



Optimizing EMR Use: Merging Data, Managing Patients and More

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Presenter disclosure

- Presenters: Tara Kiran
- Relationships with commercial interests:
 - Grants/Research support: None
 - Speakers bureau/honoraria: None
 - Consulting fees: None
 - Other: None



Presenter disclosure

- Presenters: Sam Davie
- Relationships with commercial interests:
 - Grants/Research support: None
 - Speakers bureau/honoraria: None
 - Consulting fees: None
 - Other: None



Presenter disclosure

- Presenters: Lisa Miller
- Relationships with commercial interests:
 - Grants/Research support: None
 - Speakers bureau/honoraria: None
 - Consulting fees: None
 - Other: None



Disclosure of commercial support

- This program has received no financial or in-kind commercial support
- There are no other potential commercial conflict(s) of interest



Mitigating potential bias

- N/a



Learn how to...

- Access the Cancer Care Ontario Screening Activity Report
- Merge it with your EMR data
- Use patient postal codes to understand equity
- Use the data to measure and drive improvement



St. Michael's Hospital Academic FHT



Our challenge: measuring screening rates

Screen for Life

Cancer screening sees what you can't

✓ Breast ✓ Cervical ✓ Colorectal

Screening for breast, cervical and colorectal cancer saves lives. Cancer screening detects pre-cancerous changes, or cancer at an early stage when there is a better chance of treating it successfully. Screening is for individuals who do not have any cancer symptoms.

Breast

Regular breast cancer screening can find cancer when it is small and there is a better chance of treating it successfully.

[more about breast screening](#)

Cervical

Cervical cancer is almost entirely preventable with regular screening, appropriate and timely follow-up of abnormal Pap test results and HPV immunization.

[more about cervical screening](#)

Colorectal

When colorectal cancer is caught early through screening, a person with colorectal cancer has a 90% change of being cured.

[more about colorectal screening](#)



What is the CCO SAR?

Enrolled Patients Screening Summary as of 31-Mar-2014

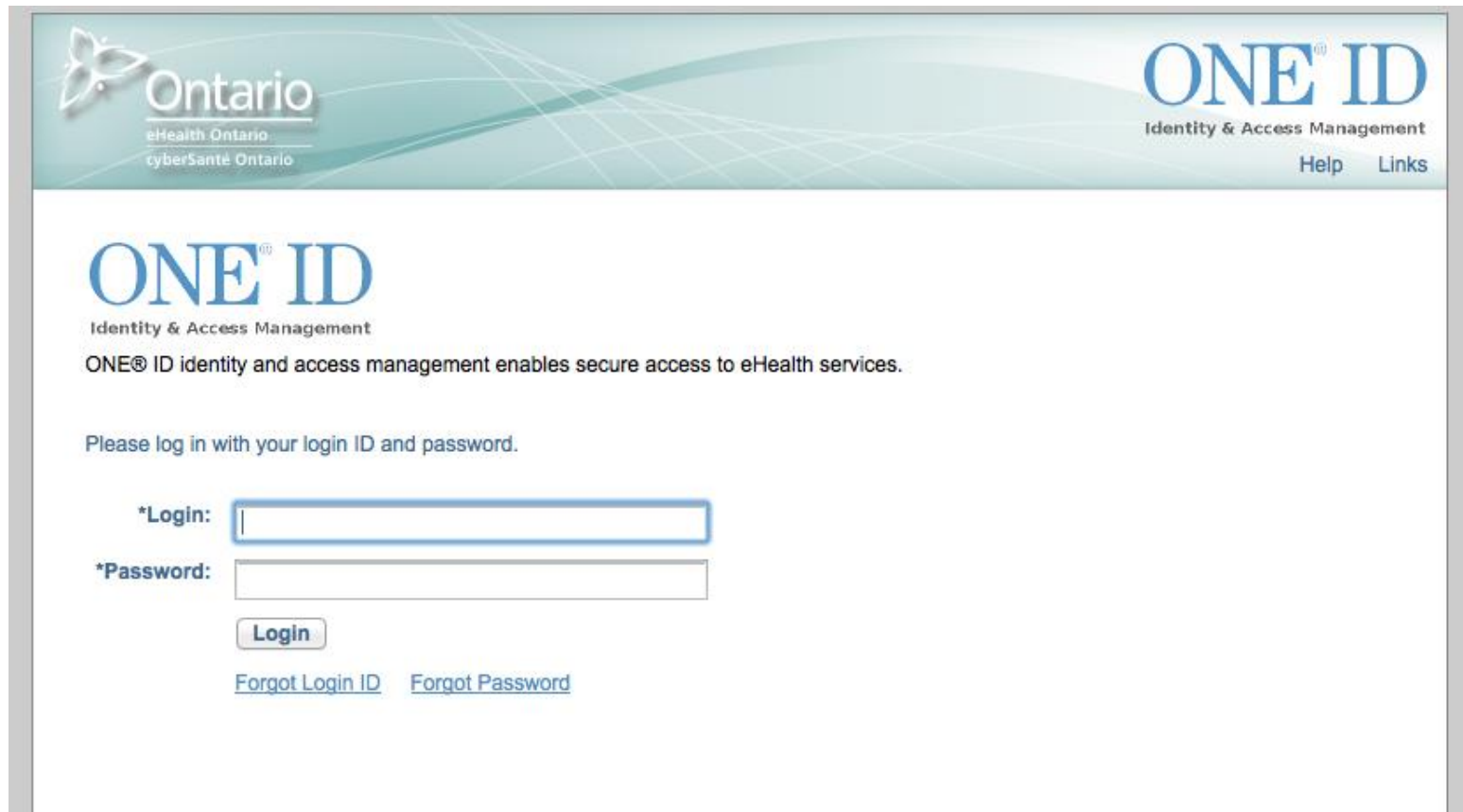
Physician: CPSO:

| Patient Information | | | | | | | | | | | | | | |
|---------------------|------------|-----|---------------|-----|-----|----------|--------|-----------------------|----------|----------|-----------------------|------------|--------|-----------------------|
| | | | | | | Breast | | | Cervical | | | Colorectal | | |
| Surname | Given Name | HIN | Date of Birth | Age | Sex | Eligible | Status | Send Letter? (Y/N) | Eligible | Status | Send Letter? (Y/N) | Eligible | Status | Send Letter? (Y/N) |
| | | | | 38 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 39 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 27 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 37 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 66 | F | Y | Normal | N | Y | Normal | N | Y | Review | N |
| | | | | 46 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 39 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 48 | F | N | | N | Y | Normal | N | N | | N |
| | | | | 25 | F | N | | N | Y | Action | Y | N | | N |
| | | | | 69 | F | Y | Action | N | X | Excluded | N | Y | Normal | N |



How do I access the CCO SAR?

STEP 1: Help physicians get a OneID account



The screenshot shows the ONE ID login interface. At the top, there is a header with the Ontario eHealth logo on the left and the ONE ID logo with 'Identity & Access Management' on the right. Below the header, the ONE ID logo is repeated, followed by the text 'Identity & Access Management' and a description: 'ONE® ID identity and access management enables secure access to eHealth services.' Below this, a prompt says 'Please log in with your login ID and password.' There are two input fields: '*Login:' and '*Password:'. Below the password field is a 'Login' button. At the bottom, there are two links: 'Forgot Login ID' and 'Forgot Password'.

Ontario
eHealth Ontario
cyberSanté Ontario

ONE ID
Identity & Access Management
Help Links

ONE ID
Identity & Access Management

ONE® ID identity and access management enables secure access to eHealth services.

Please log in with your login ID and password.

*Login:

*Password:

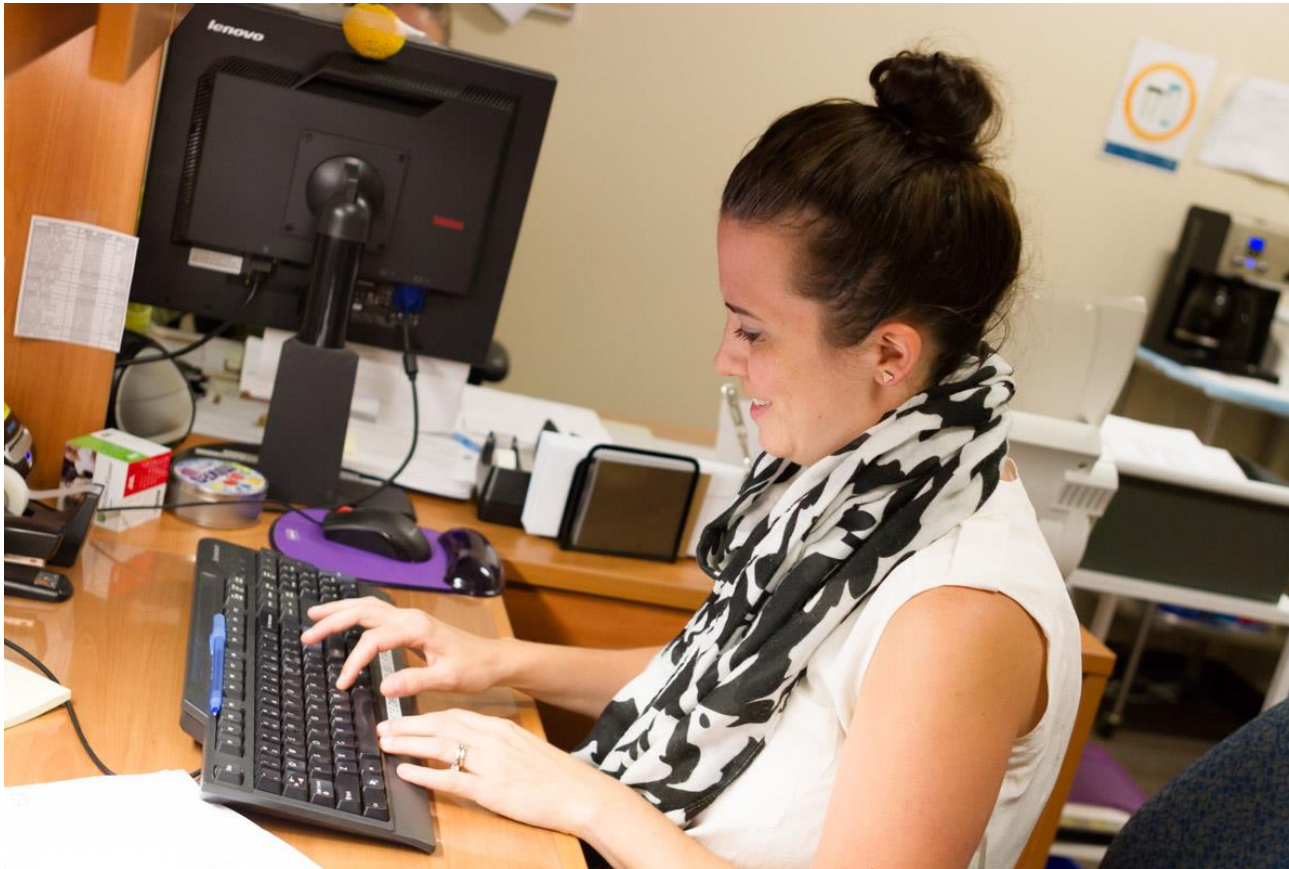
Login

[Forgot Login ID](#) [Forgot Password](#)



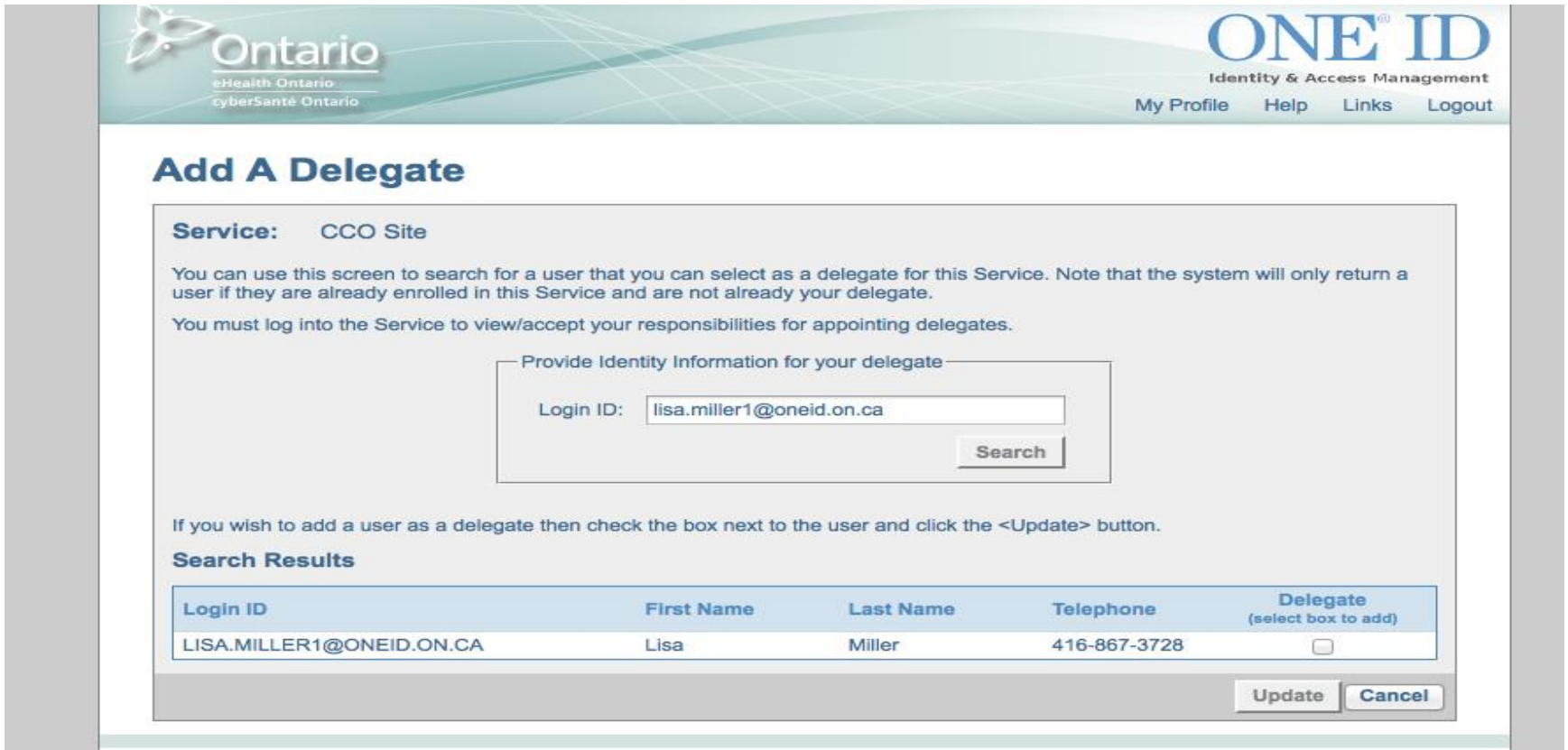
How do I access the CCO SAR?

Train your own Local Registration Agent!



How do I access the CCO SAR?

STEP 2: Help physicians appoint you as a delegate



The screenshot shows the 'Add A Delegate' page in the ONE ID system. The header includes the Ontario eHealth and cyberSante logos on the left, and the ONE ID Identity & Access Management logo with links for My Profile, Help, Links, and Logout on the right. The main heading is 'Add A Delegate'. Below this, the 'Service' is set to 'CCO Site'. A paragraph explains that users can search for delegates who are already enrolled in the service and not already their delegates. Another paragraph states that the user must log into the service to view or accept responsibilities for appointing delegates. A form titled 'Provide Identity Information for your delegate' contains a 'Login ID' field with the value 'lisa.miller1@oneid.on.ca' and a 'Search' button. Below the form, a note says: 'If you wish to add a user as a delegate then check the box next to the user and click the <Update> button.' The 'Search Results' section contains a table with one row of results. The table has columns for Login ID, First Name, Last Name, Telephone, and Delegate (select box to add). The row shows 'LISA.MILLER1@ONEID.ON.CA', 'Lisa', 'Miller', '416-867-3728', and an unchecked checkbox. At the bottom right are 'Update' and 'Cancel' buttons.

Service: CCO Site

You can use this screen to search for a user that you can select as a delegate for this Service. Note that the system will only return a user if they are already enrolled in this Service and are not already your delegate.

You must log into the Service to view/accept your responsibilities for appointing delegates.

Provide Identity Information for your delegate

Login ID:

If you wish to add a user as a delegate then check the box next to the user and click the <Update> button.

Search Results

| Login ID | First Name | Last Name | Telephone | Delegate (select box to add) |
|--------------------------|------------|-----------|--------------|---------------------------------|
| LISA.MILLER1@ONEID.ON.CA | Lisa | Miller | 416-867-3728 | <input type="checkbox"/> |



How do I access the CCO SAR?

STEP 2: Help physicians appoint you as a delegate

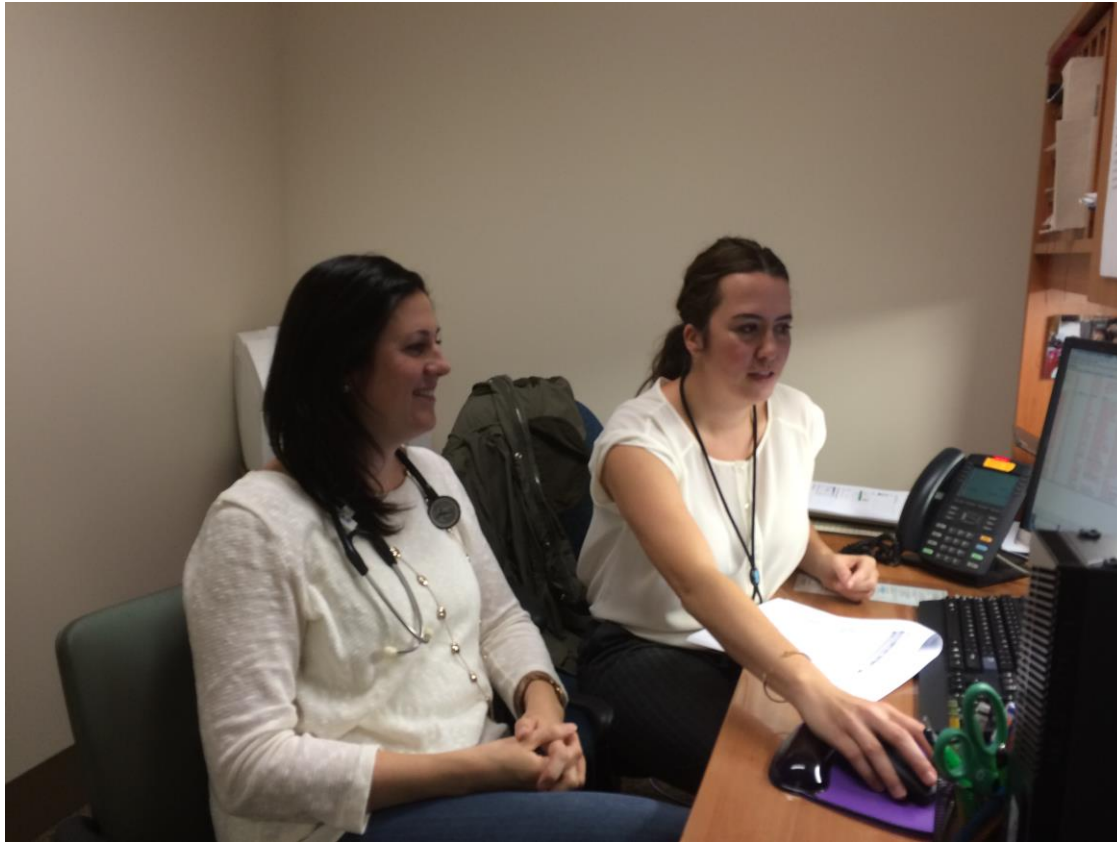


The screenshot shows the ONE ID login interface. At the top left is the Ontario eHealth Ontario cyberSanté Ontario logo. At the top right is the ONE ID Identity & Access Management logo with links for Help and Links. The main heading is ONE ID Identity & Access Management, followed by the text: ONE ID identity and access management enables secure access to eHealth services. Below this is the instruction: Please log in with your login ID and password. There are two input fields: *Login: and *Password:. A Login button is positioned below the password field. At the bottom of the login section are two links: [Forgot Login ID](#) and [Forgot Password](#). A large red text overlay at the bottom of the screenshot reads: **Help! 1-866-250-1554**.



How do I access the CCO SAR?

STEP 3: Integrate delegation into new MD orientation



How do I access the CCO SAR?

STEP 4: Sign in and download CCO SARs

Screening Activity Report

Pages - MasterReport

https://providers.cancercare.on.ca/Pages/masterreport.aspx

Cancer Care Ontario
Action Cancer Ontario

Screening Activity Report

Miller, Lisa Log Out

Home SAR Dashboard

Frequently Asked Questions Clinical Guidelines About the Data

Physician:

Actions | 1 of 12 | Find Next

Open with Report Builder
New Data Alert
Export

XML file with report data
CSV (comma delimited)
PDF
Excel
TIFF file
Word
MHTML (web archive)

Screening Summary as of 31-Aug-2015

Go to Dashboard




Physician: CPSO:

| Surname | Given Name | Sex | Screening Status | | | | | |
|---------|------------|------|------------------|--------|----------|--------|----------|--------|
| | | | Eligible | Status | Eligible | Status | Eligible | Status |
| | | F | N | | Y | Action | N | |
| | | F | Y | Review | Y | Action | Y | Review |
| | | M | N | | N | | Y | Review |
| | | F | N | | Y | Review | N | |
| | | F | N | | Y | Action | N | |
| | | M | N | | N | | Y | Action |
| | | 58 F | Y | Normal | Y | Action | Y | Review |



How accurate is the data in the CCO SAR?

We found that...

- Breast Cancer 
- Colorectal Cancer 
- Cervical Cancer 



How do I supplement CCO SAR cervical data?

- Develop search for pap tests in the EMR



| Patient # | Age | Privacy | Health Number | Sex | Member Status | Md Name | Pap Test Report - Date of Latest | Diagnosis Code... "Q140A" No. of Times Done |
|-----------|-----|---------|---------------|-----|---------------|---------|----------------------------------|---------------------------------------------|
|-----------|-----|---------|---------------|-----|---------------|---------|----------------------------------|---------------------------------------------|

- Search for unique identifier (i.e. OHIP #)



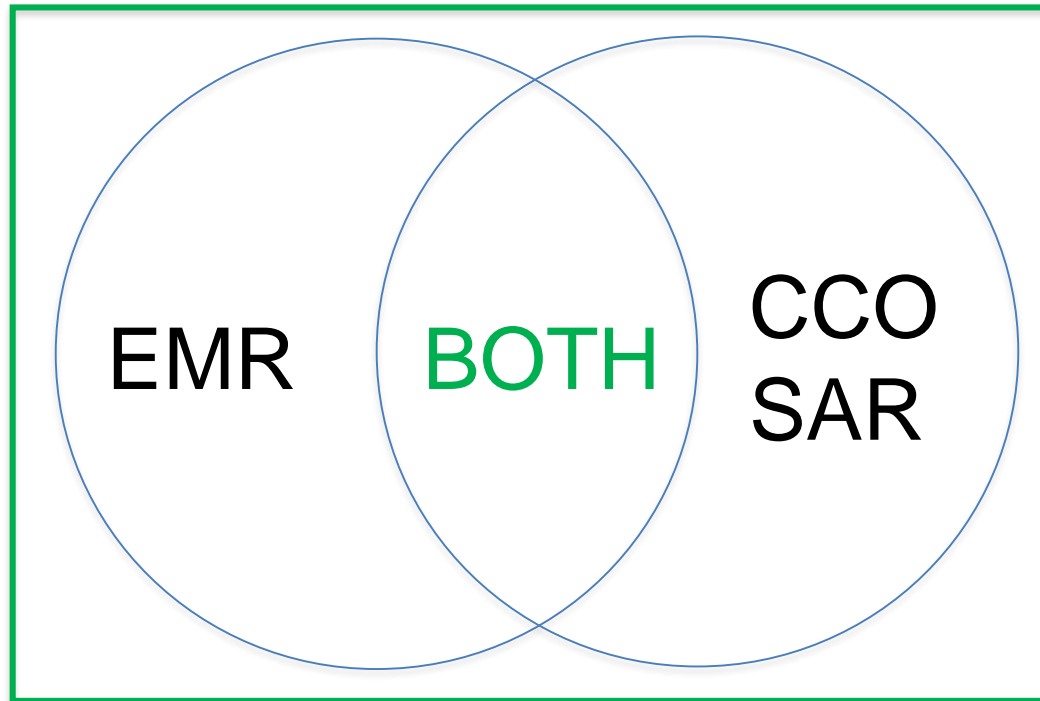
How do I merge data?

- Use software to merge based on unique identifier

| | Pap Test in CCO SAR? | |
|------------------|----------------------|------------|
| Pap Test in EMR? | No | Yes |
| No | 3891 (30%) | 1069 (8%) |
| Yes | 4118 (31%) | 4077 (31%) |



What do I need to know who's been screened?



Question

Do you analyze your QI measures with an equity lens? This could include:

- Gender
- Income
- Immigration
- Ethnicity
- Many others...



St. Michael's Hospital health team offers prescription for poverty

Recognizing that poverty increases the risk of illness, a pioneering program at St. Mike's is offering its patients access to social workers, legal aid — and, most important, money.



Tweet

706



15



reddit this!



Measuring poverty can be challenging

- Ask patients
 - Income and # of people it supports
 - “do you ever have difficulty meeting ends meet at the end of the month?”
 - Whether receiving OW or ODSP
- Use a proxy
 - Neighbourhood income quintile



How do I look into equity in cancer screening?

- Run EMR search for postal code
 - Get unique identifier
- Obtain Postal Code Conversion File
 - Matches postal codes to neighbourhood income quintile



What does the final dataset look like?

| OHIP # | CCO SAR Data | EMR Data | EMR Postal Code | Income Quintile |
|---------|---------------------------------------------------------|--------------------------|-----------------|-----------------|
| 1234567 | -Eligibility -Date of latest test -Result of test | -Date of latest pap test | A1B 2C3 | 3 |



Our QI intervention

Multifaceted intervention:

- Reminder letters for patients

St. Michael's
Inspired Care.
Inspiring Science.

August 14, 2014

Patient Name,
123 ANY ST.
TORONTO, ON A1B 2C3

Dear Patient,

I am writing to ask you to get checked for cervical cancer. This year, cervical cancer will be found in about 1,500 women in Canada and at least one woman will die every day from this disease. The good news is that you can take steps to protect yourself from cervical cancer by having regular Pap tests.

The Pap test is a screening test that looks for early warning signs of cervical cancer. As long as your test results are normal and you are in good health, you should have the Pap test **every three years**. If you have ever had an abnormal pap test in the past, you should be screened every year.

Having a Pap test is an important part of staying healthy. Cervical cancer can most often be prevented with regular checks and by having proper follow-up, if necessary. You can read more about Pap tests in the enclosed handout.

To get a Pap test, please book an appointment with myself by calling (416) 864-3096 at your convenience. If your primary provider is a Nurse Practitioner or Resident Physician, please book an appointment with them by calling the same number. This letter is based on a review of your chart on March 31, 2015. If you have since been tested for cervical cancer since, please disregard this letter.

I look forward to seeing you soon.

Sincerely,



Dr. Name
Clinic
Clinic Address
Toronto, ON A1B 2C3
(416) 555-5555



Our QI intervention

Multifaceted intervention:

- Physician audit & feedback

Summary of Cancer Screening Rates for Your Practice

Dr. Name, Clinic

August 28, 2014

Dear Dr. Name,

Thank you for participating in the QSC cancer screening initiative this summer.

We thought you would be interested in knowing how your cancer screening rates compare to those of your colleagues.

| | Your Practice | Clinic | SMH DFCM Average |
|----------------------------------------------------------------|---------------|--------|------------------|
| Cervical Screening Rate | 66.1% | 59.7% | 60.2% |
| Breast Screening Rate | 36.8% | 49.5% | 55.8% |
| Overall Colorectal Screening Rate (either FOBT or colonoscopy) | 39.1% | 53.3% | 58.8% |
| FOBT Rate | 13.8% | 19.1% | 18.6% |
| Colonoscopy Rate | 28.7% | 37.4% | 44.7% |

The above data is based on the following:

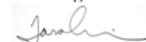
- Cervical: % of ~~rostered~~ women aged 21 to 69 who have had a Pap ~~Test~~ in the last 36 months
Data obtained from EMR search conducted between Jun and July 2014
- Breast: % of ~~rostered~~ women aged 50 to 74 who have had a Mammogram in the last 24 months
Data obtained from Cancer Care Ontario Screening Activity Report current to March 31, 2014
- Colorectal: % of ~~rostered~~ adults aged 50 to 74 who have had an FOBT test in the last 24 months or colonoscopy in the last 10 years
Data obtained from Cancer Care Ontario Screening Activity Report current to March 31, 2014

The graphs on the attached sheet summarize the cancer screening rates in our department across sites.

We anticipate receiving updated data on screening rates from Cancer Care Ontario in November and hope to see if rates have improved following our summer letter campaign.

Please email any comments or questions about the data or the cancer screening initiative to myself at kirant@smh.ca

Sincerely,



Tara Kiran for the QSC Cancer Screening Work Group



Our QI intervention

Multifaceted intervention:

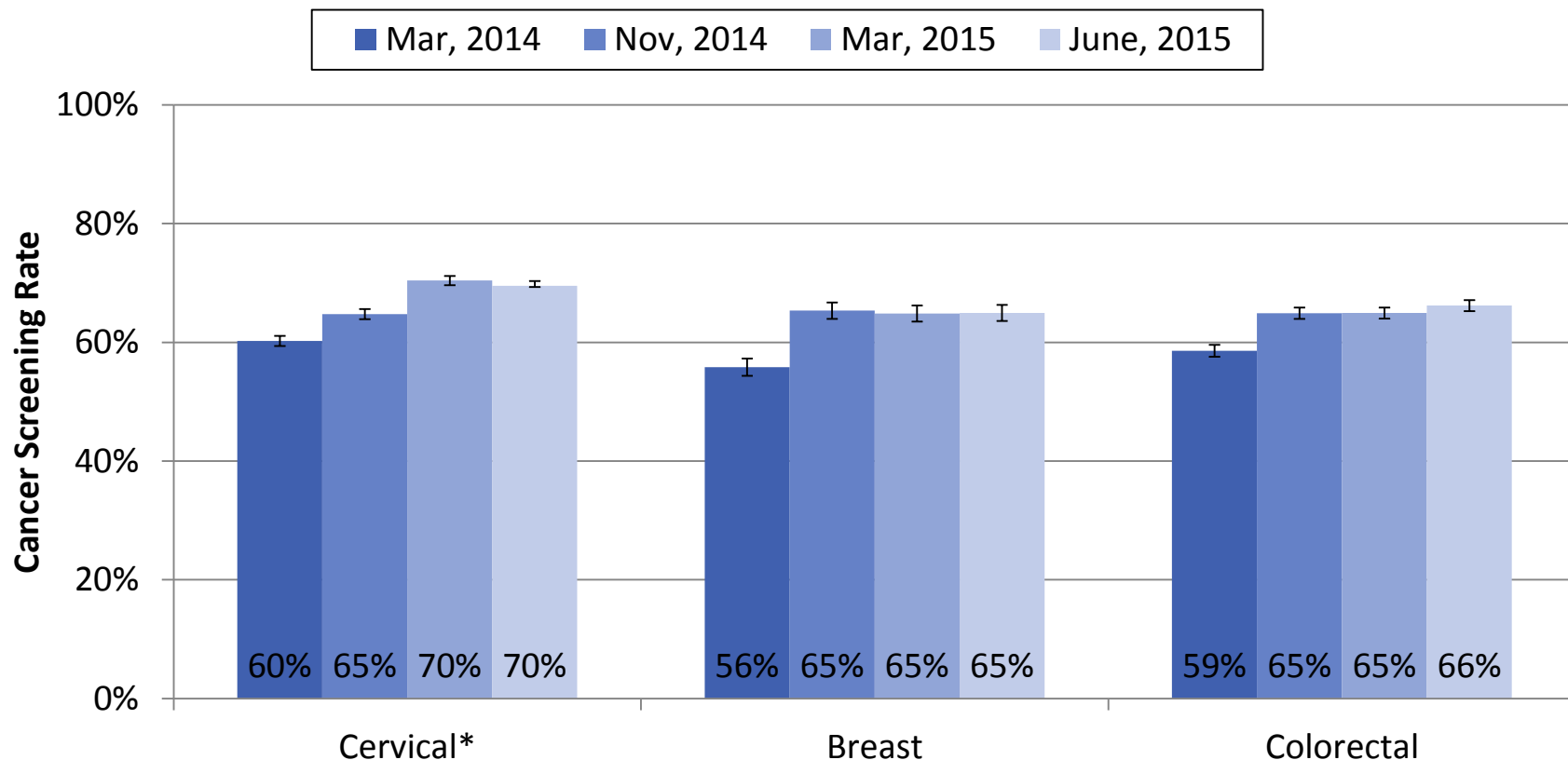
- Enhanced point-of-care reminders

| | | | | |
|-------------------|-----------------------------|------------------------|------------------------|--------------------------------|
| Last CPX: no data | Last Flu Shot: Dec 19, 2014 | Last FOBT: Jul 9, 2014 | Last BMD: Jan 16, 2008 | Last Colonoscopy: Jul 21, 2013 |
| Next CPX: | Next Flu Shot: Dec 19, 2015 | Next FOBT: Jul 9, 2016 | Next BMD: Jan 16, 2013 | Next Colonoscopy: Jul 21, 2023 |



Results – overall screening rates

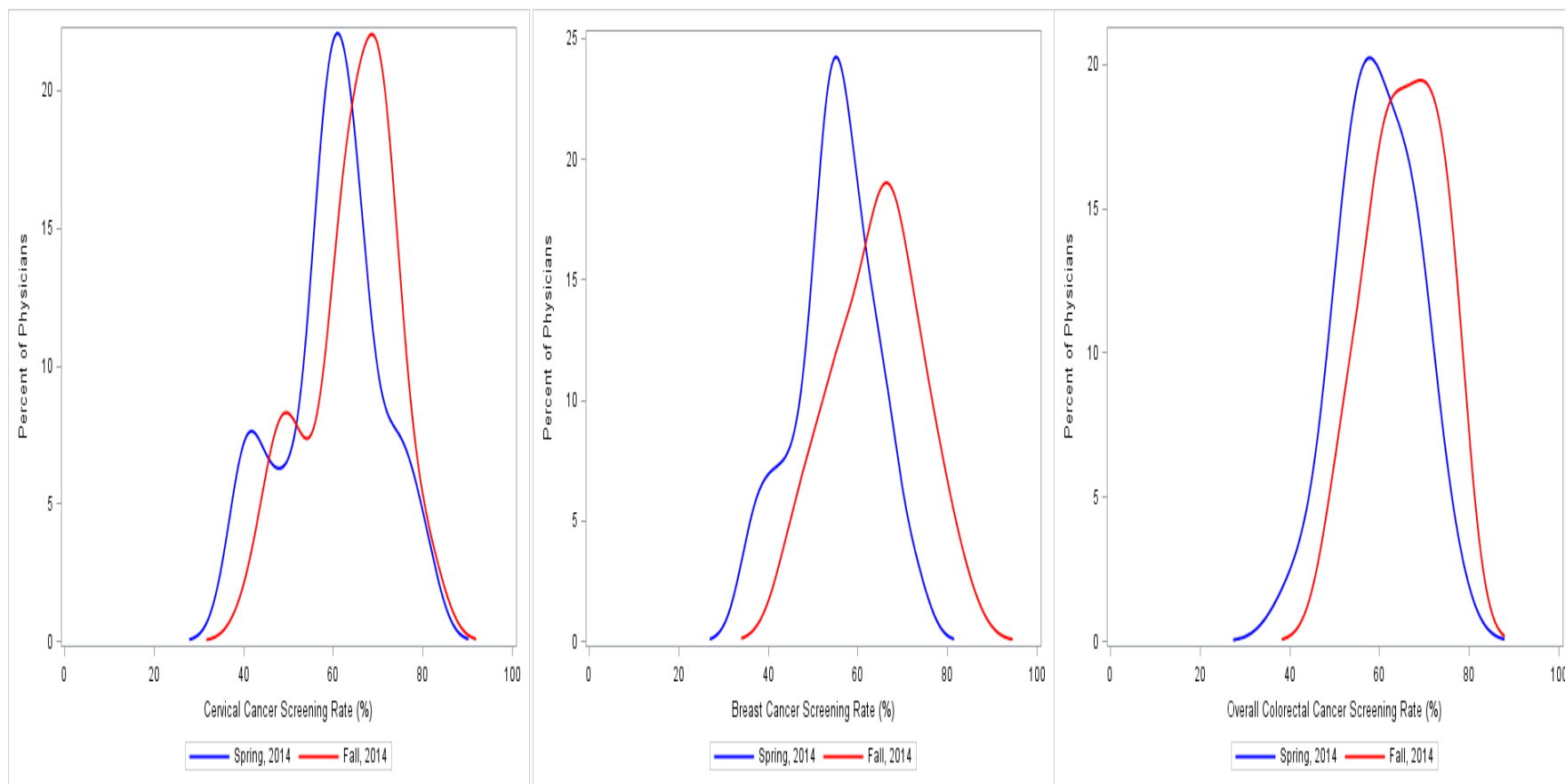
SMHAFHT Cancer Screening Rates Over Time



*Mar 2015 and later rates includes pap tests not captured in the EMR, previous rates did not



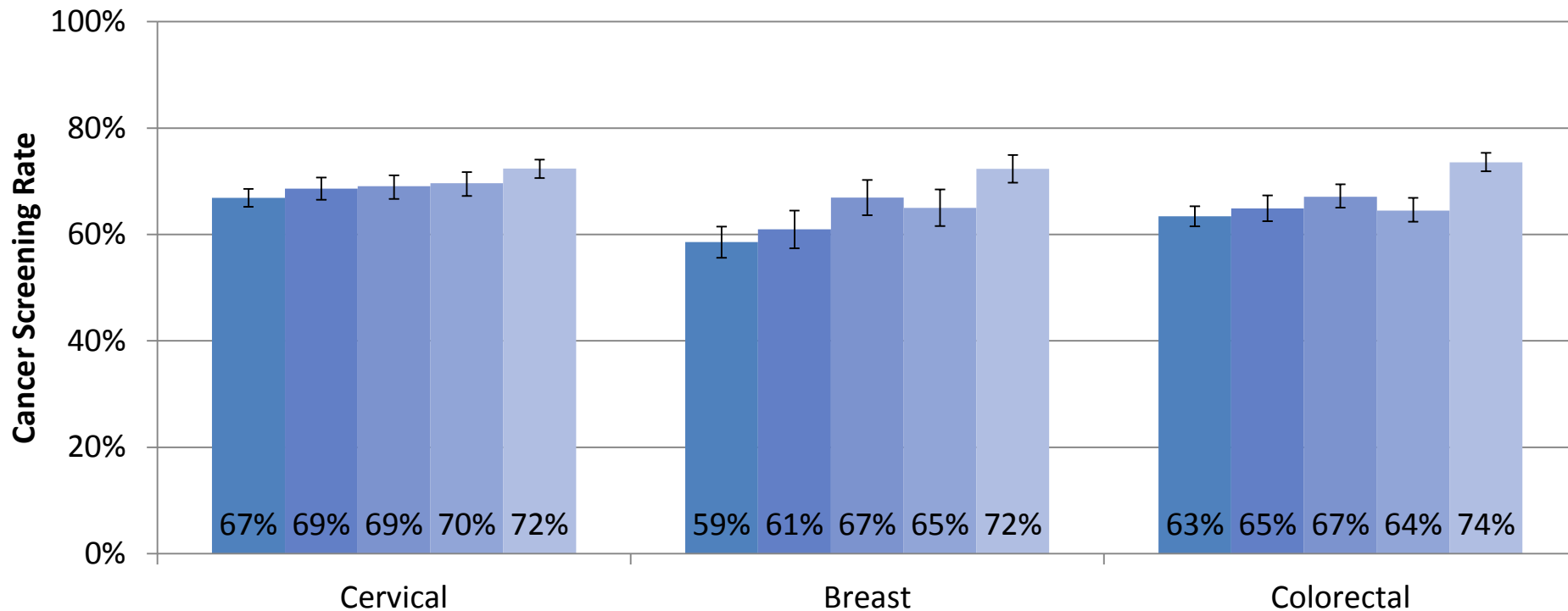
Results – variations in physicians' screening rates



Results – equity

SMHAFHT Cancer Screening Rates by Neighbourhood Income Quintile - June 30, 2015

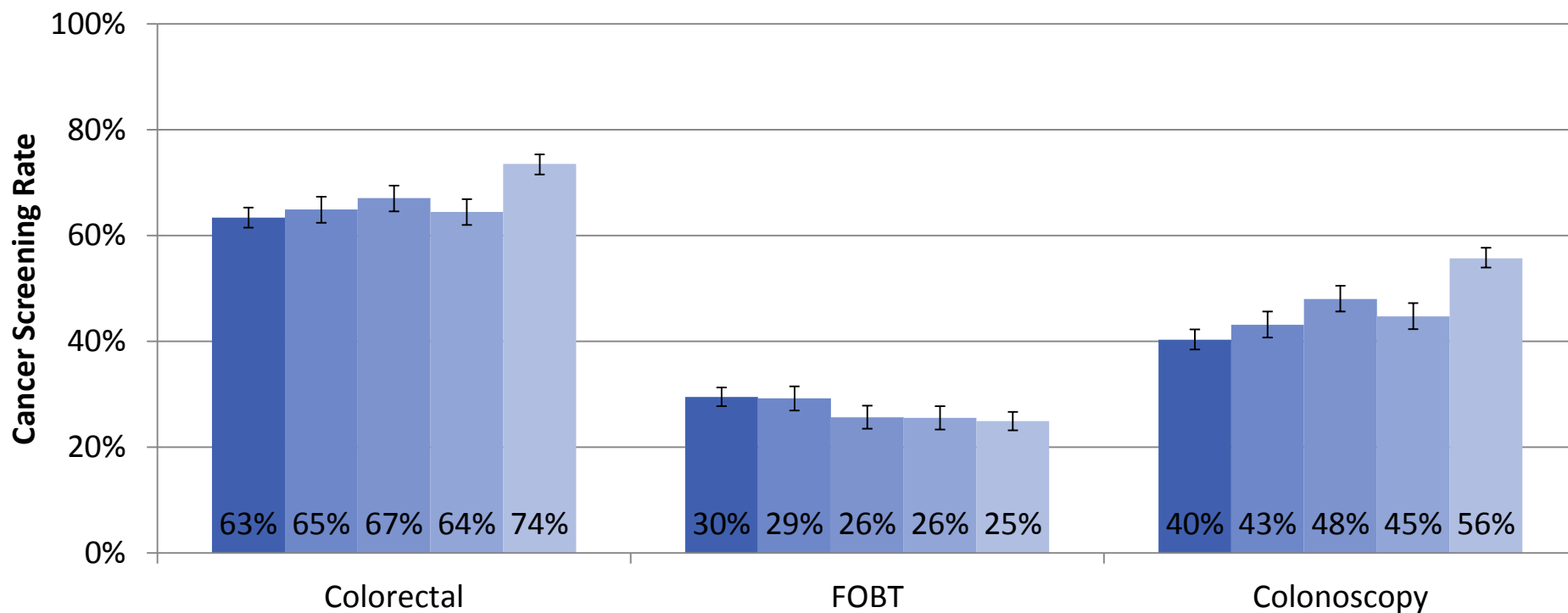
■ Poorest ■ Income Quintile 2 ■ Income Quintile 3 ■ Income Quintile 4 ■ Richest



Results – equity

SMHAFHT Colorectal Screening Rates by Neighbourhood Income Quintile - June 30, 2015

Poorest Income Quintile 2 Income Quintile 3 Income Quintile 4 Richest



Key messages

- Patient postal code is one way of looking for income disparities in your practice
- Data cleanliness is important, but sometimes it's more efficient to work around it
- Using merged data can give you more accurate data than any one source alone

