

# CANADIAN Healthcare Technology

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## The 'Virtual' Family Health Team: a concept whose time has come

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**C**urrent State: Mary Jones, a 79-year-old widow, wakes up at 1 am not feeling well. She calls the Provincial Nurse Triage line to get some advice. The remote tele-nurse does a thorough assessment asking her about her present illness and other health problems.

But Mary has several diagnoses, is currently on 13 different medications and can't remember all her recent procedures. The tele-nurse is at a disadvantage without access to the medical record, including a list of medications and care plan.

Based on her professional assessment, she recommends that Mary stay at home and book an appointment with her doctor in the morning, but also states that if Mary feels worse to please call her back or if it is an emergency to call 911 right away.

Mary feels that's a good idea ... until 3:30 am, when, unable to go to sleep, she does feel worse. Mary believes that she won't get in to see her doctor because the phone is always busy when she calls. She panics and calls 911.

Mary ends up in the Emergency Department where her entire medical history is recreated through a myriad of tests that she

is certain she has already had. Mary is sent home and told to follow-up with her family doctor the next day. She still doesn't know what is going on.

**Future State:** 79 year-old Rina Patel wakes up at 1 am, not feeling well. She tries to go back to sleep unsuccessfully, so she calls her doctor's office. The nurse on the line is able to access Rina's electronic medical record (EMR), and quickly get an understanding of Rina's medical history.

After her assessment, and feeling more confident, she recommends that Rina stay home and see her doctor in the morning.

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The nurse accesses the doctor's schedule and books Rina in for a 10:30 AM appointment. The nurse is able to do this in spite of being at a virtual location as part of a telehealth program.

Rina is able to rest easy, knowing she has a confirmed appointment. When her symptoms worsen, she waits it out. In the morning, her doctor is able to reassure her that there is nothing that requires urgent attention and sends her for some outpa-

tient tests. Rina leaves confident that her symptoms are being investigated.

The future state is not science fiction. It is achievable using today's technologies. The recent report from the Conference Board of Canada on the success of Family Health Teams (FHTs) in Ontario should encourage us to pursue inter-professional care even more aggressively. Yet, the Ontario Government has backed away from expanding this successful model. Why? Because costs are high and expansion into remote and rural areas is fiscally unattainable.

Bricks and mortar FHTs can be expensive because professionals are often co-located in actual clinics. They are limited to a 9-5 clinic day with a few evenings available for after-hours care. FHTs require extensive planning and capital investment to house all health professionals under a single roof. Hiring new staff, developing organizational processes and the expertise to manage multiple health professions takes time, delaying the return on investment, sometimes for many years.

A virtual FHT (vFHT) with remote tele-providers, which could include every type of allied health professional that is found in a traditional site based FHT, could allow 24/7 care to be provided almost immediately, at a fraction of the cost of bricks and mortar FHTs. In addi-

tion vFHTs can be deployed in rural areas where a bricks and mortar FHT would not even be possible.

vFHT providers would also be attractive to existing FHTs, as it is often a challenge for FHTs to provide high-quality care after hours and during peak hours when the phones are busy. They are also attractive because they can support patients between visits by helping them to implement recommended care plans, make better lifestyle choices and navigate the increasingly complex healthcare system.

The vFHT is an attractive model, but also faces some barriers to implementation. Barriers and their solutions are discussed below.

How would continuity of care be managed? Continuity of care is shown to improve patient adherence to treatment and patient outcomes. Telehealth systems that rotate healthcare providers so that patients never get to know their healthcare providers, and healthcare providers never get to know their patients, detract from continuity of care. There are two ways to maintain continuity of care in a virtual provider system.

The first is to assign a fixed set of telehealth providers to a particular set of clinics using contractual mechanisms. The drawback of this approach is that economies of scale are lost when providers are assigned to very small groups of patients.

A more acceptable approach would be to have a fixed set of telehealth providers assigned to clinics to maintain continuity of care, but have a single and scalable backup

queue with providers who can handle calls on a 24/7 basis, such as is available in every province through their provincial nurse line programs. Patients can decide whether they want to speak to someone immediately or wait for someone they know.

How is privacy and confidentiality maintained in vFHTs? There are several practical tools to help maintain patient confidentiality and privacy.

Health professionals' ethical and professional codes of conduct act as a basis for the service.

- Audit trails identify the telehealth provider who entered the system and

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when and which part of the EMR was viewed or altered.

- accessing care, patients can enter their healthcare number, providing consent for the telehealth provider to access his/her medical record.

- Regular third-party threat risk assessments can identify holes in security arrangements.

- Regular reviews of audit logs can help identify lapses in protocol and breaches.

How should patient referrals to a tele-provider be managed? Patients don't like surprises and they certainly don't like to get

calls from strangers. They also don't like getting unsolicited calls about their health.

The best time to refer a patient to a tele-provider (other than having the patient call and be routed to one) is after a discussion with the patient during an in-person visit. The patient's motivation and readiness for change can be assessed during the encounter and a referral to a remote tele-provider can be negotiated at that time.

Using existing technologies in creative new ways, we can help patients with evidence-informed healthcare services on a 24/7/365 basis. The virtual family health team can provide most of the benefits of the bricks and mortar solution, and do so for more people in more communities at a fraction of the cost. The virtual family health team is an idea whose time has come.

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