Caring for the whole practice

The future of primary care

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The third of CFPC's 4 principles of family medicine states that "the family physician is a resource to a defined practice population" who must view his or her patients as a "population at risk," organizing the practice to maintain all patients' health, whether or not they are visiting the office.[1] Population management, often impractical with paper records, is made easier by adopting electronic medical records (EMRs) and other information systems, which provide opportunities to look after the whole practice.[1] However, many physicians customize how they use EMRs and enter data, which might improve their own efficiency but can hinder the consistent recording needed for reports comparing practices. Physicians and teams need ways to standardize data to produce reliable, comparable information. And EMRs, while optimized for rapid data entry and single-patient searches, are not yet designed for larger scale queries,[2] which can slow systems, interfering with clinical activities. We need new approaches[3] and new systems for analyzing and reporting data for managing patient populations. Improved reporting tools for population management can transform EMR data into more meaningful information, helping primary care groups identify and address needs based on their own data. Better reports better inform clinical care and monitor quality improvement.

To this end, the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) has worked out ways to extract and merge data from multiple EMRs.[4] These methods allow standardized regional, provincial, and national reports for participating physicians and primary care teams.[5] These reports include demographic information about individual practices and groups; proportions of patients with selected chronic conditions and comorbidities; quality indicators, such as percentages of hypertension patients with blood pressure (BP) below 140/90 mm Hg or taking BP medications, or of diabetes patients with hemoglobin A_{1c} levels at or below 7%, with BP below 130/80 mm Hg, or taking cardioprotective medications.

CPCSSN is actively exploring methods for returning improved data to primary care groups and is currently testing its Data Presentation Tool (DPT),[5] interactive software that can quickly and easily generate reports and identify patients at risk. The DPT reports various data, such as health conditions (both coded and free text) in the cumulative patient profile, demographic information, encounters, vital signs, medications, immunizations, and selected laboratory values and procedures. Groups receive their original data and the cleaned and standardized CPCSSN data, allowing them to assess the data cleaning needed at the local level. The DPT reports thus far have included data on patients with diabetes and at least 2 of elevated hemoglobin A_{1c}, BP, or low-density lipoprotein levels; patients with chronic obstructive pulmonary disease who are current smokers; and patients prescribed certain medications in the past year, to help manage a drug recall. As CPCSSN's processes evolve, future reports could add more screening tests and information on family history.

The DPT allows identification of patients for clinical purposes, following strict, defined privacy policies and procedures. Groups could identify, for example, diabetes patients who are smokers and invite them to enhanced smoking cessation programs, or patients aged 65 or older with no record of pneumonia vaccination to inform them of the vaccine. Groups could then monitor the programs' effects.

Our personalized care for individual patients can be complemented by practising population management, using group processes and agreed-upon standards.[6] Use of EMRs can support all 4 of the principles we strive to embody in family medicine: enhancing our skills as clinicians, fostering patient-physician relationships of trust, keeping our practices community-based, and acting as true resources to our patients. CPCSSN is grateful to contribute to the evolution of Canadian primary care. For more information, please visit **www.cpcssn.ca**.

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Competing interests
None declared

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Sentinel Eye is coordinated by CPCSSN, in partnership with the CFPC, to highlight surveillance and research initiatives related to chronic illness prevalence and management in Canada. Please send questions or comments to Anita Lambert Lanning, CPCSSN Project Manager, at all@cfpc.ca.