



Virtual Care Physician Compensation Review Atlantic PTMAs

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1. Background

Background

In the summer of 2020, the four Atlantic Provincial and Territorial Medical Associations (PTMAs) retained Deloitte to help develop recommendations for virtual care compensation models in the region. Recognizing the pace at which virtual care is changing globally, particularly since the onset of the COVID-19 pandemic, the PTMAs wanted to better understand best practices for virtual care compensation models in order to ensure physicians are fairly compensated and that future virtual care services are sustainable.

Over the course of just a few months, virtual care has shifted from the periphery of health care to somewhere closer to its centre. With in-person services declining due to public health orders and corresponding regulatory changes, physicians are seeing a significant increase in virtual care here and around the world, interacting with patients through a device rather than in an office or hospital.

While temporary billing solutions were put in place to accommodate the urgent need to provide care remotely, more consideration needs to be given to longer-term solutions. Now that widespread adoption of virtual care is finally here, a number of key questions need to be addressed:

- Which virtual care modalities require new billing codes and associated remuneration?
- What are leading practices in compensation models in use across Canada and elsewhere?
- How should physicians be compensated for providing virtual care in real-time and asynchronously?
- What are the other key compensation issues that need to be addressed to ensure sustainable and effective virtual care?

Deloitte was asked to engage with Canadian PTMAs and other stakeholders, to help provide recommendations on compensation models for virtual care.

Project Scope

- Agree on the virtual care modalities to be included in the analysis;
- Examine the pre- and post- COVID-19 pandemic virtual care compensation models in place across the Atlantic provinces;
- Conduct analysis of leading Canadian and international jurisdictions to explore and catalogue the main compensation models within a fee-for-service framework and to identify best practices through interviews and desktop research;
- Engage internal regional stakeholders through group and individual interviews; and,
- Develop a final report including recommendations and conclusions for each Atlantic province.

Deloitte wishes to thank the PTMAs and their members for their interest, engagement and enthusiasm surrounding virtual care and appropriate compensation models.

How to read this report

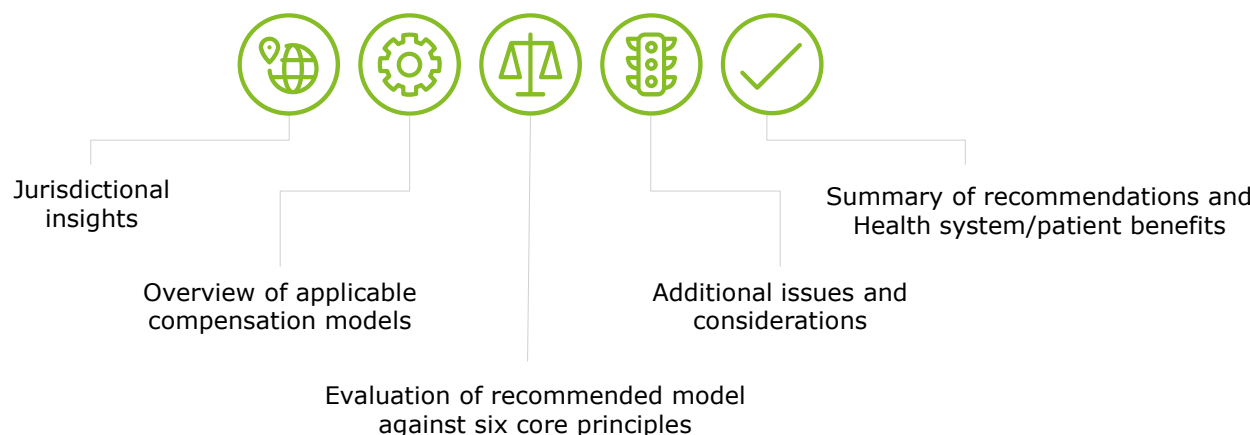
This report has been prepared for the four Atlantic PTMAs for the purpose of providing recommendations on physician compensation for the provision of virtual care.

It is divided into five main sections corresponding with each of the key virtual care modalities, namely: (a) Virtual Visits, (b) Remote Consults, (c) Secure Patient Messaging, (d) Remote Patient Monitoring, and, (e) E-Consults.

Each section is further broken down into the following five subsections:

1. Jurisdictional insights from across Canada and internationally;
2. Overview and assessment of applicable compensation models;
3. Evaluation of recommended model (if a specific model is recommended) against six core principles;
4. Additional issues and considerations; and,
5. Summary of recommendations and Health system/patient benefits.

In order to guide the reader, the report uses iconography for each subsection, as illustrated below:



The report begins by outlining the scope and methodology, and then goes on to address the two synchronous modalities (virtual visits and remote consults). Following this, it then addresses the remaining three asynchronous modalities (secure patient messaging, remote patient monitoring, and finally, e-Consults).

A summary of all recommendations can be found in Section 5 (Summary of Recommendations). Finally, as this report draws on a number of studies and reports, references to these documents can be found in Appendix: References.

Note

This document summarizes the work undertaken by Deloitte in support of recommendations for virtual care compensation models and was carried out in the summer and autumn of 2020 which was characterized by a rapidly changing virtual care landscape. As a result, new data or insights may come to light as the impacts of widespread virtual care adoption are better understood, which may impact recommendations made in this report.

Physician compensation in Atlantic Canada

Given that fee-for-service remains the dominant remuneration method in Atlantic Canada, this report focuses on recommendations for virtual care compensation models that work within the FFS construct.

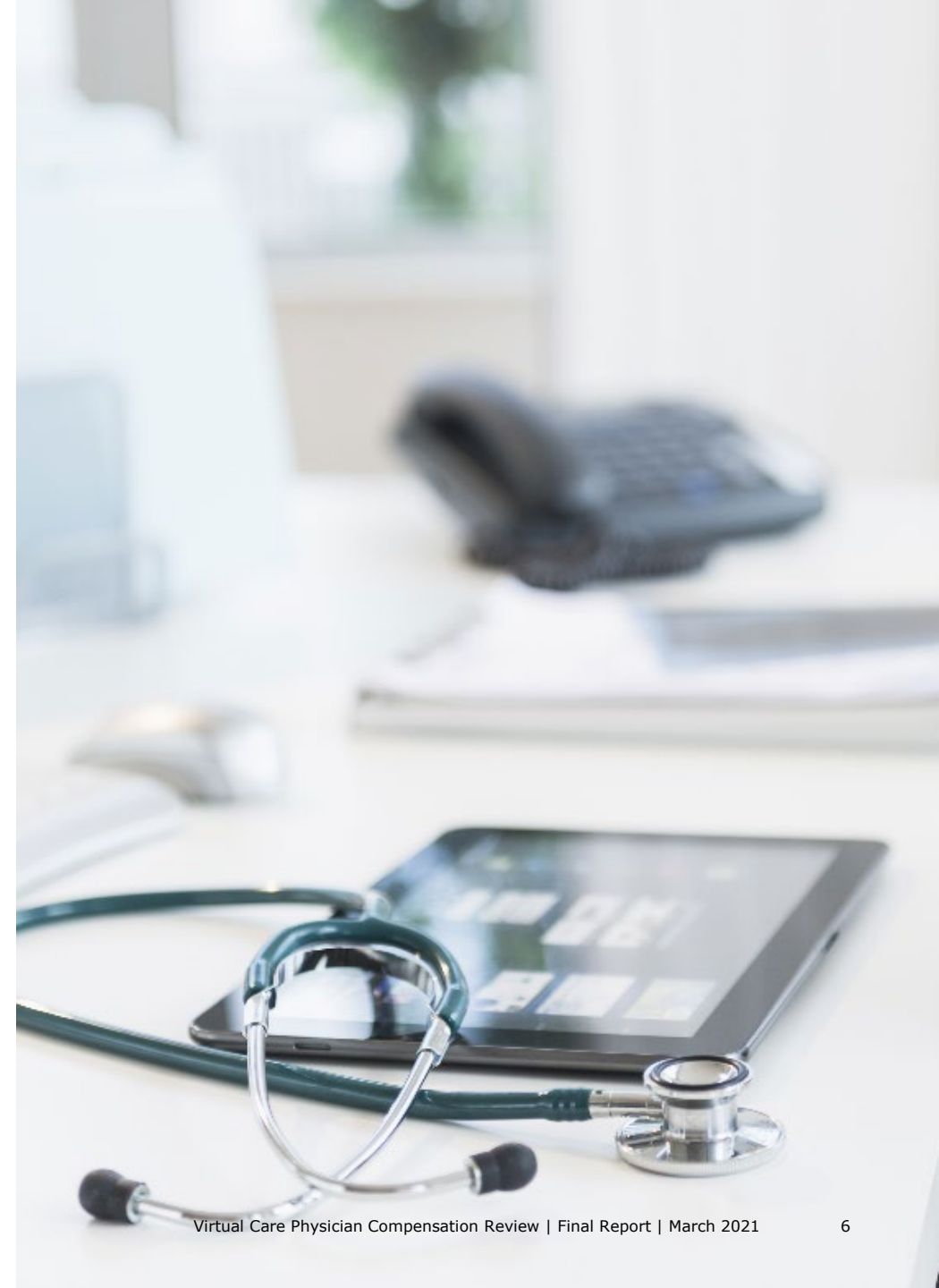
In Canada, physicians are paid through a variety of overarching payment models, including Alternate Payment Plans (APP), Capitation, Salaries, and Fee-For-Service (FFS).

While APPs and Capitation models have grown in prevalence in recent decades, today, a majority of physicians in Atlantic Canada continue to be remunerated through FFS, while other payment models use partial FFS or shadow billing as a means to gauge productivity (CIHI, 2018).

Given that FFS is the dominant remuneration method in Atlantic Canada, Deloitte was asked to provide recommendations on virtual care compensation models that work within the FFS construct. As a result, this report looks at a variety of payment models that fall within FFS, including flat rate, tiered flat rate, pro-rated hourly rate (with and without incentives), per patient fees, enrolment fees, tiered stipend, and general stipends.

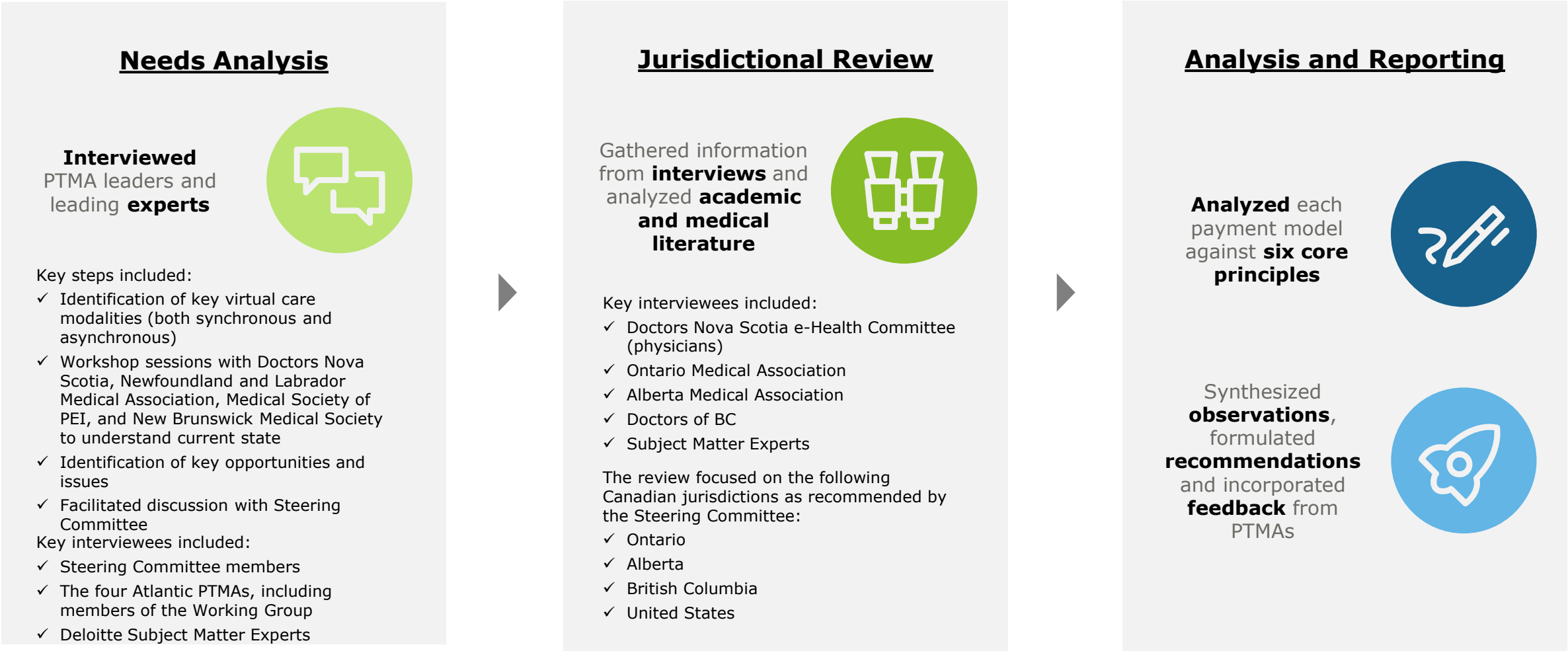
In each section of the report we consider the strengths and weaknesses of each relevant payment option, taking into account a series of key principles.

While many argue that FFS is less effective at incenting the adoption and use of virtual care, addressing that issue was outside the scope of this review.



Methodology







This review was conducted by identifying key areas of need vis-à-vis virtual care compensation, carrying out a jurisdictional review, conducting desktop research, interviewing stakeholders and subject matter experts, and developing this report.



Key principles in selecting compensation models

Six key principles were developed with input from the Steering Committee to identify optimal compensation options and support recommendations for each modality.

As outlined later in this report, there is a range of compensation models that could be applied to any virtual care modality. As recommended by the Working Group comprised of representatives of the four PTMAs, Deloitte developed a set of principles that would guide us in recommending the most appropriate compensation model for each modality. Our objective was to recommend optimal compensation models that would ensure:

					
Income Neutrality	Modality Neutrality	Low administrative burden	Patient Access & Value for Money	Cost Certainty	Feasibility
Physicians should be compensated proportionately for time and effort regardless of whether caring for patients face-to-face or virtually.	No particular modality of care should be unduly profitable in comparison with others, undermining optimal channel management or clinical best practices.	Introducing virtual care should not increase administrative burden. Compensation models should allow physicians to concentrate on clinical services to maximize scope and ultimately optimize value to patients and the health system.	Given fiscal constraints, an optimal compensation model should represent good value for money, maximizing patient access and care outcomes, while minimizing overall system costs.	Payment options should have a reasonable level of predictability that gives the payer the ability to forecast costs with a reasonable degree of confidence.	Implementation of payment options must be considered achievable from a technical, political, and financial standpoint.
Virtual care should not materially increase or decrease individual earnings.					

The follow section provides a general definition of virtual care and sets out the various modalities considered in this report.

2. Overview of virtual care modalities and compensation models

Understanding virtual care modalities

For the purposes of this report, virtual care has been grouped into two overarching categories, synchronous (real-time) and asynchronous (deferred).

Virtual care is defined as “any interaction between patients and/or members of their circle of care, occurring remotely, using any forms of communication or information technologies, with the aim of facilitating or maximizing the quality and effectiveness of patient care,” (Shaw 2018). Given the unique nature of each virtual care modality, we have used the matrix below to give structure to the report and recommendations.

The vertical dimension represents the relationship between the parties participating in virtual care (providers and patients) whereas the horizontal dimension represents the nature of the virtual care interaction (real-time or “live” versus deferred). Within each quadrant are the five main modalities that are currently in place or are emerging in the virtual care space.

	Synchronous (Real-time)	Asynchronous (Deferred)	
Provider to Patient	<div>Real-time phone or video interaction between physician and patient</div> <div><div>A</div><div>Virtual visits (video, telephone)</div></div>	<div>Online exchange of medical information between physician and patient</div> <div><div>C</div><div>Secure patient messaging</div></div> <div><div>D</div><div>Remote patient monitoring</div></div>	
	<div>Real-time interprofessional interaction between physicians or other health care providers</div> <div><div>B</div><div>Virtual conferencing / Remote consults (video, telephone)</div></div>	<div>e-Consults: Online exchange of medical information between providers</div> <div><div>E</div><div>E-Consults / Tele-expertise</div></div>	

Subsequent sections of the report address each of the five modalities.

Understanding compensation options applicable in a fee-for-service environment

Eight predominant compensation options under the FFS umbrella were identified and evaluated for the purpose of developing virtual care compensation recommendations.

While there is an infinite number of permutations and combinations of compensation options, below are eight models that are commonly used in remunerating physicians for virtual care. We note that many of the same models are used to remunerate physicians for delivery of in-person care as well. Sample jurisdictions where that model is in use for virtual care are listed below.

Model	Flat fee	Tiered fee with complexity modifier	Tiered fee per resolved issue	Enrolment Fee ¹	Pro-rated hourly	Pro-rated hourly with incentive	Tiered Stipend	Fixed Stipend
Description	Physicians are compensated at a flat rate per visit (synchronous care), consult (synchronous or asynchronous care), and/or message (asynchronous care). This is in alignment with a traditional FFS model.	Physicians are compensated at different rates depending on the complexity of a visit, consult, or case.	Physicians are compensated at a flat rate for each issue resolved or visit closed via asynchronous care methods. Fees can be tiered, with more complex visits receiving a higher fee, as is the case in Ontario.	Physicians are compensated on an annual, quarterly, or monthly basis for each patient enrolled and participating in an approved Remote Patient Monitoring (RPM) program.	Physicians are compensated at a certain rate per specified unit of time, prorated to the length of time taken to complete each visit/consult/message.	Physicians are compensated a bonus of a dollar amount to complete a service within a specified window of time, in addition to the standard hourly rate. i.e. \$10 bonus for completion within 24 hours.	Physicians are compensated at multiple levels of remuneration depending on volume of use. This could mean payment for a fixed number of hours per week, or alternatively, stacked thresholds based on volume of encounters.	Physicians are compensated a fixed annual or monthly sum for providing care.
Jurisdiction	NS, NL, PE, NB, ON, AB, BC	BC, US (Medicare and Medicaid)	Enhanced Access to Primary Care (Ontario)	US (Medicare, some states, select insurance companies)	Ontario Champlain BASE eConsult, US (Medicare and Medicaid)	Pilot phase for Ontario Champlain BASE	Various proposals	MyHealthNS

3. Synchronous virtual care

The following section addresses the two core modalities that fall into synchronous virtual care, namely:

- (A) **Virtual visits** on page 13; and,
- (B) **Remote consults** on page 27.

Modality A: Synchronous virtual care: Provider to Patient

Virtual visits

The following section looks at the current state of virtual visits in the Atlantic provinces, the rest of Canada and beyond. We then describe applicable compensation models for this modality, relative strengths and weaknesses of each identified compensation model, a recommended approach, an overview of pertinent issues and considerations, and finally, a summary of recommendations.

	Synchronous (Real-time)	Asynchronous (Deferred)	
Provider to Patient	<i>Real-time phone or video interaction between physician and patient</i> <div> <div>A</div> <div>Virtual visits (video, telephone)</div> </div>	<i>Online exchange of medical information between physician and patient</i> <div> <div>C</div> <div>Secure patient messaging</div> </div>	<div> <div>D</div> <div>Remote patient monitoring</div> </div>
Provider to Provider	<i>Real-time interprofessional interaction between physicians or other health care providers</i> <div> <div>B</div> <div>Virtual conferencing / Remote consults (video, telephone)</div> </div>	<i>e-Consults: Online exchange of medical information between providers</i> <div> <div>E</div> <div>E-Consults / Tele-expertise</div> </div>	

Virtual visits: Jurisdiction Scan | Atlantic Context



The COVID-19 pandemic spurred widespread adoption of virtual care in the Atlantic provinces through the removal of traditional barriers and the need for physicians to adapt their practices.

ATLANTIC PROVINCES

Synchronous provider-to-patient care has been in place in Canada for as long as telephones have existed, although it has not always been billable in every province. The most common modalities in this category are telephone and videoconference, which connect providers and patients in real-time to support the remote delivery of care. Although some limited fee codes have been available, virtual visits were not widely adopted prior to the COVID-19 pandemic.

Across Canada, virtual visits quickly became the primary replacement for face-to-face (F2F) visits due to strict lockdown measures beginning in March 2020. In order to allow physicians to see patients, provincial governments gradually eased restrictions on virtual care to facilitate visits to take place throughout the pandemic, protecting the population from exposure and reducing the spread of the virus. As is summarized in the paragraphs below, according to the PTMAs, each Atlantic province took a different approach to virtual care compensation over the course of the pandemic.

Newfoundland and Labrador

Newfoundland and Labrador originally had two virtual care fee codes for telephone patient care and shared care for family physicians who were part of the Family Practice Renewal Program.

With the arrival of COVID-19, a Pandemic Virtual Care Assessment flat-fee billing code of \$42 for telephone and video visits was temporarily implemented in March 2020 for all FFS physicians. The single flat-fee rate was not well received by specialists, spurring the need for the introduction of temporary pandemic virtual consultation and reassessment billing codes for specialist physicians, introduced in August 2020.

Most of the specialties required only two codes, but groups like psychiatry have a larger menu, based on those used for in-person encounters. The rates for specialist fees vary by specialty because they are linked to the in-person rates of each specialty. The \$42 flat fee remains for family physicians.

The only geographic/location restriction is that both the patient and physician must be in Newfoundland and Labrador.

Pandemic-related fee codes are subject to a 40-per-day volume cap and have been extended past the original October 2020 expiry date (with no new expiry date noted).

Prince Edward Island

PEI put in place new permanent virtual care codes in April 2020 for physician-to-patient telephone visits, negotiated prior to the pandemic. A number of these codes have not yet been activated and physicians have been asked to track their billings in the interim. The province is temporarily allowing several face-to-face fee codes to be billed for virtual visits, with no defined expiry date. Virtual fee codes are subject to volume caps, leading to concerns from doctors.

The PEI government has shown strong support for virtual care. In the new master agreement, there is a Memorandum of Understanding (MOU) on virtual care. The PEI government has started various virtual care projects such as tele-rounding and primary care services in Western PEI and an Unattached Patients provincial project.

Virtual visits: Jurisdiction Scan | Atlantic Context (continued)



The COVID-19 pandemic spurred widespread adoption of virtual care in the Atlantic provinces through the removal of traditional barriers and the need for physicians to adapt their practices.

Nova Scotia

The Nova Scotia Telehealth Network (NSTN) was established in 1996 with a limited fee code structure to compensate physicians for use of virtual care (at fixed locations) for specific services. These fee codes were paid at 100% of the face-to-face codes. Prior to the pandemic, Nova Scotia's fee codes for synchronous provider-to-patient care included a flat-fee family physician-to-patient code and a specialist follow-up code for telephone visits only. These codes are remunerated at lower levels than face-to-face visits (approximately 70%). Uptake for these non face-to-face codes were low due to the lower compensation and the added administration burden for use of these codes. In addition, there was a recent non face-to-face code for medical genetics and the fee was set at 100% of the face-to-face visit fee.

In response to the pandemic, a generic fee code with a single rate for telephone and video visits was introduced for all physicians across disciplines. This was quickly revisited and a revised approach allowed physicians to bill any face-to-face code when the service was provided virtually. This change was well received by physicians. In September 2020 it was announced that this arrangement would be extended until December 31, 2020.

New Brunswick

New Brunswick originally had one virtual visit fee code for telephone or video calls. A temporary "catch-all" code, 859, was implemented in response to the pandemic for all types of physicians to bill visits at the same flat rate. This code was retired in May 2020, and new codes were introduced for virtual care.

Essentially, all non-procedural care including visits, consultations not requiring a physical exam and psychiatric care, can be billed at the same value as a face-to-face visit. Virtual walk-in clinic visits can be billed at the same rate as a face-to-face walk-in clinic visit. The location on the claim is used to denote whether the visit took place in-person or virtually. These codes have been extended until March 31, 2021.

Virtual visits: Jurisdiction Scan | Canada



Provinces outside of Atlantic Canada have adopted more long-term changes to physician billing in response to the pandemic.

REST OF CANADA

Deloitte conducted interviews with other Canadian provinces to explore practices in other jurisdictions. As requested by the Steering Committee, interviews were held with BC, Alberta, and Ontario.

British Columbia

British Columbia first introduced a virtual care fee guide that restricted physicians to delivering virtual care from a health authority site, which resulted in relatively low adoption. Consults and visits for specialists and GPs were compensated on par with face-to-face. When geographic restrictions were lifted, usage increased but certain disciplines were still exempt, such as emergency, orthopedics, pain and occupational medicine. The pandemic spurred the government to open up face-to-face fee codes to telephone visits, indicated by the physician on the claim, for an unofficial period of 18-24 months. Almost all in-person codes can also be billed for virtual administration, but volume caps exist for GPs on office visit codes. This was temporarily lifted at the height of the pandemic but is now back in place. The majority of virtual visits take place on Zoom Health as licenses were provided by Doctors of BC. In our discussions with Doctors of BC we heard that the government considers virtual care fees to be revenue neutral and is currently not concerned that increased utilization will increase costs.

Alberta

Alberta had four fee codes available for synchronous provider to patient care, for telephone visits, videoconferencing, and H1N1 specific phone calls, prior to the pandemic. All four were valued at the same flat rate (\$20) which did not reflect payment parity with face-to-face services. New codes were introduced in response to the pandemic. For calls greater than 10 minutes, physicians can bill codes that are equivalent to face-to-face visit codes, but for calls less than 10 minutes, physicians bill the \$20 pre-pandemic codes. These new 10+ minute codes are exempt from volume caps and have been well received, however there remains a strong desire among physicians to allow complexity modifiers. The new codes will be made permanent, likely by the beginning of 2021.

Ontario

Ontario had a mature virtual care offering prior to the pandemic through its Ontario Telemedicine Network (OTN). Patients and registered physicians access the platform through a portal which is only equipped with video capability and historically required physicians to deliver remote care from approved telemedicine sites. A \$15 premium had been provided to physicians, as practicing from these sites was seen as an inconvenience and possible disincentive to adoption. In 2019, OTN shifted to a less restrictive model, allowing physicians to provide video visits from their office or home, and discontinued the \$15 premium fee. OTN virtual visits are remunerated on par with face-to-face visits, as they use the same billing codes.

In response to the pandemic, temporary virtual care codes were introduced on March 14, 2020 as part of the OHIP schedule for an initial period of 12 months. These allow all physicians to bill for virtual care through video and telephone. Telephone or video visits are generally remunerated on par with face-to-face visits, but do not include payment for additional complexity modifiers. These codes included:

- K080 — Minor assessment of patient by telephone or video (flat fee of \$23.75)
- K081 — Intermediate assessment including psychotherapy by telephone or video (flat fee of \$36.85)
- K082 — Psychotherapy, psychiatric or mental health counselling by telephone or video (\$67.75 per 30-minute unit)
- K083 — Specialist consultation by telephone or video (time-based, matching face-to-face remuneration, in increments of \$5)



Virtual visits: Jurisdiction Scan | International

The COVID-19 pandemic spurred wide-spread adoption of virtual care, urging governments to break down barriers, and providers to challenge orthodoxies surrounding care delivery.

UNITED STATES

In the United States, synchronous provider to patient care is predominantly reimbursed on a fee-for-service basis in the Medicare and Medicaid systems. CMS began reimbursing for virtual care services in 1999 for patients in rural areas, but with significant limitations. In recent years, there has been substantial increase in coverage.

Protocols and fees varying from state to state. For example, 20% of states require virtual visits to be compensated at par with face-to-face services, with the remaining 80% not mandating parity (Hollander, 2020). Prior to the COVID-19 pandemic, it was uncommon for virtual visits and face-to-face visits to be compensated at the same rate (Bajowala, 2020). For example, for a routine primary care visit, Louisiana Medicaid reimbursement for 2020 is \$33.95 for a telehealth visit, compared with \$62.65 for a physical visit (Shachar 2020).

States with payment parity laws include: Delaware, Georgia, Hawaii, Minnesota, and New Mexico. California's Payment Parity laws will come into force in January 2021 (Center for Connected Health Policy, 2020).

On March 13, 2020, CMS introduced significant changes in response to the COVID-19 pandemic. Temporary modifications were made to encourage virtual care, relaxing previous requirements, for example, allowing physicians to bill for new patients (previously an existing relationship was required), and allowing audio-only services (Hoffman 2020).

In 2019, Medicare also began to reimburse physicians for brief patient-initiated communications called "virtual check-ins" for durations between 5 and 10 minutes, often used to decide whether an office visit is needed (HCPCS code G2012, valued at \$13.35 to \$14.80 as of 2020).

As of spring 2020, Medicaid is offering reimbursement to physicians for live videoconferencing, a service not included prior to the COVID-19 pandemic by the country's health assistance program that serves millions of low-income Americans.

UNITED KINGDOM

In the United Kingdom, the dominant payment model for general practitioners (GPs) is a blended capitation approach with elements of bundled payments, and salaried payments for physician employees. In the capitation model, the majority of a physician's income is based on the number of patients registered to a practice. When it comes to virtual care, GPs in the UK are paid an annual stipend for synchronous virtual care services, however this makes up a very small portion of their overall income. The majority of compensation is tiered based on patient profile, with higher rates for elderly patients vs. younger, healthier patients. Because these arrangements were in place in the UK prior to the pandemic, no changes were required regarding how the NHS compensated physicians for synchronous care as a result of COVID-19.

Consultant physicians and specialists in the UK are typically remunerated through salaried payments. Additional remuneration is possible by taking on educational or management responsibilities, or through clinical excellence funding.

Because these arrangements were in place in the UK prior to the pandemic, no changes were required regarding how the NHS compensated physicians for synchronous virtual care as a result of COVID-19.

The following page highlights applicable compensation models that may be used for virtual visits, the relative strengths and weakness of each, and recommended models.

Virtual visits: Applicable compensation models



From the eight FFS compensation models shown on page 11, three have been deemed applicable for synchronous provider to patient care (video or telephone visits).

Model	Flat fee	Tiered flat fee with complexity modifier	Pro-rated hourly / Time-based units
Description	Physicians are compensated at a flat rate per visit.	Physicians are compensated at different rates depending on the complexity of a visit.	Physicians are compensated a certain rate per specified unit of time, prorated to the length of time taken to complete each visit.
Pros	<ul style="list-style-type: none"> Highly feasible as it matches the compensation model for many face-to-face services Relatively low administrative burden Encourages volume / patient access 	<ul style="list-style-type: none"> Highly feasible as it matches the compensation model for many face-to-face services Supports flexibility for case complexity Physician's time and effort will be reflected, which can be beneficial for patient outcomes Encourages volume / patient access 	<ul style="list-style-type: none"> Payment occurs upon completion of the transaction Supports flexibility for case complexity Physician's time and effort will be reflected Well established in provision of psychotherapy Reasonable cost certainty
Cons	<ul style="list-style-type: none"> Does not support flexibility for case complexity May not be suitable for psychotherapy and certain other services May not be income neutral if virtual visits are considerably shorter than face-to-face visits 	<ul style="list-style-type: none"> May be more costly to the health system than a pure flat-fee approach May not be suitable for psychotherapy and certain other services May not be income neutral if virtual visits are considerably shorter than face-to-face visits 	<ul style="list-style-type: none"> Higher administrative burden (recording start and stop times of visits) Incentive for volume somewhat diminished



Virtual visits: Evaluation of compensation models

Deloitte recommends that compensation for synchronous provider to patient care should mirror compensation for face-to-face visits, taking advantage of existing fee codes and lessons learned.

In reviewing the merits of each compensation model in conjunction with stakeholder engagement, rather than recommending a single compensation model for all virtual visits (whether telephone or video), **we recommend that synchronous provider to patient care should mirror compensation models used for face-to-face visits.**

Rationale

Mirroring existing face-to-face compensation mechanisms for virtual visits provides several benefits and efficiencies.

Certain types of virtual visits lend themselves better to one model versus another. For example, standard visits with a family practitioner may work well with a flat fee, while the provision of psychotherapy may be more aligned with a pro-rated hourly model.

In addition, using existing face-to-face billing codes visit will limit the need to create unique billing codes in each area where virtual visits may be availed of. This approach leverages the work that has already been undertaken to negotiate, design, and implement fee codes for a variety of care scenarios and patient needs. Therefore, it will reduce the likelihood of creating new codes that do not cover all care scenarios and enables physicians to apply clinical judgment when determining if a virtual visit is a viable option for care delivery.

Mirroring existing compensation also has the benefit of reducing the change management required to support the adoption of virtual visits. With no new compensation model for physicians to familiarize themselves with billing remains significantly aligned with existing approaches and is not a barrier to uptake. In addition, in cases where new fees are established (e.g. chronic disease management specific fee code or allied health care provider collaboration code), there is no need to develop additional virtual specific codes.

Mirroring will still allow for adjustments to virtual visit compensation over time. It is possible to discount or increase the value of a virtual visit relative to a face-to-face visit if data and/or evaluation indicate that there is a rationale to do so.

Additional compensation-related issues specific to virtual visits

In addition to providing guidance on compensation models, we have identified a number of additional issues regarding virtual visits:

1. geographic restrictions;
2. payment parity;
3. volume caps;
4. possible unintended consequences; and,
5. virtual walk-in clinics.

These issues are addressed on the following pages.



Virtual visits: Issues and considerations

Compensation for synchronous provider to patient care should not be restricted based on geographic location and should be certain for a minimum window of time for physicians and patient to plan.

1. Geographic restrictions

A number of geographic restrictions have been in place since the early days of virtual care, mainly because the physical equipment needed by physicians to conduct virtual visits was expensive and space consuming, and therefore limited to a certain location. The restrictions have varied between provinces but generally mandated that a physician must be present at a designated health authority site in order to bill their virtual care work. The practice of restricting reimbursement is declining due to technological advancements that have given physicians the ability to connect with patients safely and securely from anywhere.

Prior to the pandemic, Newfoundland and Labrador had geographic restrictions in place that contributed to relatively low uptake of virtual care in day-to-day practice. MCP did not pay for virtual visits or telemedicine provided outside health facilities (with some limited exceptions), and there is a financial disincentive associated with unpaid travel to and from health facilities that may prevent physicians from integrating virtual care into their workflow. Recently, facility-based FFS physicians can request access to Cisco Jabber allowing them to conduct virtual visits from their office, but with the exception of temporary pandemic codes, community-based physicians have limited options.

British Columbia and Ontario both had relatively low levels of uptake when services had to be delivered from a facility site. Usage has increased since this restriction was lifted in BC and OTN unveiled mobile office based options that have allowed them to eliminate telehealth premiums. Alberta is attempting to follow suit, discontinuing the modifier for delivering care from telehealth sites.

Recommendation: Geographic restrictions for providing virtual care should be lifted on a permanent basis, in order to align with current technological abilities, and give physicians more flexibility in their workflow.



Virtual visits: Issues and considerations (continued)

Establishing payment parity in the short-term will drive adoption; however, room should be left to move away from parity post-pandemic should the evidence support it.

2. Payment parity between face-to-face and virtual visits

With some exceptions, physicians in most jurisdictions are currently paid equal rates whether they are providing face-to-face or virtual visits. This concept is called “payment parity” and has become a significant area of interest and contention in virtual care policy debates.

In order to aid in the adoption of virtual visits, particularly since the onset of the COVID-19 pandemic, governments have generally adopted payment parity as policy. Given the current requirement to encourage virtual care uptake and limit contact in order to reduce the spread of COVID-19, sustaining payment parity is a logical and prudent course of action.

Recommendation: Payment parity between face-to-face and virtual visits should be the norm, unless evidence indicates that differences in fee codes are warranted.

Notwithstanding the benefits of payment parity, medical associations and government should agree to reevaluate parity as additional data and evidence become available. There is some limited evidence to suggest that virtual visits may be shorter in duration, on average, than their face-to-face counterparts. In a small UK study, the average length of F2F visits was 9.61 minutes, compared to 5.56 minutes for telephone, and 5.94 minutes for video (Hammersley et al, 2019). It is important to note that this variance may be explained in part by a younger cohort of patients being earlier adopters of virtual visits, corresponding with fewer overall health conditions (Ibid). Improved data collection and evaluation will be required to determine if this phenomenon holds as a more diverse patient population begins to use virtual care. The recent shut down of physical offices during the pandemic may help to better understand broader population use of virtual visits.

In addition, the limited ability to complete physical exams and diagnostic tests may also contribute to shorter overall virtual visits. Furthermore, both phone and video consults were found to be less “information rich” than the face-to-face alternative (Ibid).

On the other hand, some physicians have indicated that it takes the same amount of time to conduct virtual visits versus in-person, and in some cases, more time is required for a variety of reasons including ensuring patient consent for the virtual visit, addressing technology questions and issues, etc. Whether these can be addressed with workflow improvements or patient familiarity remains to be seen.

Virtual care remains in its early stages and agility in this space will be critical to achieving improved outcomes and efficiencies. For these reasons, permanently reimbursing virtual visits at the same rate as face-to-face visits may not be appropriate in the long term (Shachar, 2020). Permanent commitments to parity can also impair the ability to adjust and leverage innovations in the technologies and modalities available for care delivery (Lee, 2020).

As part of a pilot agreement, Saskatchewan recently implemented virtual fee codes costing using a rate of 90% of the in-person fee. This was done in accordance with an overarching principle arrived at (within the throes of negotiation) that stated that virtual care services are not equal or equivalent to an in-person visit and that a physician is not expected to provide the same service as an in-person visit (Contract Ratification for the Virtual Care Pilot, Saskatchewan Medical Association).

Recommendation: Government and medical associations should agree to re-evaluate virtual care payment as increased data and evidence regarding the time and effort required for virtual visits relative to face-to-face visits becomes available.



Virtual visits: Issues and considerations (continued)

Volume caps should be lifted and any restrictions should only be revisited as evidence and data become available. This applies to Newfoundland and Labrador as well as Prince Edward Island.

3. Volume cap considerations

Volume restrictions on virtual care services are driven by concerns of overutilization, contributing to increased costs to the health care system, and the potential refusal to provide in-person services. These limits generally mandate how many visits or exchanges a physician can bill for in a given period of time. For example, physicians in Prince Edward Island are currently limited to 14 virtual visits per week (although this has been temporarily waived during the pandemic). Physicians in Newfoundland and Labrador are limited to 40 per day; however the NLMA reports that this cap has not negatively affected physician practices at this stage. In British Columbia, volume caps for family physician office visit codes were temporarily lifted at the height of the pandemic but are now back in place.

In other jurisdictions, including Nova Scotia and New Brunswick, volume caps do not exist. The new fee codes in Alberta are exempt from volume caps.

Governments usually implement caps as a means to ensure cost certainty in models where there is no inherent ceiling volume. However, synchronous patient to provider care has a natural volume limit in terms of volume that can feasibly be completed during regular working hours. Additionally, asynchronous provider to patient care is likely to become a larger source of volume, and synchronous provider to patient volumes may be reduced as asynchronous options become available.

Recommendation: Volume caps on the provision of virtual care should be removed. Caps and/or another restrictions should be revisited as evidence becomes available and decisions to restrict billing should be based on clinical best practices and informed channel management planning.

The above recommendation applies only to provinces with volume caps in place, namely Prince Edward Island and Newfoundland and Labrador.

4. Possible unintended consequences

With the widespread adoption of virtual care, combined with a justified anxiety stemming from the COVID-19 pandemic, there is a significant risk of unintended consequences in health care delivery more broadly.

While data is still being collected and analyzed from spring and summer 2020, some anecdotal reports have raised several unforeseen issues, such as a high proportion of physicians who have transformed their practice to predominantly, and in some cases wholly, virtual visits, despite public health restrictions being relaxed in recent months in Atlantic Canada. This phenomenon has allegedly led to an increase in referrals to Emergency Departments, Nurse Practitioners, and Specialists, without prior physical examinations.

Clinical practice questions regarding the right balance of virtual vs. face-to-face care are beyond the scope of this report, however, the risk of reducing patient access to face-to-face visits is a genuine concern, as there remains an ongoing need for physical examinations. We believe this is largely an issue for provincial Colleges to address.

If this risk is validated with more data and stakeholder feedback, the Atlantic provinces may wish to explore potential mitigation methods. This could be achieved through a variety of means, including, for example requiring a percentage of all visits to be provided in person or a sliding remuneration scale with a decreasing amount of remuneration if visits cross a series of increasing thresholds.

As the reports noted above are purely anecdotal at this time and data has not been made available to the authors of this report, we believe there is currently insufficient evidence to make an informed recommendation regarding this issue.

Virtual visits: Issues and considerations (continued)

Walk-in clinics are a key part of the health system, meeting an unmet demand among mostly unattached patients, and should therefore be compensated for virtual walk-in visits.

5. Virtual walk-in clinics

Virtual walk-ins are a form of virtual visits that do not require an appointment or pre-existing relationship with a physician.

There are a number of private companies offering virtual care in a walk-in clinic format across Canada. Maple, a service that charges patients directly, is currently available in all provinces. Babylon in partnership with TELUS Health is available to Canadians in British Columbia, Alberta, Saskatchewan and Ontario, and is publicly funded (Hardcastle 2020). Patients can sign up for different programs that provide them with access to a doctor for a certain period of time or specified volume of visits, or they can pay per visit to speak to a doctor on an individual, on-demand basis.

Jurisdictions have approached remuneration for virtual walk-in visits differently. In New Brunswick, virtual care is available in the private walk-in clinic setting. The province remunerates walk-in clinics for virtual visits at a rate of \$18.50 lower than primary care providers, resulting in a significant fee differential. PEI remunerates virtual walk-in visits through Maple, with a right of first refusal for physicians in PEI. Newfoundland and Labrador has also had many patients served through Maple.

Conversely, Nova Scotia has specifically excluded walk-ins from virtual care fee codes. In Alberta, walk-in clinics, such as Babylon, are not excluded from the new COVID-19 fee codes for billing virtual services. British Columbia compensates virtual walk-in visits at the same rate as regular virtual visits and face-to-face visits. In Ontario, walk-ins are excluded from virtual care fee codes through restricted registration and billing on the OTN platform to certain parties.

One of the common concerns raised by critics of virtual walk-in visits is the risk of fragmenting primary care and undermining the physician-patient relationship. Because virtual visits improve timely patient access to care, some patients may choose to seek out virtual walk-in clinics to avoid waiting for an appointment with their primary care provider.

Patients who receive care and prescriptions from different siloed sources would present challenges for managing care records and facilitating quality patient outcomes. This concern has been raised by PTMAs as well as by the Canadian Medical Association, which stated that virtual care services should primarily be delivered in the context of an existing relationship between providers and patients in order to promote continuity of care, and discourage the use of walk-in clinics (Report of the Virtual Care Task Force, 2020).

Making virtual walk-in visits more accessible through remuneration heightens the worry that attached patients will substitute virtual walk-in visits for visits with their own GP, generating opportunities for fragmented care.

There is evidence that shows most walk-in virtual visits represented new utilization, and only a small portion replaced visits to primary care providers. A 2017 California study focusing on acute respiratory infections showed that 88% of direct-to-consumer virtual care represented new utilization, suggesting that primary care providers may not face significant substitution (Ashwood et al, 2017).

On the other hand, because a certain proportion of virtual walk-in clinics would address previously unmet demand, making these services more accessible to patients may drive up costs to the health care system to some degree (Bajowala et al, 2020). Conversely, meeting this demand through the provision of virtual walk-in clinics and other virtual care modalities could avoid more expensive downstream costs (Ibid).



Virtual visits: Issues and considerations (continued)

Atlantic provinces should extend temporary billing arrangements over a longer time horizon, allowing physicians sufficient notice to manage to their practice and adapt to changes.

There is further complexity when considering unattached patients that do not have a family doctor to go to. Not compensating physicians for virtual walk-in visits may put the region's unattached patient population at disproportionate risk by forcing them to seek care in person during a global pandemic.

The CMA recognizes that unattached patients should also have access to virtual care, though ideally this should be part of a model that still provides continuity of care and leads to attachment, avoiding a potential uptick in walk-in clinic demand.

Over the long-term, one possible way to address the continuity of care concern is to compensate physicians for virtual walk-in clinic visits at different rates, depending on patient status: unattached or attached. Fees for virtual walk-in clinics may be remunerated at a lower rate for attached patients to encourage care to be provided within the existing practice. Fees for unattached patients may be remunerated at the same rate as regular virtual visits of a similar nature. However, this approach would require rostering of patients, a practice not widely used in Atlantic Canada.

As described on the previous page, in New Brunswick for example, walk-in visits are already remunerated at a lower rate than visits for traditional primary care providers. An extension of this approach is offering a lower fee for attached patients to encourage continuity of care, something we believe should be explored. An additional consideration for encouraging continuity of care is requiring the walk-in clinic physician to send a visit report to the attached patient's family physician, as outlined by the College of Physicians and Surgeons of Nova Scotia Professional Standard on the Standard of Care for Walk-in Clinics.

Recommendation: Virtual care walk-in clinics should be permitted for unattached patients and attached patients who are unable to get an appointment with their family physician within a reasonable amount of time.

Recommendation: Explore the potential for virtual walk-in clinics to be remunerated at a lower rate for attached patients, to encourage care to be provided within the existing practice.

6. Extending temporary billing arrangements

Of course, the COVID-19 pandemic has led many jurisdictions to put in place temporary changes to fee codes that may eventually expire when the pandemic subsides. In Canada, there is a significant discrepancy between provinces regarding precisely how long temporary billing changes will be in effect.

Many provinces have stipulated clear timelines for these temporary arrangements. Alberta has made their new codes permanent. The British Columbia government is taking a medium-term approach with a window of 18-24 months. Ontario established fee codes on a 12-month basis.

Some Atlantic provinces have opted for shorter-term extensions, causing considerable anxiety for physicians. New Brunswick has extended until the end of November 2020. Newfoundland extended indefinitely, with a promise of 30 days' notice for change. Nova Scotia extended on September 25th, just six days before the expiry, for another 3-month period until the end of 2020.

Commitment to at least medium-term timelines gives physicians foresight into their workflow and enables them to manage patient expectations. Many physicians receive appointment bookings from patients several weeks or months in advance, and therefore have a reasonable expectation for billing certainty a number of months into the future.

Atlantic governments should consider extending codes to Fall 2021 in order to give physicians foresight into care delivery, allowing them sufficient time to manage to their practice, book patients, and adapt to future changes including the introduction or permanent fee codes.

Recommendation: Government should extend temporary billing arrangements to virtual care over a longer time horizon, allowing physicians sufficient notice to manage to their practice and adapt to changes. A minimum 6-month "certainty" window is recommended, rather than frequent short-term extensions.

Virtual visits: Summary of recommendations

This page summarizes physician compensation recommendations in relation to virtual visits.



Synchronous - Provider to Patient

A. Virtual visits (telephone & video)

- Compensation for telephone and video visits should mirror existing face-to-face compensation models.
- Geographic restrictions for providing virtual care should be lifted on a permanent basis.

Payment Parity

- Payment parity between face-to-face and virtual visits should be the norm, unless evidence indicates that differences in fee codes are warranted.
- Government and medical associations should agree to re-evaluate virtual care payment parity as increased data and evidence regarding the time and effort required for virtual visits relative to face-to-face visits becomes available.

Virtual visits (walk-in clinics)

- Virtual care walk-in clinics should be permitted for unattached patients and attached patients who are unable to get an appointment with their family physician within a reasonable amount of time.
- Explore the potential for virtual walk-in clinics to be remunerated at a lower rate for attached patients to encourage care to be provided within the existing practice.

Extending temporary billing arrangements

- Government should extend temporary billing arrangements to virtual care over a longer time horizon, allowing physicians sufficient notice to manage to their practice and adapt to changes. A minimum 6-month “certainty” window is recommended, rather than frequent short-term extensions.




The following recommendation is specific **only** to provinces with volume caps in place, namely Prince Edward Island and Newfoundland and Labrador:

- Volume caps on the provision of virtual care should be removed. Caps and/or other restrictions should be revisited as evidence becomes available and decisions to restrict billing should be based on clinical best practices and informed channel management planning.

Virtual visits: Summary of health system and patient benefits



The table below highlights key health system and patient benefits associated with synchronous virtual visits.

		 Health system benefits	 Patient benefits
Virtual Visits 		<ul style="list-style-type: none">• Reduced travel time for physicians and care providers: Physicians can save more time by not having to travel between facilities in order to see patients.• Reduced mileage costs: Select provinces run medical travel assistance programs which reimburse patients who travel long distances for care. Reductions in unnecessary in-person visits will yield cost savings to the health system, particularly for jurisdictions with sizeable remote populations.• Reduced physical footprint: With the ability to deliver virtual care from anywhere, pressure is reduced on physical facilities and office space.• Reductions in patient cancellations: Because patients can conveniently attend virtual visits through a mobile device, no-shows are less frequent.• Reduce workforce exposure: Virtual visits reduce staff exposure during pandemics and flu season, and lessen the use of personal protective equipment.• CO2 reductions: Reductions in travel have the ancillary benefit of reduced carbon emissions and mileage costs.	<ul style="list-style-type: none">• Reduced travel time: According to a 2020 Environics survey commissioned by Canada Health Infoway, 9 in 10 Canadians who used virtual care in the past year say it saved them time (CHI, November 2020). A 2020 report by Deloitte estimated that patients save approximately 2 hours on average per virtual visit. In certain cases, patients will travel hundreds of kilometres for routine care that can now be avoided.• Reduced wait times: Timelier access to physician care and reduced time spent in waiting rooms.• Patient satisfaction: Patients report higher levels of satisfaction with virtual care options due to convenience. Polling by Abacus Data showed that 91% of patients who received virtual visits by phone were satisfied or very satisfied (Abacus Data, 2020).• Patient access: Increased access to patients in remote communities or those that have difficulty travelling, such as patients with mobility issues.• Productivity: Increased productivity by avoiding the need for patients to take time off work and lost wages. Virtual visits allow many patients to take calls from work, avoiding the need to take several hours off from work to travel and queue in waiting rooms.• Reduced exposure to illness: Virtual visits reduce patient exposure to illness during pandemics and flu season.

Modality B: Synchronous virtual care: Provider to Provider

Remote consults

The following section provides an overview of remote consults and highlights insights from jurisdictional research. We then describe applicable compensation models that can be considered for remote consults, relative strengths and weaknesses of each, and a recommended approach. We conclude this section by comparing our recommended compensation model against the six principles outlined on page 8, addressing pertinent issues, and summarizing recommendations.

	Synchronous (Real-time)	Asynchronous (Deferred)	
Provider to Patient	<i>Real-time phone or video interaction between physician and patient</i>	<i>Online exchange of medical information between physician and patient</i>	
	<div><div>A</div><div>Virtual visits (video, telephone)</div></div>	<div><div>C</div><div>Secure patient messaging</div></div>	<div><div>D</div><div>Remote patient monitoring</div></div>
Provider to Provider	<i>Real-time interprofessional interaction between physicians or other health care providers</i>	<i>e-Consults: Online exchange of medical information between providers</i>	
	<div><div>B</div><div>Virtual conferencing / Remote consults (video, telephone)</div></div>	<div><div>E</div><div>E-Consults / Tele-expertise</div></div>	



Remote consults: Overview and Jurisdictional insight

Remote consults have a long history of conveniently connecting referring physicians and specialists to support patient care, particularly in British Columbia, a leader in this space.

Overview

While the use of provider-to-provider videoconferencing is relatively new with the introduction of broadband internet, physicians have been using the telephone to improve patient care for well over a century. Remote consultations (consults) allow primary care providers timely telephone or video access to specialists in order to support enhanced patient care. Remote consults refer to real-time phone or video conferences where both parties are health care providers. This often means the primary care provider and the consulting specialist, however it may also include other health providers, or even specialist to specialist.

Connecting family physicians and care providers with specialists in real time allows primary care providers to deliver “specialty-informed care for their patients in the primary care setting, reducing the time spent waiting for specialists and potentially preventing unnecessary referrals to specialty care,” (Stanistreet 2017).

Timely advice from specialists has also been known to shorten and simplify the patient journey, increase knowledge capacity of family physicians, reduce referrals to the wrong specialists, and improve the continuity of care.

There are also a number of patient access and systemic benefits arising from remote consults, such as reducing the overall number of specialist referrals required, reducing wait times for specialists, eliminating unnecessary emergency department admissions, and providing enhanced access to remote or underserved areas.

Jurisdictional insights - British Columbia

British Columbia is a leader in remote telephone consults. The province’s “RACE” program (Rapid Access to Consultative Expertise) was launched in 2008 as a pilot project by St. Paul’s Hospital, and then expanded in April 2010 with the introduction of a billing code for specialist physicians. This was followed by the introduction of a second billing code for family physicians to bill for the telephone discussion. Since June 2020, the number of specialty services included in the RACE program has grown from 5 to 33.

While there are no barriers barring primary care providers from calling any physician, prior to RACE, this depended on aligning of physician schedules and/or willingness to offer advice. The RACE program is unique in hosting a dedicated hotline where specialists can be contacted during specified hours with a guaranteed response time within a certain period.

BC uses a flat fee with incentive for specialists (G10001, \$60.00 for calls returned within 2 hours; G10002 – \$40.00/15 minute interval for calls returned within 1 week). Family physicians use the billing code 14018 (\$40) for urgent care.

A 2013 evaluation of the RACE program has validated some of the highlighted benefits. For example, 78% of calls registered were answered within a 10 minute-period, while patients were still with their family physician (CMAJ, 2013). The study also found that hospital visits were reduced by one third, and that 60 per cent of patients who would have otherwise been candidates for referral managed to avoid visits to specialists. (Ibid)



Remote consults: Jurisdictional insights

While compensation exists for specialist physicians in most provinces, some provinces do not compensate referring physicians resulting in inconsistencies.

Alberta

In Alberta, physicians are paid through a flat fee compensation model. Referring physicians are paid \$32.90 per consult, with a higher rate of \$45.21 for after-hours consults. Specialists are paid through a hybrid of flat fee and stipend. The flat fee is currently \$77.35 per daytime consult, and between \$115 and \$135.13 if the consult is after hours. Specialists who are involved in an on-call program are also compensated through a small hourly-stipend for the number of hours they are on call.

Ontario

In Ontario, both GPs and specialists are remunerated for remote consults. Rather than sending patients to cardiologists, for example, primary care providers will often spend 10 minutes speaking with a cardiologist, sometimes on speakerphone with the patient, and both physicians are compensated through a flat fee payment model (approximately \$31.35 for the referring physician, and \$40.45 for the specialist).

Variability in physician compensation across Canada

In discussions with the four Atlantic provinces as well as Ontario, Alberta and British Columbia, remote consults through telephone and video did not emerge as a key obstacle in virtual care. However, it is noted that across Canada there is a high degree of variability regarding physician compensation for remote consults, particularly for GP compensation.

For example, 6 of 10 provinces remunerate GPs for remote consults (NS, QC, ON, MB, AB, BC) while the remaining 4 do not (NL, PE, NB, SK). This raises some concerns from a compensation fairness perspective, and could lead to a higher referral rate if primary care providers are not incentivized to avoid unnecessary referrals by seeking timely advice from specialists.

Recommendation: Compensation should be made available for both the referring and consulting physicians.

With regard to specialist physicians, 8 of 10 provinces provide remuneration for telephone consultations, the exceptions being NB and NL. In order to avoid unnecessary referrals, and to achieve the benefits of remote consults, a consistent approach should be adopted.

Recommendation: Billing codes should be introduced for provinces where physicians are not currently remunerated for synchronous provider-to-provider consults (applicable to PE, NB, and NL).

The following page lays out a series of applicable compensation models for consideration, along with relative strengths and weaknesses, and highlights the recommended model.



Remote consults: Applicable compensation models

From the eight FFS compensation models shown on page 11, six have been deemed applicable for synchronous provider to patient care, with a flat fee model recommended.

Model	Flat fee per remote consult	Flat fee with incentive	Pro-rated hourly / Time-based units	Pro-rated hourly / Time-based units with incentive	Tiered Stipend	Fixed Stipend (allotted amount of hours each week, month or year)
Description	Physicians are compensated at a flat rate per remote consult. This is the most common compensation model for remote consults.	Physicians are compensated through a flat fee that at higher rate if the consult is urgent.	Physicians are compensated a certain rate per specified unit of time, prorated to the length of time taken to complete each consult.	Physicians are compensated a certain rate per specified unit of time, prorated to the length of time taken to complete each consult, with a higher hourly rate for rapid response times.	Physicians are paid a stipend based on a given amount of hours per week. This could be weeks on-call, or responding to consults. This could involve multiple thresholds, with a given amount of hours assumed for each threshold.	Physicians are compensated a specified annual or monthly sum for providing care.
Pros	<ul style="list-style-type: none"> Reasonable cost certainty Incentive for volume (specialists) Relatively low administrative burden 	<ul style="list-style-type: none"> Reasonable cost certainty Incentive for volume (specialists) 	<ul style="list-style-type: none"> Enables specialists to dedicate more time for complex cases 	<ul style="list-style-type: none"> Incentive for faster response times (specialist) 	<ul style="list-style-type: none"> Some relationship between effort and remuneration Lower level of administrative burden 	<ul style="list-style-type: none"> Ease of implementation High level of cost certainty Low administrative burden
Cons	<ul style="list-style-type: none"> Less flexible for complex consults that required additional time 	<ul style="list-style-type: none"> Less cost efficient than other models Response time gains may not be achieved (evidence from Ontario suggests not), resulting in lower value for money 	<ul style="list-style-type: none"> Reduced incentive for volume Higher administrative burden (recording start, stop times) Lower level of cost certainty for payer 	<ul style="list-style-type: none"> Reduced incentive for volume Higher administrative burden (recording start, stop times) Lower level of cost certainty for payer 	<ul style="list-style-type: none"> Low incentive for volume Difficult to set the optimal thresholds Not fully aligned with actual physician effort After reaching threshold, no incentive for incremental consults 	<ul style="list-style-type: none"> Low incentive for volume of consults Does not adequately compensate high volume specialists Overcompensates low volume specialists Low incentive for adoption, patient access
Recommended	✓					



Remote consults: Evaluation of recommended model

Below we assess the 'flat fee' compensation model for remote consults against the principles on page 8.

Patient Access & Value for Money	Cost Certainty	Administrative burden	Feasibility	Income Neutrality	Modality Neutrality
<ul style="list-style-type: none"> Flat fees for remote consults promote patient access to specialty care. Compared to a stipend approach, a flat fee encourages broader adoption and a higher volume of consults for physicians. The model also encourages conversations to be time-efficient compared to a pro-rated hourly compensation approach. From a value for money perspective, flat fees represented the optimal remuneration model. 	<ul style="list-style-type: none"> A flat fee compensation approach has reasonably good cost certainty for the payer compared to an hourly pro-rated approach. While the payer may not be able to project precisely how many remote consults will take place in a given year, the number of consults should correspond with a reduction in referrals to specialists which can consume considerable time and expense. 	<ul style="list-style-type: none"> Flat fees mean that physicians do not spend additional time recording the duration of consults. As a result, there is good alignment between the a flat-fee model and the aim of minimizing administrative burden. 	<ul style="list-style-type: none"> From a feasibility standpoint, a fee for service model is the most achievable of the six options. A flat fee approach is already in place for most jurisdictions in Canada and is widely used across the United States. While there are implementation issues that may need to be addressed, such as the creation of a hotline or on-call system that family physicians can use, a flat fee model is simple, familiar to physicians, and would involve the least change management. 	<ul style="list-style-type: none"> If fees are set at an appropriate rate, a flat fee or incentivized flat fee model should have, on average, a reasonably strong correlation between physician effort and remuneration. However, when looking at individual physicians, those whose consults are shorter in duration than the average may be somewhat overpaid, while those whose consults are longer may be underpaid. While a pro-rated hourly model may be preferable from purely an income neutrality perspective, it does not align strongly with the other principles. 	<ul style="list-style-type: none"> The principle of modality neutrality applies primarily to provider-to-patient care, ensuring the compensation model alone does not incentivize care to take place on one platform or another. When it comes to provider-to-provider care, the issue of platform (real-time or asynchronous) is less of an issue. Any compensation model for remote consults should not have a significant effect on patient care. As e-Consults become more widely adopted, provinces may wish to revisit whether to encourage this modality as a first step.
✓ Key strength	✓ Key strength	✓ Key strength	✓ Key strength	Neutral	N/A

A flat fee compensation model incentivizes patient access, value for money, enables reasonable cost certainty, and involves a relatively low administrative burden for physicians.

Recommendation: Flat-fee billing codes should be introduced for provinces where physicians are not currently remunerated for synchronous provider-to-provider consults. (Note: This recommendation is applicable to Prince Edward Island, New Brunswick, and Newfoundland and Labrador).



Remote consults: Issues and considerations

While remote consults provide value for patients and referring physicians, inherent constraints on live consults may limit its future adoption, particularly as asynchronous e-Consults grow in popularity.

Issues and considerations

Real-time access to physicians requires a degree of schedule alignment between physicians. The use of a dedicated hotline or on-call service can enable access and schedule alignment, however there are workflow considerations to take into account. Paging, phone calls, and video consultations can be interruptive to specialist physicians on call, increasing cognitive load, burdening working memory, and shifting attention from the task at hand (Walsh 2014). This may contribute to clinical inefficiencies and potential medical errors (Ibid).

In addition, because specialists rely primarily on information provided by the primary care provider, due to not being in the room, the quality of the diagnostic or recommended treatment depends on the quality and quantity of information received. There has been some research to suggest that including additional information such as medical documents, photographs or video can increase the likelihood of a timely and accurate diagnosis (Deldar 2016). Supporting documentation is not easily shared through the use of telephone consults.

The adoption of asynchronous e-Consults (addressed on page 54 of this report) may mitigate some of these challenges which enable specialist physicians to tackle these questions in off-peak times, and with access to additional patient data through EMRs. As a result, it is possible that synchronous remote consults will decrease in use over time as asynchronous e-Consults are adopted more widely.

Remote consults: Summary of recommendations



This page summarizes physician compensation recommendations in relation to remote consults.

Synchronous - Provider to Provider

B. Virtual conferencing / Remote consults

- Compensation should be made available for both the referring and consulting physicians.



The following recommendation is specific only to Prince Edward Island, New Brunswick and Newfoundland and Labrador¹:

- Flat-fee billing codes should be introduced for provinces where physicians are not currently remunerated for synchronous provider-to-provider consults.

Remote consults: Summary of health system and patient benefits



The table below highlights key health system and patient benefits associated with synchronous remote consults.

	<div> Health system benefits</div>	<div> Patient benefits</div>
<div>Remote consults</div> <div>B</div>	<ul style="list-style-type: none">• Improved access to specialty care: Improved access to specialty care for underserved or rural/remote populations.• Reduction in unnecessary referrals: On-demand expertise reduces unnecessary admissions, transfers, readmissions and referrals. A 2016 study saw 60% of calls avoided a specialist referral, and 32% of calls prevented emergency department visits.• Continuity of care: Remote consults enable continuity of care between patients and their primary care providers.• Improved care coordination: Family physicians also reported remote consults allowed for better medication management, improved triage, and practical advice on care (Wilson 2016).• Reduced costs: BC’s RACE program experienced cost savings through a weighted service cost of \$47.35 vs. \$133.60 for traditional referrals (Liddy, 2018).• Provider satisfaction: In BC, more than 95% of family physicians would recommend RACE to colleagues, and 100% would use the service again (Wilson 2016).• Reduce workforce exposure: Remote consults reduce staff exposure during pandemics and flu season, and lessen the use of personal protective equipment.• Improved population health outcomes: Decades of medical research show that more timely access to care leads to better patient health outcomes (Globerman, 2013).	<ul style="list-style-type: none">• Access: Increased access to and reduced wait times for specialty care.• Efficiencies: Reduction in unnecessary or inappropriate referrals.• Quality of care: Offers patients more efficient, integrated, and coordinated care.• Improved patient health outcomes: Decades of medical research show that more timely access to care leads to better patient health outcomes (Globerman, 2013).• Reduced exposure to illness: Remote consults reduce patient exposure to illness during pandemics and flu season.

4. Asynchronous virtual care

The following section addresses the three core modalities that fall into asynchronous virtual care, namely:

- (C) **Secure Patient Messaging** on page 36;
- (D) **Remote Patient Monitoring** on page 45; and,
- (E) **E-Consults** on page 54.

Modality C: Asynchronous virtual care: Provider to Patient

Secure Patient Messaging

This section provides an overview of secure patient messaging and highlights insights from jurisdictional research. We then describe applicable compensation models that can be considered for secure messaging, relative strengths and weaknesses of each, and a recommended approach. We conclude this section by comparing our recommended compensation model against the six principles outlined on page 8, addressing pertinent issues, and summarizing recommendations.

	Synchronous (Real-time)	Asynchronous (Deferred)	
Provider to Patient	<i>Real-time phone or video interaction between physician and patient</i>	<i>Online exchange of medical information between physician and patient</i>	
	<div>A</div> Virtual visits (video, telephone)	<div>C</div> Secure patient messaging	<div>D</div> Remote patient monitoring
Provider to Provider	<i>Real-time interprofessional interaction between physicians or other health care providers</i>	<i>e-Consults: Online exchange of medical information between providers</i>	
	<div>B</div> Virtual conferencing / Remote consults (video, telephone)	<div>E</div> E-Consults / Tele-expertise	

Secure Messaging: Jurisdictional scan | Atlantic context



Health care organizations are increasingly moving toward secure patient messaging, resulting in high levels of patient satisfaction with care.

Overview

Secure provider-to-patient messaging includes text, email, and portal-based messaging between patients and their health care provider. It is most commonly used in the primary care environment between patients and providers with an established relationship and can aid in continuity of care and improved access to care.

Secure messaging is typically used to address minor issues and follow-up questions from patients. While informal messaging through unsecured email and mobile text messaging is well documented, increasingly health care organizations are moving to support secure, privacy compliant messaging through email, EMR and messaging portals (Liu X et al, 2019).

Secure messaging is often provided as part of a patient portal. Unfortunately, studies show that portal use among patients can be a barrier resulting in low utilization. In some case studies, only 10 to 32% of patient portal adopters actually used the portal after being enrolled (Lau et al 2014, Weppner et al 2010).

However, recent studies and evaluation reports have demonstrated that patients and providers strongly support the use of secure messaging, find it adequately meets patient needs and saves patients from missing time at work or having to travel. Secure messaging has been shown to help improve patient outcomes in some scenarios and evaluations have found high levels of patient satisfaction with care and limited demand for in-person follow-up (Kuo & Dang, 2016; Women's College Hospital Institute for Health Systems Solutions and Virtual Care, 2019).

ATLANTIC CANADA

Currently formal support and remuneration for secure messaging is limited in the Atlantic Provinces. While some EMR platforms and health authority-supported email accounts can facilitate secure messaging there is no generalized framework for physician remuneration outside of salary or alternate payment plans (with the exception of Prince Edward Island).

Nova Scotia

Nova Scotia's MyHealthNS pilot program provided up to a quarterly \$3,000 Virtual Care Technology Incentive Stipend for physicians who agreed to enroll patients in the MyHealthNS program. The program combined release of e-results and secure messaging with a goal that all patient messages would be addressed within two business days. An analysis of the program concluded that physician capacity gains of 14% could be achieved by responding to routine patient questions via secure messaging versus in-person visits. The MyHealthNS NS pilot has since ended and the online platform is no longer available to physicians or patients.

New Brunswick

In New Brunswick, physicians practicing under the Family Medicine New Brunswick capitation model are able to bill for some email communications with patients. They also have the ability to delegate email communication to a family practice nurse.

Prince Edward Island

In April 2020, PEI introduced remuneration for secure messaging, adopting a per-message model (billing code 0096 – Physician to Patient email/fax), with a \$7.50 fee. At the time of this report, the fee code was not yet activated, so no billing data was available.

Newfoundland and Labrador

Secure patient messaging is not reimbursed in Newfoundland and Labrador, however asynchronous communication does take place informally between some physicians and patients.



Secure Messaging: Jurisdictional insights (Canada)

Compensation for secure messaging is limited in Canada despite patient demand. Ontario and British Columbia have adopted different approaches in remunerating physicians.

CANADA

Across Canada, provinces and health authorities have begun to explore the introduction of secure patient messaging with varied approaches. While some programs limit communication to a specific portal or messaging tool, others allow for physicians to determine the technology used to communicate directly with patients.

FFS remuneration for secure patient messaging is still limited. While 63% of Canadians would like to email or message their doctor, pre-pandemic, only 10% of Canadians indicated that they had the ability to seek medical services from a doctor via secure message or email (Canada Health Infoway, 2018).

Ontario

The Ontario Telemedicine Network Enhanced Access to Primary Care (EAPC) initiative was launched in September 2017 in five Ontario health regions. The initiative was the largest virtual care implementation in Canada and 32,000 patients had access to 278 enrolled physicians during the pilot phase. Enrolled patients had the option to access their primary care provider via video or secure messaging – with the physician ultimately able to determine the most appropriate mode of communication. Over 90% of visits were conducted via secure messaging and patients highlighted the ease of access and limited technological barriers. Over 80% of visits required no additional follow-up and 98% of patients felt the visit was the same or better than in-person care (OTN, 2020; Women's College Hospital Institute for Health Systems Solutions and Virtual Care, 2019).

Physicians were remunerated on a tiered-FFS basis for each completed visit or interaction as opposed to a per message fee. Minor assessments were compensated at \$15.00 (\$2.25 capitation) and intermediate assessments were compensated at \$21.70 (\$3.25 capitation).

Alberta

In Alberta, a number of secure messaging platforms are supported by Alberta Health Services or available through approved EMR platforms. This includes MyAHS Connect – the provincial patient portal that facilitates secure messaging, appointment booking and test results access.

In response to the COVID-19 pandemic additional securing messaging platforms were made available to physicians at no cost.

British Columbia

British Columbia has established email and text messaging codes for both specialist and primary care physicians. Physicians are responsible for choosing the technology they use and ensuring privacy requirements are met.

Similar to telephone management codes primary care physicians must commit to the General Practice Service Committee's requirements of providing full-service family practice services and confirming the doctor-patient relationship through a standardized communication of 'compact'. Eligible primary care physicians are compensated \$7.00 for each two-way communication and have the ability to delegate the communication to an interdisciplinary team member or medical office assistant. Delegation applies to transmission of the message only and not the actual consult or medical assessment (Medical Service Commission, 2019).

Specialists can bill \$10.10 for email communication with a patient they have seen in the last 18 months. Text messaging is not permitted and the intent of the email must be to replace an in-person visit (Medical Service Commission, 2019).



Secure Messaging: Jurisdictional insights (International)

Secure messaging has been widely adopted in the United States and United Kingdom enabled by capitation payment models. Leading providers such as Kaiser Permanente report that the majority of patient interactions now take place through secure messaging.

United States

In the United States, secure messaging has been used by a number of leading health care organization. It has typically been used in settings that do not rely on FFS remuneration and is often managed by non-physician providers. The Kaiser Permanente system has been noted as a world leader in virtual care and in 2016 reported that nearly half of all interactions with patients were virtual. This included 30 million secure messages between patients and care teams – representing the vast majority of virtual interactions (Kaiser Permanente, 2018).

In response to COVID-19, the Centers for Medicare & Medicaid Services (CMS) announced a series of changes to E-Visit and Virtual Check-in billing options. Now physicians have the ability to bill for check-ins and e-visits conducted using a secure messaging platform. Physicians are required to have an established relationship with the patient in question and CMS provides guidance on privacy compliant portals and software. Compensation is based on the cumulative time it takes to provide services over a seven day period and ranges from \$13.35 to \$50.16 (CMS, 2020).

United Kingdom

There are a number of secure messaging and email tools available in the UK. Given that physicians are not compensated under a FFS model, there is more incentive to manage multiple streams of patient contact.

Publicly funded applications like Babylon's GP at Hand use messaging and AI triage to determine the need for virtual or face-to-face provider consultations. Other applications allow for online booking, virtual visits, health record access, and secure messaging. The NHS maintains an official app library for patients and providers. It has recently approved a single secure messaging app, Hospify, for use by physicians, health care providers, and patients across the NHS system (Hughes, 2020).

General insights

- Numerous research and evaluation reports demonstrate that patients and providers value secure messaging as a tool to replace some in-person visits.
- Patients note the flexibility of secure messaging. It allows for encounters to happen without interruption to daily life and minimizes unnecessary travel and lost hours of productivity.
- Secure messaging technologies should be flexible and easy to use. Studies show that requiring access through a dedicated portal can limit use (Lau et al 2014, Weppner et al 2010).
- There is some evidence that patients who use secure messaging may consume more health care services overall. Researchers suggest that secure messaging may act as a gateway to increase the number of traditional clinical encounters and more research is required to identify features of messages or characteristics of patients who send them are most likely to be associated with the expected increase in traditional encounters (Bryan et al., 2020).
- As witnessed in the recent OTN pilot project, patients overwhelmingly supported secure messaging when provided with the option due to the convenience (92%) and time-saving (95%) benefits. Despite patient preference for this modality, the overall volume of secure message-enabled visits billed by providers still represented a small portion of overall encounters, between 6 (LIHN 1) and 36 (LIHN 2) encounters per provider per month on average, based on a sample of 6,355 patients (Women's College Hospital Institute for Health Systems Solutions and Virtual Care, 2019). As secure messaging matures it stands to become a more commonly used modality as is currently the case in the Kaiser Permanente health system.

The table on the following page outlines a series of possible compensation models that could be considered for secure messaging, along with relative strengths and weaknesses of each, and the recommended model.



Secure Messaging: Applicable compensation models

From the eight FFS compensation models shown on page 11, four have been deemed applicable for secure patient messaging, with a tiered fee model per resolved issue recommended.

Model	Flat fee per message / exchange	Tiered fee per resolved issue	Pro-rated hourly	Stipend	Tiered Stipend
Description	Physicians are compensated at a flat rate per two-way exchange (pre-pandemic caps applied)	Physicians are compensated through a fee for each completed interaction. Two fees available to account for complexity of interaction.	Physicians are compensated a certain rate per specified unit of time over a seven-day period.	Physicians are compensated with a set allotment at pre-determined intervals for maintaining patient access and agreeing to respond to messages within a set timeframe.	Physicians are compensated with a gradually increasing allotment for maintaining patient access and agreeing to respond to messages within a set timeframe. Stipend levels increase based on the number of patients enrolled.
Jurisdiction	British Columbia	Ontario	US (Medicare and Medicaid)	NS (previous myHealthNS)	NS (proposed)
Pros	<ul style="list-style-type: none"> • Easy to understand • Encourages increase access for patients who presently cannot communicate with physicians • Encourages high adoption among physicians 	<ul style="list-style-type: none"> • Reduced admin burden compared to billing for each exchange • Alignment with payment model for synchronous visits • Reasonable cost certainty for payer • Tiered payment approach allows for remuneration for more complex cases • Model is supported by evidence 	<ul style="list-style-type: none"> • Compensates physicians for actual time spent • Allows for multiple follow-ups • Higher level of cost certainty for payer 	<ul style="list-style-type: none"> • Minimal administrative burden • No caps on number of interactions 	<ul style="list-style-type: none"> • Minimal administrative burden • No caps on number of interactions • Incentive to enroll additional patients and potentially increase access • Improves compensation for high volume providers compared to low volume providers
Cons	<ul style="list-style-type: none"> • Captures volume but not effort • Increased admin burden in tracking each exchange • Incentive for volume to max cap • May reduce quality of interactions, incentivizing quantity • Low cost certainty • Incentivizes overuse (both parties) 	<ul style="list-style-type: none"> • Some administrative burden • Risk of lengthier exchanges with patients will require more effort (increasing average number of exchanges over time) 	<ul style="list-style-type: none"> • Very high administrative burden (recording start, stop times of reading and writing messages – possibly spread out over multiple days) • Does not incentivize volume or value-for-money, efficiencies 	<ul style="list-style-type: none"> • Low incentive for volume or response in timely manner • Does not adequately compensate high volume providers compared to low volume providers • Does not account for complexity 	<ul style="list-style-type: none"> • Relatively low incentive for volume or response in timely manner • May encourage physicians to limit service once a specific number of patients are enrolled • Does not account for complexity
Recommend		✓			

Secure Messaging: Evaluation of recommended model



Below we assess the recommended “tiered fee per resolved issue” model against the principles on page 8.

Patient Access & Value for Money	Administrative burden	Feasibility	Modality Neutrality	Income Neutrality	Cost Certainty
<ul style="list-style-type: none">• A tiered fee per resolved issue promotes physician adoption and greater patient access. By encouraging adoption of secure messaging, this will enable physicians to schedule flex time into their daily schedules, whereby they could either respond to messages, or, see urgent in-person cases as needed. This model, used in the US and UK promotes considerable patient access.• This model also promotes value for money by disincentivizing high volumes of messages (compared with a flat fee per message model).	<ul style="list-style-type: none">• A tiered fee approach means that physicians do not spend additional time recording the duration of time spent responding to brief patient emails or messages.• Moreover, this model would avoid administrative burden of physicians having to bill for each message, as is the case in BC and PE. As a result, this model is highly aligned with the aim of a reduced administrative burden.	<ul style="list-style-type: none">• From a feasibility standpoint, a tiered fee per resolved issue is a reasonably feasible model. It is already in place in Ontario, for example, which provides opportunities to draw from lessons learned and implementation. While a flat-fee per message is already in place in PE, this approach may not be sustainable in the long run.• A flat fee per message may not be feasible from a payer perspective, nor from an administrative burden perspective, particularly as this modality grows in use.	<ul style="list-style-type: none">• By adopting a tiered fee approach, physicians would be compensated similarly, regardless of whether a patient is seen in person, through a phone or video virtual visit, or via secure messaging. Like face-to-face visits, pay is linked to resolution of an issue or completion of a visit. By achieving a relatively uniform type of compensation across modalities, this principle is met.	<ul style="list-style-type: none">• A tiered fee per resolved issue is reasonably aligned with the income neutrality principle in that physicians would have multiple billing codes based on case complexity. This would mitigate risks for under compensation for lengthier exchanges with patients with more complex needs.• While a pro-rated compensation model may ensure physicians are compensated adequately for their time, a tiered fee reduces time consuming administration associated with tracking time over multiple brief interactions.	<ul style="list-style-type: none">• A tiered fee compensation approach has good cost certainty for the payer, in comparison to an hourly pro-rated approach.• While a flat fee or a stipend may provide greater overall cost certainty from a system perspective, they do so at the risk of encouraging high volumes (flat fee) or low volumes and delayed response times (stipend).
✓ Key strength	✓ Key strength	✓ Key strength	✓ Key strength	Neutral	Neutral

A tiered fee per resolved patient issue compensation model has worked successfully in other jurisdictions, and provides excellent patient access, good value for money, modality neutrality, and a relatively low administrative burden for physicians.

Recommendation: Government should introduce a FFS billing code for Secure Messaging between physicians and their patients. The fee should adopt a “flat fee per closed visit” compensation model with an optional complexity modifier (Ontario model).

Secure Messaging: Issues and considerations

Adoption of secure messaging has the potential to improve patient access to care.



Additional issues and considerations

- Evaluation and survey data clearly indicate that patients are interested in and willing to embrace secure messaging. In a wide range of studies, patients find the modality to be convenient, time-saving and their preferred modality in most instances.
- Providers have signaled mixed opinions about whether billing should vary by modality. Some have suggested that messaging can take an equal amount of time as video or phone communication. Others have suggested that once adopted messaging can be quick and easy, as it does not require additional scheduling.
- Efforts to monitor and evaluate secure messaging should be leveraged to ensure secure messaging does not result in additional virtual or in-person visits.
- Messaging is not an appropriate modality to replace other forms of care and clinical guidance and/or billing restrictions should be developed.

Secure messaging platform(s)

- As with many forms of virtual care, there is a significant administrative burden associated with enrolling and onboarding patients, encouraging adoption, and incorporating technology into existing clinical workflows. Adoption of secure messaging platforms can also come with additional costs for physicians, a concern that has been expressed in our discussions with physicians.
- Change management and IT support are essential to ensure appropriate and sustained uptake. Providers require advice and support to select solutions and platforms that will meet their needs and appeal to patients. ON, AB, and BC have identified and supported messaging platforms that meet technical and privacy requirements for physician use, including EMR integration.
- **Recommendation: Government should consider procurement of a secure messaging platform that can integrate with existing EMRs and/or hospital Clinical Information Systems or reimbursement of physician-selected virtual care/messaging modules in order to encourage uptake and offset costs.**

Secure Messaging: Summary of recommendations



This page summarizes physician compensation recommendations in relation to secure patient messaging.

Asynchronous - Provider to Patient

(c) Secure Patient Messaging

- Government should introduce a billing code for Secure Messaging between physicians and their patients. The fee should adopt a “flat fee per closed visit” compensation model with an optional complexity modifier (Ontario model).
- Government should consider procurement of a secure messaging platform that can integrate with existing EMRs and/or hospital Clinical Information Systems or reimbursement of physician-selected virtual care/messaging modules in order to encourage uptake and offset costs.

Secure Messaging: Summary of health system and patient benefits



The table below highlights key health system and patient benefits associated with asynchronous secure patient messaging.



Health system benefits



Patient benefits

Secure messaging

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| <ul style="list-style-type: none">• Added capacity: The use of secure messaging can reduce the need for in-person visits or synchronous virtual visits, generating new capacity and access within our healthcare system.• Speed of access: Moving more interactions to asynchronous care frees up time to allow for more same day appointments for urgent cases as well as timely responses to urgent patient issues.• Reduction of unnecessary in-person visits: Secure messaging has resulted in a reduction of unnecessary face-to-face provider visits (Zhou 2007, Bergmos 2005).• Workload flexibility: Ability to provide care in off-peak hours.• Improved communications: Improved communication with patients, better documentation, reduced documentation time, and reduction of miscommunications and related errors.• Triaging patients: Secure messaging allows physicians to better triage care and prioritize more urgent care issues.• Reduce workforce exposure: Secure messaging reduces staff exposure during pandemics and flu season, and lessens the use of personal protective equipment.• Efficiencies: Smart forms and questionnaires can be integrated into secure messaging to obtain important information in advance of in-person or virtual visits, enabling efficiencies and triaging. | <ul style="list-style-type: none">• Increased patient satisfaction: In a variety of studies, patients note a preference for secure messaging over other modalities.• Time saved: Reduction of unnecessary face-to-face provider visits (Zhou 2007, Bergmos 2005).• Speed of access: Timely responses from physicians, avoiding the need to wait weeks for a synchronous appointment.• Improved communications: Increased patient ability to communicate effectively with primary care team. Some patients reported feeling more comfortable sending messages at their leisure rather than feeling pressured to get all of questions in a 10-15 minute window (Haun et al. 2014).• Improved adherence to care strategies: Improved patient understanding of physician guidance due to better documentation, written instructions, leading to reductions in miscommunications and improved clinical outcomes• Efficiencies and time saved: Avoiding missed phone calls between patients and clinical staff.• Reduced exposure to illness: Secure patient messaging reduces patient exposure to illness during pandemics and flu season. |
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Modality D: Asynchronous virtual care: Provider to Patient

Remote Patient Monitoring

This section provides an overview of remote patient monitoring (RPM) and highlights insights from jurisdictional research. We then describe applicable compensation models that can be considered for RPM , relative strengths and weaknesses of each, and a recommended approach. We conclude this section by comparing our recommended compensation model against the six principles outlined on page 8, addressing pertinent issues, and summarizing recommendations.

	Synchronous (Real-time)	Asynchronous	
Provider to Patient	Real-time phone or video interaction between physician and patient	Online exchange of medical information between physician and patient	
	<div>A</div> <div>Virtual visits (video, telephone)</div>	<div>C</div> <div>Secure patient messaging</div>	<div>D</div> <div>Remote patient monitoring</div>
Provider to Provider	Real-time interprofessional interaction between physicians or other health care providers	e-Consults: Online exchange of medical information between providers	
	<div>B</div> <div>Virtual conferencing / Remote consults (video, telephone)</div>	<div>E</div> <div>E-Consults / Tele-expertise</div>	



Remote Patient Monitoring: Overview and introduction

RPM is a relatively new virtual care modality that has seen increasing uptake as novel digital technologies become more widely available.

Overview

Remote patient monitoring (RPM) is a relatively new virtual care modality that has seen increasing uptake as novel digital technologies become more widely available and cost effective. RPM includes the uses of technology to collect biometric, medical, health, and even social data from individuals. This data is then transmitted to health care providers who can remotely monitor a patient's health status and recommend early interventions to improve health, limit emergency department use, and reduce hospital readmission.

RPM programs collect a diverse range of health and personal data. Depending on the intended intervention this can include weight, blood pressure, blood oxygen levels, blood sugar, heart rate, and physiological data. Increasing RPM data collection is facilitated by securely transmitted data captured from internet enabled digital devices. RPM programs may also rely on self-reported information provided over the phone or through an application (Center for Connected Health Policy, 2018).

Compensation models for RPM activities have been slow to emerge and remain limited across Canada. Many RPM programs rely on salaried nursing and allied health care staff who review incoming data to determine the need for intervention. Physician participation is often limited to data being provided to family physicians without a defined role in monitoring the patient's condition. An exception has been the emergence of Ad Hoc COVID-19 specific models.

Various studies have found Remote Patient Monitoring to be associated with lower rates of hospitalization, decreased presentation at emergency rooms, a gain in quality-adjusted life years, and cost savings when applied to appropriate patient populations and conditions (Ware 2020, Klesery 2014, Versteeg 2014, Varma 2013).

Atlantic context

There are at least two fledgling RPM programs in place in Atlantic Canada and examples of one off monitoring remuneration in specific areas.

In Newfoundland and Labrador, Eastern Health has been operating a chronic disease focused RPM program – Supporting Health at Home - for the last 3 years. Patients are referred to the program from a number of sources and followed remotely by a team of registered nurses (Eastern Health, 2018).

A review of the initial pilot phase found high levels of patient satisfaction, improved ability to self-manage, a reduction in emergency department utilization, and a nearly 40% lower admission rates (ibid). However, the pilot was not cost effective due to limited impact on certain patient populations. Future enrolments were adjusted to target a smaller sub-set of the patient population.

Nova Scotia recently introduced a new COVID-19 home monitoring program for patients who are discharged from hospital with a positive COVID-19 diagnosis. The program measures blood oxygen levels and other vital signs in an effort to determine if a patient may require hospitalization. Physicians are compensated with an on-call stipend to monitor patients via the TELUS Home Health application. While the program was initially introduced for COVID-19 patients only, NSHA is currently exploring options to expand the program to other areas including chronic heart failure.

In New Brunswick, nephrologists can bill \$41.30 once weekly for management and supervision of home dialysis patients by telephone. All four Atlantic provinces have some form of weekly monitoring programs in place for home dialysis.



Remote Patient Monitoring: Jurisdictional scan (Canada)

Many RPM initiatives across Canada have not moved past the pilot phase or are still in the process of maturing.

CANADA

Across Canada, provinces and health authorities have implemented a number of remote patient monitoring programs over the last decade. Programs have tended to focus on ambulatory care sensitive conditions including COPD, CHF, and diabetes (Canada Health Infoway, 2016). Other examples include programs operated as part of chronic heart failure clinics and those specifically focused on short term electrocardiogram monitoring of arrhythmias (Ware et al., 2020).

Many Canadian initiatives have not moved past the pilot phase or are still in the process of maturing. With the exception of electrocardiogram monitoring, programs typically rely on nursing staff to monitor and coach patients. Physicians may refer patients and receive regular reports, but are not compensated for monitoring activities.

Ontario

Ontario Telemedicine Network has partnered with LHINs in Ontario to implement Telehomecare to manage patients with chronic health conditions including chronic obstructive pulmonary disease or congestive heart failure.

Patients are provided with a kit that includes a blood pressure monitor, pulse oximeter, and a scale. Patients enter their information daily using a tablet. Specially trained nurses monitor the results and provide regular chronic disease coaching. Physicians refer patients, but are not actively involved in monitoring. Physicians in the circle of care can request regular reports.

Evaluations of the Telehomecare Program have demonstrated up to 70% reduction in ER visits and 76% reduction in hospital admissions compared to pre-Telehomecare (OTN, 2020). In addition, blood pressure levels were significantly reduced in patients enrolled (Sahakyan et al, 2018).

Alberta

Alberta's latest Home Health RPM initiative is a partnership that includes local Primary Care Networks (PCN) and Alberta Health Services. The program includes a mix of patient self-management and remote monitoring managed by registered nurses in consultation with members of a patient's primary care team. The target patient population includes those with chronic disease and COVID-19. The PCN structure includes established interdisciplinary teams and capitation based payment that helps to facilitate RPM. There is currently no province-wide remuneration mechanism for RPM at the primary or specialist physician level.

British Columbia

British Columbia has been utilizing remote patient monitoring technologies since the late 2000s. The Ministry of Health and local health authorities have partnered with various technology companies included TELUS to provide monitoring of chronic disease patients and have recently expanded programs to include COVID-19 monitoring.

Participant data is monitored by registered nurses and community paramedics. Patients must be referred by their primary care physician or another primary care provider who is provided with patient data and contacted when a patient requires care (BCEHS, 2020). The province has continued to expand monitoring programs and intends to include monitoring as part of their new Primary Care Networks initiative.

An evaluation of the Home Health Monitoring program by Island Health (the health authority covering Vancouver Island) found that enrolled patients with heart failure had sustained decreases in health care utilization including an 82% reduction in ED visits, a 90% reduction in hospital admissions, and shorter overall hospital stays. Patients with COPD had a 37% reduction in ED visits and 67% fewer hospital admissions (Island Health, 2018).



Remote Patient Monitoring: Jurisdictional scan (International)

While RPM remains in its early stages, the United States is becoming a leader in this area thanks to adoption by organizations such as Kaiser Permanente and Veterans Affairs.

United States

The US is quickly becoming a leader in remote patient monitoring. A number of leading health care organizations including Kaiser Permanente and Veterans Affairs have been integrating a variety of RPM technologies over the last number of years. There are also a number of home health care agencies that provide services directly to clients and can now bill Medicare and some state level Medicaid programs.

Mature programs in the US have leveraged non-physician providers to manage RPM. These organizations have typically not relied on traditional FFS models, but have incorporated elements of bundled payment that drive the use of interdisciplinary care models. In addition to RPM, a variety of other virtual care tools may be leveraged as part of a remote monitoring program (Kulkarni, 2018).

With the introduction of new Medicare and Medicaid remuneration for RPM, physicians can bill directly for enrolling, training, monitoring and managing their patients (Centre for Connected Health, 2020). RPM billing was introduced in 2018 and further expanded in 2020 to include additional fees for managing care and interpreting data – referred to as Evaluation and Management. These changes also now allow for codes to be billed when services are provided under the general supervision of the billing provider (Niecko-Najjum et al., 2019.) In addition to the ability to delegate monitoring activities to non-physician providers (or potentially third parties), there is also compensation for providing approved RPM hardware and software to a patient.

Medicaid and Medicare fees include a range of set-up, monthly device supply, monthly monitoring, and management fees ranging from approximately \$11 USD to \$70 USD (Bryant, 2020). These fees can often be billed together and in conjunction with other virtual or in-person codes. However, after loosening restrictions during the pandemic there is some suggestion that further restrictions may be put in place over the coming year.

General insights

- Research on RPM is still at an early stage. Many recent studies and reviews suggest that more research and maturity of programs is required to better understand its impact. Better data collection, increased focus on cost/benefit and improved enrolment of patients are all areas requiring additional study.
- A number of studies have found limited or no sustained benefit associated with RPM upon patient discharge or over a prolonged period (Basch et al., 2016; Ong et al., 2016). This should signify the need for monitoring programs to be carefully designed to ensure benefits.
- A review commissioned by Canada Health Infoway identified a number of success factors (Infoway, 2016):
 - Physician engagement in program design and implementation
 - Clear communication protocols for physicians in the patient's circle of care
 - Integrating RPM into a patient's overall care to allow for coordination of care between a patient's primary, secondary and tertiary care providers and including attachment to specialty clinical areas (e.g. chronic heart failure clinics)
 - Improved recruitment and retention of patients and defined enrolment criteria to facilitate target patient identification
 - Clear patient communication and engagement to facilitate self-management and ensure patients understand that RPM will not replace access to traditional care
 - Measuring benefits and outcomes including patient, population, and health system outcomes

The table on the following page outlines a series of possible compensation models that could be considered for RPM, along with relative strengths and weaknesses of each and recommended models.



Remote Patient Monitoring: Applicable models

From the eight FFS compensation models, four have been deemed applicable for remote patient monitoring, with an enrolment fee model recommended for physicians engaged in active management.

Model	Enrolment Fee per patient	Enrolment Fee per patient (target incentive)	On-call Stipend	Leverage Existing Fee Codes (virtual/provider to provider)
Description	Providers are compensated on an annual, quarterly, or monthly basis for each patient enrolled and participating in an approved RPM program	Providers are compensated on an annual, quarterly, or monthly basis for each patient enrolled – target populations (age, disease, location) are compensated at higher rates	Physicians are compensated at a set rate per specified unit of time, to provide on-call support to patients and non-physician monitoring staff.	Patients are enrolled centrally based on established program parameters. Physicians leverage existing fee codes to manage patients when alerted to the need for intervention.
Jurisdiction	US (Medicare, some states, select insurance companies)	US (Medicare, some states, select insurance companies)	NS, ON	NL, ON, BC, AB
Pros	<ul style="list-style-type: none"> Increases RPM enrolment May increase continuity of care Provides physician autonomy to determine enrolment 	<ul style="list-style-type: none"> Increases RPM enrolment May increase continuity of care Increases incentive to target those most likely to benefit from RPM 	<ul style="list-style-type: none"> Allows for rapid medical intervention when required May reduce cost by centralizing medical management 	<ul style="list-style-type: none"> Reduces requirement for physician to actively monitor RPM patients Allows for introduction of target RPM programming in fee-for-service environment
Cons	<ul style="list-style-type: none"> Reduces ability to target RPM enrolment to specific target populations and may increase enrolment of patients unlikely to benefit from RPM Works best when monitoring tasks can be delegated to non-physician provider May increase enrolment of marginal cases (overuse) 	<ul style="list-style-type: none"> While incentive is provided to target specific populations, patients unlikely to benefit from RPM may still be enrolled Works best when monitoring tasks can be delegated to non-physician provider 	<ul style="list-style-type: none"> Requires patients to self-manage and take action when intervention required Continuity of care may be limited by nature of shared on-call 	<ul style="list-style-type: none"> May reduce physician willingness to participate in RPM programs and overall continuity of care Relies on nursing and other health care providers to manage patient care
Recommend		✓ (Active Physician Management)		✓ (Program Management)



Remote Patient Monitoring: Evaluation of recommended model

Below we assess the recommended “enrolment fee” compensation model against the principles on page 8 for physicians engaged in active management.

Patient Access & Value for Money	Cost Certainty	Administrative burden	Income Neutrality	Feasibility	Modality Neutrality
<ul style="list-style-type: none"> An enrolment fee with target incentive would promote patient access to RPM by encouraging physician adoption and regular monitoring of patients who would most benefit from RPM. Enrolment would encourage continuity of care when compared to an on-call or centrally managed approach. 	<ul style="list-style-type: none"> An enrolment fee provides significant cost certainty as long as the number of overall patients enrolled can be predicted or controlled. Appropriate controls will need to be in place to guard against over-enrolment. Targeting patients who could benefit most from RPM would enable cost control. 	<ul style="list-style-type: none"> An enrolment fee would have minimal administrative burden and is easily adapted to existing FFS billing practices. When compared to on-call stipends, overall administrative support and scheduling are significantly reduced and thus aligned with the principle of reducing administrative burden. 	<ul style="list-style-type: none"> Enrolment and monitoring fees can be aligned with relative effort to perform required RPM activities. The model provides the opportunity to ensure both upfront enrolment activities and ongoing monitoring are compensated with the ability to delegate appropriate activities to allied health care providers 	<ul style="list-style-type: none"> From a feasibility standpoint, an enrolment fee is reasonably feasible, and has already been successfully adopted in other jurisdictions. Most RPM models in Canada are centrally managed and thus do not lend themselves to a enrolment compensation model. 	<ul style="list-style-type: none"> Not applicable. RPM involves the use of specific devices and technology, and an enrolment compensation model is unlikely to incent physicians to move away from other modalities.
✓ Key strength	✓ Key strength	✓ Key strength	✓ Key strength	Neutral	Neutral

An enrolment fee with target incentive can encourage patient access, enables reasonable cost certainty, and involves a relatively low administrative burden for physicians.

Recommendation: Where a physician is responsible for RPM, dedicated enrolment monthly or annual monitoring fees should be considered for adoption with the option to delegate monitoring tasks.

Recommendation: Where a physician is not directly responsible for RPM, provider-to-provider collaboration should leverage provider-to-provider consults codes.



Remote Patient Monitoring: Issues and Considerations

While RPM holds some promise, there is limited evidence of efficacy in RPM for the general population. PTMAs should engage health authorities to explore the role physicians can play in this space.

Additional considerations

- Across Canada, including Atlantic Canada, most Remote Patient Monitoring programs are run by local health authorities or large health care organizations. Programs typically leverage specially trained nurses to monitor enrolled patients and determine when specific interventions are required.
- The majority of RPM programs focus on managing chronic conditions such as Congestive Heart Failure, Chronic Obstructive Pulmonary Disorder and Diabetes. Other examples of remote monitoring tend to be more specific in nature and include post-operative, COVID-19, and electrocardiogram.
- Mature RPM programs are increasingly leveraging new technology to automate the connection between the patient and health care provider. In addition, programs are increasingly utilizing algorithms and artificial intelligence to automate portions of the monitoring process.
- Provinces have yet to establish specific fee codes for physician participation in RPM programs, with the exception of electrocardiogram monitoring.
- There is limited evidence of efficacy in RPM for the general population. Successful programs are typically restricted to target populations including specific age groups, levels of complexity, and ambulatory care sensitive conditions such as COPD, CHF, and type 2 diabetes.
- Capitation and blended care models that include interdisciplinary care may improve the efficacy and cost effectiveness of remote monitoring.
- Given the evolving nature of RPM, **PTMAs should engage health authorities to explore the role that physicians play in enrolling, monitoring, and treating patients as RPM programs are developed in each jurisdiction.** This should include:
 - Defining the role of the physician in RPM programs.
 - Clearly defining responsibilities for monitoring and treatment.
 - Agreeing to data / information sharing standards.
 - Adequately communication changes in health status and care interventions to a patient's family physician.



Remote Patient Monitoring: Summary of recommendations

This page summarizes physician compensation recommendations in relation to RPM.

Asynchronous - Provider to Patient



(d) Remote Patient Monitoring

- PTMAs should engage health authorities to explore the role that physicians play in enrolling, monitoring, and treating patients as RPM programs are developed in each jurisdiction. This should include:
 - Defining the role of the physician in RPM programs
 - Clearly defining responsibilities for monitoring and treatment
 - Agreeing to data / information sharing standards
 - Adequately communication changes in health status and care interventions to a patient's family physician
- Where a physician is not directly responsible for RPM, provider-to-provider collaboration should leverage provider-to-provider consults codes.
- Where a physician is responsible for RPM, dedicated enrolment monthly or annual monitoring fees (stipend) should be considered for adoption with the option to delegate monitoring tasks.
- Any physician interventions or visits with patients stemming from RPM should leverage existing face-to-face and virtual codes as required.

RPM: Summary of health system and patient benefits



The table below highlights key health system and patient benefits associated with asynchronous remote patient monitoring.

	<div> Health system benefits</div>	<div> Patient benefits</div>
<div>Remote patient monitoring</div> <div>D</div>	<ul style="list-style-type: none">• Reduced hospitalizations and ER visits: A 2020 study Huntsman Cancer Institute at the University of Utah (U of U) showed that remote patient monitoring led to reduced hospitalizations and decreased visits to the emergency department (HCI 2020). Hospital at Home patients were 58% less likely to be admitted for an unplanned hospital stay, and those who were admitted to the hospital had a shorter length of stay. Enrolled patients also had 48% fewer emergency department visits.• Expanded capacity in hospitals: RPM can enable hospital-at-home solutions that allow for more rapid discharge of hospital patients. This can create net-new capacity “in the home” and free up inpatient hospital capacity for new cases.• Expanded ability to take on more patients: Remote patient monitoring increases the capacity for care providers to take on more patients and focusing care on those who require their focused attention.• Reduced clinician travel time for community home visits.• Cost savings: Australia estimates that that home monitoring of chronic disease could save up to \$3-billion AUD annually through decreases in GP visits, specialist visits and procedures from the adoption of virtual health devices and technology (CSIRO 2016).	<ul style="list-style-type: none">• Improved management of chronic issues: RPM enables patients to better manage their health conditions without the need for standard check-ups either in their homes or in community medical clinics. Digital tools like smart patches that track vital signs have allowed patients to address changes in their condition before they become critical and require a trip to an acute care facility.• Improved collaboration with care provider: RPM helps make patients active participants in their care and equips them with the tools to grow involvement and accountability. This has the potential to empower patients in the process and become invested in improving overall health.• Assurance: Patients are comforted knowing that a care provider is watching out for their health and wellbeing on a daily basis.• Improved patient outcomes: A recent study at Huntsman identified improved patient outcomes as a key benefit of RPM (HCI, 2020).

Modality E: Asynchronous virtual care: Provider to Provider

E-Consults

The following section provides an overview of e-Consults and highlights insights from jurisdictional research. We then share evidence from a recent e-Consult compensation model study in Ontario, and then outline and describe applicable compensation models that can be considered for e-Consults, relative strengths and weaknesses of each, and a recommended approach. We conclude this section by comparing our recommended compensation model against the six principles outlined on page 8, addressing pertinent issues, and summarizing recommendations.

	Synchronous (Real-time)	Asynchronous (Deferred)	
Provider to Patient	<i>Real-time phone or video interaction between physician and patient</i>	<i>Online exchange of medical information between physician and patient</i>	
	<div><div>A</div><div>Virtual visits (video, telephone)</div></div>	<div><div>C</div><div>Secure patient messaging</div></div>	<div><div>D</div><div>Remote patient monitoring</div></div>
Provider to Provider	<i>Real-time interprofessional interaction between physicians or other health care providers</i>	<i>e-Consults: Online exchange of medical information between providers</i>	
	<div><div>B</div><div>Virtual conferencing / Remote consults (video, telephone)</div></div>	<div><div>E</div><div>E-Consults / Tele-expertise</div></div>	

E-Consults: Overview and introduction



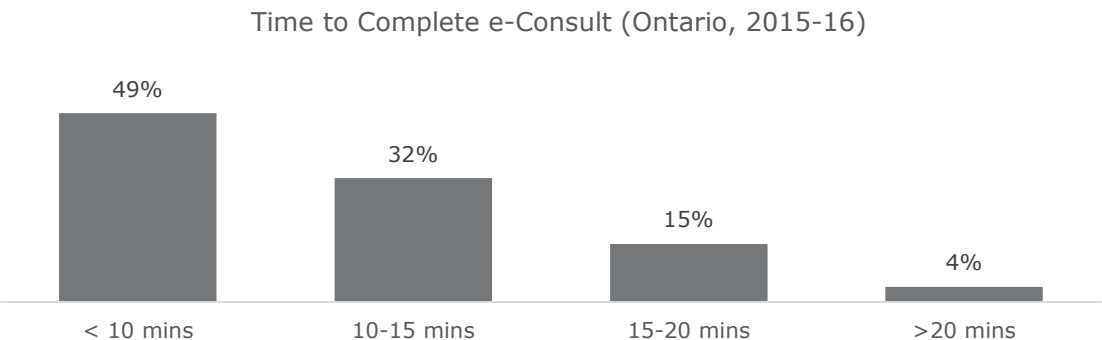
While e-Consults are still relatively new in the health system, they hold enormous potential for reducing referrals and increasing patient access to specialty care and unlocking capacity in the health system

Overview

E-Consults allow electronic non-urgent communication between physicians to obtain inter-professional feedback on the management of patient cases. Parties engaging in e-Consults typically include family doctors and specialists, resulting in specialist-informed patient care in the primary care setting (Stanistreet 2017). The modality can be implemented on any digital platform capable of facilitating secure communication between primary care providers and physician specialists (Liddy 2019).

Sometimes referred to as tele-expertise, e-Consults were developed to reduce lengthy specialist wait times by reducing non-essential face-to-face or Emergency Department referrals. Around the world, e-Consults are currently the most widely used form of asynchronous virtual care, and are reported to have improved access, quality, satisfaction, and efficiency for many patients by reducing unnecessary referrals (LeVasseau 2020).

A 2016 study in Ontario showed that 81% of e-Consults took 15 minutes or less, and only 4% required greater than 20 minutes (Liddy 2016).



General insights

- While there are some established telephone and rapid consult programs across Canada, asynchronous e-Consults are still relatively new in the health system and are not yet widely adopted.
- Jurisdictions that have introduced e-Consults, either through pilot projects or on a permanent basis, employ a variety of payment models.
- There is some, albeit limited, research on optimal payment models for this modality of virtual care. We introduce this research on page 57.
- Choosing the optimal remuneration models for E-Consults is critical in order to encourage physician adoption, good specialist response times, quality of responses, and to ensure sustainability of the service.

Atlantic context

Among the Atlantic provinces, e-Consults are in place in both New Brunswick and Newfoundland and Labrador. Both programs provide compensation to specialist physicians only. In Nova Scotia, there is no compensation for e-Consults. However, there is currently an e-Consult program available for general internal medicine in the Halifax area. In this program, all participating general internists are compensated under an Academic Funding Plan.



E-Consults: Jurisdictional insights

E-Consult programs are in use across Canada and internationally and use a variety of payment methods including fee-for-service and hourly pro-rated models.

CANADA

Ontario

In an effort to address excessive specialist wait times, Ontario introduced the Champlain BASE™ eConsult Service in 2010 to allow primary care providers to connect with specialists and send questions concerning patient care. Primary care providers request specialist advice on a patient by logging onto the BASE platform, and choosing a given specialty group (rather than contacting an individual specialist). This triggers a case assigner who allocates the e-Consult to a specialist based on availability. Within one week, the specialist responds to the family doctor's question by providing advice on how to manage the patient, and possibly recommending a face-to-face referral or requesting additional information. To date, Ontario has completed more than 50,000 e-Consults from 1,400 PCPs and across 114 specialty groups. The program has been viewed as effective, with over two-thirds of consults being resolved without the patient requiring a face-to-face specialist visit, and the average consult response falling within 2 days of submission. Specialist physicians are compensated through a pro-rated hourly fee of \$200/hour for the length of time spent answering a case, while referring family physicians are remunerated through a flat fee of \$16.

Alberta

Alberta Netcare is the province's e-Consult service, introduced in 2014. Alberta's e-Consult compensation differs from other Canadian provinces, with physicians remunerated through flat fees rather than on a pro-rated hourly basis, with separate codes and rates for referring (\$32.43) and specialist (\$76.27) providers.

British Columbia

British Columbia's eCASE (electronic Consultative Access to Specialist Expertise) is currently in the prototype phase, and works to connect PHC General Internal Medicine specialists with Family Physicians. Referring physicians are not compensated for e-Consults, and specialists are compensated using a flat fee model (\$10.10).

INTERNATIONAL

United States

New billing codes and associated reimbursement rates for e-Consults were finalized in the 2019 CMS Clinical Lab Fee Schedule. These revisions expand Medicare reimbursement for several modalities of asynchronous communications, including asynchronous interprofessional internet consultations (LeVasseau 2020).

Currently, Medicaid programs in 14 states have introduced reimbursement for e-Consults with various conditions and eligibility criteria.

France

France is the first country to reimburse tele-expertise at a national level for all fee-for-service physicians in all specialties (in effect since February 10, 2019). Both referring and specialist physicians are remunerated. Referring physicians are paid 5 euros for simple cases, and 10 euros for more complex e-Consults, with a cap of 500 per year. Specialist physicians are remunerated 12 euros per simple case and 20 euros for more complex cases, with a cap of 4 per patient for year (Ohannessian 2020).

The Netherlands

The Netherlands has funded e-Consults at the national level since 2006 for both referring and specialist physicians; however, this has been limited to dermatology (Ibid).



E-Consults: Insights from compensation model study

A 2016 study of e-Consult compensation models identified pro-rated hourly to be the most cost-effective for remunerating physicians

A 2016 Ontario study by Liddy et, al. compared four compensation models for remunerating specialist physicians:

- **Prorated hourly rate:** Specialists are compensated \$200 per hour pro-rated to the length of time it takes them to complete each e-Consult. This model is currently used to remunerate specialists who use the Champlain BASE e-Consult service and has been in existence since project inception.
- **Pro-rated incentive model:** On top of the standard pro-rated hourly rate as above, specialists receive a \$10 bonus for e-Consults completed within 24 hours and a \$5 bonus for e-Consults completed within 48 hours. An incentive model is currently being tested for similar e-Consult services operating within the province of Ontario.
- **Fee-for-Service (flat fee):** Specialists are paid a flat fee of \$44.50 per e-Consult, regardless of how long it takes to complete. Additionally, PCPs are remunerated \$16.00 for the referral. These fees are based on existing fee codes in Ontario.
- **Flat weekly fee (stipend):** Specialists block off a set time each week to devote to answering e-Consults.

The study concluded that a pro-rated hourly rate model was found to be the most cost effective. Through the use of simulations using physician data, the authors identified that a pro-rated hourly rate model would yield a system cost of \$45.72 per e-Consult, compared with \$51.90 (pro-rated incentive model), \$60.50 (fee for service), and \$337.44 (stipend).

Finally, the study also found that 88% of specialists were satisfied with the amount and model of remuneration, and that a common rate was acceptable across all specialist groups (Ibid).

The table on the following page outlines a series of possible compensation models, including those referenced here, that could be considered for an e-Consult payment model, along with relative strengths and weaknesses, and a recommended model for both referring and specialist physicians.

Study reference: Liddy, C., C. Deri Armstrong, F. McKellips, P. Drosinis, A. Afkham and E. Keely. 2016. "Choosing a Model for eConsult Specialist Remuneration: Factors to Consider." *Informatics* 3(2): 8. Retrieved August 8, 2017. <http://www.mdpi.com/2227-9709/3/2/8/pdf>

E-Consults: Applicable compensation models



From the eight FFS compensation models identified on page 11, six have been deemed applicable for e-Consults, with a pro-rated hourly model recommended for specialists, and a flat-fee model recommended for referring physicians.

Model	Flat fee per E-Consult	Flat fee with incentive	Pro-rated hourly	Pro-rated hourly with incentive	Tiered Stipend	Fixed Stipend
Description	Physicians are compensated at a flat rate per e-Consult. This model is currently used in Alberta.	Physicians are compensated through a flat fee with a higher rate if the consult is addressed in a given time window.	Physicians are compensated a certain rate per specified unit of time, pro-rated to the length of time taken to complete each consult.	Physicians are compensated a certain rate per specified unit of time, pro-rated to the length of time taken to complete each consult, with a higher hourly rate for rapid response times.	Physicians are paid a stipend for a given number of consults responded to. This could involve multiple thresholds, with a given amount of hours or e-Consults set for each threshold.	Physicians are compensated a specified annual or monthly sum for e-Consults.
Pros	<ul style="list-style-type: none"> Reasonable level of cost certainty Incentive for volume (specialists) Relatively low administrative burden 	<ul style="list-style-type: none"> Reasonable cost certainty Incentive for volume (specialists) 	<ul style="list-style-type: none"> Enables specialists to dedicate more time for complex cases 	<ul style="list-style-type: none"> Incentive for faster response times (specialist) 	<ul style="list-style-type: none"> Some relationship between effort and remuneration Lower administrative burden 	<ul style="list-style-type: none"> Ease of implementation Low administrative burden
Cons	<ul style="list-style-type: none"> Less flexible for complex consults that required additional time 	<ul style="list-style-type: none"> Less cost efficient Response time gains may not be achieved 	<ul style="list-style-type: none"> Reduced incentive for volume Higher administrative burden (recording start, stop times) Less cost efficient, certain 	<ul style="list-style-type: none"> Reduced incentive for volume Higher administrative burden (recording start, stop times) 	<ul style="list-style-type: none"> Lower incentive for volume Difficult to set the right thresholds Not fully aligned with actual effort 	<ul style="list-style-type: none"> Very low incentive for volume Overcompensates low volume specialists Does not adequately compensate high volume specialists (if applicable)
Recommend	✓ (referring)			✓ (specialist)		

E-Consults: Evaluation of recommended compensation model



Below we assess the recommended models against the principles described on page 8.

Recommended models | Referring physicians: **Flat fee**; Specialist physicians: **Pro-rated hourly**

Patient Access & Value for Money

- Primary care providers:
- Flat fees for e-Consults promote adoption of e-Consults among primary care providers, and incentivize volume, thereby increasing patient access to specialty care and reducing lengthy wait times.
- Specialists:
- An hourly pro-rated model will ensure specialist physicians who are responding to e-Consults are remunerated fairly, supporting adoption among specialists and ensuring sustainability in the long term.

Feasibility

- From a feasibility standpoint, the recommended compensation models are in use across multiple provinces and have been well received by physicians as indicated in recent evaluations. This suggests that the models would be feasible if adopted more widely in the Atlantic provinces.

Income Neutrality

- Given that primary care providers are often not remunerated for referrals, the introduction of a flat fee would increase earnings somewhat for family physicians, however this is commensurate with additional responsibilities of coordinating with specialists and participating in the consultation process.
- For specialists, a pro-rated hourly compensation model aligns strongly with effort, with lower remuneration for simpler and shorter consults, and higher levels for more complex ones.

Cost Certainty

- A flat fee compensation approach for primary care providers has reasonably good cost certainty for the payer.
- While an hourly pro-rated model for specialists does not offer the same amount of cost certainty, in that it is not easily predictable how much time specialists will spend on these, given the finite number of hours in a year, and the outcome of reducing unnecessary referrals, any unexpected costs should be more than offset by a reduction in inappropriate referrals as well as overall shorter wait times for patients.

Administrative burden

- Flat fees mean that referring physicians do not spend additional time recording the duration of consults.
- An hourly pro-rated model for specialists does involve additional administrative burden in recording start- and stop- times; however this may be mitigated by enabling specialist physicians to bill in blocks of time, rather than billing on a per-patient basis.

Modality Neutrality

- The principle of modality neutrality applies primarily to provider-to-patient care, ensuring the compensation model alone does not incentivize care to take place on one channel vs. another.
- When it comes to provider-to-provider care, the issue of platform (F2F vs. real-time vs. asynchronous) is less of an issue. Any of the described compensation models for e-Consults should not have a significant effect on the channel of patient care.

✓ Key strength

✓ Key strength

✓ Key strength

Neutral

Neutral

N/A

Recommendation: For specialists, e-Consults should adopt a pro-rated hourly compensation model. For referring physicians, e-Consults should adopt a flat fee compensation model



E-Consults: Issues and Considerations

Billing codes should be introduced for e-Consults in the Atlantic provinces, adopting a pro-rated model for specialist physicians, and a flat-fee model for referring physicians.

Issues and considerations

Adopting a single hourly rate across all specialty programs has proven to be acceptable in Ontario and would allow for simpler implementation. However, this should be monitored over time and possibly adjusted based on physician feedback, billing behaviour and referral wait times.

From a primary care perspective, while remuneration for referring physicians would be welcome, there may be other issues which require further attention in the future. For example, family physicians have reported mixed views about the shift of responsibility from the specialist to the primary care provider that e-Consults entail, with family physicians reporting a feeling of empowerment, while others felt a diminished role, akin to “support staff” (Lee 2018).

Other physicians have reported frustrations from a lack of integration between e-Consults and EMRs. A high degree of integration should be sought between e-Consult platforms and EMRs so that specialists have access to patient medical records in addition to the information provided by the primary care provider. As is the case in remote consults, the quality of the diagnostic or recommended treatment will depend on the quality and quantity of information made available to the specialist.

Finally, some primary care providers have voiced concern that e-Consults reduced the speed of obtaining advice or a referral, and expressed frustration in situations where a referral to a specialist was denied (Ibid).

Like any new modality, introduction of e-Consults should be supported by training and change management. Additional work may be needed to clarify the goals and expectations of e-Consults and to leverage lessons learned in Ontario and other jurisdictions.

E-Consults: Summary of recommendations

This page summarizes physician compensation recommendations in relation to RPM.



Asynchronous - Provider to Provider



(e) E-Consults / Tele-expertise

- Billing codes should be introduced for e-Consults, with unique fee codes for the requesting physician and consultant.
 - For specialists, e-Consults should adopt a pro-rated hourly compensation model. Provinces should consider a single rate across all specialties (and adjust over time if needed) (Ontario model).
 - For referring physicians, e-Consults should adopt a flat fee compensation model.
- As e-Consult adoption continues, data should be captured to continually monitor, evaluate and determine whether adjustments need to be made.

E-Consults: Summary of health system and patient benefits



The table below highlights key health system and patient benefits associated with asynchronous e-consults.

E-Consults	 Health system benefits	 Patient benefits
	<ul style="list-style-type: none">• Reduction in unnecessary referrals: Access to on-demand expertise reduces unnecessary admissions, transfers, readmissions and referrals.• Improved access to specialty care: Improved access to specialists for Canadians living in rural and remote communities and underserved populations.• Continuity of care: E-Consults enable continuity of care between primary care providers and their patients, empowering family physicians to feel well-supported and connected to specialists, expanding the toolset they need to manage their patients.• Improved care coordination: 88% of BASE specialists agreed e-Consults result in improved communication between providers (Keely 2019). 50% of physicians reported improved care coordination (Deloitte, Future of Virtual Health, 2020).• Provider satisfaction: 94% of E-Consult users in Ontario rated provider satisfaction as high or very high based on data collected between 2011 and 2016 (Keely 2019).• Improved population health outcomes: Decades of medical research show that more timely access to care leads to better patient health outcomes (Globerman, 2013).• Reduced mileage costs: Jurisdictions that reimburse patients for medical travel would see cost reductions due to a reduction in unnecessary referrals or in-person specialist visits.	<ul style="list-style-type: none">• Improved patient access: Reduced wait times to access specialty care.• Increased referral speed: E-Consults provide the ability for specialists to better triage referrals and shorten the wait times for specialty care.• Continuity of care: E-Consults enable continuity of care between patients and their primary care providers when specialist advice is required.• Reduced travel time: According to a 2020 Environics survey commissioned by Canada Health Infoway, 9 in 10 Canadians who used virtual care in the past year say it saved them time (CHI, November 2020). A 2020 report by Deloitte estimated that patients save approximately 2 hours on average per virtual visit. In certain cases, patients will travel hundreds of kilometres for routine care that can now be avoided.• Improved health outcomes: Decades of medical research show that more timely access to care can reduce poor health outcomes associated with waiting for care. Research has associated longer wait times with poorer outcomes in cardiovascular conditions, stroke, cancer treatment, and primary and emergency care, for example (Globerman, 2013).

5. Summary of recommendations

The following pages summarize recommendations across all five modalities.

Summary of recommendations (all provinces)

Recommendations specific to synchronous virtual care

The following three pages summarize and reiterate recommendations for the four Atlantic provinces across all five modalities. Pages 64 and 65 outline recommendations **common to all four Atlantic provinces**, while page 66 outlines recommendations specific to specific one or more provinces.

Synchronous - Provider to Patient

(a) Virtual visits (telephone & video)

- Compensation for telephone and video visits should mirror existing face-to-face compensation models.
- Geographic restrictions for providing virtual care should be lifted on a permanent basis.

Payment Parity

- Payment parity between face-to-face and virtual visits should be the norm, unless evidence indicates that differences in fee codes are warranted.
- Government and medical associations should agree to re-evaluate virtual care payment as increased data and evidence regarding the time and effort required for virtual visits relative to face-to-face visits becomes available.

Virtual visits (walk-in clinics)

- Virtual care walk-in clinics should be permitted for unattached patients and attached patients who are unable to get an appointment with their family physician within a reasonable amount of time.
- Explore the potential for virtual walk-in clinics to be remunerated at a lower rate for attached patients to encourage care to be provided within the existing practice.

Extending temporary billing arrangements

- Government should extend temporary billing arrangements to virtual care over a longer time horizon, allowing physicians sufficient notice to manage to their practice and adapt to changes. A minimum 6-month “certainty” window is recommended, rather than frequent short-term extensions.

Synchronous - Provider to Provider

(b) Virtual conferencing / Remote consults

- Compensation should be made available for both the referring and consulting physicians.

Summary of recommendations (all provinces)

Asynchronous virtual care

Asynchronous - Provider to Patient

(c) Secure Messaging

- Government should introduce a billing code for Secure Messaging between physicians and their patients. The provinces should adopt a “flat fee per closed visit” compensation model with an optional complexity modifier (Ontario model).
- Government should consider procurement of a secure messaging platform that can integrate with existing EMRs and/or hospital Clinical Information Systems or reimbursement of physician-selected virtual care/messaging modules in order to encourage uptake and offset costs.

(d) Remote Patient Monitoring

- PTMAs should engage health authorities to explore the role that physicians play in enrolling, monitoring, and treating patients as RPM programs are developed in each jurisdiction. This should include:
 - Defining the role of the physician in RPM programs
 - Clearly defining responsibilities for monitoring and treatment
 - Agreeing to data / information sharing standards
 - Adequately communicating changes in health status and care interventions to a patient's family physician
- Where a physician is not directly responsible for RPM, provider-to-provider collaboration should leverage provider-to-provider consult codes.
- Where a physician is responsible for RPM, dedicated enrolment monthly or annual monitoring fees (stipend) should be considered for adoption with the option to delegate monitoring tasks.
- Any physician interventions or visits with patients stemming from RPM should leverage existing face-to-face and virtual codes as required.

Asynchronous - Provider to Provider

(e) E-Consults / Tele-expertise

- Billing codes should be introduced for e-Consults, with unique fee codes for the requesting physician and consultant.
 - For specialists, e-Consults should adopt a pro-rated hourly compensation model. Provinces should consider a single rate across all specialties (and adjust over time if needed) (Ontario model).
 - For referring physicians, e-Consults should adopt a flat fee compensation model.
- As e-Consult adoption continues, data should be captured to continually monitor, evaluate and determine whether adjustments need to be made.

The following two recommendations apply only to the provinces identified below

Applicable to

Synchronous - Provider to Patient

(a) Virtual visits (telephone & video)

- Volume caps on the provision of virtual care should be removed. Caps and/or other restrictions should be revisited as evidence becomes available and decisions to restrict billing should be based on clinical best practices and informed channel management planning.

The following recommendation is specific only to Prince Edward Island, New Brunswick and Newfoundland and Labrador:

Synchronous - Provider to Provider

(b) Virtual conferencing / Remote consults

- Flat-fee billing codes should be introduced for provinces where physicians are not currently remunerated for synchronous provider-to-provider consults (i.e. PE, NB, NL).
- Note that only about approximately 20% of Newfoundland and Labrador physicians are part of the program that makes them eligible to bill provider to provider interactions

NL	PE	NS	NB
✓	✓		
✓	✓		✓

6. Concluding remarks

Concluding remarks

The way care is delivered by physicians is undergoing considerable change with the sudden and widespread adoption of virtual care in developed countries. While synchronous virtual care modalities such as virtual visits and remote consults have gained a foothold in Atlantic Canada, others, such as secure patient messaging, remote patient monitoring, and e-Consults represent a more substantial departure from existing physician workflows.

The benefits of synchronous care are well known: convenience for patients, reduced travel times, increased access for remote patients or those with mobility challenges, and reduced patient and provider exposure throughout the pandemic, to name a few.

However, we believe the true gains for patients, physicians and the health system as a whole lie in *asynchronous* care. Secure patient messaging, remote patient monitoring, and e-Consults hold enormous promise for the provinces and the country as a whole: increased access to specialists, reduced wait times, reduction of unnecessary referrals, reduction of Emergency Department visits, and added capacity in the health care system.

Physician compensation has profound impacts on the adoption and sustainability of all types of virtual care. While COVID-19 has driven rapid uptake in the synchronous care space, it is early days when it comes to asynchronous modalities, particularly in Atlantic Canada.

The analyses and recommendations laid out in this report set forward an ambitious vision for the future of funding virtual care for fee-for-service physicians in the Atlantic provinces.

We believe Atlantic Canada should take a leadership role in introducing fee codes for these asynchronous modalities in order to unleash economies of care for citizens.

This vision seeks to leverage compensation models that are income neutral, modality neutral, mindful of administrative burden, cost-efficient, controllable, and feasible.

At the same time, given the scale of change, we believe it is crucial that the Atlantic provinces maintain flexibility and adaptability in compensation models. This will involve regular monitoring and review to ensure physician compensation continues to align with these principles, and that any unintended consequences are mitigated, and an appetite to adjust accordingly. Recommendations should be reviewed and adjusted as new data becomes available, particularly since the onset of the pandemic, and the mass uptake of synchronous virtual care in the region.

The recommended compensation models represent a structured, consistent, defensible, and objective way of enabling the adoption of new ways of treating patients in ways that unlock tremendous potential. They position Atlantic Canada to become leaders in the provision of virtual care and take advantage of lessons learned in Canada and abroad.

Implementation of these recommendations will not be easy or quick, but will be necessary to build a future for virtual care while fee-for-service remains a dominant overarching model in Atlantic Canada.

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