Provincial Health Services Authority
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Office of Virtual Health
Connecting for health

Virtual Health COVID-19 accessible solution toolkit

The Office of Virtual Health (OVH) provides strategic direction and leads Virtual Health initiatives at PHSA. In response to COVID-19, OVH and the Digital Health Team at PHSA have developed a **Virtual Health toolkit that is specifically for use during the COVID-19 pandemic**. It features solutions that you may already have on your mobile phone or desktop – or will be easy to get – so you can deliver services to your patients efficiently.

Privacy and security for all virtual health solutions: While some of the recommended solutions in this toolkit have completed Privacy Impact Assessments and others have a PIA in progress, all solutions in this toolkit are endorsed by the Ministry of Health and PHSA for immediate use under the emergency response due to COVID-19.

Patient consent: Under the Provincial Digital Communications Policy, verbal or digital consent from the patient is acceptable before use of all Virtual Health solutions; however, requirements are:
1. Notification of risks have been provided (APPENDIX 1).
2. Reasonable efforts have been made to validate the patient's identity (APPENDIX 2).

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ACCESSIBLE SOLUTIONS AT A GLANCE

*Note: TikTok and WeChat are not endorsed solutions

SOLUTIONS	ZOOM VIDEO/AUDIO VISIT CHAT	SKYPE for BUSINESS VIDEO/AUDIO VISIT CHAT	FACETIME VIDEO/AUDIO VISIT CHAT	TEXT MESSAGING TEXT	EMAIL EMAIL	TELUS Home Health Monitoring MANAGING PATIENTS DIAGNOSED WITH COVID-19 or ARE AT HIGH RISK
PROVIDER NEEDS						
Virtual Health Visit 1:1 or 1:many	✓	✓	✓	X	X	X
Document sharing	✓	✓	X	X	✓	X
Messaging	✓	✓	✓	✓	✓	
Remote monitoring	X	X	X	X	X	✓
DEVICE COMPATIBILITY						
Mobile device (iOS/Android)	✓	✓	✓ iOS (Apple) only	✓	✓	X
Desktop/ Laptop	✓	✓	✓ macOS (Apple) only	X	✓	✓
PRIVACY AND SECURITY						
Privacy review	✓	✓	✓	✓	Canadian privacy laws apply to accounts based in Canada; excludes Hotmail & Gmail	✓
Security review	✓	✓	✓	X	Canadian privacy laws apply to accounts based in Canada; excludes Hotmail & Gmail	✓
Patient consent required	✓	✓	✓	✓	✓	✓

The following descriptions for each solution contain information on:

- Best use
- Technical requirements
- Privacy and security
- Risks and limitations
- A step-by-step guide on how to get started

ZOOM

*Zoom will be accessible through mobile devices using cellular data until March 31 while IMITS works on increasing bandwidth. Please ensure wifi is turned off on your cellular device.
Beginning in April Zoom will be available on desktops following clinical priority areas identified by Clinical Programs.* If you would like a Zoom licence, simply fill out the online ZOOM account request form. Please note the online form works best in Google Chrome rather than Internet Explorer.

Zoom is a tool that enables participants to have Virtual Health Visits, audio calls and chat messaging during a video session and allows participants to share content on their desktops, such as documents and presentations.

Using Zoom, you can connect with patients as well as staff, physicians and clinicians across PHC, PHSA, VCH, FHA, and the other B.C. health authorities.

People outside the health organizations can attend meetings via a guest link.

When to use it

- For one-on-one and group virtual visits (including live screen sharing, file sharing, chat during sessions)

Best use

- Scheduled consult or on-demand meeting (by sharing a link)

Technical requirements

- PHSA staff can use the desktop application installed on your PHSA computers. We recommend using a headset and camera for better audio and video experience.
- Patients can join meetings using most iOS, Windows and Android devices newer than 2012. We recommend smart phone (iOS and Android), tablet (iSO and Android), Windows PC 7 or later or MacOS 10.7 or later for patients.

Privacy and Security

- Because the PIA is pending completion by PHSA Privacy Office, under emergency response due to COVID-19, PHSA is collaborating with the Ministry of Health to expedite privacy and security review of Virtual Health solutions on behalf of all B.C. health authorities.

Risk and limitation

- Bandwidth capacity: health authority infrastructure and performance load to support simultaneous sessions and performance (use case dependent)
- Potential to send meeting invite to an uninvited recipient
- Unintended sharing of personal identifiable information
- Lack of meeting invite password encryption
- Policy constraints if user is on external Wi-Fi or public setting

GET STARTED with ZOOM

STEP 1	**Introduce Virtual Health to patients** Introduce Virtual Health to patients by phone/email/text. Check the technical readiness of your patients. Obtain the patient's **personal** email and send an initial email to validate their email address and provide notification of risks (APPENDIX 1&2) Ensure you are using a mobile device and that the Wi-Fi on your device is turned off.
STEP 2	**Schedule a Virtual Health Visit** Contact the patient to schedule a visit. When scheduling a visit, the patient's email must be added in order for them to receive a meeting invite.
STEP 3	**Communicate patient Quick Tips as needed** Patients can join a meeting from their internet browser without needing to download anything. To join, patients simply click the meeting link provided in their email. The link will open their default browser and take them to the meeting. Supported browsers: • Windows: IE 11+, Edge 12+, Firefox 27+, Chrome 30+ • Mac: Safari 7+, Firefox 27+, Chrome 30+ • Linux: Firefox 27+, Chrome 30+
STEP 4	**Conduct Virtual Health Visit** Prior to the visit, choose a private location with reliable internet access. At the time of the appointment, click the link in your email invitation or copy and paste the link to your browser. In the unlikely event of technical issues, please switch to a telephone visit with patient. Supporting materials can be sent to patient via email or SMS. After the visit, email/text the patient experience survey link. Document encounter in patient record as usual.

SKYPE FOR BUSINESS

PHSA Office of Virtual Health (OVH) has led two demonstration projects to conduct Virtual Health Visits with patients using SfB. PIA and STRA has been completed for SfB. **Everyone with a PHSA, VCH and PHC network account has a SfB account**. With SfB, you can connect with staff, physicians and clinicians across PHC, PHSA, VCH, BCCSS, FHA and the other B.C. health authorities via instant messaging, videoconferencing and audio conferencing. People outside the health organizations can attend meetings via a guest link. Go to the IMITS InfoCentre to find resources to get started with SfB.

Microsoft Skype for Business (SfB) is a tool that enables participants to talk, see and hear each other. It also has instant messaging (IM) and allows participants to share content on their desktops, such as documents and presentations.

SfB and consumer Skype are different and there is no interoperability at this point. We recommend SfB for connecting with patients virtually in light of COVID-19 if you already have SfB installed on your device.

When to use it

- For one-on-one and group Virtual Health Visits (including live screen sharing, file sharing, chat during sessions)

Best use

- Scheduled consult and follow ups

Technical requirements

- PHSA staff can use the desktop application installed on PHSA computers. Your SfB is integrated with your Outlook email. We recommend using a headset and camera for better audio and video experience.
- Patients can join meetings using most iOS, Windows and Android devices newer than 2012. We recommend smart phone (iOS and Android), tablet (iSO and Android), and Windows PC for patients.

Privacy and Security

- Complete – PIA 20180112

Risk and limitation

- Health authority infrastructure and performance load to support simultaneous sessions and performance (use case dependent)
- Potential to send meeting invite to an uninvited recipient
- Unintended sharing of personal identifiable information
- Lack of meeting invite password encryption
- Policy constraints if user was on external Wi-Fi or public setting
- Known compatibility issues with MacBook
- No analytics available via the solution

GET STARTED WITH SKYPE for BUSINESS

Ready to conduct Virtual Health Visit with patients using Skype for Business? You may find the typical workflow helpful.

STEP 1	**Introduce Virtual Health to patients** Introduce the Virtual Health Visit to patients by phone/email/text. Check the technical readiness of your patients. Obtain the patient **personal** email and send an initial email to validate their email address and provide notification of risks (APPENDIX 1&2)
STEP 2	**Schedule a Virtual Health Visit** Contact patient to schedule a visit.. When scheduling a visit, patient's email must be added as resources. See user guide for step by step instruction.
STEP 3	**Provide patient Quick Tips** Email patients Virtual Health patient checklist.
STEP 4	**Conduct Virtual Health Visit** Prior to the visit, choose a private location with reliable internet access. At the time of the appointment, tap or click the link in your email invitation, follow prompts, and join the meeting. In the unlikely event of technical issues, please switch to a telephone visit with patient. Supporting materials can be sent to patient via email or SMS. After the visit, email/text the patient experience survey link. Document encounter in patient record as usual.
STEP 5	**Log the result in Tracker** OVH will contact you regularly to understand your VH experience so far and provide support as needed.

FACETIME

FaceTime connects you and your patients virtually through audio or video calls from your iPhone, iPad, and iPod touch to other iOS devices, even a Macintosh computer equipped with a FaceTime camera. You can use FaceTime over Wi-Fi or over cellular on supported iOS or iPadOS devices. If you and your patient have any of the above Apple devices, you can get started with FaceTime. You may use PHSA provided iOS devices or your personal iOS devices.

When to use it

- For one-on-one and one-to-group Virtual Health Visits

Best use

- Ad hoc consults
- follow ups
- check-ins

Technical requirements

- You and your patient need an email address associated with Apple ID or phone number
- Access to Wi-Fi or cellular data connection
- Any Apple devices such as iPhone, iPad, iPod touch or Macintosh computer
- Turning off all 'cloud' functions

Privacy and Security

- Because the PIA is pending completion by PHSA Privacy Office, under emergency response due to COVID-19, PHSA is collaborating with the Ministry of Health to expedite privacy and security review of virtual health solutions on behalf of all B.C. health authorities.

Risk and limitation

- Unintended sharing of personal identifiable information
- Lack of meeting invite password encryption
- Apple devices required
- Potential to send meeting invite to an uninvited recipient
- Policy constraints if user was on external Wi-Fi or public setting
- No analytics available via the solution

GET STARTED with FACETIME

STEP 1	**Introduce Virtual Health to patients** Introduce the FaceTime option to patients by phone/email/text. Check the technical readiness of your patients. Obtain the patient **personal** email or cell phone number and send an initial email or text message to validate their contact information and provide notification of risks (APPENDIX 1&2)
STEP 2	**Set up Virtual Health Visit** Ensure patient is comfortable with FaceTime. Contact patient to schedule a visit.. When scheduling a visit, patient's email associated to Apple ID or cell phone number must be added as resources.
STEP 3	**Conduct a Virtual Health Visit** Prior to the visit, choose a private location with reliable internet access. In the unlikely event of technical issues, please switch to a telephone visit with patient. Supporting materials can be sent to patient via email or SMS. After the visit, email/text the patient experience survey link. Document encounter in patient record as usual.
STEP 4	**Log the result in Tracker** OVH will contact you regularly to understand your VH experience so far and provide support as needed.

TEXT MESSAGING

SMS (Short Message Service) text messaging is a low-barrier communication method to connect with patients and is available on all cell phones.

When to use it

- Quick check-ins and follow up
- Appointment reminders
- Educational information exchange

Best use

- 2-way exchange of text (SMS) and images (MMS) with patients/clients

Technical requirements

- PHSA cell phone that can be used by the health care team
- Turning off all 'cloud' functions to only use SMS text messaging

Benefits

- Easy to use if you have a PHSA cell phone – no account set up
- Easy for patients to use if they have a cell phone
- Fast, convenient, accessible

Privacy and Security

- Privacy Review completed by OVH

Risk and limitation

- Patient has health care team cell phone number – could make phone calls
- No guarantee that patient is viewing/will respond to messages
- No guarantee that message is received – SMS text message has a 98% delivery rate globally
- Could be sent to the wrong patient
- No encryption/not secure
- Difficult to document text message conversations in patient records (EMR)
- Undefined period of time that patient's cell phone number and text conversations stored on PHSA cell phone
- No analytics

GET STARTED with SMS TEXT

STEP 1	**Introduce Virtual Health to patients** Introduce Virtual Health to patients by phone/email/text. Check the technical readiness of your patients. Obtain the patient **personal** email or cell phone number and send an initial email or text message to validate their contact information and provide notification of risks (APPENDIX 1&2)
STEP 2	**Add patients cell phone number to your PHSA cell phone** Storing patient contact info can include: • Patient's name • PHN • Cell phone number
STEP 3	**Text the patient tips listed below:** Copy and paste these key points to patients: 1. Do not email or text us if you have an emergency. If you have an emergency, call 9-1-1 or go to the closest emergency department 2. This phone is not continuously monitored 3. Connect with us for: Quick check-ins and follow up; appointment reminders; educational information
STEP 4	**Text message with patient** • Quick check-ins and follow up • Appointment reminders • Educational information
STEP 5	**Log the result in Tracker** Document encounter in patient record as usual. OVH will contact you regularly to understand your experience so far and provide support as needed.

EMAIL

Email is a complementary method of communication, to be used along with other methods. It is a form of one-way communication – it does not allow for an immediate exchange of ideas.

When to use it

Email can be used to communicate with patients/clients for:

- Content that is longer than a text message
- Content often saved for future reference
- Attachments such as prescriptions, instructions, test results, etc.

Best use

- Appointment reminders, follow ups, check-ins
- Provide directional, important and timely information
- Share detailed information and data, such as educational information
- Ensure there's a record of your communication
- Direct the receiver to an online source for more information
- Provide brief status updates

Technical requirements

- PHSA cell phone, desktop or laptop that can be used by the health care team
- Access to the Internet through Wi-Fi or cellular data
- PHSA staff email account
- Patient's personal email account

Benefits

- Secured and encrypted for PHSA staff email
- Patient needs to login to email account with username and password to retrieve email
- Archived

Privacy and Security

Send an initial email or text message to validate their contact information and provide notification of risks (APPENDIX 1&2).

Risk and limitation

- No guarantee that patient is viewing/will respond to email
- Could be sent to the wrong patient
- Difficult to document text message conversations in patient records (EMR)
- No analytics
- Policy constraints if user was on external Wi-Fi or public setting

GET STARTED with EMAIL

STEP 1	**Introduce Virtual Health to patients** Introduce the option to patients by phone/email/text. Check the technical readiness of your patients. Obtain the patient **personal** email or cell phone number and send an initial email or text message to validate their contact information and provide notification of risks (APPENDIX 1&2)
STEP 2	**Add patient's personal email address to your patient contact list in your PHSA email account** Storing patient contact info can include: • Patient's first and last name • PHN • Patient's email address
STEP 3	**Provide patient email tips below** Copy and paste these key points to patients: • Do not email or text us if you have an emergency. If you have an emergency, call 9-1-1 or go to the nearest emergency department. • This email account is not continuously monitored. • Connect with us for: Quick check-ins and follow up; appointment reminders; educational information.
STEP 4	**Email patient** • Longer content than SMS • Content often saved for future references • Attachments such as prescriptions, instructions, test results, etc.
STEP 5	**Log the result in Tracker** Document encounter in patient record as usual. OVH will contact you regularly to understand your Virtual Health experience so far and provide support as needed.

TELUS HOME HEALTH MONITORING

The HHM platform uses remote patient monitoring technology to monitor a patient's health, specific to COVID-19, and shares the information electronically with health care teams.

When to use it

Monitoring and tracking COVID-19 "contact" and "case" patients

Best use

- Monitoring Protocols: BC CDC COVID-19 daily monitoring questionnaire in major languages to be completed asynchronously on their own device
- Patient Access: Web-based Patient application accessible from patient's own device (BYOD) through Chrome browser
  OR
- Patient Tablet delivery across BC with remote installation support if patient does not have access to a device or to the internet (to promote equitable access)
- Clinician Access: Web-based Clinician Dashboard to monitor and track patients accessed from any HA-approved hardware and across clinical pathways

Technical requirements

- Patient's email address to set up account → access on web browser only (no app download)
- Health care team member needs account → access on web browser only

Benefits

- Monitoring of COVID-19 contact and case patients in your health authority
- Daily questionnaire for patients to answer and provide health status

Privacy and security

- Privacy review pending, Ministry of Health reviewing COVID-19 HHM
- Security review pending, PHSA reviewing COVID-19 HHM

Risk and limitations

- Cloud services required to manage large demands on system
- Privacy and Security elements with identified medium to low risks
- Accessible on health authorities sites only – pending amendment from MoH to enable access from anywhere and greater flexibility
- Technical support/trouble-shooting: Currently TELUS offers technical support to all users of the HHM system, the introduction of the BYOD models requires a new support model be

developed. Working closely with providers to identify resources and build infrastructure to support technical components.

GET STARTED with TELUS HHM

Note: Clinical workflow recommendations from TELUS for HHM are pending, and not available at this time. We hope to have this information for you shortly.

AFTER THE PANDEMIC: INTEGRATE VIRTUAL HEALTH INTO YOUR PROGRAM

The solutions identified in this COVID-19 Virtual Health toolkit have been matched to clinical priorities and are ready for immediate use. While this toolkit has been developed specifically for use during the COVID-19 pandemic, there are opportunities to collaborate with the Office of Virtual Health on initiatives that are testing longer-term solutions for Virtual Health.

Step 1: Identify your clinical need
Step 2: Select the right solution(s) for your clinical need
Step 3: Connect with OVH
Tell us how we can help you. Send us an email at officeofvirtualhealth@phsa.ca and an OVH lead will be assigned to your program to help you pick the right solution and get started.

Benefits of connecting with OVH

- **Seamless support**: OVH will tag team with IMITS to provide you all the seamless support you may need. IMITS has expertise in technical support, information management and device management; OVH has expertise for integration of Virtual Health into your care delivery model. As a team, we will provide you testing support, technical support, troubleshooting, and other need-based support.
- **Reporting and analytics**: OVH will monitor the overall status of Virtual Health at PHSA. This includes reporting and analytics services, so you can focus on what you do the best – provide quality care.

APPENDIX 1

Client Notification Form

Notification for the use of Digital Communications

Digital Communications can be a convenient way to communicate with your care team between visits, but there are risks when using these technologies to send personal information.

We'll do what we can to confirm that any personal information we send is being received by you and only you, but it's never possible to have 100% certainty who we are communicating with outside of a face-to-face visit.

You need to be aware that we cannot control what happens to information once it is stored: 1) on your device; 2) by telecommunications providers; 3) by software or application providers; or 4) by other applications that may have access to your messages.

You are responsible for the security of your own computer/tablet, email service and telephone.

Risks of using Digital Communications

The information could be requested, viewed, changed or deleted if others are allowed access to your phone, tablet or email account.

Information may be vulnerable if stored on a computer/device that has been compromised by viruses or malware.

Organizations may have to disclose information where required by law or under court order.

Electronic communications can be intercepted by third parties.

Your data may be stored and/or accessed outside of Canada.

What can you do?

The below are suggested best practices meant to help you protect your information once it is in your control. It is important to note that these are general best practices and will not guarantee your information won't be accessed by a third party.

- Protect your passwords! Someone could pose as you by sending us a request from your device or email account

- Use download Apps from trusted sources (Google Play, iStore). If the info you are wanting to communicate is of a sensitive nature, you may want to seek a more secure method of communication
- Delete emails and texts you no longer require
- Use your device settings to control what information your Apps have permission to access
- Avoid sending personal information while using public Wifi
- Use permission controls on your device to ensure that none of your applications (Apps) have unnecessary access to your text messages and/or emails
- Use virus protection on your computer or device, and regularly scan

APPENDIX 2

Identity Validation

The purpose of validating a patient's identity is to avoid misdirected emails or text messages, which is the most common cause of privacy breaches when communicating digitally.
ID validation is only required in instances where personal information is being sent digitally and where any doubt exists that the information will be sent to the correct individual.

Options for Validating

Option 1: Provide your contact information to the Client and ask them to send the first message;
Option 2: Send an initial text or email (see below) to confirm you have connected with the right individual; or,
Option 3: Ask the recipient to verify, by text or phone, information that only the intended recipient would know (e.g. month/year of birth, last 4 digits of PHN, reference number, date of last clinic visit, or other previously agreed upon information).

Sample Validation Script

Hello
[Organization or clinic name] has records available for you. Please respond to this message with the last 4 digits of your Personal Health Number (PHN) to confirm that you are the correct individual and that you consent to these records being sent to [insert email address].

Before you respond, it is important that you understand the **potential risks** associated with the use of digital communications by reviewing our (LINK) Notification for the Use of Digital Communications.