

# Emerging Health Technology Advice

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**For a technology-based GP  
service delivery model**

# Introduction

The Emerging Health Technology (EHT) Team is part of the Ministry of Health Data and Digital Directorate, responsible for understanding and advising on the impacts of new technology across the health & disability system.

## **EHT are creating Technology Advice to**

- give an introduction to where new technologies are being used in the health sector,
- help set the scene for any future conversations had where the technology may be applied,
- cover where the technology is currently in use,
- highlight what impacts it may have to current models of care, and
- present general considerations for health sector stakeholders.

**Our intended audience** is those who are interested in whether emerging technologies will benefit their health deliverables, or who maybe just want a bit more information on what it's all about.

**This document** is not intended to endorse a specific product or device, but to provide a snapshot of what is happening both locally and internationally, and where the major health interest points are.

This is the first step into discovering a technology. There are many other aspects to consider, whether funding or technical, however we're not trying to cover everything – **merely start the conversation.**

## **For a technology-based GP model**

While this document is focussed on expanding the current General Practitioner (GP) model, we aim to highlight that by adopting this technology it enables the disbursement of patient care across the wider Primary Healthcare Team (e.g. pharmacists/nurses/midwives/optometrists). By doing so the patient can be seen in the most appropriate and suitable health care setting, and in a more timely fashion – as a result Primary Healthcare workloads can be managed more efficiently.

### What do we mean by **Emerging**?

We look at where the technology sits within [McKinsey's Three Horizons of Growth](#).

Is it an improvement to the current model – like improved road tires, or will it be disruptive – like driverless cars? In this case, an overall technology-based GP model is improving on the current delivery model (Horizon One), with some of the specific technology components like Artificial Intelligence (AI) sitting in the disruptive space (Horizon Three).

### How does this relate to the **Technology**?

Overall, businesses offering their services virtually is already well established worldwide, from online banking to grocery shopping. There are some technology components (e.g. AI & chatbots) which sit in McKinsey's Third Horizon that are still quite immature at this point.

### Where does this all sit in the New Zealand **Health** context?

While some GP practices are already offering technology and virtual services as part of their delivery model, a full technology-based GP offering in New Zealand is still in its infancy compared to what is available overseas (see Appendix Two).



# What is a technology-based GP service delivery model?

Going to see your general practitioner usually involves making an appointment for a face-to-face consultation. Depending on practice capacity, or the urgency of your health concern, you may be able to see your GP that day. Otherwise it could be in a few days, possibly taking time off work or travelling a distance to get to your appointment.

In 2011, advancements in technology brought the national introduction of patient portals – a new phase of digital interaction with your Primary Healthcare Team. It gives patients the ability to book appointments online, receive text confirmations, request repeat prescriptions, check medications and see lab results. As of 31 December 2017, just over [55% of general practices were offering patient portals](#).

*Telehealth is the use of information or communication technology to deliver health or medical care from a distance. It is about ways services are delivered, rather than the services themselves.*

*The three key areas of telehealth in New Zealand are:*

- *Telemedicine – video conferencing and store and forward*
- *Telemonitoring – remotely collecting and sending patient data*
- *mobile health (mHealth) – using mobile communication devices like smart phones and tablet computers to send health information or support lifestyle programmes*

*([Telehealth.org.nz](http://Telehealth.org.nz))*

The growth in confidence in the use of Telehealth has opened up the door to the concept of a 'Virtual Doctor'. That is, a health professional who delivers healthcare services (including medical prescriptions) digitally through an online consultation via web or mobile technology platforms. These online services can be used as an opportunity to enhance the current delivery model by offering the public another access point to the health system.

A technology-based GP service model could offer the following:

**Consultations** – Patients engage with Primary Healthcare Team either via video or teleconference (e.g. Skype).

**Prescriptions** – Prescribing of non-controlled (and some controlled) drugs where no physical examination is necessary.

**Medical Certificates** – Patients can request a medical certificate for time off work without having to leave their home when ill and potentially bringing themselves in contact with other people. Medical Certificates which need a physical examination (e.g. for WINZ, ACC) would still need to be done in person.

**Lab referrals** – As part of the consultation, the Primary Healthcare Team can refer a patient for blood test and other laboratory tests.

**Specialist referrals** – If the Primary Healthcare Team deems it necessary, a patient can be referred to a specialist for a further consultation (e.g. Northern Region's CareConnect).

**Mental health services** – Patients can engage with mental health professionals in the same way they engage with their Primary Healthcare Team – via videoconference for a therapy session.

**Symptom Checkers (triage services)** – Using a series of questions (often in the form of a chatbot) patients can give their symptoms to determine the urgency of their health concern, and whether they need to consult a GP or other health professionals either virtually or in person.

**Integration with wearable devices** – Patients can supply the Primary Healthcare Team with health information from various Internet of Things (IoT) devices e.g. Apple watch, EKG & blood pressure devices.

**General medical information** – Patients can reference health information in a digestible format.



# Where are components of this being used in New Zealand?

For a number of international examples of technology-based GP services, see Appendix 1



The **iMOKO** programme was founded in 2013 by Dr Lance O’Sullivan to increase access to health services for children living in remote communities in the Far North. Coupled with the use of digital technologies, the iMOKO programme is an innovative form of health care. The centrepiece of iMOKO is smart software that has been developed specifically for community based virtual health services managed by the communities themselves.

They offer free health checks to prevent the complications caused by untreated health problems, including skin infections, dental infections, strep throat infections and head lice.

Information gathered at point of care using this technology is interpreted by a telehealth team in the cloud using smart software and supported by machine learning to make an accurate and prompt diagnosis and treatment. As a telehealth clinician approves cases, treatment for the child can then be on its way to the pharmacy within 15 minutes of a child being assessed.

iMoko is also working closely with community pharmacies to enable prescriber-led virtual consultations on-site in the future. This showcases health professionals working together, using technology, and providing services closer to where people live.

**SwiftMed** is an online New Zealand doctor service launched by Dr Samantha Bailey, after a busy Waitangi weekend shift at Christchurch’s after hours clinic. The catalyst being when a woman had been waiting to see a doctor for three hours for a prescription, was sorted in a couple of minutes when she was finally seen.

SwiftMed launched in December 2017, offering video consultations and prescriptions to persons over 18 for a limited number of conditions that don’t require a physical examination, such as asthma, hayfever, UTIs and insomnia. The service is currently offered between 9am-10pm in 10 minute slots, including public holidays at a cost of \$39.95 per consultation.



Prescription medications can either be couriered to a patient’s home or the prescription sent to a pharmacy of their choice. Once seen by a SwiftMed doctor via videoconference, repeat prescriptions cost \$20.

Sick notes for illnesses such as the flu or migraines can be provided for up to 7 days.



# Considerations for health sector stakeholders

Stakeholder	Opportunities	Risks
DHB/PHOs	<ul style="list-style-type: none"> <li>Higher % of population accessing healthcare earlier</li> <li>Easing demand on after hours clinics</li> </ul>	<ul style="list-style-type: none"> <li>Contractually managing the funding for virtual vs physical consults (esp. if patients are remote)</li> <li>Increased demand for lab testing due to risk management of not seeing patients face to face</li> </ul>
General Practitioners (incl. wider Primary Healthcare Team)	<ul style="list-style-type: none"> <li>Offering services at hours that suits clinicians</li> <li>Seeing patients remotely</li> </ul>	<ul style="list-style-type: none"> <li>Fragmented patient care and records</li> <li>Not being present to identify symptoms that physical examination would bring attention to.</li> </ul>
Ministry of Health	<ul style="list-style-type: none"> <li>Increased coverage of health services</li> <li>Increased value for money (allocative efficiency) in service delivery</li> </ul>	<ul style="list-style-type: none"> <li>Security of health information</li> <li>Fragmentation of records, reduced continuity of care</li> </ul>
Pharmacists	<ul style="list-style-type: none"> <li>Increase usage of New Zealand ePrescription Service (NZePS)</li> <li>Offer a similar service for pharmacist prescribers</li> </ul>	<ul style="list-style-type: none"> <li>Reduce connections with prescribing GPs that exist when the prescriber is local (within the region), breaking the information channel.</li> </ul>
NZ Public/Patients	<ul style="list-style-type: none"> <li>Convenience of consults, at a time that suits, without having to travel</li> <li>Reduced waiting times to see GP</li> <li>More accessible healthcare enables them to stay well for longer</li> </ul>	<ul style="list-style-type: none"> <li>Only suitable for certain illnesses</li> <li>Availability only to those with the technology and the income to access (unless publically funded)</li> </ul>
NZ Medical Assoc./ NZ Medical Council/ Royal College of GPs	<ul style="list-style-type: none"> <li>Offering members a different model of care and business model</li> </ul>	<ul style="list-style-type: none"> <li>Reputational risk due to perceived quality of service given by technology-based model</li> </ul>

**Table:** Opportunities and Risks for GP Service Delivery (see expanded sections for further detail)

## DHB/PHOs

As the majority of New Zealand GPs are members of PHOs, there is an impact to the PHO's operational model if their members choose to adopt a technology-based GP service. This could be a Primary Healthcare Team offering virtual services to compliment their physical clinic workload, or offering only technology-based consultations to patients.

Considerations by DHBs and PHOs for a complete virtual GP offering will need to be made as specific clauses within the PHO Services Agreement which may limit a GP's ability to claim General Medical Service (GMS) payments, or even offer services outside a DHB's geographical area (see Appendix 2).

Special attention will need to be placed on how the new delivery of care models will affect existing contractual arrangements within the current health environment, especially when spanning current geographical and funding boundaries. Does a service being offered virtually fall within the geographical area of the physical location of the Primary Healthcare Team, or that of their patient?

Demand for laboratory and pathology services may increase, as the Primary Healthcare Team has not been

able to physically examine the patient so may recommend tests to get the diagnostic information they need. However, an integrated service also has the potential to reduce the use of labs – by ensuring that all treating healthcare professionals are able to access the recorded lab results and thereby avoiding unnecessary duplication.

Concerns have been raised by [GPs in the UK](#) with the roll-out of the 'GP at Hand' service, which allows some NHS funded GMS practices to sign up patients from outside their traditional boundaries. GP leaders are concerned that healthy, younger patients could be 'cherry-picked' by GP at Hand due to the inability to virtually service persons with certain medical conditions (including the elderly) – leaving physical clinics to deal with the more complex patients.

However, there is benefit to DHB/PHOs where people choose to access virtually outside normal clinical hours. This would translate to less visits to After Hours and Emergency Departments for non-urgent concerns. In a [patient survey](#) completed in British Columbia, Canada, 10.8% of patients said they would have visited the emergency department if the virtual visit had not been available, whilst 48.4% said they would have gone to a walk-in clinic.



# Considerations for health sector stakeholders – cont.

## General Practitioners (including wider Primary Healthcare Team)

Virtual consulting gives Primary Healthcare Teams the ability to offer their services via a different channel, from a location of their choice, within the hours that suit them best. This can be offered alongside their current clinical work – either to their own patients or to those seeking one-off consultations.

Being able to see patients with less urgent issues (where no physical examination is necessary) in a shorter timeframe (e.g. prescription renewals) without the need to block out the usual clinical appointment window can free up face-to-face appointments for those who are in need of a more complex diagnosis.

The risk with online services performed outside the usual GP-patient relationship is fragmented care, and the one-off consultation may not provide continuous, comprehensive general practice care to patients. On the flipside, patients who would not usually visit a GP (possibly due to inability to enrol in a practice, distrust, or remoteness) may be more likely to engage with an online service with an impartial doctor.

A requirement to safely and securely verify and validate a person's identity online offers a level of security to the Primary Healthcare Team, and allows them to offer the best possible service including their eligibility for NZ health services.

Prescribing [legislation](#) specifies that every prescription must be legibly and indelibly printed, and be signed personally by the prescriber with their actual signature and dated. Current NZePS functionality supports the ability for a prescriber to electronically message prescriptions to a pharmacy for dispensing. Non-controlled drugs could be packaged and posted to the patient by the pharmacy.

The Medical Council of New Zealand specifies under its statement for "[Good prescribing practice](#)"

... "for a patient to be "under his or her care", a doctor must have had an in-person or video consultation with the patient or have discussed that specific patient's treatment with another New Zealand-registered health practitioner who can verify physical data and identity. If you are providing locum cover for an absent colleague or are discharging a patient from hospital it is permissible to complete a prescription for a patient if you have access to that patient's notes and have reviewed that patient's notes."

## NZ Medical Association/NZ Medical Council/Royal College of GPs

The medical professional associations within New Zealand have a duty of care to protect their members, their reputations and the quality of care offered to the New Zealand public.

In September 2017, the Royal Australian College of General Practitioners issued a [position statement](#) on *Online prescription, referral and medical certificate services*.

The main concerns highlighted are risks to patient safety due to

- fragmented patient care
- providing prescriptions, referrals or medical certificates without sufficient understanding of their medical history and social context
- removing the opportunity for physical examination

However as more New Zealanders choose to embrace the convenience of online services – including healthcare, the medical associations need to be part of the innovation conversation or risk becoming sidelined.



# Considerations for health sector stakeholders – cont.

## Ministry of Health

As the Ministry is a steward for the New Zealand health system, there will be overarching frameworks that a new service delivery model will need to adhere to.

One of these, the [Health Information Security Framework](#) is designed to support health and disability sector organisations and practitioners holding personally identifiable health information to improve and manage the security of that information. The health care provider must treat personal health information with proper care and respect and to keep it secure. Special considerations must also be made around data sovereignty, if patient information and medical notes are to be potentially stored with international cloud service providers they will be subject to the laws of the country in which that data resides. The Framework however also highlights the importance of Open Data and Interoperability, in this case, choosing an information platform that enables and encourages the sharing of information easily between providers and service users.

The Ministry needs to consider key areas: the Patient, the Population, and Value for Money.

While there may be a slight detriment to the patient's outcome due to a member of their Primary Healthcare Team not physically being present during a consultation, the population can benefit by an overall increase in access, especially those limited geographically or physically. People who might delay visiting their GP can access the health system sooner through technology, therefore saving dollars in the long-run.

*How would a technology-based GP service fit into the current health funding model? Does it fit within the current funding levels (if it is to be funded publically), or does the Ministry need to increase its spending to include this as an additional service offering?*

Integration to Ministry systems (e.g. future EHR, NHI, NES, payments) for any new stand-alone platforms would need to be factored in from a technology perspective.

## Pharmacists

As long as the conditions are met under the [Medicines Regulation Act 1984 – Part 7 Prescriptions](#), a pharmacist can dispense medications prescribed by a NZ registered general practitioner.

Pharmacists would need to have a channel to contact virtual consultation prescribers in a if any clarification is necessary. The use of a service such as [NZePS](#) would be beneficial in these circumstances as it would reduce any transcribing errors, and offer better communication between the prescriber and the pharmacist.

*Could this provide opportunity for pharmacist (or other) prescribers to increase access by offering a similar technology-based service to give advice and medication to patients? This could also provide increased access to non-prescriber services.*

## Public/Patients

One of the major benefits to the public will be the ability to receive a health service at a time that is convenient to them, within the comfort of an environment that suits (e.g. home, work, school).

Whether it be with their own GP by appointment, or with the 'next available' Primary Healthcare Team member to be seen sooner, it gives users an alternative and flexible way to manage their own health. Patients with long-term conditions may benefit by reducing the number of physical visits to their doctor by substituting with a virtual consult.

There will be a reliance on the patient to determine whether they think a physical examination is required, which highlights the importance of educating the public prior to a wider rollout of this model.

New Zealand's geographical accessibility means currently there are rural communities where a visit to the doctor may be a four hour round trip, for something that could be as simple as allergy medication or a medical certificate.

This remoteness also increases the likeliness that the area may have limited cell phone or internet coverage. This brings the question of equity – *will this be a service of convenience only accessed by those with the technology to do so?*



# Case Study – Babylon Health (UK)



Founded in 2013, **Babylon Health** is a subscription health service provider that enables users to have virtual consultations with doctors and health care professionals via text, photo and video messaging through its mobile and web applications. The service also allows users to receive drug prescriptions, referrals to health specialists, and book health exams with nearby facilities.

Users can choose to subscribe to gain unlimited virtual access to general practitioners for a monthly fee (£5 month/£50 annually), or opt for a pay-as-you-go model (£25 per consultation). Consultations are 10 minutes long.

All Babylon GPs are GMC registered in the UK and IMC registered in Ireland. When booking a consultation with a Babylon GP the user has the option to share the details of their appointment with their regular doctor.

Babylon Health has also partnered with the UK NHS in central London via their *GP at Hand* service, offering 24/7 access to GPs at no extra cost to the NHS, including on public holidays.

**Consultations** – Users are able to send questions and set up consultations with Babylon’s GPs. The service is for common medical topics such as fever, sore throat, allergies, skin irritations, and colds. If prescriptions are required, they are mailed to the user’s address, or sent to a pharmacy for pickup. Sickness certificates can be issued if appropriate. Users can also consult with therapists to discuss topics such as depression and anxiety. At the end of the consultations, users are able to replay their appointment anytime and review their experience anonymously.

**Health Monitor** – Users can sync their activity trackers’ data with the app for health monitoring. This data (e.g. numbers of calories, sleep quality, pulse, and stress levels) can then be used to build a health plan for the user.

**Tests and kits** – Babylon provides a delivery service for test kits that users can request. These diagnostic kits can be used for testing things such as diabetes, cholesterol, and sugar levels. Users can send the samples back to Babylon Health, and access the results through their app.

**GP at Hand** – In collaboration with the UK NHS, GP at Hand was launched in November 2017 in London. Patients can ‘book an appointment within seconds’ via its smartphone app and have ‘a video consultation with an NHS GP typically in under two hours of booking, anytime, anywhere’. Patients are registered with the practice, *GP at Hand partnership*, online via the website – and deregistered from their existing practice. There are a list of patients advised not to register with the service including: women who are or may be pregnant; people with complex mental health, physical, psychological and social needs; people with dementia; people requiring end of life care; or people with drug dependence.

There is no charge to patients for GP services and the services are funded through a General Medical Services contract same as conventional GPs.

**AI** – In 2018 Babylon partnered with Samsung to launch ‘Ask an Expert, powered by Babylon’ as part of the Samsung Health app on compatible Samsung Galaxy devices. By incorporating Babylon’s artificial intelligence (AI) service within the Samsung Health app, it allows users to check symptoms and book live video appointments with certified general practitioners 24/7 to obtain medical advice, and manage and order prescriptions online.

**Message a clinician** – Users can send questions (including photos) through to a clinician to answer, one question at a time. These are answered by the Clinical Team, made up of fully qualified doctors and nurses. There is no limit to the number of questions you can ask, however you cannot ask another question until the first one has been answered.

**Therapy Sessions** – Babylon and therapists are currently available 3 to 4 days a week, users can usually be seen within a few days of booking, without referral from a GP. The minimum age for a confidential therapist appointment is 18, and they are only offered in the UK. Therapy consultations last 50 minutes. Specialist consultations cost £49 for subscribers and £79 for pay-as-you-go members.

Info for GPs wishing to join Babylon (incl [salary & FAQ](#))



# Case Study – Doctors on Demand (Australia)



**Doctors on Demand** is a 24/7 online service that provides users with the ability to book a video conference appointment with a doctor, as well as see real time doctor availability.

All doctors are registered in Australia and certified by Australian standards. All doctors are fully insured.

Users register on the website or mobile app, supplying their Medicare card and answering some general medical questions. Users then book an appointment with a doctor via the website, choosing one of the available doctors by reading their bio and rating. After entering the reason for the appointment, their preferred pharmacy and payment details, the user then waits for the Doctor on Demand to join the session. On demand appointments are available from 8am to 6pm AEST, outside these hours users can book an appointment in advance at a time that is convenient.

Video consultations with GPs are not currently covered by Medicare and are privately billed. However users may be able to claim some of the cost of their appointment through private health insurance.

A Doctors on Demand telehealth video conference is billed at \$60 per 15 minutes during the hours of Mon-Fri 8am-6pm and Sat 8am-12pm. Outside these hours, the 15 minute consultations will be billed at \$90. If a prescription is requested to be sent to the users nominated pharmacy, a further \$4.95 prescription handling fee is charged. If the medications are being posted to the user, the prescription is sent to Doctors on Demand's partnering pharmacy and the user charged for the cost of the medication and a \$14.95 postage fee.

**Consultations** – If the doctor thinks a medical certificate is required, they can issue one.

Doctors can refer a user on to a specialist if they deem it necessary.

**Prescriptions** – Prescriptions can be either sent directly to the user's nominated pharmacy at a cost of \$4.95, or the medications dispensed by Doctors on Demand's partnering pharmacy and posted to directly to the user via Australia Post's Express Post Next Day service (\$14.95 delivery fee).

No Schedule 8 Controlled Drugs (narcotics) will be prescribed via Video Consultations.

Prescription cost depends on whether users with a current Medicare card are eligible for medication subsidised under the Pharmaceutical Benefits Scheme (PBS).

**QuickScript** – QuickScript is a convenient service that allows Doctors on Demand patients to request a repeat prescription for a select range of medications they have used before by completing an online questionnaire. An Australian registered doctor then reviews the online assessment and determines suitability for the requested medication within 24 hours. More information will be requested if necessary, and where appropriate a prescription is written.

The cost for the doctor consultation to review the prescription is \$25.

**Laboratory Tests** – If blood pathology tests are required, the request form will be emailed to the user to take to their local laboratory.

**Therapy Sessions** – Doctors on Demand offers a variety of mental health services including access to counsellors, psychologists and psychiatrists. Price depends on the type of practitioner a user requires and the medical professional the user chooses.

If the consultation is with a psychiatrist, a prescription may be obtained if the psychiatrist feels this is the best treatment for the user. Psychiatrists can also refer a user to a specialist.

Mental health professionals can also issue medical certificates if necessary.



# Appendix

# Appendix 1 – List of similar international services

Name	Country (Establ.)	Cost	Services offered	Other
<b>1MG</b> 1mg.com	India (2012)		Order meds online - Book health tests & packages - Online consult with GP - Book appt with GPs nearby	Allows users to discover cost effective generic drugs that substitute prescription meds
<b>Ada</b> ada.com	UK	Free assessment by Ada Assessment & review by GP £18.99	Chatbot - assessment report (not medical diagnosis) Doctor chat - text and photo - Medication prescribing if necessary, can be delivered	UK residents can use while abroad Private service, not NHS funded
<b>Babylon Health</b> babylonhealth.com	UK	GP at hand plan (London pilot): £0 per month - free to anyone who registers with GP at Hand as their NHS GP Practice Pay as you go: £5 per month or £25 pay as you go	Virtual consult with NHS GP - Can refer for face-to-face appt, hospital tests, specialist - Meds prescribing (delivered, or collect from pharmacy) - Order tests & kits (UK & Ireland only) - Sick notes	24/7 - see a GP virtually in minutes, in person same or next day, even abroad - GP at hand plan fully integrated with the NHS - Cannot offer referrals for path tests or imaging (scans or x-rays) while abroad
<b>ConnectMed</b> connectmed.co.ke	Kenya	KSh500 per visit No subscriptions No hidden costs	Virtual consult with GP (online or voice only) On the spot testing & physical examination services at telehealth clinics (dedicated tablets available to consult doctors if you don't have a smartphone) Electronic prescriptions - delivery available Referrals - Sick notes	Discounts with partner companies - 8am-11pm 7 days 15 min consults - Prescription emailed to you to take to pharmacy of choice, or delivered by MYDAWA Can access at local pharmacies with facilitators to help (dedicated tablets available) - Symptom checker/Vital signs detector (machine learning-based) in dev.
<b>Doctor Care Anywhere</b> doctorcareanywhere.com	UK (2013)	UK £12 per month, £130 annual, £60 pay as you go International £20 per month, £210 annual, £80 pay as you go	Virtual consult with GP (20 min slot) – Meds prescribing (electronically sent to pharmacy, or couriered to front door) - International prescribing (outside of USA) Specialist referrals - Health tracking - Patient records	Not part of NHS - UK trained GMC registered doctor - Access to NHS patient records Can be used by people outside of UK (who are not UK citizens) - Hours 8am-10pm UK time
<b>Doctors on Demand</b> doctorsondemand.com.au	Australia	Online Prescriptions from \$25 Telehealth video conference - AU\$60 per 15min/AU\$90 per 15min off peak (Sat arvo & Sun) - Extra fees for sending prescriptions to non-partner pharmacies	Video consultation with Australian GP - Medical certificates - Online prescriptions delivered to pharmacy or home - Blood pathology requests (emailed to you) - Mental health consults	Not currently covered by Medicare - Can be used by international tourists as long as they are currently in Australia - Cannot be used when overseas - Drs available between 8am & 6pm AEST
<b>Eyr</b> eyr.md/en	Norway	NOK350 per consult Or covered by insurance	Virtual consult with GPs - Meds prescribing - Sick Leave - Referral to Specialists - Request bloods and radiology	8am-10pm weekdays - 10am-10pm weekends Normal wait time under 30 min
<b>HealthTap</b> healthtap.com	USA 2010	Free membership - ask Qs, use library etc HealthTap Prime - US\$99/month + 10 per family member: virtual consults, prescriptions HealthTap Concierge - additional \$49 per consult: Connect regularly with same GPs, get referrals, lab orders - Co-pay with some insurance plans	Immediate free answers from library of doctor knowledge - Send your own unique questions for personalised responses from doctors Video or text chat with a GP for advice, treatment, prescriptions, referrals, lab tests, second opinion	Have launched Dr AI, a personal artificial intelligence powered 'physician' that helps route users to doctor-recommended insights and care immediately. Chatbot.
<b>iCliniq</b> icliniq.com	India based Intl. (2010)	Phone or Video Chat \$29.99 for 20 min Ask a doctor online - free	Online doctor consult platform for medical advice from doctors. - Online therapy/counselling - Chat/Phone /Video consults with Doctors around the world	1,200 doctors, verified to ensure fully licensed Doctors available from 15 countries Patients across 160 countries
<b>KRY</b> kry.se/en	Sweden	250SEK for adults, free for children 0-19 150SEK prescription renewal fee (without consult)	Virtual consult with GP - Meds prescribing - Lab tests Doctors note - Referrals and Lab tests	Can consult your GP while abroad (no prescribing)
<b>Maple</b> getmaple.ca	Canada	CA\$49 weekdays 8am-12am - CA\$79 weekends and holidays - CA\$99 overnight 12am-7.59am - Unlimited CA\$359/year personal CA\$579/year family	Virtual consult with GPs (IM/audio/video) Meds prescribing (free delivery to all available locations in province) - Sick notes	No time limit to consultation - ends when you are satisfied - Available in 6 provinces, internationally if you are from these provinces (or if you are visiting the province) - Available under some private insurances
<b>MDLive</b> mdlive.com	USA	Depends on insurance/benefit (usually under US\$50 per session for GP)	Virtual consult with GPs, Therapists and Psychiatrists (phone or video) Meds prescribing (electronically sent to pharmacy)	Board certified doctors On average Drs have 15 years experience 24/7/365
<b>MeMD</b> memd.me	USA	US\$57.95 per consult flat fee	Virtual consult with GP - Meds prescribing (if with healthcare provider can refill non controlled meds)	
<b>Push Doctor</b> pushdoctor.co.uk	UK	£20 per consult pay as you go - £20 add 10 min - £15 referral & sick notes - £8 prescription admin fee Premium £20 per month - includes 10 extra min, referrals & sick notes, prescription admin fees	Virtual consult with GPs Meds prescribing (electronically sent to pharmacy) Specialist referrals - Sick notes	NHS trained GPs available 6am-11pm 365 days Same day prescription sent to your local pharmacy See a doctor within 6 min
<b>Qoctor</b> qoctor.com.au	Australia	AU\$19.99	Virtual consult with GPs - Online prescriptions/medication delivered - Online pharmacy - Medical certificate - Specialist referral	Registered GP who lives and works in Australia Skype consultation - Downloadable medical certificates - Not currently covered by Medicare
<b>Simple Online Doctor</b> simpleonlinedoctor.com.au	Australia	Free online consult and free prescription generation. Pay for meds only.	Online doctor service, user completes consultations online to assess your suitability for medication.	Service complimentary to your own GP services, not a replacement - Meds couriered to your door
<b>Swedish Express Care</b> virtual.swedish.org	USA	Covered/partial coverage under some insurance plans, or \$39 fee (does not include meds, labsetc)	Virtual consult with board certified GP Meds prescribing - Lab tests	7 days - 8am - midnight Washington state only
<b>Teladoc</b> teladoc.com	USA (2002)	Depends on insurance health plan (usually under US\$50 per session)	Virtual consult with GP - Meds prescribing (electronically or phone submission to pharmacy)	Access board-certified doctors 24/7/365 - but not to replace your 'actual' GP, only support it.
<b>VideoDoc</b> videodoc.ie	Ireland	EU20 per consultation Annual subscription EU70 for unlimited use (fair usage policy 7 appt per year)	Virtual consult with GPs (phone available) Meds prescribing (faxed either to pharmacy or posted home) - Sick notes - Specialist referrals where appropriate	8am-10pm 7 days - GPs registered with Irish Medical Council Waiting time usually <10 min - Can be used while overseas - No additional fees for prescribing
<b>Virtual Health Connect</b> virtualhealthconnect.com	USA	US\$40 per consult	Virtual consult with GP (around 10 min), Meds prescribing (electronically sent to pharmacy)	
<b>WebDoctor</b> webdoctor.ie	Ireland (2014)	EU25 per consultation	Online medical questionnaire or face to face consult for meds prescribing - Prescription posted to you, or delivered to pharmacy - Home testing kits	6 month prescription if medically safe & suitable Irish based doctors Valid at any Irish pharmacy
<b>WeDoctor (Guahao)</b> guahao.com	China (2010)	Cost set by hospital - e.g. Chat 199 yuan, Video conference 300 yuan, or Chat 60 yuan, video conference 200 yuan, Chat 201 vs VC 1000	Virtual consult with specialists - Chat consult also Online hospitals & appt in public hospitals Medical insurance - e-prescriptions - Test reports	Search over 1000 hospitals & 120,000 doctors around China, book appt and rate hospitals. To be integrated with Wechat to facilitate online payment for medical services

# Appendix 2 – PHO Agreement

This includes (but not restricted to) clauses such as:

## Part C Nationally Consistent Service – Schedule C2 General Medical Services

### **4 How General Medical Services may be provided**

- (1) *The PHO and its Contracted Providers may provide General Medical Services for which a Claim is or will be made only by a face to face consultation, and may not Claim for General Medical Services provided by telephone or using e-technologies.*
- (2) *Despite subclause (1), a Rural Practitioner may Claim for any General Medical Services provided by telephone or using e-technologies, provided that the Casual User is located 16km or further from the General Practitioner's Usual Place of Practice at the time of the consultation.*

and

## Part B General Terms

### **B.9 Enrolments and Services must be in DHB's Primary Geographical Area**

- (1) *The PHO, through its Contracted Providers, may enrol Eligible Persons at practices that are located in the DHB's Primary Geographical Area, and Provide the Services from such practices.*
- (2) *The PHO must Provide the Services at the location(s) specified below: [Delete whichever options are not relevant] (a) [the DHB's Primary Geographical Area] (b) [insert location(s)]*
- (3) *The PHO, through its Contracted Providers, may enrol an Eligible Person who lives in a Secondary Geographical Area if the practice from which the Services are to be provided to the Eligible Person is located in the DHB's Primary Geographical Area.*





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