician care with its Consulting Nurse Service, which is similar to Telehealth Ontario. However, the Consulting Nurse Service also has the ability to connect callers with physicians, which is not currently available through Telehealth Ontario unless those callers are specifically calling to connect to their own on-call physician through the Telephone Health Advisory Service (see **Section 4.4.2**).

In June 2019, the Premier's Council on Improving Healthcare and Ending Hallway Medicine released a report that also recommended modernizing programs that help patients navigate the health-care system, including Telehealth Ontario. While the Ministry has indicated it plans to modernize Telehealth Ontario, it has not yet made changes to support a fully integrated health-care system.

RECOMMENDATION 7

To offer convenient virtual care access to Ontarians with a more integrated virtual health-care system, we recommend the Ministry of Health collaborate with the Ontario Telemedicine Network within Ontario Health and Telehealth Ontario to assess the feasibility of integrating services.

MINISTRY RESPONSE

The Ministry accepts this recommendation and will continue to collaborate with Ontario Health (Ontario Telemedicine Network) to modernize the approach to patient access to virtual care. The Digital First for Health strategy sets out a vision and key objectives to offer Ontarians more modern, accessible, and digitally enabled health-care choices that will allow easier navigation of Ontario's health-care system.

The Ministry has started this work to establish a Health Care Navigation Service, the objectives of which are directly tied to the implementation of the Digital First for Health strategy and will enable the Ministry to deliver on the stated objective of supporting increased access to virtual care and improved health system navigation through the modernization of existing Ministry programs and services.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation and will continue to actively support the Ministry of Health's proposed Health Care Navigation Service that, among other things, intends to integrate virtual visits with Telehealth Ontario's call service.

4.4.2 Virtual Care Can be Better Integrated with Primary-Care Services

While primary care accounts for most of the patient care in Ontario, the Ministry and the Telemedicine Network have made limited progress in incorporat-

ing virtual care into primary-care services even though the Telemedicine Network has been operating for almost 15 years.

In 2016, the Women's College Hospital Institute for Health System Solutions and Virtual Care consulted with key members of the health-care community in Ontario to develop a virtual-care action plan. One of its recommendations was to embed virtual-care strategies into primary care by identifying goals such as "enabling all patients to communicate with their primary-care provider on urgent issues within a 24-hour timeframe."

In 2017, after noting gaps in access to primary care in Ontario, the Ministry and Telemedicine Network initiated a pilot project to implement a new model of primary care that included using virtual care to improve access to care. As part of this pilot project, titled Enhanced Access to Primary Care, patients were given the option to connect with their primary-care physicians by video, phone call, and secure messaging using a third-party (non-Telemedicine Network) platform. A special emphasis was placed on secure messaging, which was identified as a highly effective method for improving ease of access to primary care. The Telemedicine Network also worked with the Ministry and physicians to implement a physician billing schedule for care provided through secure messaging for the duration of the pilot project. Approximately 200 physicians have participated in the pilot project, which is still ongoing. At the time of our audit completion, about 460 primary care physicians were involved in the project.

The Women's College Hospital Institute for Health System Solutions and Virtual Care conducted an interim evaluation of the project in 2019, and found that 90% of the almost 14,000 virtual visits took place through secure messaging (texting), which is not currently a billable service through the Ministry. As well, a patient survey was conducted and of about 1,700 responding patients, 98% of them believed the quality of care was the same or better than an in-person visit with their physician and 99% of them indicated they would use it again.

Apart from the Telemedicine Network, Telehealth Ontario also operates a program called the Telephone Health Advisory Service (THAS), which is available to patients whose physicians are working in a patient enrolment model (where physicians formally register with their patients) and choose to use Telehealth Ontario to provide after-hours care to their patients. To illustrate, if a patient calls Telehealth Ontario and the answering nurse determines that physician assistance is required, the nurse can contact the patient's on-call physician. However, patients registered with physicians who are not participating in THAS or are not providing a similar option directly through their own clinic do not typically have access to this type of after-hours care.

We noted that Telehealth Ontario has just over 11,500 physicians enrolled in the THAS program. In 2019/20, there were approximately 182,000 calls to THAS from patients who are eligible for this service. On average, it took 18 minutes for an on-call physician to respond to a THAS call (if a Telehealth Ontario nurse determined this was necessary).

While there is an opportunity for the Ministry and Telemedicine Network to improve access to primary-care services by implementing changes based on the results of the Telemedicine Network's Enhanced Access to Primary Care project and by expanding the THAS program through Telehealth Ontario, formal changes have not yet been made.

It was not until mid-March 2020 when the COVID-19 pandemic was declared that a significant number of primary-care physicians began offering virtual care to their patients through phone calls and video visits (see **Section 4.6**).

RECOMMENDATION 8

To improve patient access to virtual primary-care services, we recommend that the Ministry of Health, in collaboration with the Ontario Telemedicine Network within Ontario Health, work with primary-care physicians and stakeholders to identify and implement solutions that enable all Ontarians to receive virtual primary-care services

when requested by patients and deemed clinically appropriate by primary-care physicians.

MINISTRY RESPONSE

The Ministry supports this recommendation and will engage Ontario Health (Ontario Telemedicine Network), primary-care physicians and other stakeholders to review the policies and frameworks around physician delivery and billing of virtual care with a view of expanding the availability of virtual care options in Ontario. The Ministry is also considering options for OHIP-insured virtual care physician services in the future, which will require negotiation with the Ontario Medical Association.

The Ministry will also continue to move forward with the virtual visit solution verification process described earlier so that providers and patients can be confident that the virtual visit solutions they use meet Ontario's privacy, interoperability and technical requirements. This standards approach will introduce the ability to use technologies other than what is offered by the Ontario Health (Ontario Telemedicine Network). It is expected that these technologies will support both patient and clinician initiated virtual visits using various modalities (phone, video, secure messaging).

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation. It will actively support the Ministry of Health to incorporate the learnings from the Enhanced Access to Primary Care program into a provincial approach to virtual primary care that strengthens the relationship between primary-care providers and their patients; emphasizes continuity of care; enables improved convenience for patients; and ensures improved, timely care for Ontarians who are not attached to a family doctor.

Figure 18: How Ontario Telemedicine Network Determines Savings from Virtual Care, 2019/20

Source of data: Ontario Telemedicine Network

Sample of Types of Costs Saved or Avoided	Description	Calculation of Savings	Estimate of Total Costs Saved in 2019/20 (\$ million)
Patient Travel	Patients often drive or take transit to their physician's clinic for any in-person medical appointment. When a patient receives care virtually, the Telemedicine Network estimates the costs of patient travel saved.	Based on the distance that a patient could avoid travelling (i.e., the distance between the site where a patient accesses virtual care and the clinic/ location of the physician) at a rate of \$0.50 per km.	172
Northern Health Travel Grant	Ontarians living in Northern communities may qualify for the Ministry's Northern Health Travel Grant to cover costs related to travel and accommodation if they must travel over 100 km to visit the closest specialist.	Assumes that patients who qualify for the grant avoided travelling to see a physician and did not apply for the grant. As such, the Telemedicine Network includes the grant amount that would have been claimed as a saving.	31
Virtual Critical Care Program	The Telemedicine Network's virtual critical care program provides patients with more rapid access to critical care in remote areas of the North West and North East Local Health Integration Networks where access to specialized treatment may be limited or otherwise require a patient transfer.	Average cost estimate of transferring patients in remote areas of Northern Ontario to and from a hospital to receive critical care ranges from \$17,000 to \$22,000. The virtual critical care program results in avoided patient transfers.	3.8
Long-Term Care Transfers	Patients living in long-term care homes must be physically transferred to a hospital or clinic to receive certain care. When a patient receives care virtually, the Telemedicine Network estimates the costs of transfers avoided.	Average cost estimate of transferring a long-term care home patient to and from a hospital or clinic is approximately \$1,400. Approximately 60% of virtual-care visits with patients in long-term care homes resulted in avoided patient transfers.	2

4.5 Evaluation of Financial Benefits and Tradeoffs Needed

Although the Telemedicine Network and Ministry have taken steps to begin measuring the impact of virtual care on the health-care system, they still do not have reliable and effective measures to assess the cost-efficiency and effectiveness of virtual care.

4.5.1 Telemedicine Network Has Begun Estimating Cost-Efficiency of Virtual Care, but Calculation Methods Need to be Refined

Virtual care through the Telemedicine Network generates cost savings as well as a range of benefits

to patients. The Telemedicine Network has started to measure the financial impact of virtual care on the health-care system and related savings. However, we noted that the Telemedicine Network makes significant assumptions that could inflate the magnitude of savings.

Figure 18 describes some of the key means by which travel costs are incurred for in-person care, both for patients and the public health-care system. The Telemedicine Network uses these to determine the related savings when travel is avoided. However, we noted the following issues with the calculation methodologies it uses for its two biggest cost-savings metrics.

Savings from Patient Travel Cost

To estimate the patient travel costs saved, the Telemedicine Network calculates the distance that a patient could avoid travelling (that is, between the site where a patient accesses virtual care and the physician's clinic). However, this estimate assumes that patients would have had to travel to that specific physician to access in-person care when a patient could have access to another closer physician (e.g., at a walk-in clinic) for in-person care if required.

For example, if a patient in Kenora connects virtually with a physician located in Ottawa, the Telemedicine Network assumes that the patient would have had to travel around 2,000 kilometres from Kenora to Ottawa to access in-person care. However, there could have been much closer options available if in-person care were necessary. In this example, the same patient in Kenora may have only had to travel about 500 kilometres to Thunder Bay to receive in-person care. While virtual care still results in travel savings to the patient in both scenarios, the kilometres of travel saved are significantly different and, therefore, result in the Telemedicine Network's estimate of savings being higher than what would be considered reasonable.

We also noted that the Telemedicine Network has begun measuring environmental pollution avoided because of virtual care. As described above, virtual care allows patients to reduce or avoid travel to see their physicians, which in turn helps reduce pollution (such as carbon emissions) into the environment. The Telemedicine Network estimated that almost 99 million kilograms of pollution was avoided in 2019/20 as a result of virtual care; however, again, its estimate is higher than reasonable given its unrealistic assumptions (discussed above) in calculating kilometres of patient travel saved.

Savings from Northern Health Travel Grant

Patients often have to visit specialists more than once during their course of treatment. However, some of those visits (for example, an initial consultation) could be done virtually and result in

avoided travel. If a patient who is eligible for the Northern Health Travel Grant had a virtual-care visit, the Telemedicine Network assumes that the patient avoided travelling to visit a specialist and did not apply for the grant. As such, the Telemedicine Network includes the grant amount that would have been claimed as a saving. However, neither the Telemedicine Network nor the Ministry follows the patient's journey and outcome after the virtual-care visit to see whether the patient avoided having to travel for the same care that was attempted virtually. If the patient did apply for and receive the grant (meaning the virtual care visit did not result in avoided travel), the Telemedicine Network would not be aware of this application and reduce the savings accordingly. If the Telemedicine Network had been able to determine which patients accessed the Northern Health Travel Grant even after a virtual-care visit, it may have resulted in lower, but more realistic, savings.

While measuring potential savings to the health-care system and patients as a result of virtual care is a positive step forward, it is important that the Telemedicine Network and Ministry use relevant information and assumptions in their calculations in order to generate reliable and realistic results that can be used to inform decision-making.

RECOMMENDATION 9

To effectively estimate the financial savings resulting from virtual care, we recommend that the Ontario Telemedicine Network within Ontario Health, in collaboration with the Ministry of Health:

- revisit its cost-saving metrics to ensure realistic assumptions are used in calculating the savings (such as savings from patient travel costs); and
- incorporate patients' Northern Health Travel Grant applications after receiving virtual care into its calculation methodology for savings.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation and will continue to refine and improve our impact metrics—including the formula for estimating cost savings and cost avoidance from virtual visits in Ontario—drawing on expertise from across our organization and beyond.

MINISTRY RESPONSE

The Ministry supports this recommendation and will continue to work with Ontario Health (Ontario Telemedicine Network) to revisit cost-saving metrics as part of future iterations of the Digital First for Health strategy.

For example, the Ministry is currently evaluating a number of sources to best inform cost-saving metrics, these include analyzing Enhanced Access to Primary Care pilot project billing patterns, survey results from clinicians and patients, billings submitted through the use of Ontario Telemedicine Network's technology, utilization trends for the temporary OHIP virtual care fee codes, in-person visit trends, and research outcomes to be produced by the Centre for Digital Health Evaluation to help understand the financial impacts resulting from virtual care.

The Ministry will work with Ontario Health (Ontario Telemedicine Network) to evaluate the feasibility of incorporating patients' Northern Health Travel Grant applications after receiving virtual care into its calculation methodology for savings.

4.5.2 Ministry has Limited Insight into Patient Response or Action After Receiving Advice from Telehealth Ontario Services

The Ministry has limited insight into the effectiveness of Telehealth Ontario because Telehealth Ontario and the Ministry do not evaluate the

patient response or action after receiving advice from calling Telehealth Ontario.

The role of Telehealth Ontario is not to direct callers away from emergency departments or primary-care providers, but rather to offer advice on the appropriate services and care needed depending on the presenting symptoms. When people call Telehealth Ontario, they are usually offered one (or a combination) of the following pieces of advice:

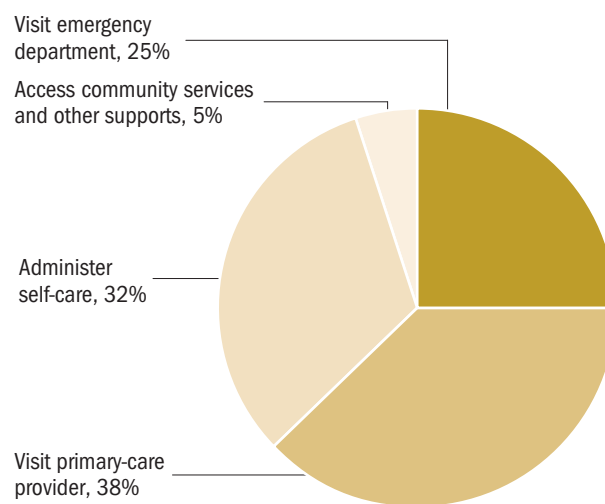
- see a primary-care provider (physician);
- visit an emergency department (including a 911 transfer);
- administer self-care (for example, take over-the-counter medication); and/or
- access community services and other supports.

We noted that, in 2019/20, 38% of callers were advised to visit a primary-care provider, 32% were advised to administer self-care, 25% were advised to visit an emergency department, and 5% were referred to community services and other supports (see **Figure 19**).

While Telehealth Ontario offers callers health advice, it is up to the callers to decide whether to follow that advice. Therefore, the effectiveness of

Figure 19: Advice Given to Telehealth Ontario Callers,* 2019/20

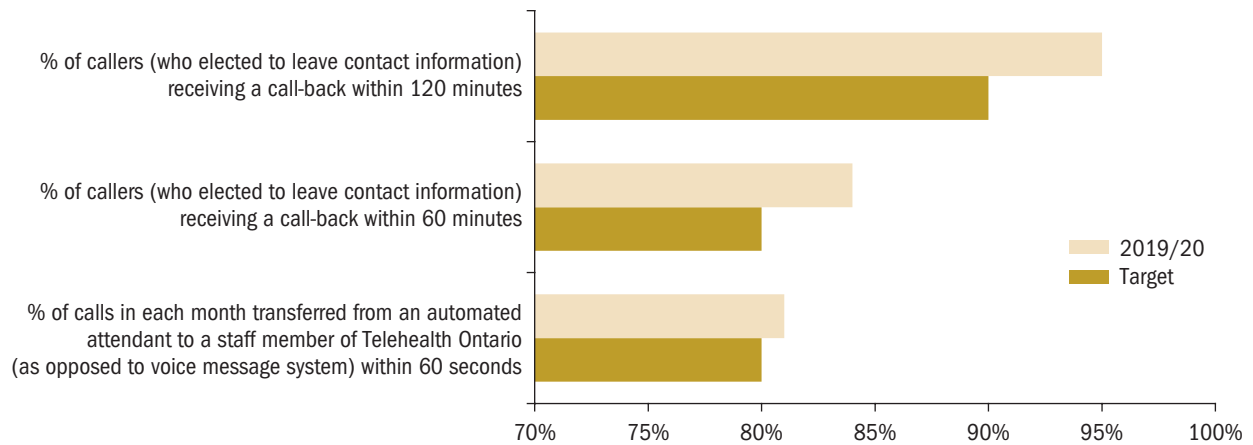
Source of data: Ministry of Health



* By percentage of total calls.

Figure 20: Performance Measures Used to Evaluate Telehealth Ontario Services

Source of data: Ministry of Health



Telehealth Ontario can be measured by following the patient after the call and seeing if they followed the advice of Telehealth Ontario and whether that advice helped them. Telehealth Ontario has been collecting OHIP numbers on a voluntary basis since 2014, and based on 2019/20 data, 38% of callers shared their OHIP numbers. However, the Ministry does not regularly use the information collected to track callers and determine whether they followed the advice offered by Telehealth Ontario and, if so, whether that advice was effective in addressing callers' health concerns.

In 2015, the Ministry and Telehealth Ontario conducted a one-time analysis using voluntarily disclosed OHIP numbers. The analysis looked at approximately 26,000 callers who indicated a pre-disposition to visiting an emergency department, meaning they would have visited an emergency department had Telehealth Ontario not been available. The purpose of the analysis was to determine what percentage of callers ended up visiting an emergency department within 10 days after calling Telehealth Ontario. Some key findings included:

- Overall, of the 26,000 callers involved in this analysis, approximately 10,000 (or 38%) were referred away from an emergency department and followed that advice.
- Of the callers that were told to see a physician on a non-urgent basis, 42% still visited an

emergency department within 10 days of their call.

- Of the callers that were offered self-care advice, 13% still visited an emergency room within 10 days of their call.

While the Ministry's review was very specific to a small group of callers, it did provide insight into the value of Telehealth Ontario in preventing unnecessary emergency department visits as well as where further work was needed, such as determining why such a high number of patients being referred to a physician still ended up going to an emergency department. However, no similar or further analysis has been done since 2015 even though it would provide valuable information on the results of Telehealth Ontario's work and patient outcomes, as well as potential costs and savings to the health-care system.

The Ministry's ongoing oversight and evaluation of Telehealth Ontario is limited to only three performance measures that are all based on call response times. We reviewed the results of these metrics over the last five years and found that Telehealth Ontario consistently met or exceeded the targets set out by the Ministry. **Figure 20** provides the results of these measures against targets for 2019/20.

RECOMMENDATION 10

To effectively evaluate the impact of Telehealth Ontario services on patients and the health-care system, we recommend that the Ministry of Health:

- develop performance metrics to measure patient responses after receiving advice provided by Telehealth Ontario; and
- continuously assess the effectiveness of Telehealth Ontario services on an annual basis using follow-up surveys of patients.

MINISTRY RESPONSE

The Ministry supports this recommendation and already plans to, as part of the development of the Health Care Navigation Service, develop performance metrics to measure patient responses and continuously assess the effectiveness of Telehealth Ontario services on a regular basis.

4.5.3 Limited Measures Are in Place to Assess the Effectiveness of Virtual-Care Services

The Premier's Council on Improving Healthcare and Ending Hallway Medicine report in June 2019 recommended that the government develop indicators to measure patient and population health outcomes against the cost of delivering care. However, we found limited indicators that measured whether patients received appropriate virtual care or what impact virtual care had on patients and on the health-care system.

In 2019/20, the Telemedicine Network measured some outcome-based indicators. For example, it conducted a survey of health-care providers to determine their satisfaction of using the Telemedicine Network and another survey of patients to determine whether they would choose to receive virtual care again. We noted that the Telemedicine Network has very limited access to data on

patient interactions with the health-care system to determine whether patients had to seek additional care following their virtual-care visit, such as at an emergency department. We also followed up with the Ministry to determine if it has any other performance measures or targets to evaluate virtual-care services. We found that the Ministry reviews various data and program evaluations but also does not have performance measures in place to evaluate the impact of virtual care on patient outcomes.

Based on our discussion with physicians involved in research studies and evaluating patient care in Canada, as well as our review of performance measures in other jurisdictions, we found that not much work has been done to evaluate the impact of virtual care on patient health and the health-care system in Canada. As well, according to a scientific paper from *The Lancet*, a well-known medical journal, virtual care is presumed to offer a number of advantages (such as convenience and time saving) over traditional in-person care, but there is limited evidence of its effect on clinical outcomes.

However, some physicians and organizations we spoke with agreed that using OHIP numbers to track patient journeys could be a starting point as it would provide insight into whether patients who received care virtually still had to go see health-care providers in person soon after and whether those patients used the health-care system more often than those who did not receive care virtually.

Through our review of other jurisdictions, we noted that Kaiser Permanente in the United States is ahead of Ontario in measuring the effectiveness of virtual-care services. For example, Kaiser measures the effectiveness of its Chat with a Doctor program (which allows patients to go online and begin a virtual chat with a physician) by following patients after their virtual visit to see if they had to seek additional in-person or virtual care. Kaiser found that only a small percentage of patients had to subsequently seek additional care to address their issues, indicating that the program has been successful. Other examples of specific measures reported by Kaiser Permanente were:

- Virtual stroke care has reduced the number of bleeding complications and reduced the median wait time to receive appropriate drugs.
- Virtual care for dermatology has led to a 10% increase in cancer detection.

RECOMMENDATION 11

To adequately evaluate the effectiveness of virtual-care services, we recommend that the Ontario Telemedicine Network within Ontario Health, in collaboration with the Ministry of Health, work with experts in the area of patient health outcomes and virtual care to identify and implement metrics that have proven successful in other jurisdictions and/or private virtual-care providers for measuring and evaluating patient and health-care system outcomes.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) accepts this recommendation. Ontario Health (Ontario Telemedicine Network) has previously gathered preliminary evidence on patient and system outcomes as part of the independent evaluations that have been conducted by academic/research organizations on a number of our pilots and programs. Ontario Health (Ontario Telemedicine Network) will continue to consult with experts in this field, and in consultation with the Ministry of Health, we will develop and implement a set of metrics that evaluate patient and system outcomes related to virtual care from a population health perspective, with emphasis on metrics that can support Ontario Health Teams in their work.

MINISTRY RESPONSE

The Ministry supports this recommendation. The Ministry regularly revisits its strategy and, as part of future revisions, supports imple-

menting a modernized Health Care Navigation Service. The Ministry will engage Ontario Health (Ontario Telemedicine Network), experts in the area of patient health outcomes, and other stakeholders to identify and implement metrics that have proven successful in other jurisdictions and/or private virtual-care providers for measuring and evaluating patient and health-care system outcomes.

As part of the Ministry's effort to modernize virtual care and ensure appropriate access to virtual care given the increased uptake witnessed throughout the pandemic, research and consultations are underway to understand which models of virtual care provide the best outcomes for patients.

4.6 COVID-19 Pandemic Accelerated the Expansion of Virtual Care, but Also Created Data Security, Patient Privacy and Physician Billing Risks

During our audit, there was an outbreak of COVID-19, an infectious disease that prompted the World Health Organization to declare a pandemic on March 11, 2020. This resulted in the Ministry making changes to the health-care system on a temporary basis. Virtual care is an area that has played a key role and has changed significantly during the pandemic.

According to a research paper released by the Canadian Institutes of Health Research in 2020, "COVID-19 crystallizes the importance of virtual care to meet patient needs and reduce the risk of disease transmission." The paper goes on to say that research that analyzes the impact of virtual care on key outcome measures such as access, quality, equity and cost is important to inform the design of future virtual care models.

A national poll released by the Canadian Medical Association in June 2020 found almost half of Canadians have used virtual care during the COVID-19 pandemic and 91% have been satisfied

Figure 21: Timeline of Major Events related to Virtual Care in Ontario in Response to COVID-19

Prepared by the Office of the Auditor General of Ontario

Date	Event
Mar 3, 2020	The provincial government and the Ontario Medical Association encourage physicians to join the Ontario Telemedicine Network to enable virtual care that helps keep both patients and physicians safe from the spread of COVID-19.
Mar 11, 2020	Telehealth Ontario begins to add more resources to manage increased call volumes, including seven full-time registered nurses and 10 customer service representatives.
Mar 14, 2020	The Ministry temporarily lists virtual care as an insured service and approves new physician billing codes (see Figure 24) that allow physicians to continue to provide routine health-care services by video and telephone, including assessment of possible COVID-19 symptoms, to help keep patients at home rather than in their doctor's office where they would be in close contact with others.
Mar 16, 2020	The Ministry announces the expansion of resources for Telehealth Ontario to ensure timely responses for Ontarians in two phases: • Phase 1 – Immediately Increase Resources to Reduce Call Wait Times: Deploy approximately 130 nurses to conduct symptom assessments and referrals among callers who request a call-back. • Phase 2 – Continue to Manage COVID-19 Call Volumes: Work with the Registered Nurses' Association of Ontario to identify support for Telehealth Ontario; explore existing non-clinical resources within the Ontario Public Service and other broader public sector organizations to support Telehealth Ontario's call volumes; and explore a partnership with organizations that have existing health-care call centres to provide symptom assessment for COVID-19 to callers requesting a call-back.
Mar 18, 2020	The Ministry adds 1,300 Telehealth Ontario phone lines to increase capacity and support callers in getting answers, and is working to add more to further help reduce wait times.
Mar 22, 2020	The Ministry launches an enhanced and interactive self-assessment tool, which guides individuals through a series of questions and, based on their responses, users are provided direction on what action to take (e.g., social distancing, self-isolate, call a primary care provider or Telehealth Ontario, call 911, or go to the emergency department).

with their experience. The poll also highlighted that half of Canadians believe virtual care could reduce the cost of our health-care system, and improve both access to specialists (45%) and the timeliness of test results (41%). Looking to the future after the COVID-19 pandemic, 38% would choose the option of phone, video conference, email or secure messaging rather than an in-person visit as the first point of contact for a doctor's advice.

Figure 21 provides a timeline of major events related to virtual care in Ontario in response to COVID-19. While the Ministry has taken actions to expand the availability of virtual-care services in light of the COVID-19 pandemic, we found that it did not have adequate policies and procedures in place to support the sudden surge of virtual care, to manage the expanded use of virtual care, and to ensure health-care providers were delivering virtual care using safe and secure technology.

4.6.1 Ministry Has Made Temporary Changes to Expand the Availability of Virtual Care

The COVID-19 pandemic has changed the future of health-care delivery by creating a new necessity for virtual care. It has been a catalyst that forced not only health-care providers and patients to use virtual care, but also provincial health authorities to realize the importance and potential of virtual care. Prior to the pandemic, studies showed that virtual care was not a common practice across Canada. For example, according to the 2019 Commonwealth Fund International Health Policy Survey of Primary Care Physicians, fewer than 25% of primary-care physicians made themselves available by email or a secured website, and just 4% frequently provided video visits. As well, according to the Canadian Medical Association's 2019 Physician Workforce Survey, only 10% of Ontario physicians allowed

Figure 22: Overview of Virtual-Care Availability by Province, June 2020

Prepared by the Office of the Auditor General of Ontario

Province	Physicians are Advised by Respective Regulatory College to Provide Virtual Care When Possible ¹	New Billing Codes for Virtual Care ²	Delivery Options of Virtual Care			
			Phone	Video	Email	Text
BC	✓	✓	✓	✓	✓	✓
AB	✓	✓	✓	✓	✓	
SK	✓	✓	✓	✓		
MB	✓	✓	✓	✓		
ON	✓	✓	✓	✓		
QC	✓	✓	✓	✓		
NB	✓	✓	✓	✓		
PE	✓	✓	✓	✓	✓	✓
NS	✓ ³	✓	✓	✓		
NL	✓	✓	✓	✓		

1. Information is based on Royal College of Physicians and Surgeons of Canada's website.

2. Information is based on each provincial government's website. The new billing codes and options for virtual care are temporary. Alberta indicated on June 8, 2020, that its virtual billing codes would be permanent, allowing patients to continue to access a broader range of virtual care for the foreseeable future.

3. Up to the end of June 30, 2020.

their patients to use electronic tools related to virtual care.

When the COVID-19 pandemic was declared in March 2020, many provinces subsequently expanded the availability of virtual care to make sure individuals could continue to access health-care services without risking exposure to the COVID-19 virus by visiting clinics and hospitals. Since the provision of health-care services is the responsibility of provincial governments, the approaches to and the extent of expanding virtual care varied by province. **Figure 22** provides an overview of virtual-care availability by province.

In Ontario, on March 14, 2020, the Ministry expanded access to virtual care in response to COVID-19 to reduce the risk to patients and health-care providers of contracting or spreading the virus, and to reduce the strain on in-person health-care services. Specifically, to encourage and enable wider virtual-care adoption across the province, the Ministry:

- approved temporary billing codes to allow fee-for-service physicians to bill for virtual care provided over the phone or through video; and

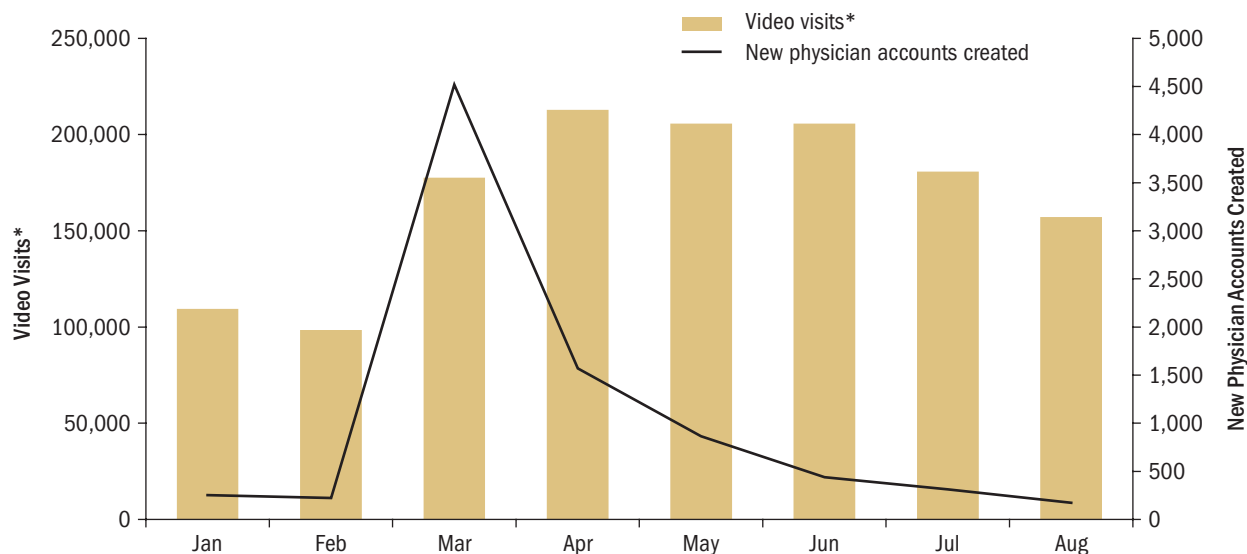
- allowed physicians to use any platform to have video visits with patients, thereby removing the requirement to use the Telemedicine Network platform to bill for virtual care.

As well, the Telemedicine Network experienced a significant increase in interest from physicians who wanted to register and use its platform to provide video visits to patients (see **Figure 23**). For example:

- In each of January and February 2020, on average only about 240 new physician accounts were created with the Telemedicine Network. During the COVID-19 pandemic from March to August 2020, over 7,800 new physician accounts were registered with the Telemedicine Network. This is three times more than the total number (approximately 2,300) of new physician accounts that were registered with the Telemedicine Network in the whole 2019/20 fiscal year prior to March 2020 (that is, from April 1, 2019 to February 28, 2020).
- The number of video visits between a physician and a patient through the Telemedicine

Figure 23: Number of Video Visits and New Physician Accounts Created with the Ontario Telemedicine Network, January–August 2020

Source of data: Ontario Telemedicine Network



* Video visits between a physician and a patient that took place through the Telemedicine Network.

Network platform also increased by over 80%, from an average of 104,000 per month in January and February 2020 to an average of about 190,000 per month between March and August.

In collaboration with the Ontario Medical Association, we surveyed physicians to better understand their use of virtual care during the COVID-19 pandemic. We found that 85% of respondents indicated that the majority of their virtual care was provided by telephone. Furthermore, 86% of respondents indicated that if the impact of COVID-19 lessens but the Ministry continues to allow billing for virtual care using telephone or any videoconferencing platform, they would likely be offering more virtual care to their patients than prior to COVID-19.

With respect to physician billings for virtual care during the pandemic, we were informed that physicians using the Telemedicine Network could use either the original billing codes through the Ministry's Telemedicine Network program or the newly created temporary billing codes. We noted that physician billings for the temporary virtual-care

billing codes (see **Section 4.6.2**) were significant at approximately \$142 million per month between March (the first month they became available) and August.

4.6.2 Ministry's Temporary Removal of Barriers to Virtual Care Has Created Risks to Data Privacy and Security

While virtual care is a practical and necessary option for health-care services during a pandemic, rushed implementation can also expose patients and health-care providers to unintended risks. We found that the Ministry still needs to develop policies, procedures and controls to address the recent growth of virtual care use and minimize potential risks to patients and health-care providers moving forward.

In response to the COVID-19 pandemic, the Ministry implemented temporary billing codes that allow physicians to bill for virtual-care services provided to their patients over the phone and through video visits also using non-Telemedicine Network platforms. These services were ineligible for billing prior to the COVID-19 pandemic (see

Figure 24: Temporary Billing Codes for Physician Services in Response to COVID-19 Pandemic, Effective March 14, 2020

Source of data: Ministry of Health

Temporary Codes	Description of Service	Fee (\$)*
K080	Minor assessment of a patient by telephone or video, or advice or information by telephone or video to a patient's representative regarding health maintenance, diagnosis, treatment and/or prognosis.	23.75
K081	- Intermediate assessment of a patient by telephone or video, or advice or information by telephone or video to a patient's representative regarding health maintenance, diagnosis, treatment and/or prognosis, if the service lasts a minimum of 10 minutes; or - psychotherapy, psychiatric or primary mental health care, counselling or interview conducted by telephone or video, if the service lasts a minimum of 10 minutes.	36.85
K082	Psychotherapy, psychiatric or primary mental health care, counselling or interview conducted by telephone or video per unit (unit means half hour or major part thereof).	67.75
K083	Specialist consultation or visit by telephone or video.	5.00

* Per unit of service.

Section 4.2.2). Figure 24 provides a summary of the temporary billing codes.

Specifically, the Ministry's temporary billing codes allow physicians to use any video platforms to provide virtual care even though both the Ministry and the Telemedicine Network had expressed data security and privacy concerns with allowing the use of non-Telemedicine Network platforms prior to the pandemic.

The Ministry released a technical guidance on the use of video solutions in March 2020 that recommended certain standards be met. But at the time of our audit, the Ministry and the Telemedicine Network had not taken adequate steps to confirm whether certain third-party platform providers meet data security and privacy standards. In contrast, the British Columbia Ministry of Health and the Provincial Health Services Authority (PHSA) officially endorsed a specific third-party video platform that the PHSA indicated met its data security and privacy standards for providers to use during the COVID-19 pandemic. Although it was not mandatory for physicians to use this platform, they were able to request an account licence, which was offered free of charge during the COVID-19 pandemic. The Ministry and Telemedicine Network

informed us that they are working on establishing a vendor verification process that will require third-party platforms to meet certain standards and testing criteria for use, such as providing a privacy impact assessment that shows there are no significant risks outstanding. Details of this process are expected to be released in late 2020.

Apart from privacy and security risks, there has also been growing attention on the use of virtual care offered by private companies, as discussed in **Section 4.2.3**. However, the Ministry still does not have any plans in place to address the lack of oversight created by allowing private companies to offer virtual care to patients outside the purview of the Ministry.

RECOMMENDATION 12

To evaluate the impacts of the COVID-19 pandemic on virtual care availability and usage in Ontario and apply lessons learned for decision-making going forward, we recommend that the Ministry of Health, in collaboration with the Ontario Telemedicine Network within Ontario Health:

- conduct a comprehensive analysis of virtual-care usage and costs across the province

during the pandemic and decide whether the temporary changes (such as new billing codes) should be made permanent;

- engage health-care providers, both who had and had not previously used virtual care in their practice before the pandemic, to obtain feedback on their experience of offering virtual care during the pandemic;
- collect feedback from patients across the province on their experience of using virtual care during the pandemic to gather and incorporate patient views into future decisions related to providing and funding virtual care tools; and
- develop performance metrics for measuring the experience of both health-care providers and patients with virtual care during the pandemic and identifying areas for improvements going forward under pandemic and non-pandemic circumstances.

MINISTRY RESPONSE

The Ministry supports this recommendation and is already conducting a comprehensive analysis of virtual-care usage and costs across the province during the pandemic to inform whether the temporary changes (such as new billing codes) should be made permanent. The Ministry is also considering options for OHIP-insured virtual-care physician services in the future, which will require negotiation with the Ontario Medical Association (OMA). As per the 2012 OMA Representation Rights and Joint Negotiations and Dispute Resolution Agreement, and its Appendix: The Binding Arbitration Framework, the Ministry recognizes the OMA as the exclusive representative of physicians practicing in Ontario. The Ministry is obliged to consult and/or negotiate with the OMA per the Binding Arbitration Framework on this aspect of the Auditor General's recommendations.

As part of the Ministry's effort to modernize virtual care and ensure appropriate access to

publicly-funded virtual care given the increased uptake witnessed throughout the pandemic, many forms of literature review, jurisdictional scans, research and consultations are under way to understand which models of virtual care provide best outcomes for patients. The Ministry is working with the Centre for Digital Health Evaluation to conduct research in the virtual-care space in order to learn from and understand the impact the pandemic has had on patient and clinicians. The Ministry will be using these research outcomes, expert advice, and data to inform virtual care policy.

The Ministry will collect feedback from all relevant stakeholders on their experience using virtual care and incorporate their views into future decisions related to the provision and funding of virtual care tools.

The Ministry also agrees to develop performance metrics for measuring the experience of both health-care providers and patients with virtual care during the pandemic and identifying areas for improvements going forward under pandemic and non-pandemic circumstances.

RESPONSE FROM ONTARIO HEALTH (ONTARIO TELEMEDICINE NETWORK)

Ontario Health (Ontario Telemedicine Network) supports this recommendation and is actively assisting the Ministry of Health in its efforts to analyze virtual-care use and impact during the COVID-19 pandemic. Ontario Health (Ontario Telemedicine Network) will continue to provide data, analysis and expert advice to support future decisions on how virtual care can best support health-care delivery in pandemic and non-pandemic conditions.

4.6.3 Telehealth Ontario Experienced Technical Issues and Long Wait Times Despite Expanded Capacity and Resources

While Telehealth Ontario is designed to provide callers with general health advice and offer advice on appropriate next steps, it was also initially designated by the Ministry as one of the central contact options for Ontarians that wanted to inquire about COVID-19 and find out if they should visit an assessment centre for COVID-19 testing. We noted that Telehealth Ontario has been involved in the Ministry's emergency response and preparedness plans in the past as well, including in 2003 when Telehealth Ontario assisted the Ministry during the outbreak of Severe Acute Respiratory Syndrome (SARS).

When the COVID-19 pandemic was first declared around mid-March 2020, Telehealth Ontario became one of the key points of contact for Ontarians who experienced COVID-19 symptoms. Although Telehealth Ontario's call volumes decreased significantly over the last 10 years (see **Section 2.2.2**), its call volumes from March to June 2020 increased as a result of the COVID-19 pandemic, contributing to technical issues and long wait times for callers. There have also been numerous complaints made to the Ministry about Telehealth Ontario during the COVID-19 pandemic,

such as callers getting disconnected after being in queue for hours and callers requesting a call-back but not receiving one for over 24 hours.

Prior to the COVID-19 pandemic, Telehealth Ontario had approximately 450 phone lines and about 200 nurses to handle calls. During the pandemic, increasing call volumes and wait times prompted the Ministry to expand the capacity and resources for Telehealth Ontario. Overall, the Ministry added approximately 400 additional staff resources to support Telehealth Ontario. It also added a total of approximately 3,300 new phone lines. Telehealth Ontario phone lines were down for part of the day on March 18, 2020 while new phone lines were being installed and its website was updated to advise Ontarians to contact their local public health unit in the interim.

Increasing call volumes and wait times also prompted the Ministry to introduce an online self-assessment tool that launched on March 23, 2020 on the Ministry's website. The Ministry's website now instructs individuals who think they may have COVID-19 to take the online self-assessment before calling Telehealth Ontario.

However, despite additional resources provided by the Ministry, call volumes and related wait times for Telehealth Ontario were still significantly high

Figure 25: Telehealth Ontario Call Volumes, January–August 2020

Source of data: Ministry of Health

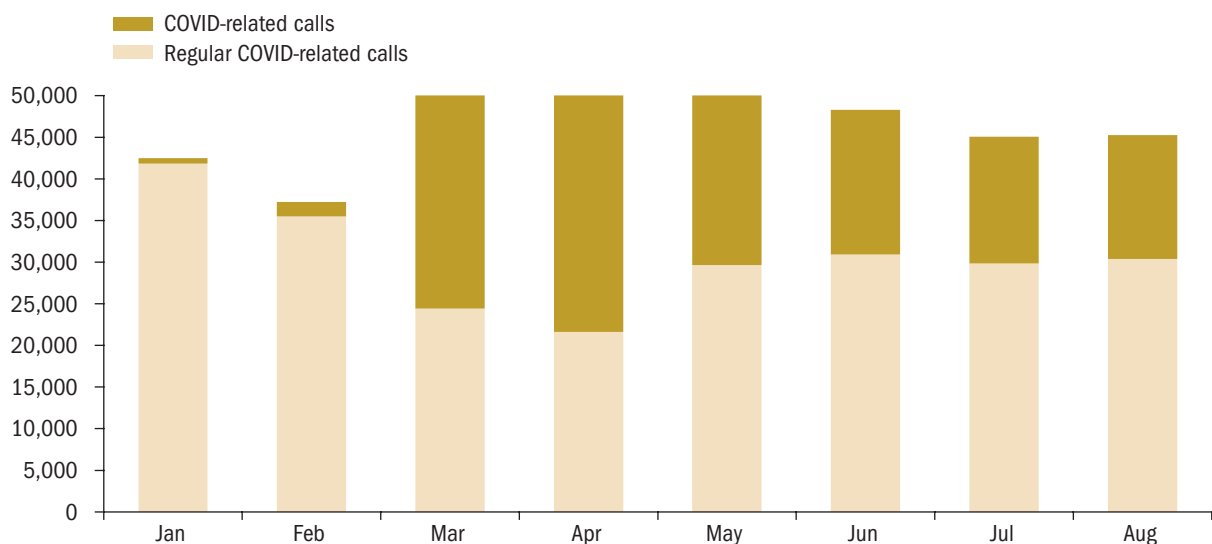
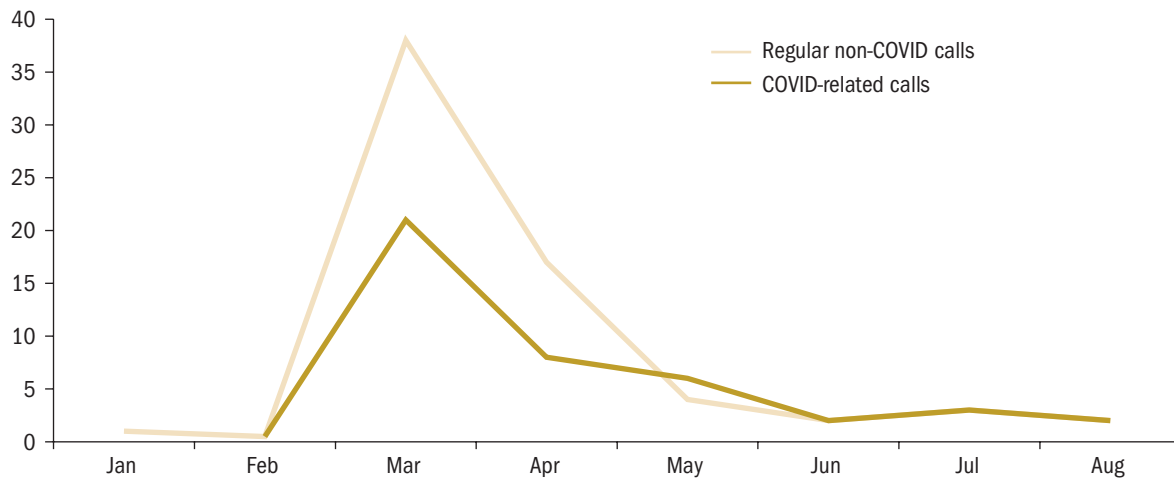


Figure 26: Telehealth Ontario Call Wait Times, January–August 2020 (Hours)

Source of data: Ministry of Health



Note: Telehealth Ontario began tracking COVID-related call wait times as of February 2020.

in April 2020. **Figure 25** and **Figure 26** show the trend of call volumes and wait times, respectively, from January to August 2020. Specifically:

- Call volumes:** In January and February 2020, Telehealth Ontario received approximately 42,000 and 37,000 registered calls. In March 2020, the first month affected by the COVID-19 pandemic, Telehealth Ontario received 80,000 calls, an increase of 116% over call volumes from a month earlier. Of the total calls in March 2020, approximately 70% were related to COVID-19 and this trend continued in April and May. Call volumes decreased in the following months, with COVID-19-related calls representing approximately 35% of all calls between June and August 2020. Between January and August 2020, Telehealth Ontario received approximately 217,000 calls related to COVID-19.
- Wait times:** In January and February 2020, the average wait time to speak with a registered nurse was between 30 minutes and one hour. In March, the average wait time increased significantly to 21 hours for a COVID-19-related call and 38 hours for a non-COVID-related call. These wait times include time spent waiting for a call-back

from Telehealth Ontario. Average wait time decreased in April 2020, but was still significantly high, with callers waiting on average almost eight hours for a COVID-19-related call and 17 hours for a non-COVID-19-related call, again including time spent waiting for a call-back from Telehealth Ontario. From June to August 2020, average wait times for COVID-19 and non-COVID-19 calls were three hours or less.

RECOMMENDATION 13

To evaluate the impacts of the COVID-19 pandemic on calls to Telehealth Ontario and apply lessons learned to decision-making going forward, we recommend that the Ministry of Health:

- continue analyzing Telehealth Ontario call volumes and wait times to ensure that adequate capacity and resources will be available if Ontario faces subsequent waves of COVID-19; and
- explore options or solutions (such as creating a separate phone number for calls related to COVID-19) that help distinguish the nature of calls and reduce wait times for non-COVID-19

calls going forward in response to potential subsequent waves of COVID-19.

MINISTRY RESPONSE

The Ministry accepts this recommendation. As part of the development of the Health Care Navigation Service (HCNS), the Ministry will continue analyzing Telehealth Ontario call volumes and wait times to ensure that adequate capacity and resources will be available if Ontario faces subsequent waves of COVID-19 and other public health events.

As part of the development of the HCNS, the Ministry will also consider ways of distinguishing the nature of calls and reduce wait times for non-COVID-19 calls going forward in response to potential subsequent waves of COVID-19 and other public health events.

Appendix 1: Ontario Telemedicine Network's Major Programs, Activities and Pilot Projects

Source of data: Ontario Telemedicine Network

Description	
Programs	
eVisit*	Helps health-care providers in nearly every specialty area provide care through videoconferencing, as well as online tools and call centre support (see Figure 5).
eConsult	Allows primary-care providers to “ask a clinical question” and receive an answer from an appropriate specialist within days (see Figure 6). eConsult is delivered through a partnership with the Ontario eConsult Centre of Excellence, OntarioMD, and eHealth Ontario.
Teledermatology	Allows primary-care providers to consult with a dermatologist by taking and sharing a photo of a patient's skin condition. This often helps eliminate the need for an in-person referral.
Telehomecare	An intensive four- to six-month remote monitoring and health-coaching program for patients with congestive heart failure, chronic lung disease and other chronic conditions in nine Local Health Integrated Networks.
Togetherall (formerly Big White Wall)	Online mental health peer support for people struggling with mild to moderate anxiety and depression. It offers users anonymous peer-to-peer interaction with the online community, access to mental health programs and helpful tools, through trained professionals.
Telestroke	Provides expert stroke neurologist support 24/7 to 31 hospital emergency departments to assist them with time-critical, life-saving decisions regarding clot-busting drugs or endovascular thrombectomy (EVT) treatment.
Indigenous Clinical Videoconferencing	Provides information and communication technologies and supports in northwest Ontario so that remote regions can have seamless access to health-care services. This program is provided in collaboration with First Nations communities throughout Ontario and Keewatinook Okimakanak (which is a non-political organization directed by the Chiefs of the member First Nations), and is integrated with the Kuhkenah Network (K-Net).
Teleophthalmology	A retinal screening program for people with diabetes. It provides infrastructure at image acquisition sites where retinal images of people with diabetes can be collected and read by experts in order to detect vision loss earlier and prevent blindness. The service focuses on imaging the estimated 400,000 patients with diabetes in Ontario who are not screened bi-annually.
Virtual Critical Care	Supports videoconferencing technology used by five hub hospitals to provide urgent critical care expertise and oversight to smaller regional hospitals that manage critically ill patients but lack critical care specialists.
Virtual Emergency Support Service	Through videoconferencing, connects Thunder Bay's Intensive Care Unit (ICU) specialists, the North West Regional Virtual Care Clinic and the ORNGE air ambulance base station with 12 remote nursing stations for critical situations.
Tele-Corrections	Provides clinical videoconferencing services to correctional facilities through a partnership with the Ontario Ministry of Correctional Services and the federal Ministry of Correctional Services. It helps reduce expensive transfers of inmates to hospitals or community doctors' offices and improve public safety and clinical service access for inmates.
Activities	
Education	The Telemedicine Network helps deliver educational events and meetings by its members using multi-point video and webcasting events, as well as the associated scheduling tools. The Telemedicine Network also maintains an education calendar where health-care providers can find and enroll in upcoming events, or access recordings of previous events.
Virtual Health Care Education and Resources	The Telemedicine Network provides tools, resources, guidelines and protocols for health-care providers interested in learning more about virtual health care and building new programs in their practices or facilities.

Description	
Advisory/Consulting	The Telemedicine Network provides virtual-care advisory services at no cost to larger Ontario health-provider organizations and is evolving this service to help Ontario Health Teams integrate virtual care into their population-management models.
Online Platform and Directory	The Telemedicine Network provides an online platform (OTNhub) where health-care providers can access all its services and resources through a secure, single sign-on. Using the Directory inside OTNhub, organizations and individual providers from across the province can create their own searchable profiles where they can identify the services relevant to them and find information on how those services can be accessed.
Pilot Projects	
Ontario Virtual Care Clinic	Provides virtual primary-care consults for patients without access to a primary-care provider. The service is provided in partnership with the Ontario Medical Association, Ontario MD and Canada Health Infoway. This project was launched on April 3, 2020.
Enhanced Access to Primary Care	Enables patient-initiated access to their primary-care provider. It includes secure messaging, audio and video calling depending on clinical need, from any consumer device. This project was launched in 2017, after the Ministry and Telemedicine Network noted gaps in access to primary care in Ontario (see Section 4.4.2)
Internet Based Cognitive Behavioural Therapy (iCBT)	An internet-based specialized program delivered by therapists to treat people with depression, anxiety, insomnia, and other mental health issues through computer, laptop, phone, or tablet that is accessible from home. It was launched in November 2019 for post-secondary-education students across nine campuses in Ontario.
School Telehealth	The Ministry of Education has begun using the Telemedicine Network to enable virtual visits between school therapists/psychologists and their students. This project was launched in June 2020 by 18 school boards.

* eVisit is the focus of this audit report.

Appendix 2: Audit Criteria

Prepared by the Office of the Auditor General of Ontario

1. Effective co-ordination and collaboration between the Ministry, Ontario Telemedicine Network and service providers is in place to work towards ensuring the appropriate use of virtual care, providing all patients with equitable access to virtual-care services regardless of where they live or who their health-care providers are, and overcoming the challenges and barriers to emerging virtual-care services.
2. Roles and responsibilities of all parties involved in the delivery of virtual-care services are clearly defined, and accountability requirements are established, to ensure effective service delivery, co-ordination and oversight.
3. Funding and resources are allocated based on patient needs and outcomes, used for the purposes intended and administered, where appropriate, with due regard for economy and efficiency.
4. Sufficient, accurate, and timely operational data is regularly collected and assessed to help guide management decision-making at the Ontario Telemedicine Network and the Ministry, and appropriate controls are in place to protect data security.
5. Appropriate performance measures and targets are established and continuously monitored against actual results to ensure that intended outcomes are being achieved and that corrective actions are being taken on a timely basis when issues are identified.

Appendix 3: Organizations Contacted for this Audit

Prepared by the Office of the Auditor General of Ontario with data from the Ontario Telemedicine Network

Organization	# of Clinical Patient Events Through the Ontario Telemedicine Network, * 2019/20
Hospitals	
Centre for Addiction and Mental Health	6,878
Mount Sinai Health System	8,278
The Ottawa Hospital	13,593
Thunder Bay Regional Health Sciences Centre	12,451
University Health Network	16,550
Clinics and Community Organizations	
Appletree Medical	125,654
Canadian Cannabis Clinics	20,152
Good Doctors Medical	117,078
Ontario Addiction Treatment Centres	200,553

Note: These organizations are providing virtual care through the Ontario Telemedicine Network (Telemedicine Network).

* Clinical patient events include all virtual-care interactions with patients through the Telemedicine Network, whether provided by a physician or other clinical staff member.



Office of the Auditor General of Ontario

20 Dundas Street West, Suite 1530
Toronto, Ontario
M5G 2C2
www.auditor.on.ca