

The Canadian Primary Care Information Network

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It is increasingly clear that family physicians need more efficient, proactive communication methods to reach their patients. Among the many things the COVID-19 pandemic has shown us is that we can no longer afford to wait for patients to reach out individually to our clinics to learn the information they need to know. This would include that flu shots have arrived, that good information on the risks and benefits of new vaccines is available, or that clinic hours have changed. Clinics need a no-hassle digital communication service to get timely information to their patients. The economics of practice today demand that we operate more efficiently. Anything that will reduce consultation time, decrease the number of calls to our receptionists, or otherwise improve the efficiency of office operations is essential. We are expected to do better with less.

Continuous quality improvement is a tenet of our profession. Just as we need to be able to share information more efficiently and effectively, so, too, do we need information and feedback from our patients. In some jurisdictions and practice models, family physicians are required to collect and reflect on data from their practices annually, identify a weakness in their service delivery, and then create, implement, and monitor an improvement plan. These kinds of activities also are emphasized in continuing professional development credit systems such as Mainpro+ from the College of Family Physicians of Canada (CFPC) and the new requirements of the Collège des médecins du Québec. To do this, we need to learn about patients' experiences and their unmet needs for care.

The Canadian Primary Care Information Network (CPIN), led by family medicine researchers, is the foundation of a communications platform that develops health promotion messages for patients. The platform also enables patient surveys that inform operational efficiency improvements through the use of peer-referenced, de-identified, and completely confidential practice data dashboards.

What we are doing

Family physicians and researchers at the University of Ottawa in Ontario have designed a system that uses information technology infrastructure to allow family physicians to create, curate, and share content. With CPIN, users have access to an automated e-mail or text messaging system that links to clinic-specific patient feedback survey questions and sends outreach messages. It translates patient-reported experience measures into information that can help family physicians learn, adapt their practices, and better align with patients' needs.

Evidence suggests that short digital messages can increase patient satisfaction and engagement while simultaneously evoking positive behavioural changes in patients through use of the nudge approach.¹ Patients feel more empowered² in their care as a result.

Protection of patient privacy and proactive conflict-of-interest management are key tenets of the CPIN approach. Patient survey responses are anonymized and findings are reported back to clinics only when sufficient responses are received to protect anonymity for both patients and physicians. Conflicts of interest are managed by separating CPIN's development of intellectual property, which is unremunerated, from the provision of technological services, which is compensated. Of note, CPIN technologies seamlessly integrate with most electronic medical record systems and can be made to work with all of them.

The CPIN platform differs from a portal, as patients do not need to register and providers can learn from, or with, other practices with similar patient populations. Its governance and subscription-based business model assure that content creation and data are controlled by the profession. The data are not sold to pharmaceutical companies or device manufacturers.


While users can create their own messages, it is not necessary. Volunteers for CPIN have created and continue to curate a library of messages and more than 100 patient survey questions. The questions have been translated, adapted, and validated to allow providers to measure their success in delivering the components of the Patient's Medical Home that they choose to measure. Response rates for CPIN patient surveys³ are high, which strengthens the validity of information that is used for practice improvement. Using CPIN does not affect clinical work flows, as it does not enable direct communication with patients, nor does it require a full-time monitoring system.

The key feature that distinguishes CPIN from a portal is that survey responses can be aggregated across practices. The responses are de-identified and reported back with peer comparisons. The comparisons create a powerful learning system for primary care practices. Aggregation at a regional or even national level can improve decision making and resource allocation. This quality improvement data collection infrastructure allows providers to monitor their efforts to improve the delivery of care over time.

Next steps

Family physicians have always played a crucial role in encouraging healthy behaviour among their patients.

By providing a service created for and designed by family physicians from the ground up, CPIN ensures that clinics are making use of all currently available information technology assets to their fullest ethical potential.

The CFPC recognizes CPIN as a unique resource that is led by family physicians and designed to support improvement in family medicine. In 2020, CPIN and the CFPC board agreed to explore collaborative opportunities to support CFPC members. To that end, the CFPC Mainpro+ system now offers continuing professional development credits for eligible professional activities that use CPIN. The College will listen to member feedback gathered through these exploratory steps to decide what role it might take in the future governance of CPIN. Interested members can get more information from the CPIN website: <https://en.cpin-rcip.com/>. 

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Competing interests

The authors participated in the design of the Canadian Primary Care Information Network platform; they were remunerated through their affiliations with the University of Ottawa.

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Can Fam Physician 2022;68:471-2. DOI: 10.46747/cfp.6806471

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