

Grounded in practice

Integrating practice improvement into daily activities

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Practice improvement uses quality improvement, practice-level data, and research to continuously improve care, the patient experience, health system efficiency, and the work experience of health care providers.¹ Achieving these improvements requires effort on the part of patients and their families, health care professionals, researchers, the government, planners, and educators.² Continuous quality improvement is a fundamental part of every person's job, every day, in all parts of the health care system. Practice improvement aims to build a culture in health care that recognizes how everyone "has two jobs when they come to work every day: to do their work and to improve it."² Thus, it requires being reflective and curious about one's own practice and behaviour while focusing on improving patient outcomes and experiences.^{1,3}

Over the years, the need for increased scholarly activity among family physicians and other health care providers has been identified by numerous clinicians and academics (eg, Nicholas Pimlott and Alan Katz,³ Ian McWhinney,⁴ and Barbara Starfield⁵). Pimlott and Katz³ highlighted the fact that an improved uptake of scholarly activity should occur during residency training. Recently, the College of Family Physicians of Canada introduced new terminology and an approach to practice improvement that was intended to encompass these activities.¹ One of the strengths—and limitations—has been the variation in how practice improvement has been integrated into resident training programs. The family medicine residency training program at the University of Saskatchewan in Saskatoon envisioned that the development of skills would include coproducing or cocreating a project that follows an integrated pathway, inclusive of all methodologies. In this cocreated model or framework, the emphasis is on the importance of reflective practice to develop curiosity and questions originating from everyday practice. Questions can then be answered using the appropriate suite of methods, with the aim to contribute to improving patient outcomes, practices, and policies. This article illustrates the integrated pathway and how it has been initially integrated into the family medicine residency training program at the University of Saskatchewan.

Practice improvement process

Curiosity starts by generating a question; usually, it is derived from clinical stories heard in practice, or is related to teaching, health services, or policy.⁶

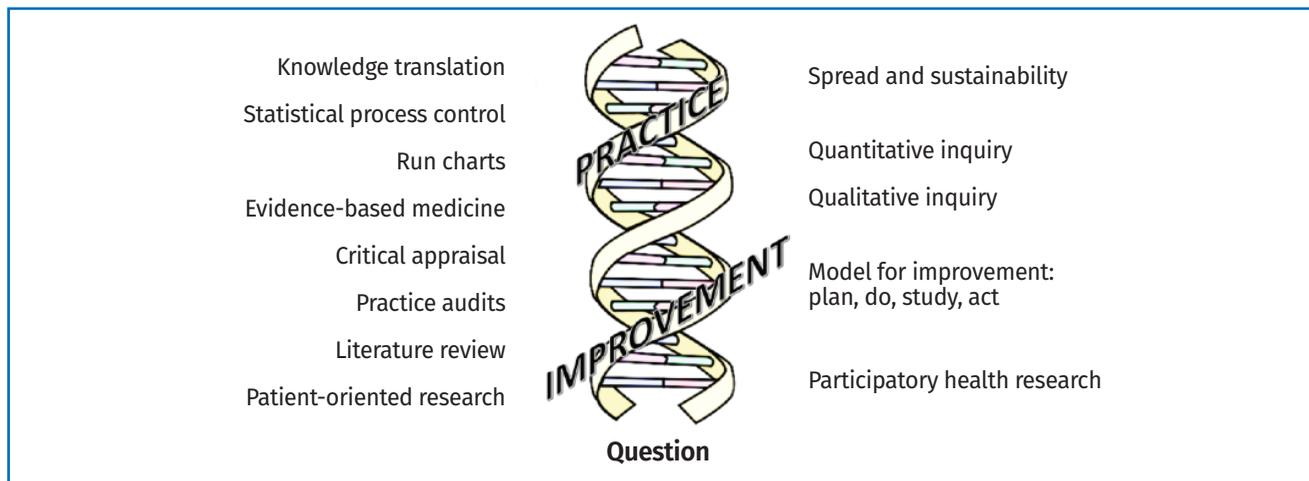
Depending on the question, the process of answering it follows an integrated pathway of approaches and methods reflective of both quality improvement and research (**Figure 1**), with the goal of contributing to improvement and excellence in care. Quality improvement and research are similar in that they both involve systematically answering a question using established scientific methods: identifying the problem, collecting the information needed, identifying the type of intervention that would best answer the question, collecting the data, evaluating or analyzing the data, and reporting the results or findings.⁶

Determining the methods and tools to best answer the question is an iterative process, wherein the physician and research team members must consider the purpose of the question being asked (eg, to improve an aspect of care in their practice or to create more generalizable knowledge about an area of primary health care) and what methodology could be employed to achieve that purpose. Quality improvement allows for iteratively testing interventions in real-world settings, making adaptations where necessary, and evaluating how these interventions improve health care processes and outcomes (how and where it works). If physicians identify through this exercise that the project is best answered using a research design and method (ie, secondary data analysis or retrospective chart review⁷), then they are directed to further refine the question using the PICOT (problem or population, intervention, comparison, outcome, time frame)⁸ or SPIDER (sample, phenomenon of interest, design, evaluation, research type)⁹ tools, and the FINER (feasible, interesting, novel, ethical, and relevant)¹⁰ criteria. If it is determined that the question is best answered using quality improvement methods and tools, the research team then refines their question to include an improvement aim statement (ie, what are we trying to accomplish).¹¹ The research team would then consider all the tools practice improvement offers and identify the most appropriate one to answer the question (or achieve their improvement aim).

At the University of Saskatchewan, an online learning platform was developed that supported the integrated pathway and facilitated self-paced learning for residents, faculty, and research team members. Examples of the integrated pathway are as follows:

Resident scholarly project. A retrospective chart review was undertaken to identify the screening rates

Figure 1. Practice improvement: Integrated pathway for improving patient outcomes.



for breast, cervical, and colon cancer within 4 practices that are a part of a residency training site (B. Davis et al, unpublished data, 2020). This project followed a research design and methods. The following research questions arose from this review: Are current breast, cervical, and colorectal cancer screening rates among women aged 50 to 70 years in a northern community comparable to the national average? Are there certain characteristics or factors identified, among providers or patients, that predict breast, cervical, and colorectal cancer screening within this population?

Virtual visits. A current practice improvement project is using quality improvement strategies to improve the experience of virtual visits for both patients and family medicine residents (A. Baerwald et al, unpublished data, 2020).

Plan: A team including health care providers, policy makers, educators, and a patient representative was developed to evaluate virtual primary care delivery during and after the coronavirus disease 2019 pandemic. The team recognized that virtual primary care was necessary during the pandemic, but that this practice required further assessment to understand how best to implement it.

Do: All health care providers in the Department of Academic Family Medicine Saskatoon site (physicians, residents, and nurses) have been asked to complete 4 questions in the electronic medical record at the completion of virtual care appointments. The questions address indications for virtual versus in-clinic appointments, the need for subsequent follow-up, the time of visit, and safety or confidentiality concerns. Also, data have been obtained from the family medicine residents regarding their experience with learning during the pandemic.

Study: Data are being collected monthly and are subsequently analyzed weekly and monthly to account for pandemic learning and experience in real time. Telephone and video visits are being evaluated separately. A fishbone diagram is being planned for the tabulation of the responses over time and post

implementation. Questionnaire data were obtained using SurveyMonkey.

Act: Changes in how virtual care is offered and provided to patients will be tested. For example, the team identified that very few providers in the clinic are providing video visits, with most of the visits being conducted by telephone. Instructions for providing virtual care have been recirculated and computer equipment, such as cameras, has been optimized. The data for this change will then be reevaluated.

Residents believe they are receiving adequate instruction on virtual care and feel competent in providing virtual care as they enter practice. As a result, hands-on training and direct observation of residents providing virtual care will continue. Moreover, 50% of residents believe that the pandemic is negatively affecting their mental health. As a result, findings will be communicated to faculty, resident mental health check-ins will continue, and referrals for support when needed will be provided through the University of Saskatchewan’s College of Medicine and the Saskatchewan Health Authority. Data will then be reevaluated with a follow-up survey in 6 to 12 months.

Discussion

Scholarly training for residents at the University of Saskatchewan focuses on conducting a project that builds skills related to reflective practice and curiosity. Residents learn to develop a meaningful question or questions and select the appropriate method to answer that question or questions. The goal is to graduate residents who have a sense of curiosity about their practice and a desire to continue to engage in practice improvement. We propose that this is best done through a scholarly activity that follows an integrated pathway, starting with developing a practice improvement question and progressing to interpretation and conclusion. All changes to be made as a result of engaging in a practice improvement project will depend upon local

resources and the ability to integrate sustainable change and build capacity at the local level.¹² Thus, it is important to consider whether the change is generalizable¹⁰ or transferrable (applicable in other contexts or settings).¹³

The inaugural Train-the-Trainer Practice Improvement Essentials Workshop was held in Saskatoon in August 2019. Not only is practice improvement being made available to residents in Saskatchewan, but it is also available to faculty coaches or supervisors, clinical teachers, and researchers. Building knowledge and practice from both the top down and the bottom up optimizes the opportunity for integrating practice improvement into daily practice.

Conclusion

Practice improvement gives equal importance to the roles quality improvement, practice-level data, and research play in improving patient outcomes and care. Because of this, an emphasis has been placed on the importance of reflecting on which tools and methods could best answer the question or questions being asked when developing and designing a practice improvement project. 

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Competing interests

None declared

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