Increasing cancer screening rates and reducing related disparities: Insights for your team

DR. AISHA LOFTERS AND DR. TARA KIRAN | FEBRUARY 20, 2020

afhto association of family health teams of ontario

Ontario Health
Cancer Care Ontario

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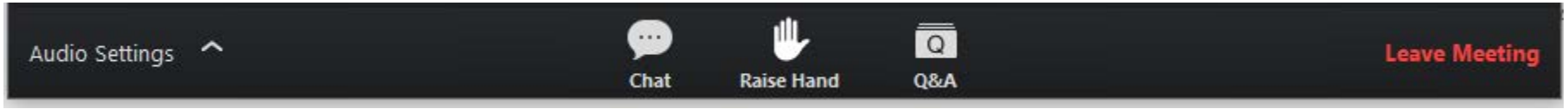

Organized Cancer Screening in Ontario

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Ontario Health
Cancer Care Ontario

Ontario's Organized Cancer Screening Programs

Program	Started	Eligibility	Interval
Ontario Breast Screening Program (OBSP)	1990	Women aged 50–74 (average risk)	Every two years (average risk)
		Women aged 30–69 (high risk)	Annually (high risk)
Ontario Cervical Screening Program (OCSP)	2000	Women aged 21–69 who are or have ever been sexually active	Every three years
Colon Cancer Check (CCC)	2008	Ontarians aged 50–74	Every two years
Lung Cancer Screening Pilot for People at High Risk	2017 (pilot ends in 2021)	Ontarians aged 55 – 74 who have smoked daily for at least 20 years **AND** who have a 2% or greater risk of developing lung cancer over 6 years	Based on LungRADS score

Primary Care and Cancer Screening

- Primary care providers play a key role in the success of cancer screening programs by:
  - Identifying eligible patients
  - Helping them make an informed decision about getting screened
  - Arranging follow-up of abnormal results
- Evidence shows a positive relationship between physician recommendation for screening and patient participation[1,2,3,4,5]

Approaches to Overcoming Provider-level Barriers

- Patient and provider reminders are effective in increasing cancer screening rates[7,8]
- Audit and feedback methods also have an important effect on provider performance[9,10]
    - When providers learn their performance is lower than targets and/or peers, they tend to be motivated to enhance their performance[8]
- Two tools that Ontario Health (Cancer Care Ontario) uses to help overcome provider-level barriers and improve cancer screening rates are the Screening Activity Report (SAR) and physician-linked correspondence (PLC)

The SAR

- The SAR works to improve screening participation by:
  - Identifying among physicians' rostered patients:
    - patients who are eligible for screening
    - patients who require follow-up tests
  - Providing PEM physicians with a comparison of their screening rates to other registered PEM physicians in their Local Health Integration Network

PLC

- Correspondence letters that include PEM physicians' names in their rostered patients' cancer screening letters
- PLC has been shown to significantly improve screening participation[11]
- In 2016, PLC was implemented in CCC for PEM physicians
- PLC will be implemented in the OCSP as part of the transition to human papillomavirus testing in primary care
- PLC may be implemented in the OBSP in the future

Provincial Primary Care and Cancer Network (PPCCN) Newsletter

- The PPCCN newsletter is your source for cancer prevention and screening information relevant to your practice, including
  - Upcoming knowledge exchange events
  - New provincial policy initiatives
  - New evidence summaries
  - Initiatives developed by your colleagues around the province
- Email primarycareinquiries@cancercare.on.ca to subscribe

Increasing cancer screening rates and reducing related disparities: Insights for your team

February 20, 2020
AFHTO Webinar

Dr. Aisha Lofters
@aklofters

Dr. Tara Kiran
@tara_kiran

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Using Health Equity Data and Randomized Trial
Study team: Aisha Lofters (Co-PI), Tara Kiran (Co-PI), Andree Schuler, Morgan Slater, Andrew Pinto, Nav Persaud, Ed Kucharski, Rosanne Neisenbaum, Sam Davie, Nancy Baxter, Rahim Moineddin
Funder: St. Michael's Foundation Translational Innovation Fund

Co-designing Solutions
Study team: Aisha Lofters (Co-PI), Tara Kiran (Co-PI), Natalie Baker, Andree Schuler
Advisory Committee: Nancy Baxter, Ed Kucharski, Fok-Han Leung, Jean Wilson, Karen Weyman, Sam Davie, Anne Crassweller, Paul Steier, Saskia Helmer
Funder: St. Michael's AFP Innovation Fund

Cancer screening rates in the trans population
Study team: Aisha Lofters (Co-PI), Tara Kiran (Co-PI), Sam Davie, Dhanveer Singh, Sue Hranilovic, Daniel Bois, Andrew Pinto, Alex Abramovich; Resident QI project: Lauren Welsh, Kaartik Agarwal
Funder: St. Michael's Foundation Translational Innovation Fund, Royal College of Surgeons in Ireland

SMHAFHT Executive Team

Faculty/Presenter Disclosure

- **Faculty:** Aisha Lofters
- **Relationships with financial sponsors:**
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  - **Speakers Bureau/Honoraria:** n/a
  - **Consulting Fees:** n/a
  - **Patents**: n/a
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- **Relationships with financial sponsors:**
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  - **Consulting Fees:** n/a
  - **Patents**: n/a
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- **<u>Potential for conflict(s) of interest</u>:**
  - **Tara Kiran** has received **payment** from **the St. Michael's Family Medicine Associates in her roles as QI Program Director, Chair of the SMHAFHT Board of Directors, and as a Clinician Scientist**
  - **Aisha Lofters** has received **payment** from **the St. Michael's Family Medicine Associates in her role as Chair of the Cancer Screening Work Group and as a Clinician Scientist**

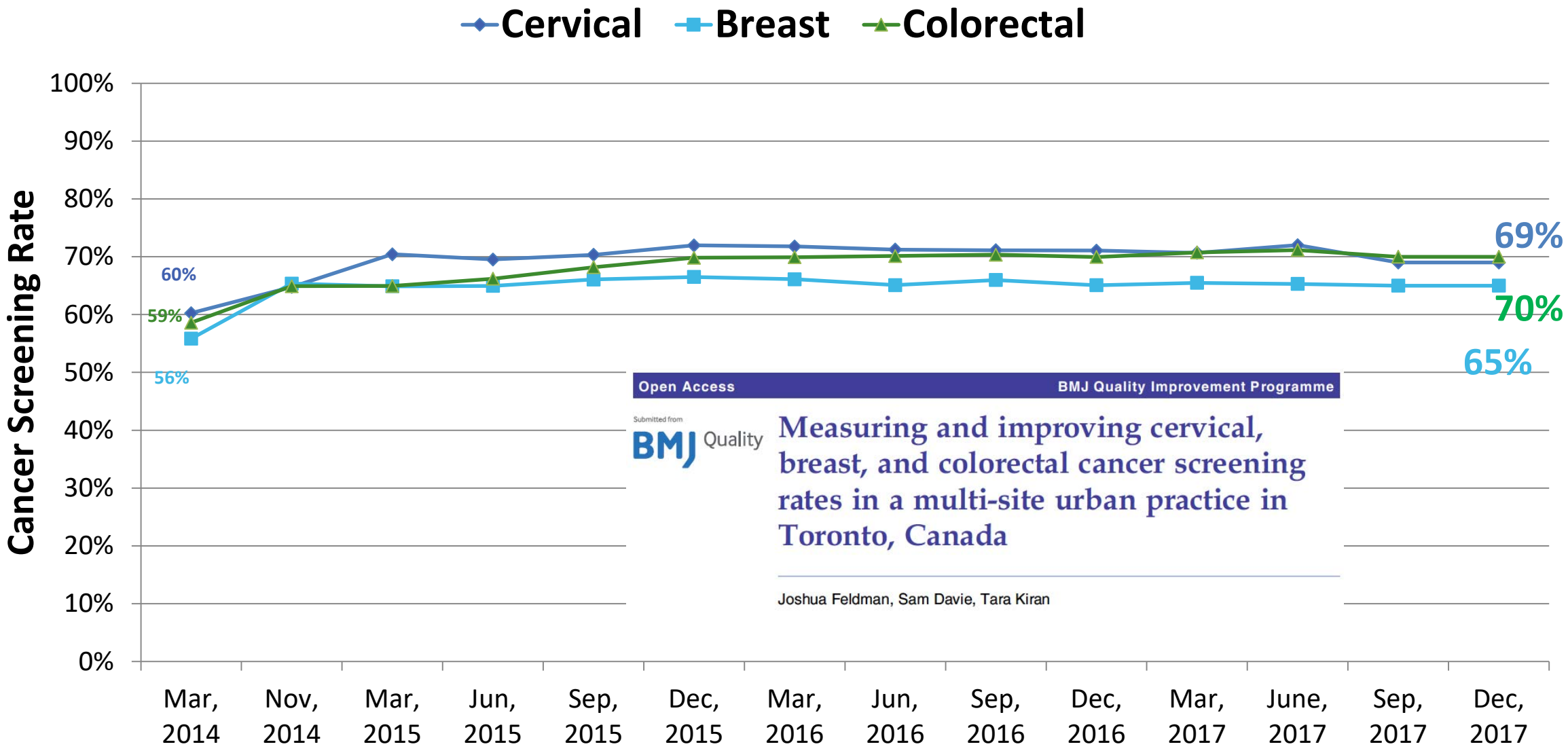
Mitigating Potential Bias

- **The executive teams at SMHAFHT, St. Michael's Hospital, and the University of Toronto were not involved in data analysis or interpretation or in the preparation of this presentation**

Improving cancer screening rates

PROGRESS AT SMHAFHT

Cancer screening



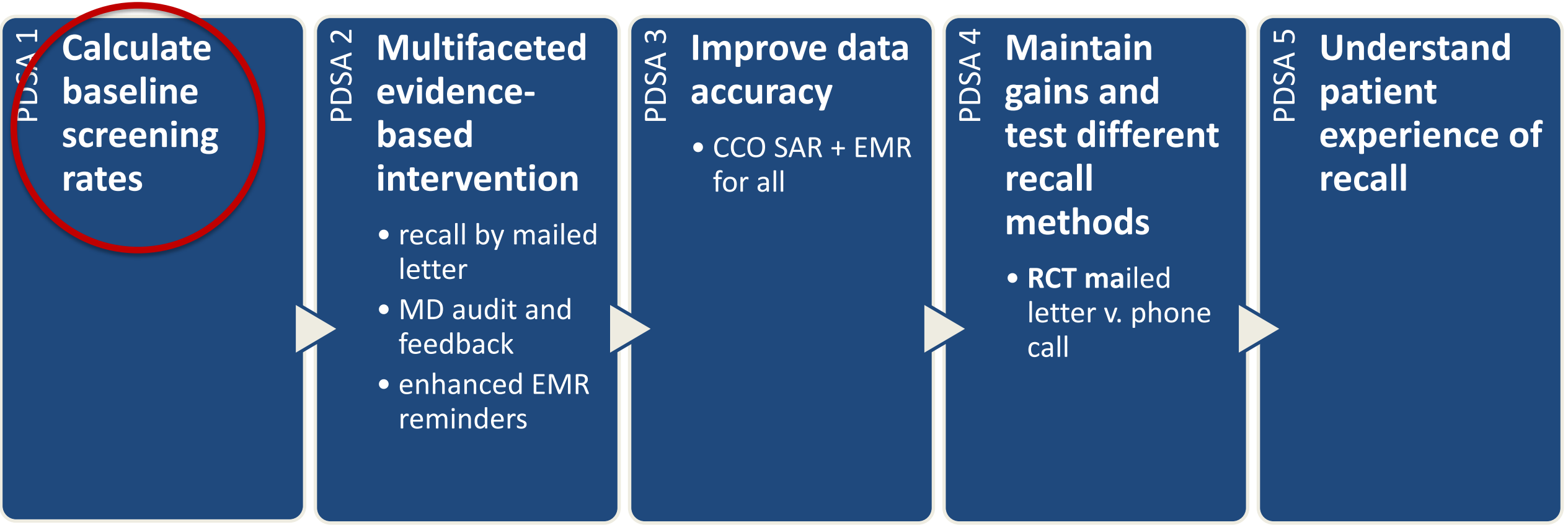
Open Access BMJ Quality Improvement Programme

Submitted from BMJ Quality

Measuring and improving cervical, breast, and colorectal cancer screening rates in a multi-site urban practice in Toronto, Canada

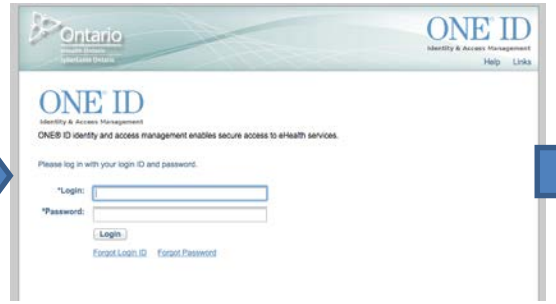
Joshua Feldman, Sam Davie, Tara Kiran

PDSA Cycles

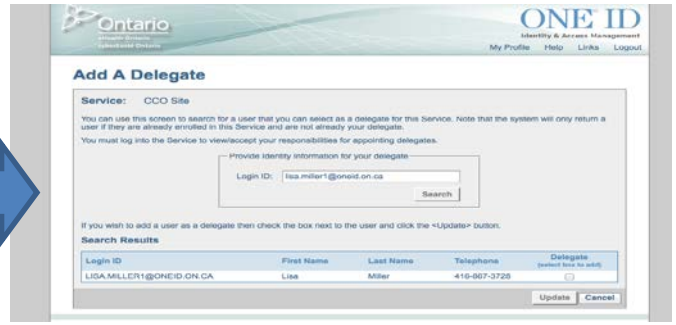

PDSA 1
Calculate baseline screening rates
PDSA 2
Multifaceted evidence-based intervention
• recall by mailed letter
• MD audit and feedback
• enhanced EMR reminders
PDSA 3
Improve data accuracy
• CCO SAR + EMR for all
PDSA 4
Maintain gains and test different recall methods
• RCT mailed letter v. phone call
PDSA 5
Understand patient experience of recall

Calculating screening rates

Trained LRA



MD registration with ONE ID



MD delegates access to SAR

EMR search

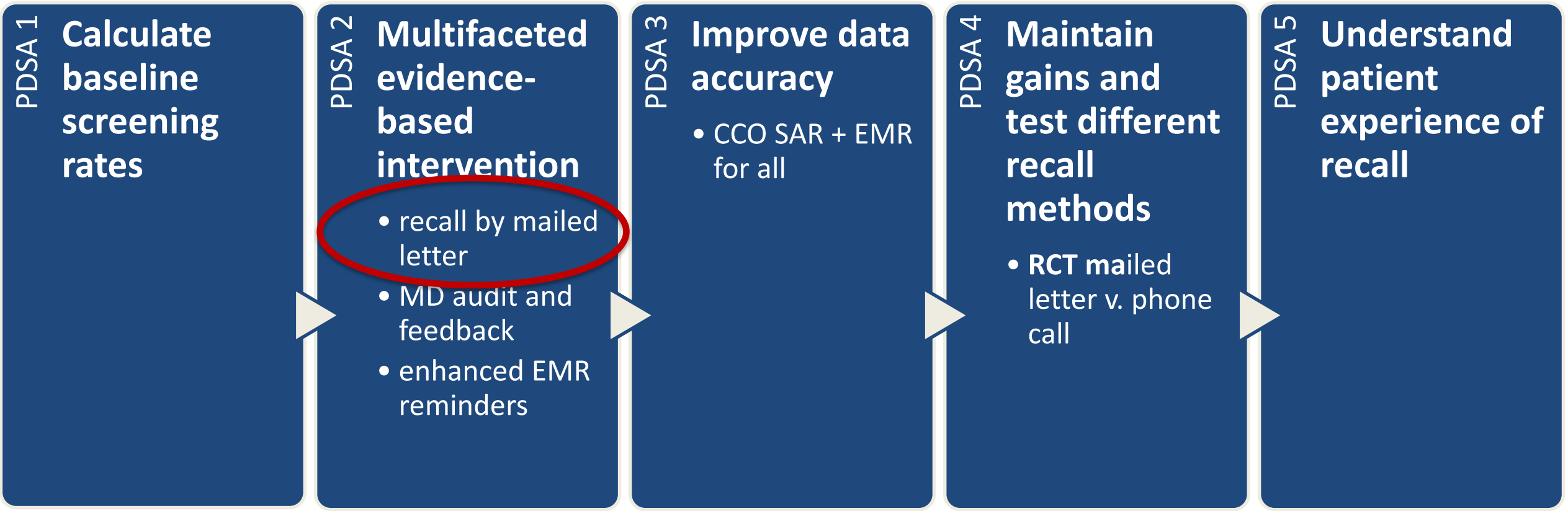
CCO SAR

+

EMR

Merged dataset

PDSA Cycles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Understand patient experience of recall

Testing different methods of recall

RANDOMIZED TRIAL OF MAILED LETTER VS. PHONE CALL

Our study

Mailed letter

- Integrated recall for all 3 types of cancer
- Personalized letter electronically signed by physician
- Brochures included with letter
- Patients instructed to call clinic to book an appt to review (or contact breast centre directly)

Personal phone call

- Integrated recall for all 3 types of cancer
- Personalized phone call by clerical staff or trained undergraduate student
- Max 2 calls, 1 voice mail
- Pap test booked at the time. In some cases, FOBT kit mailed.

Randomized trial to compare effectiveness and cost

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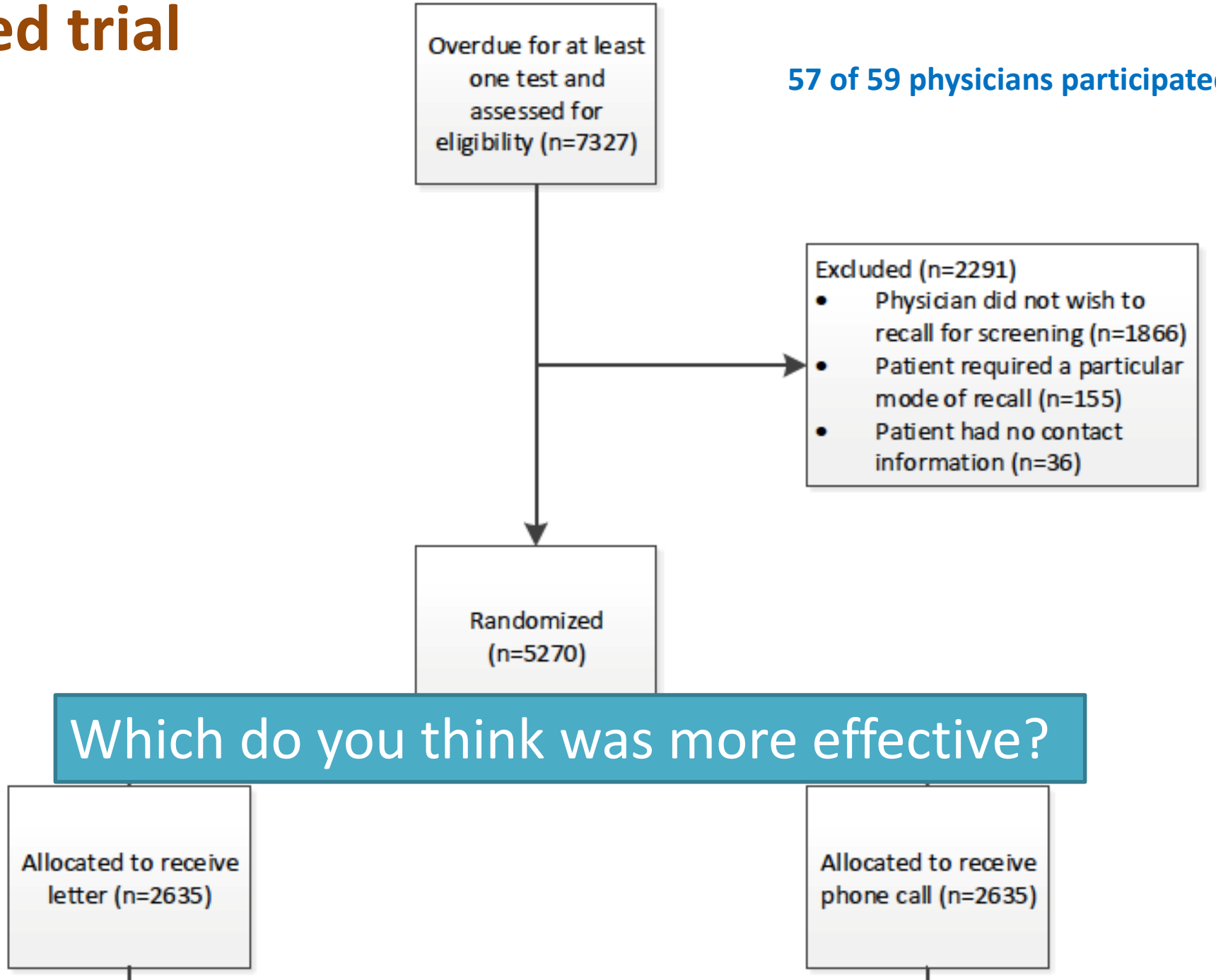
Patients Due for Cancer Screening as of March 31, 2015 Physician:

CCO Screening Guidelines:	
Cervical	Pap smear within 3 yrs
Breast	Mammography within 2 yrs
Colorectal	FOBT within 2 yrs, Colonoscopy within 10 yrs, or Flex Sig within 5 yrs

Legend:	Description:
Overdue	Overdue for relevant screening test
Up to Date	Up to date for relevant screening test
FOBT Retest	Most recent FOBT labelled as indeterminate or rejected. Patient likely requires FOBT retest
N/A	Not eligible for this test
X	Excluded due to previous cancer or surgery
Trans?	Patient was identified as **possibly** being transgendered

Patient Info				Cervical Screening Status	Breast Screening Status	Colorectal Screening Status	Check (✓) if Patient Should Be Recalled	Option: Specify If Patient Should be Recalled by Specific Method because of Special Circumstances (e.g. disability, homelessness, etc.)
Surname	Given Name	Age	Gender					

Randomized trial



57 of 59 physicians participated!

Randomized trial: effectiveness of letter v. phone call

	No./Total No. (%)			
Outcomes	Reminder letter	Reminder phone call (n=1837)	Absolute difference, % (95% CI)	P-value*
WOMEN who received at least one screening test for which they were due	626/1896 (33.0%)	756/1837 (41.2%)	8.1% (5.1%, 11.2%)	<0.001
MEN overdue for CRC screening who received a CRC screen	183/739 (24.8%)	230/798 (28.8%)	4.1% (-0.4%, 8.5%)	3.217 (p=0.073)

Intention to treat analysis

-Phone calls were more effective at recalling patients overdue for cancer screening (particularly women overdue for Pap tests)

-No difference by income quintile

Randomized trial: cost of letter v. phone call

	Female		Male	
	Letter	Phone Call (actual cost†)	Letter	Phone Call (actual cost†)
Total cost	$3,490.42	$7,325.94	$1,360.46	$2,855.42
Total cost/patient	**$1.84**	**$3.86**	**$1.84**	**$3.86**
Total cost/each screening test completed*	$5.07	$8.71	$7.16	$12.00

*based on intention to treat analysis

† based on a student wage of $17/hour, and a clerical assistant wage of $24.78 (mid-range of the salary)

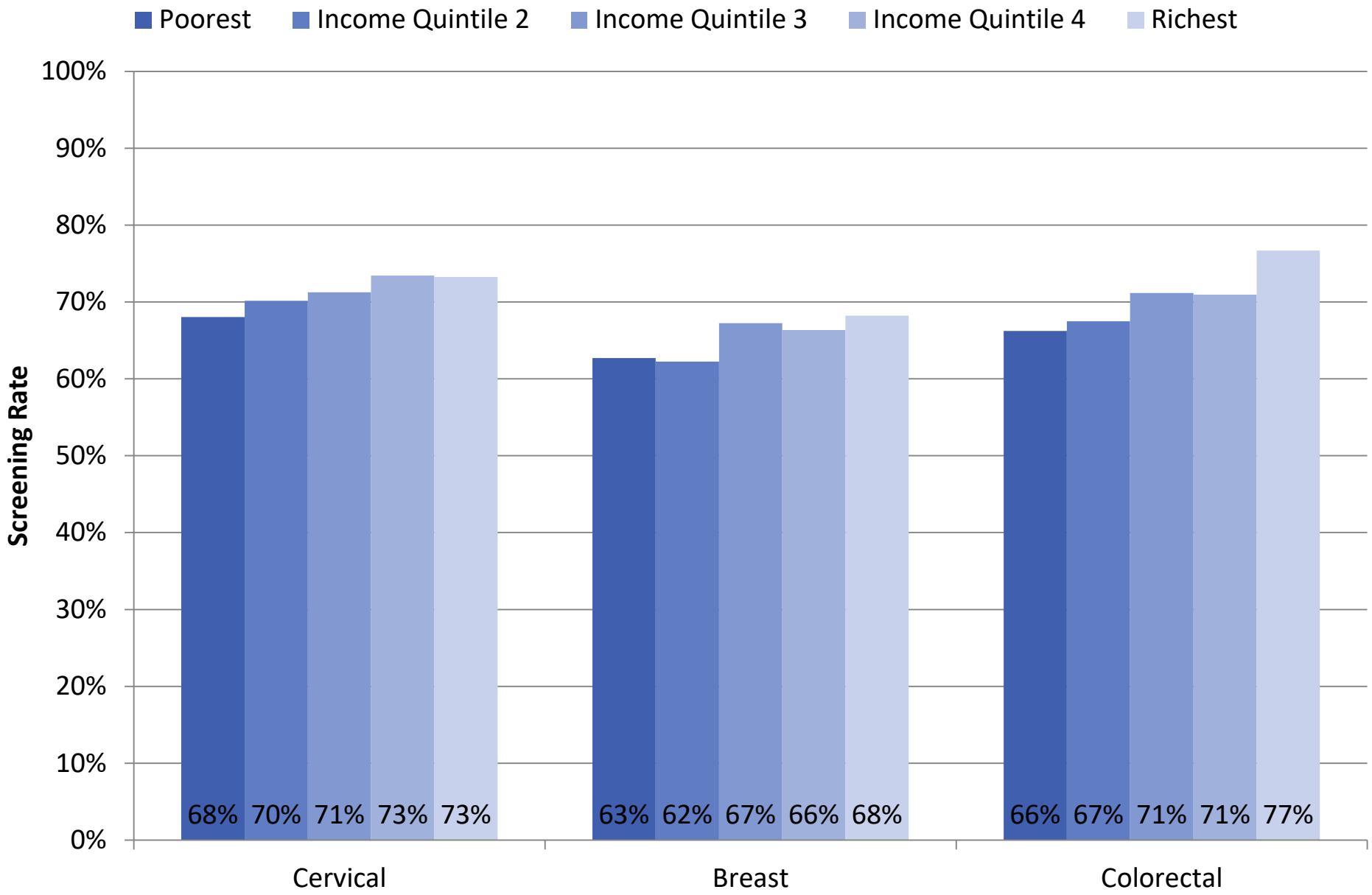
Phone calls were more expensive than mailed letter

Reflections

- Phone calls more effective, especially for Pap test recall
  - Advantage of booking while patient on the phone
  - Do people read their mail?
- Cost, logistics are a barrier for using phone calls
  - Consider phone calls in staged or targeted approach
  - How do automated phone-calls?
- Low-cost evaluation embedded within QI

DISPARITIES IN CANCER SCREENING

Cancer Screening Rates by Neighbourhood Income Quintile - Dec 31, 2016



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RESEARCH ARTICLE | OPEN ACCESS | OPEN PEER REVIEW

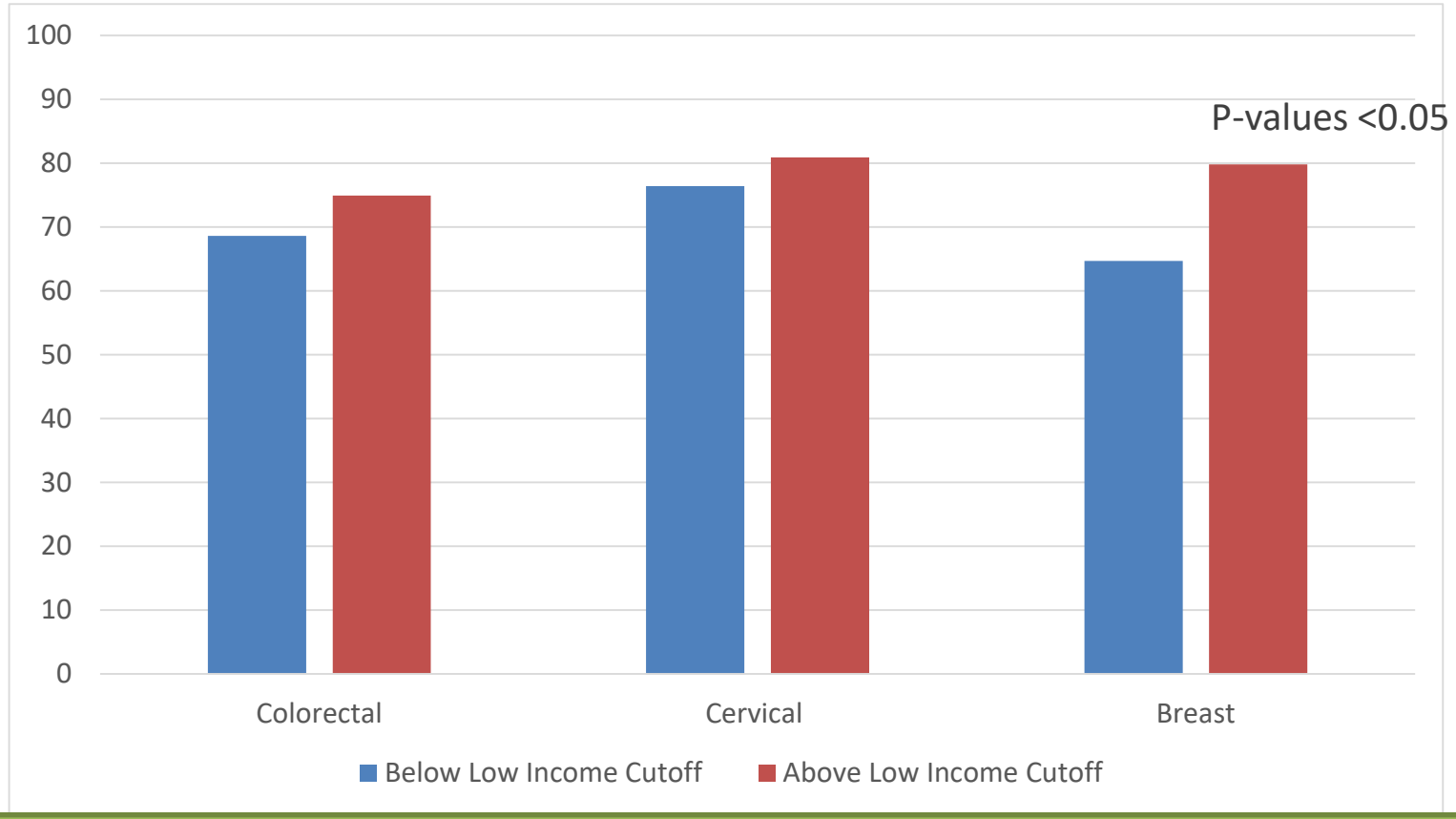
Using self-reported data on the social determinants of health in primary care to identify cancer screening disparities: opportunities and challenges

A.K. Lofters, A. Schuler, M. Slater, N.N. Baxter, N. Persaud, A.D. Pinto, E. Kucharski, S. Davie, R. Nisenbaum and T. Kiran

Analyzed data for 5766 patients:

- eligible for at least one of cervical, breast, and colorectal cancer screening
- completed the health equity questions

Percentage of patients up-to-date with cancer screening stratified by low income cutoff



Patients living below the low income cut off were less likely to be screened

Reducing disparities in cancer screening

CO-DESIGNING SOLUTIONS WITH PATIENTS

Our innovation: Co-designing solutions with people with lived experience

What's stopping you from getting screened for cancer?

Fear

"Okay, that might be fine and dandy for a person who has not been traumatized in their childhood…I can tell you right now that is the most triggering thing in the universe for someone like me."

Competing priorities

Trying to feed the kids, trying to keep up, keep a roof over my head… if you are hungry, you are not thinking about… going to the doctor and getting tests."

What can we do to support people to get screened?

✓Relationships
✓Phone call
✓ Wellness
✓ Clear info
✓ Choice

✓ Warm tone
✓Group session

Impact

Pilot of group educational sessions with screening opportunity

87 women called

32 could not be reached

36 declined

15 agreed to attend

8 attended

Positive Feedback:

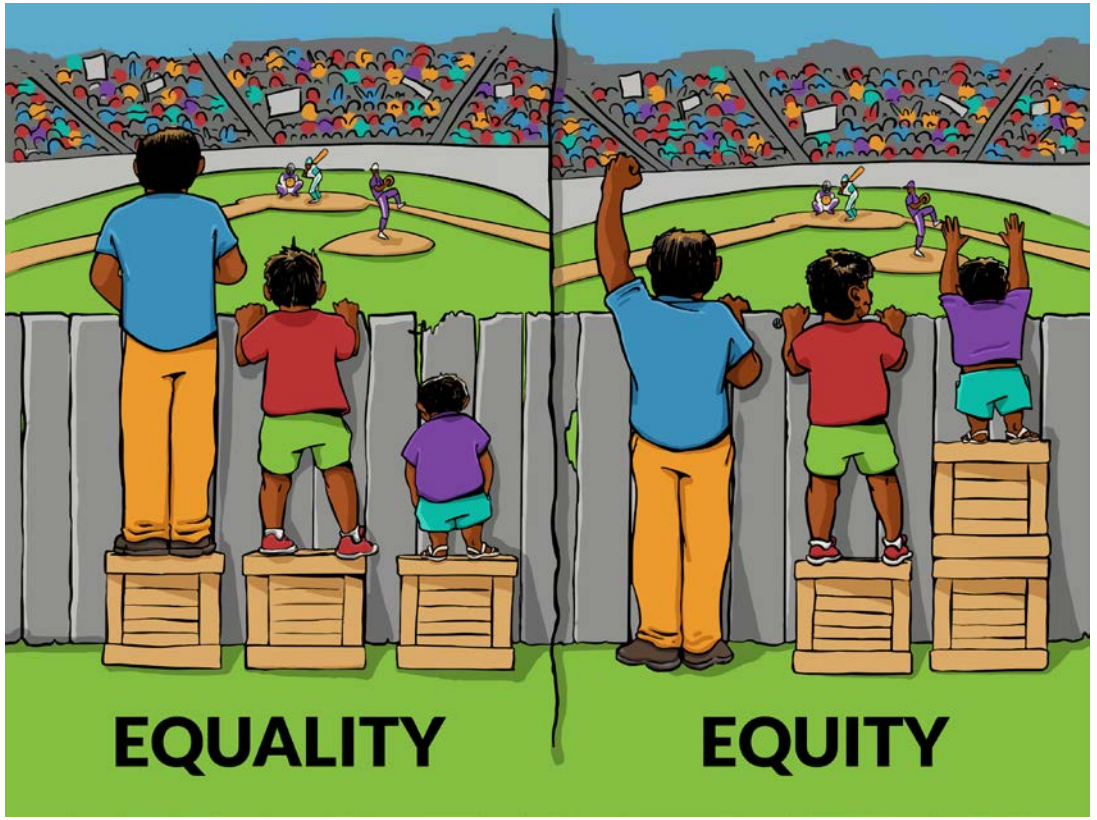
"At the age of 51 I finally learned where my cervix is!"

Most eligible got Pap tests or Mammograms

All eligible took home FOBT kits but none returned them

What is scalable?

- Proactive, population-based, data-driven approach in primary care
- Focus on identifying and addressing needs of those left behind
- Understanding patient perspectives and co-designing tailored solutions
- Resource intensity matching patient need
- Measuring informed discussion, not just test receipt



We've produced a toolkit to support other family practices take a proactive, equity-based approach to improving screening.

Questions?

Aisha.lofters@utoronto.ca

Tara.kiran@utoronto.ca

Bit.ly/SMHCancerScreening

Disparities in cancer screening

TRANSGENDER POPULATION

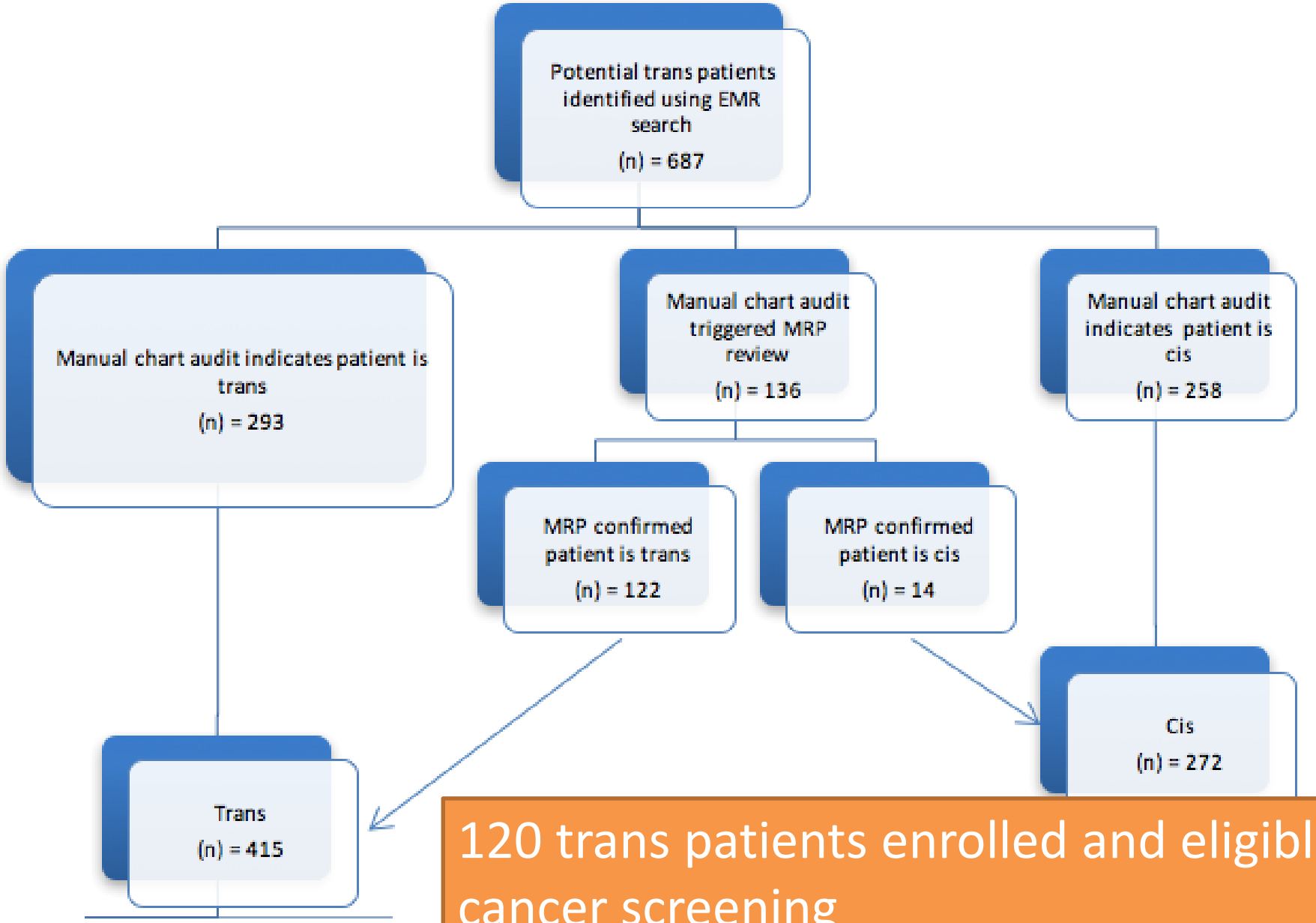
MAKE CANCER SCREENING A BIG DEAL IN
LGBTQ COMMUNITIES. TELL YOUR FRIENDS!

GET SCREENED

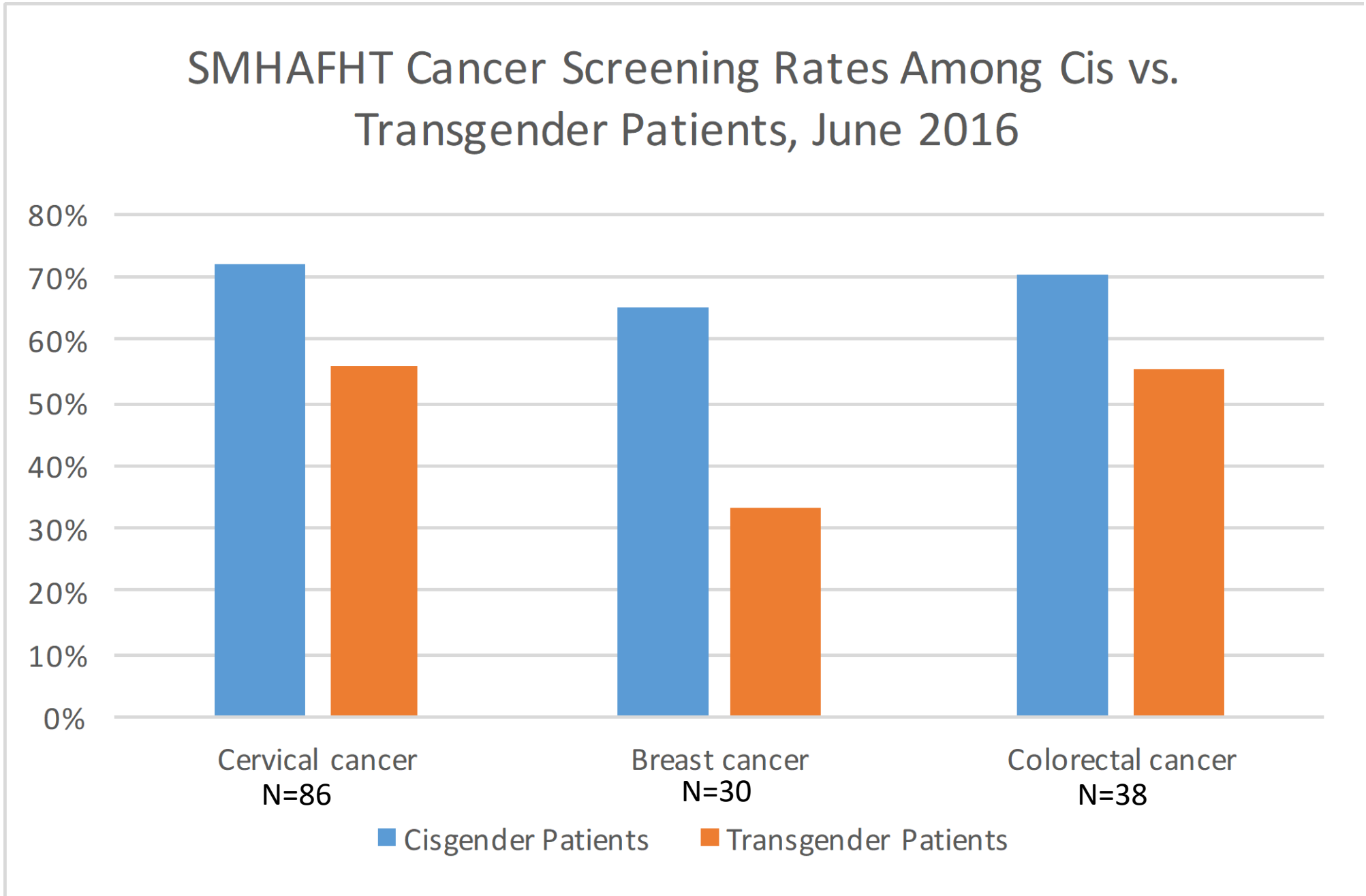
PUT THE SPOTLIGHT ON EARLY DETECTION.

COLON, BREAST AND CERVICAL CANCERS DON'T DISCRIMINATE.
SCREENING SAVES LGBTQ LIVES.
FIND OUT MORE AT CANCER.CA/GETSCREENED
FACEBOOK.COM/LGBTQGETSCREENED

Canadian Cancer Society | Société canadienne du cancer



120 trans patients enrolled and eligible for cancer screening


SMHAFHT Cancer Screening Rates Among Cis vs. Transgender Patients, June 2016
80%
70%
60%
50%
40%
30%
20%
10%
0%
Cervical cancer
N=86
Breast cancer
N=30
Colorectal cancer
N=38
Cisgender Patients
Transgender Patients

Odds ratios comparing likelihood of trans individuals being screened for cervical and colorectal cancer compared to cis individuals

Type of Cancer Screening	Adjusted[1] (95% CI)
Cervical Cancer	0.39 (0.25-0.62)
Breast Cancer	0.27 (0.12-0.59)
Colorectal Cancer	0.50 (0.26-0.99)

[1]After adjustment for age, income quintile, and number of visits

Trans patients were less likely than cis patients to be screened

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Q&A