A Centralized Approach to Standardize Electronic Medical Record Tools and Templates in a Multi-Site Family Health Team: Formation of a Data Standardization Committee

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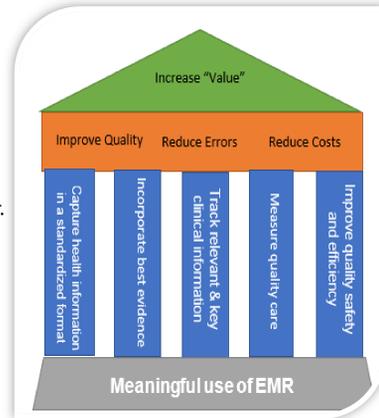
North York Family Health Team

Background

Improving the quality of the electronic medical record (EMR) and reducing medical errors are critical factors in the provision of successful patient care[1]. Embracing the use of information technology and EMR to provide evidence-based medicine readily available at the point of care has had a major impact on achieving these goals[2]. Incorporating evidence-based information into patient care requires making the right information available at the right time[2]. EMR documentation templates can play an important role in improving the efficiency of data collection, and ensuring all relevant elements are collected in a structured format[3]. In addition, consistent and standardized clinical data play a key role in measuring and monitoring the quality of healthcare delivery[3].

Meaningful Use

Definition:
Meaningful use is defined as using the electronic medical record (EMR) to improve quality, safety, efficiency, reduce health disparities, engage patients in their care, improve care coordination, and population health.
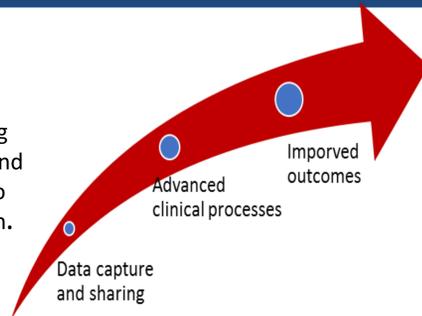
Why Use an EMR in a Meaningful Way?
Capture clinical content in a standardized and structured manner.
• Reduce medical errors.
• Generate quality data to improve clinical outcomes.
• Use system alerts and reminders to improve quality of care.
• Use clinical decision support tools to improve patient care.
• Reduce unnecessary healthcare costs.

Increase "Value"

Improve Quality | Reduce Errors | Reduce Costs

Capture health information in a standardized format | Incorporate best evidence | Track relevant & key clinical information | Measure quality care | Improve quality safety and efficiency

Meaningful use of EMR

Context

North York Family Health Team (NYFHT) serves 92,533 Active patients of which 71,859 are Rostered to physicians .
The FHT comprises of 84 family physicians, 20 physical sites, 2 EMR systems and 6 individual servers.

Aim

To create a centralized process to assess the quality of EMR data, review and update existing EMR tools (flowsheets, forms and templates) and to create consistency of patient care across two EMR systems in a multi-site Family Health Team.

Improved outcomes
Advanced clinical processes
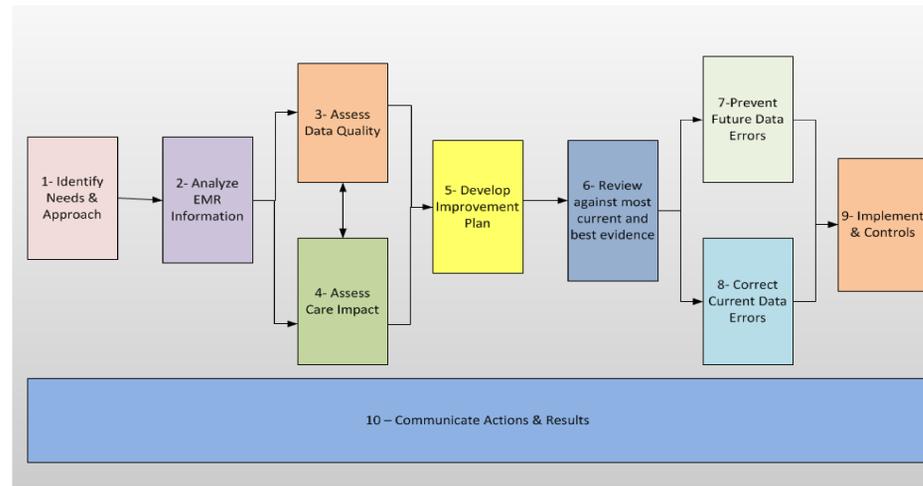Data capture and sharing

Members

The EMR Data Standardization Working Group is comprised of the following members:
☐ NYFHT Quality Improvement Decision Support Specialist (Chair)
☐ NYFHT Data Manager
☐ NYFHT Clinical Manager
☐ 2 FHT Dieticians
☐ 1 FHT Pharmacist
☐ 1 IT Person
☐ 8 Family Physicians
☐ 1 Administrative Staff

Activities

☐ Identify EMR data standardization and implementation issues and work toward their resolution.
☐ Review and summarize the scope and implications of all data and information standards recommended to the working group.
☐ Support and promote the adoption of EMR data standards approved by the working group.
☐ Communicate committee activities and decisions with their team and solicit feedback to facilitate representation and awareness/understanding of the submission.
☐ Champion and promote the EMR standards collaboration process.
☐ Provide input to and guidance for communication activities aimed at all EMR users within the FHT.

10-Step Process

1- Identify Needs & Approach
2- Analyze EMR Information
3- Assess Data Quality
4- Assess Care Impact
5- Develop Improvement Plan
6- Review against most current and best evidence
7-Prevent Future Data Errors
8- Correct Current Data Errors
9- Implement & Controls
10 – Communicate Actions & Results

Template Review

• A collaborative approach that includes physicians, interdisciplinary healthcare professionals, office staff, quality specialists, data managers, and information technology (IT) representatives is recommended when reviewing templates and prompts.

Review Criteria:
• Workflow integration
• Usability
• Ease of use
• Clinical relevance of the content
• Evidenced based
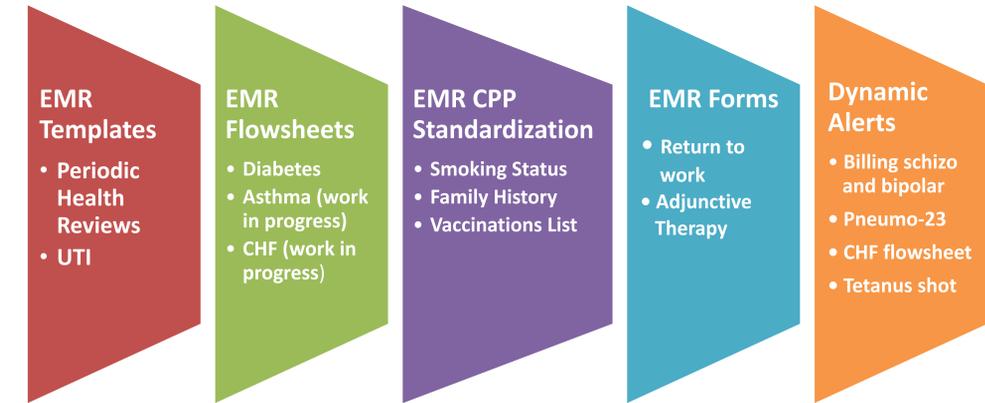• Uniformity & flow of the content

Evaluation Measures

☐ # of EMR forms and templates reviewed
☐ # of EMR forms and templates revised
☐ # of system reminders and alerts developed
☐ % of NYFHT providers using a particular revised form/template
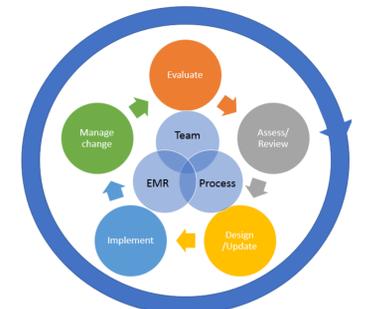
Results

Evaluation period September 2016-September 2017:
☐ 7 EMR forms and templates reviewed
☐ 7 EMR forms and templates revised
☐ 4 system reminders and alerts were developed
☐ 62% of NYFHT providers used new Periodic Health Review templates

EMR Templates
• Periodic Health Reviews
• UTI

EMR Flowsheets
• Diabetes
• Asthma (work in progress)
• CHF (work in progress)

EMR CPP Standardization
• Smoking Status
• Family History
• Vaccinations List

EMR Forms
• Return to work
• Adjunctive Therapy

Dynamic Alerts
• Billing schizo and bipolar
• Pneumo-23
• CHF flowsheet
• Tetanus shot

Buy-in & Uptake

• Create a common vision among the team.
• Involve team members with various expertise.
• Involve opinion leaders & physician champions in the assessment and review of EMR data, forms and templates.
• Ensure regular and effective communication with healthcare providers within the team explaining goals.
• Start small, ask for volunteers to pilot test.
• Provide education and training.
• Plan to communicate and spread the change.
• Celebrate successes.

Evaluate
Team
Assess/Review
Manage change
EMR
Process
Implement
Design/Update

Implications

EMR documentation and data optimization are the cornerstone of effective patient care. The quality of healthcare data impacts every decision made along the patient care continuum. The demand for accurate and reliable data has never been more important.
Involving the right team members and ensuring effective implementation and adoption across the team is the foundation for building an effective and successful process that will help improve patient care through meaningful use of EMR systems.

Future Directions

• Perform an annual evaluation to:
   • Monitor progress and assess the effectiveness of the committee in achieving its goals.
   • Identify strengths and weaknesses, flag areas for improvement, and plan for further action as appropriate.

References:
1. Karsh BT. Clinical practice improvement and redesign: how change in workflow can be supported by clinical decision support. Rockville, MD: Agency for Healthcare Research and Quality; 2009.
2. Bowles KH, Dykes P, Demiris G. The Use of Health Information Technology to Improve Care and Outcomes for Older Adults. Research in gerontological nursing. 2015;8(1):5-10.
3. Zhou L, Collins S, Morgan SJ, et al. A Decade of Experience in Creating and Maintaining Data Elements for Structured Clinical Documentation in EHRs. AMIA Annual Symposium Proceedings. 2016