

How Quality Improvement and Decision Support Specialists (QIDSS) Can Help Transform Care

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Objective

To describe how Electronic Medical Record (EMR) data can be **improved** to support **quality improvement** and research activities in primary care setting.

Introduction

- Transforming and using data in practical and efficient ways is key to improving quality of care
- It is difficult to measure the effect of QI projects because of poor EMR data quality and challenges with translating EMR data into usable information
- We need to have access to reliable clinical data
 - to accurately identify problems
 - to prioritize quality improvement initiatives
 - to determine whether change and improvement have occurred

Elements to Support Data Optimization

There are **six major elements** of data optimization and management from the perspective of three Data Managers and a Clinical Program Coordinator with community-based family health teams in different provinces across Canada.

1- Change Management

- Create **urgency** by communicating the risks and benefits of standardizing data entry
- Build a group of strong and supportive leaders who help drive the change; use physicians or AHP **champions** to promote the behaviour
- Create a **vision** to let people know about where the Family Health Team is heading and help them understand why coding is important
- Involve **healthcare providers in making decisions** about what to code
- Start **small and prioritize** the conditions that need to be coded first
- Get **agreement** on those selected conditions
- Communicate** the change and **celebrate** the small successes
- Report** cumulative success to all those involved
- Explain and **teach** the new processes and data entry methods to all new employees through training sessions and use of data manuals

2- Team Motivation Using the Right Data

- Motivate** teams by providing compelling evidence that their efforts are producing productive and useful results for their patients and their practice
- Communicate** and **celebrate** short-term gains that are visible to providers

3- Data Optimization:

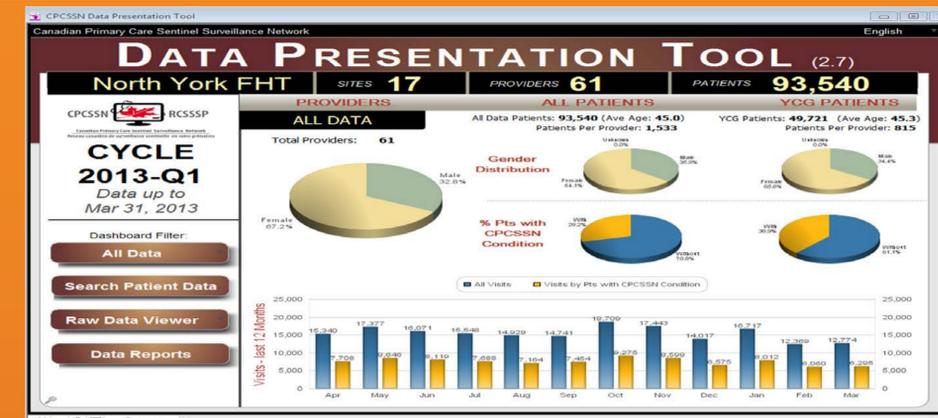
- We run a series of training sessions that have helped us improve the quality of our EMR data
 - We hold “Lunch and Learn” and “Bright and Early” EMR training programs led by FHT physician champions who are also EMR super users
 - These sessions are open to the FHT physicians and all other new and existing employees who are interested in learning consistent and standardized data entry
- We have a Summer Student Program to help physicians optimize their EMR data
 - Through the program, we have improved 1) chronic disease registries by using consistent diagnostic coding; 2) smoking cessation data in EMR; 3) FHT Rostered patients by matching against Ministry roster lists; and 4) the provision of preventive services program through patient follow-up activities
- We have developed data manuals and how-to user guides to help our new and existing employees in consistent data entry
- We have Information Management/Information Technology committee meetings to discuss and prioritize data optimization activities, EMR issues, and to communicate the results of our Summer Student Program activities with the FHT through the members of the committee

4- Data Management

- Data management is essential. In order to improve quality and to measure appropriately, it is important to eliminate variations in recording EMR data and to standardize
- EMRs systems have not been designed for larger scale queries. Running these queries will slow down EMR systems and interferes with clinical activities
- The Canadian Primary Care Sentinel Surveillance Network (CPCSSN), funded by the Public Health Agency of Canada, has worked out ways to extract and merge data from multiple EMRs. These methods allow standardized reports for participating physicians and primary care teams at all levels, regional, provincial, and national
- CPCSSN is currently testing its Data Presentation Tool (DPT), which is an interactive software that can quickly and easily generate reports and identify patients at risk using a copy of the CPCSSN’s cleaned and standardized data returned to the practices
- Participating in CPCSSN provides opportunity for primary care practices to have their EMR data extracted, cleaned, merged and standardized by professional CPCSSN data managers. The practices, will also have the opportunity to receive a copy of their CPCSSN processed data to support their quality improvement and research activities

5- Interactive Software

- Data Presentation Tool (DPT) is an interactive software application that was developed by the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) data manager in Alberta
- DPT provides new methods for physicians and primary care teams to systematically monitor the quality of care in their individual practices and group performance levels as compared to peers and recommended targets in their settings
- DPT includes reports on data standardization
- DPT can overcome the limitations of current EMRs, data quality issues, and can help physicians transform their data into useful information
- DPT is currently being pilot tested in North York Family Health Team (NYFHT) and to date it has been proven to be successful in overcoming the limitations of current EMRs and helping physicians transform their data into useful information



Data Presentation Tool – Analytical Software

6-Embedded in Community-Based Primary Care

- Data management needs to be **professionalized**, thus the new role of clinical Data Managers and QIDSS
- Primary care data should be managed both at the practice level and at the organization level
- At the North York Family Health Team (NYFHT), the clinical Data Manager provides support in decision making and analysis of healthcare services by
 - Performing a key role in transforming data into useful and usable information
 - Generating regular and ad hoc clinical reports using Data Presentation Tool (DPT) and the two EMR systems utilized at the FHT for program planning, quality improvement, evaluation and research
- Example 1:** used the DPT tool for a research project at the NYFHT to identify high risk patients with had diabetes and/or hypertension and poorly controlled A1c, BP, LDL. Using DPT, a list of eligible patients was generated, and randomized. An invitation was sent to the selected patients to participate in a randomized controlled trial examining a behavioural intervention addressing their dietary patterns
- Example 2:** Used DPT to identify patients with mental health conditions including dementia and depression and generated a list of their most prescribed medications for physicians to reflect on the care provided for this group

Discussion & Conclusion

- Quality Improvement Decision Support Specialist (QIDSS) can help primary care providers by using the team’s own data to:
 - promote and support data **standardization**
 - provide useful and actionable **reports**
 - provide reports outline **care gaps**
 - measure and monitor **quality of care**
- QIDSSs need to be proficient in both change management and data management
- FHTs can benefit from joining CPCSSN project to have their data extracted, cleaned, and standardized by professional CPCSSN Data Managers; and QIDSSs can benefit from collaboration with CPCSSN Data Managers
- Using innovative tools such as DPT that uses CPCSSN cleaned and standardized data has been proven to be successful in North York Family Health Team in transforming **EMR data into meaningful information**