

Background

The promised potential of creating usable information from electronic medical records (EMR) remains nascent. The BC arm of the Canadian Primary Care Sentinel Surveillance Network (BC-CPCSSN), part of a pan-Canadian multi-disease EMR surveillance system, has created INQUIRE—an interactive, secure, web-based tool that reports descriptive information about a clinician’s patient panel using extracted EMR data. Clinicians access information on a wide range of factors including patient demographics and the prevalence and management of chronic conditions seen in their practice. BC-CPCSSN receives data on approximately 45,000 patients.

Objectives

The objectives of this pilot study are to: (1) examine the effectiveness of the secure online tool, INQUIRE (Interactive Quality Improvement Reporting Environment); and (2) identify considerations for widespread implementation.

Methods

This is a mixed methods descriptive study using (1) analytic data generated from INQUIRE and (2) a user survey to understand how INQUIRE is used.

We tracked user interaction patterns using system analytic data:

- Date, time and user of each site interaction
- Which reports were requested
- Which filters were used to stratify
- How long the report took to load
- Any loading errors encountered

We collected survey data on user experience and impact on reflective practice and patient care.

Interactive Quality Improvement Reporting Environment (INQUIRE)

INQUIRE is an interactive, web-based tool that reports descriptive information about a user’s patient panel using data extracted from electronic medical records.

Eight report types are currently available, including prevalence and management of chronic conditions; more reports will be developed with stakeholder involvement.

Users can stratify their patient population by demographic and health characteristics using Filters.

This example shows a Patient Panel report – patient counts at a practice by age and sex.

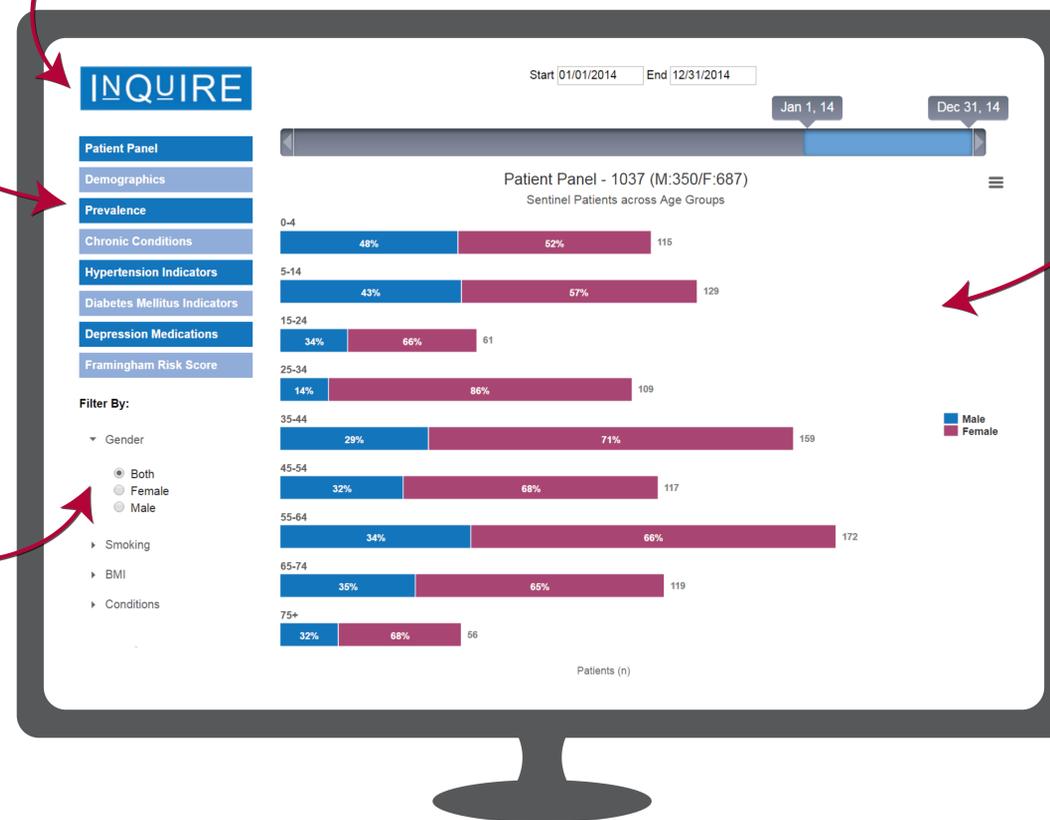
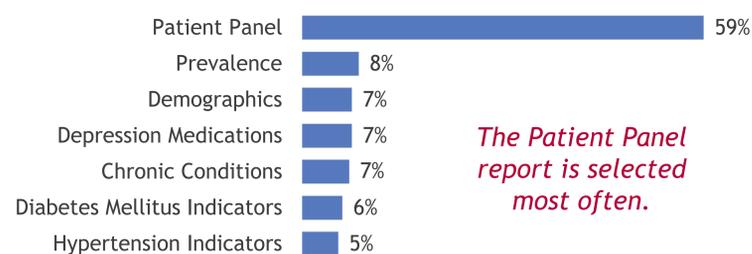


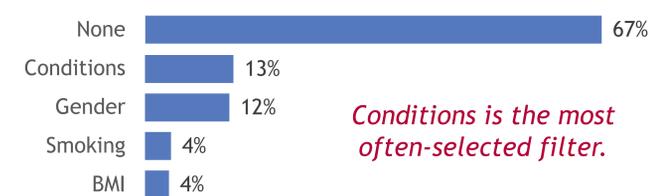
Figure 1: Report types selected



The Patient Panel report is selected most often.

Captured from INQUIRE system analytic data in September 2015; based on 11 users.

Figure 2: Data filters selected



Conditions is the most often-selected filter.

Captured from INQUIRE system analytic data in September 2015; based on 11 users.

Results

Preliminary findings include:

- Patient panel data is the most frequently accessed (Fig. 1).
- Condition is the most frequently used filter for stratification (Fig. 2).
- Reports were generated in a median of 1 second (range: 0-109 seconds). Report delivery speed can vary depending on the device used and connection type and speed.
- 11 of 27 invitees (41%) responded to the user survey.
- Survey respondents strongly preferred online dynamic reports over paper based static reports (9 of 10 respondents).
- 10 of 11 respondents agreed that they could find the information they were expecting to see.
- The average rating of acceptability of report loading time was 3.1 out of 5 (based on 11 responses).

Conclusions

Continued user testing will allow us to evaluate the information reported within INQUIRE and ensure we are tailoring the tool to our users’ needs. Improving the user experience will increase the ability of clinicians to engage in reflective practice. Feasibility of wider implementation of INQUIRE across the pan-Canadian CPCSSN will also be assessed.

Acknowledgements

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