Improving Population Health by Aligning EMR Optimization with Clinical Workflow Design

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Introduction

Most Ontario family physicians use certified electronic medical records (EMRs) in their practices. But EMR adoption alone does not guarantee better practice management or patient care. Positive patient outcomes can be realized when patient rosters are accurately reflected in the EMR, data is entered in an accurate and user-friendly way, and EMR functionality such as custom forms or reminders is used to identify target populations.

OntarioMD's EMR Practice Enhancement Program (EPEP) analyzes practices' EMR workflow and data quality, and provides hands-on support to help clinicians move beyond data capture and use information in their EMR to improve patient care and practice efficiency.

Method

EPEP has assisted over 500 physicians since the program's launch in 2016.Our five-step EPEP engagement approach involves working with practices to optimize their EMR use:

- **gap analysis**
- **workflow analysis & mapping**
- **data quality review** (DQR) to determine roster data baselines for a variety of key clinical measures
- **delivery of an action plan** with achievable tasks designed to improve data quality and practice management
- **post-evaluation** to measure post-engagement improvements

Results

The cases of Dr. Green, Dr. Blue, and Dr. Gold illustrate how an EPEP engagement can improve prevention and screening (P&S) and chronic disease management (CDM). Process diagrams for each case below illustrate the issues, action plan and follow-up unique to each practice. The bar graphs to the right illustrate data quality changes pre- and post-EPEP engagement for three types of screening and smoking status.

Case 1: Dr. Green

IDENTIFIED ISSUES

'Pop-up" reminders distracting & inaccurate

Test results and prior exam searching takes too long

Desire to be proactive

ACTION PLAN

Use prevention module frequently to proactively screen patients

Review and refine reminder rules to avoid alert fatique

Use structured data entry tools

Redesign workflow to close gaps and track requisitions

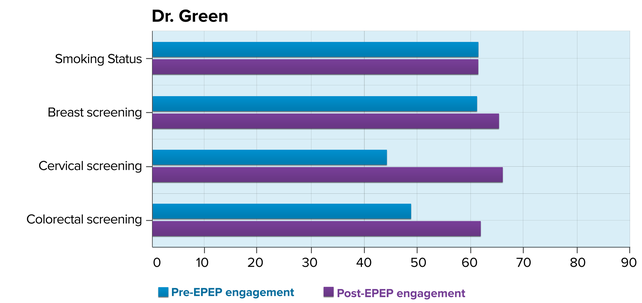
Use population-based reports for targeted follow up

Use flowsheet for CDM and P&S

FOLLOW-UP ACTIONS

Contracted with third party to provide nutritional counselling for diabetic patients

Consulted vendor to review lab connectivity



Case 2: Dr. Blue

IDENTIFIED ISSUES

Desire to be proactive in P&S

Awareness that "we don't know what we don't know"

EMR not working for the practice the way they knew it should

ACTION PLAN

Perform roster reconciliation

Use the EMR preventive care report

Review and implement preventive care workflow & tools

Ensure nomenclature consistency for recording CPP elements

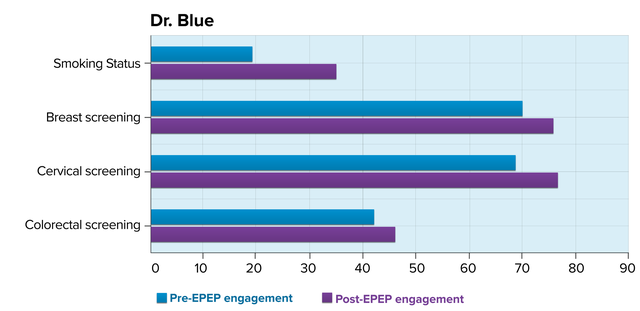
Coaching on tools for managing P&S and CDM

Generate regular reports and reminder lists for proactively targeting populations

FOLLOW-UP ACTIONS

Implemented diabetic toolbar in EMR to provide point-of-care access to timely patient data (lab results, etc.)

Worked on nomenclature consistency for smoking status and the diabetic population



Case 3: Dr. Gold

IDENTIFIED ISSUES

Spends too much time searching for lab results for diabetic patients

Aware of inconsistency in office data entry

Desire to improve preventive care services

ACTION PLAN

Periodically run and review preventive care report

Review and refine reminder rules

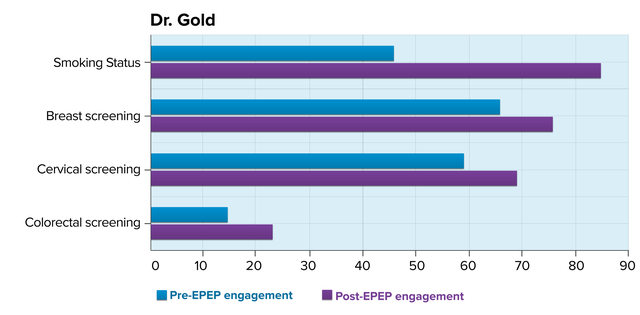
Implement reminder to capture smoking status if blank

Periodically run reports for diabetic screening and follow-up

Enhance existing diabetic stamp to capture data more thoroughly

FOLLOW-UP ACTIONS

Based on improvements in workflow and patient care, clinician encouraged colleagues to engage with EPEP: 18 further engagements resulted



Conclusion

The change management support provided by EPEP consultants results in tangible improvements in a practice's efficiency and patient care. Of the first 500 EPEP 'graduates', roster error rates measured as high as 26% at baseline and as low as 1% post-engagement. EPEP has been proven to improve consistency of data entry and establish EMR workflow efficiencies that lead to more accurate population tracking and ultimately, improved patient care.

To arrange an EPEP engagement, contact OntarioMD at **epep@ontariomd.com** or **1-866-339-1233**.