

Refining Confidential Practice Reports for Use in Primary Care and Long-Term Care

Design Process, Challenges, and Lessons Learned

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Noah Ivers, WCH

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Five Strategic Priorities



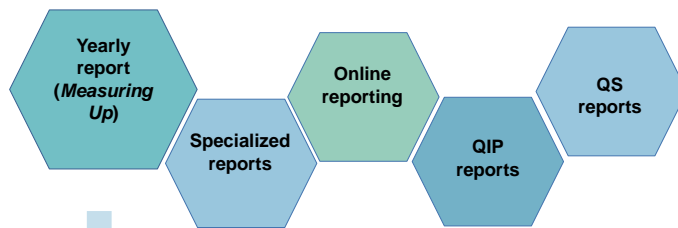
1. Provide system-level leadership for quality
2. **Increase availability of information to enable better decisions**
3. Evaluate promising innovations/practices, support broad uptake
4. Engage patients in improving care
5. Enhance quality when patients transition between care/settings

HQO Reporting Portfolio



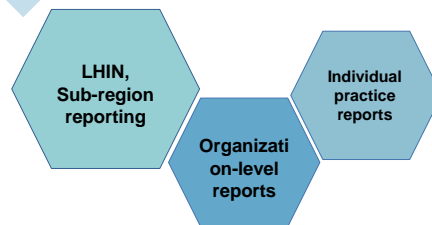
PUBLIC PERFORMANCE REPORTING

- Sets overall quality agenda
- Supports transparency accountability



REPORTING FOR SYSTEM USE

- Enables continuous QI in priority areas



HQO Audit & Feedback Program



- To regularly provide information, including data* and change ideas, to support practice improvement efforts
- Currently, HQO provides three sets of audit and feedback tools:

MyPractice: Primary Care

- Physician
- Community Health Centre Executive Director
- Family Health Team Executive Director

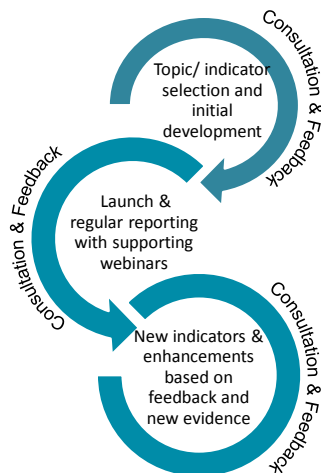
MyPractice: Long-Term Care

MyPractice: Hospital/Specialist

*Provincial health care datasets are used to generate indicators. Currently, HQO works with the Institute for Clinical Evaluative Sciences to calculate indicators. Data sources may be expanded in the future.

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Report Development Process



- Consultations through advisory committees, reference groups and one-on-one usability sessions
- Stakeholders include clinicians, researchers, regional leadership, professional associations and ministry
- Feedback surveys sent to report recipients
- Mixed methods formal evaluation of report impact

Mixed Methods Evaluations

- Critical to program success is report content and format that optimally triggers physician behaviour change
- The Ontario Healthcare Implementation Laboratory supports qualitative and quantitative evaluations:
- Long term care:
 - Positive and negative framing and comparator trials
 - Physician surveys, interviews, administrative data analysis
- Primary care:
 - Physician surveys, interviews on report design opportunities, format changes, topic perceptions and future content

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Long-term care: embedded trial

Ivers et al. *Implementation Science* (2017) 12:86
DOI 10.1186/s13012-017-0615-7

Implementation Science

STUDY PROTOCOL

Open Access

Testing feedback message framing and comparators to address prescribing of high-risk medications in nursing homes: protocol for a pragmatic, factorial, cluster-randomized trial



Noah M. Ivers^{1,2,3,4*}, Laura Desveaux¹, Justin Presseau^{5,6,7}, Catherine Reis¹, Holly O. Witteman^{5,8,9,10,11}, Monica K. Taljaard¹², Nicola McCleary⁷, Kednapa Thavorn⁶ and Jeremy M. Grimshaw¹²

Abstract

Background: Audit and feedback (AF) interventions that leverage routine administrative data offer a scalable and relatively low-cost method to improve processes of care. AF interventions are usually designed to highlight discrepancies between desired and actual performance and to encourage recipients to act to address such discrepancies. Comparing to a regional average is a common approach, but more recipients would have a discrepancy if compared to a higher-than-average level of performance. In addition, how recipients perceive and respond to discrepancies may depend on how the feedback itself is framed. We aim to evaluate the effectiveness of different comparators and framing in feedback on high-risk prescribing in nursing homes.

Methods: This is a pragmatic, 2 × 2 factorial, cluster-randomized controlled trial testing variations in the comparator and framing on the effectiveness of quarterly AF in changing high-risk prescribing in nursing homes in Ontario, Canada. We grouped homes that share physicians into clusters and randomized these clusters into the four experimental conditions. Outcomes will be assessed after 6 months; all primary analyses will be by intention-to-treat. The primary outcome (monthly number of high-risk medications received by each patient) will be analysed using a general linear mixed effects regression model. We will present both four-arm and factorial analyses. With 160 clusters and an average of 350 beds per cluster, assuming no interaction and similar effects for each intervention, we anticipate 90% power to detect an absolute mean difference of 0.3 high-risk medications prescribed. A mixed-methods process evaluation will explore potential mechanisms underlying the observed effects, exploring targeted constructs including intention, self-efficacy, outcome expectations, descriptive norms, and goal prioritization. An economic analysis will examine cost-effectiveness

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Insights from process eval...



Comparator seems to influence behaviour:

- **Use top quartile comparator**, pursue case mix adjustment to improve credibility

Negative framing perceived as more actionable:

Additional findings:

Physicians value & use the feedback, but report is not the main driver of change

Provide data split by facility and encourage discussion with team members within and across facilities

To maximize engagement with report, indicators should be immediately interpretable

Primary Care: Re-design



User-centered design approach:

Conducted 16 think-aloud interviews and refined the design iteratively in cycles

Content and design changes required balancing of:

1. User input and preferences
2. Desire to minimize cognitive load and focus attention on actionable items
3. External evidence on behaviour change

Overview page changes

Primary Care Practice Report Health Quality Ontario

Report Overview Data as of March 31, 2016

Background

The Primary Care Practice Report can help you focus your quality improvement efforts.

This report DOES

- Use billing data and other administrative data.
- Give an overview of your practice activities.
- Compare your performance to that of others.
- Provide you with ideas for improvement.

This report does NOT

- Use EMR data held in your practice or provide direct links to your EMR.
- Provide detail about specific patients.
- Provide specific instructions for clinical care.
- Tell you what targets are best for your practice

Help clarify what the report does and does not do

This report was developed by

Health Quality Ontario (HQO) and the Institute for Clinical Evaluative Sciences (ICES) developed this report in partnership with the Association of Family Health Teams of Ontario (AFHTO) and the Ontario College of Family Physicians (OCFP).

Additional information

- Read our [Frequently Asked Questions](#)
- For more information about Primary Care Practice Reports, please email us at practicereport@hqontario.ca

Testimonials featured more heavily within the document

"I would say don't be afraid to find out the data, to see where you're at because the report is totally confidential, so as long as it is confidential, it's really there to help all of us make changes in our practice for the better of all our patients."
- Dr. Ben Stobo, Athens Ontario

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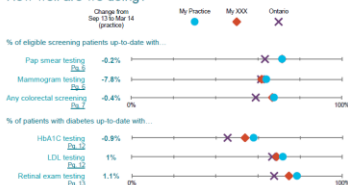
Dashboard: old & new

Dashboard

Data reporting period ending: March 31, 2014

My Primary Care Enrollment Model (group type): XXX
 My Group Number: Group Ag
 My LHM: LHM Ag
 My Nativity Index of Ontario Score: 0 - Major Urban (0 to 9)

How well are we doing?



Who am I caring for?

1587 41.4

What resources are our patients using?





To find practice page in indicate: *Adjust

	Where can I improve?	Average performance	What am I doing well?
Cancer Screening	• CRC screening	• Pap smear	• Mammogram
Diabetes Management	• HbA1c • LDL	• Retinal test • ACE inhibitors/ARB	• Statin
Health Services Utilization	• Total ED visits • Urgent ED visits • ACSC COPD	• Less urgent ED visits • ACSC adm. total • ACSC adm. asthma • ACSC CHF • ACSC diabetes	• Hospital readmissions within 30 days • Hospital readmissions within 1 year • Visits to own physician

[View your patient information and demographics](#)

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Change detail

Primary Care Practice Report
Health Quality Ontario

Overall Performance in Quality Indicators
Data as of March 31, 2016

	Where can I improve?	Average performance	What am I doing well?
Cancer Screening	<ul style="list-style-type: none"> • CRC screening 	Pap smear	<ul style="list-style-type: none"> • Mammogram
Diabetes Management	<ul style="list-style-type: none"> • HbA1C • LDL 	<ul style="list-style-type: none"> • Retinal test • ACE inhibitors/ARB 	<ul style="list-style-type: none"> • Statin
Health Services Utilization	<ul style="list-style-type: none"> • Total ED visits • Urgent ED visits • ACSC COPD 	<ul style="list-style-type: none"> • Less urgent ED visits • ACSC adm. total • ACSC adm. asthma • ACSC CHF • ACSC diabetes 	<ul style="list-style-type: none"> • Hospital readmissions within 30 days • Hospital readmissions within 1 year • Visits to own physician

[View your patient information and demographics](#)

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Provide users with a snapshot of their overall performance

Three performance levels as a compromise

Hyperlinks allow for easy navigation even in a PDF

Quick access to patient demographics

Indicator page: old & new

Section 1: Cancer Screening

Percentage of patients up-to-date with Pap smear

Percentage of patients up-to-date with mammogram

Percentage of patients up-to-date with any colorectal screening

Primary Care Practice Report
Health Quality Ontario

Cancer Screening Indicator Comparison
Data as of March 31, 2016

Summary of my performance for all cancer screening indicators

My Practice

- PAP Smear
- Mammogram
- CRC screening

Ontario


- PAP Smear
- Mammogram
- CRC screening

What are the data showing me?

- Your practice is below the Ontario average in PAP smear and CRC screening
- Your practice is above the Ontario average in Mammogram screening

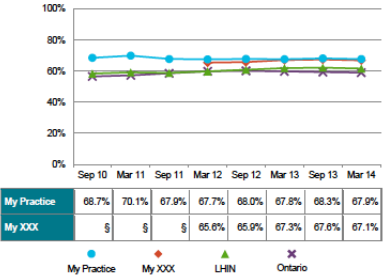
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Old indicator detail page



WOMEN'S COLLEGE HOSPITAL
Health care for women. REVOLUTIONIZED

All colorectal screening: Percentage of your patients aged 52 to 74 who had a FOBT within the past two years, other investigations (i.e., barium enema, sigmoidoscopy) within the past five years or a colonoscopy within the past 10 years



	Sep 10	Mar 11	Sep 11	Mar 12	Sep 12	Mar 13	Sep 13	Mar 14
My Practice	68.7%	70.1%	67.0%	67.7%	68.0%	67.8%	68.3%	67.9%
My XXX	§	§	§	65.6%	65.0%	67.3%	67.6%	67.1%

§ data suppressed; physician group size <=5


Data interpretation considerations
A small proportion of FOBTs performed as diagnostic tests could not be excluded from the analysis. FOBTs analyzed in hospital labs could not be captured.


What are the data showing me?
As of March 2014, 297 of your patients were up-to-date with colorectal screening. Your percentage is 67.9%, higher than the provincial percentage of 59.1%.

To help improve your colorectal screening rate, review the change ideas on [page 8](#).

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New indicator detail page





WOMEN'S COLLEGE HOSPITAL
Health care for women. REVOLUTIONIZED

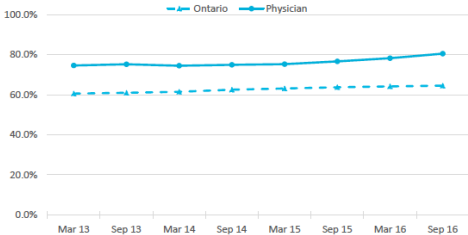
Primary Care Practice Report

CRC Screening

Health Quality Ontario

Data as of September 30, 2016

What percent of my eligible patients aged 52 to 74 are up-to-date with any colorectal screening?



What are the data showing me?

- As of September 30, 2016, 81.3% of my patients were up-to-date with colorectal screening. My group and LHN percentages are 64.6% and 69.9%, respectively.
- My practice is higher than the provincial percentage of 64.5%.

Evidence for CRC screening continues to evolve. Health Quality Ontario will continue to monitor screening guidelines and modify the indicator, as appropriate. A small proportion of FOBTs performed as diagnostic tests could not be excluded from the analysis. This indicator does not capture tests done in hospital laboratories or paid through alternative payment plans.

Number of my eligible patients not screened

170

How can I improve my CRC screening? ([page 9](#))

To identify patients requiring follow up for CRC screening, please access your screening activity report (SAR) through the Cancer Care Ontario Portal

SAR Report Portal

Absolute # more likely to compel action

Key change idea beside the data

Interpretation written out

Indicator definition: Percentage of my patients (aged 52 to 74) who had a FOBT within the past two years, other investigations (i.e. sigmoidoscopy) within the past five years or a colonoscopy within the past 10 years.

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Change ideas: old & new

Identify areas for improvement

First, identify areas of focus to improve your cancer screening indicators by asking yourself these questions:

- 1 Are you able to identify the patients due/overdue for cancer screening in your practice?
- 2 Do you have a reminder system and a process to recall your patients?
- 3 Do you have a tool to keep track of your patients who are eligible for screening and follow-up on tests and referrals?
- 4 Have you and your team mapped your clinic's current cancer screening process to identify potential gaps and test improvements?

Once you identify the areas you would like to improve, review the change ideas that accompany each question:

1 Change ideas to identify your patients

- Download the report and compare the information with your clinic's patient records. Modify to make your report more consistent with your own patient records. Register for and view your Cancer Care Ontario Screening Activity Report (SAR) to find the screening status of your enrolled patients. <https://www.cancercare.on.ca/cpsc/primarycare/>
- Use the query/reporting function in your EMR to search for screening-eligible patients and check documented screening status.

2 Change ideas to develop a recall system

Identify number of screening-eligible patients not up-to-date by follow-up

Consult template Ontario: <http://www.hqo.on.ca/2013/11/22/>

Update EMR with Update EMR # 54

Health Quality Ontario

Primary Care Practice Report

Data as of March 31, 2016

CRC Screening

How can I improve my cancer screening indicator?

<input checked="" type="checkbox"/>	Review your HQO practice report	- Go through the report examine how you are doing in comparison with the Ontario average
<input type="checkbox"/>	Identify the patients due/overdue for cancer screening	- Register for and view your Cancer Care Ontario Screening Activity Report (SAR) to find the screening status of your enrolled patients - Use the query or reporting function in your EMR to search for screening-eligible patients
<input type="checkbox"/>	Establish a process or system to help you keep track of patients who are eligible for screening	- Set up reminders to help track those patients who are due for screening
<input type="checkbox"/>	Follow up on tests and referrals	- Regularly review screening status reports and current baseline, reminder notice completion and identify patients requiring additional follow-up contact
<input type="checkbox"/>	Identify potential gaps in your clinic's current cancer screening process	- Map the steps involved in your clinic's cancer screening and follow-up processes - Consider who checks screening status, who updates the patient record, who communicates recalls or follow-ups, how frequent are screening status reports reviewed, etc.

Additional ways to help improve cancer screening in your practice

- For additional ideas, consult Cancer Care Ontario's Cancer Screening Toolkit: <https://www.cancercare.on.ca/cpsc/toolkit/>

- Learn from your peers!
- Reach out to local family physician leaders working as part of the Provincial Primary Care and Cancer Network. Go to: <https://www.cancercare.on.ca/cms/01e.aspx?portalId=137&pageId=87139>
- If you use an EMR and want to maximize its use for cancer screening, contact your OntarioMD peer leader: https://www.ontariomd.ca/portal/site/peerscommunity/peer_leader_program/contact

Change detail

Health Quality Ontario

Primary Care Practice Report

Data as of March 31, 2016

CRC Screening

How can I improve my cancer screening indicator?

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Checklist of actions emphasized

Things one can do in one's own practice

vs.

Provincial resources available to help with these indicators

Physician Perspective: New Design



I think it's a very clear report. It's pretty simple to read, it's pretty simple to see where you are, where you compare with the rest of the province. I think all of that is pretty clear. PCP06

Implication(s):

1. Physicians approve of the new design and view it as a strength.
2. The current design features (e.g. colour, layout, graphics) enhance the usability of the report.
3. Design features will remain a work in progress

Physician Perspective: Indicators



I think, rather than focusing on the percentage of patients that have had recent hemoglobin A1C testing, to me, a better thing to look at would be what are the hemoglobin A1Cs of my patients, like, what are the numbers and how do the overall outcomes, let's say, compare with other doctors? PCP01

I think the question I have, for Health Quality Ontario, is what you would like physicians in general to do with the report? Because it's all nice to give people information but if there is no clear direction about what they should do with it... PCP09

Implication(s): Unless the indicators align with physician goals and priorities, and are perceived as actionable, the design doesn't really matter

Continuing enhancements



- New/revised indicators (e.g. opioid related content)
- Ongoing exploration of:
 - Peer group, risk adjustment
 - Outcome, process + balancing indicators
 - Access to patient level data
 - Easier report access
 - Streamlined reporting in Ontario
- Growing the numbers of registrants and the number who engage with their data...

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Continuing evolution... of the reports and the partnership



- Partnership between Ontario Healthcare Implementation Laboratory and Health Quality Ontario supports the continued enhancement of the reports and strengthens their value to physicians
- Value to HQO: testing strategies to increase report reach and usefulness AND identify opportunities to increase impact
- Value to scientific community: planned evaluations can advance the science of audit and feedback

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