

Cette présentation a été effectuée le 23 novembre 2010, au cours de la journée « Les données clinico-administratives et d'enquête essentielles à la qualité des services : l'exemple du cancer » dans le cadre des 14es Journées annuelles de santé publique (JASP 2010). L'ensemble des présentations est disponible sur le site Web des JASP, à l'adresse <http://www.inspq.qc.ca/>


**Cancer Care Ontario**

**Using Performance Data to Drive Quality Improvement in Cancer Services:  
Cancer Care Ontario's Approach**

**14<sup>th</sup> JASP Conference**

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Vice President  
Clinical Programs and Quality Initiatives  
Cancer Care Ontario**

**November 23, 2010**



The slide features a white background with a blue and yellow wavy graphic at the bottom. The Cancer Care Ontario logo is positioned in the bottom right corner.

## **Overview**

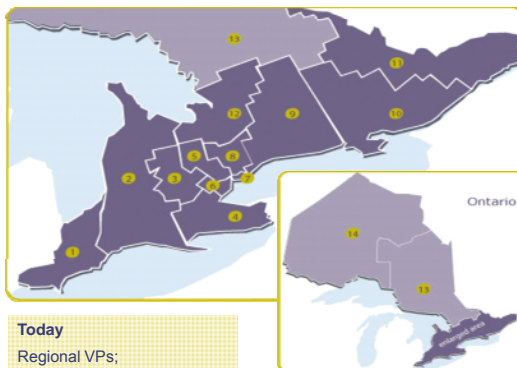
- 1. What is CCO?**
- 2. The Ontario Cancer Plan: our strategy**
- 3. Performance improvement cycle**
- 4. Clinical accountability framework**
- 5. Performance measurement and reporting tools:  
Internal and public reporting**
- 6. Examples**

## About Cancer Care Ontario: What We Do

- Direct and oversee close to \$700 million public health care dollars to hospitals and other cancer care providers to deliver high quality, timely cancer services
- Implement provincial cancer prevention and screening programs designed to reduce cancer risks and raise screening participation rates
- Work with cancer care professionals and organizations to develop and implement quality improvements and standards
- Use electronic information and technology to support health professionals and patient self-care to continually improve the safety, quality, efficiency, accessibility, and accountability of cancer services
- Plan cancer services to meet current and future patient needs, and works with health care providers in every Local Health Integration Network to continually improve cancer care for the people they serve
- Rapidly transfers new research into improvements and innovations in clinical practice and cancer service delivery

## Our Regional Structures

### Regional / Provincial Leadership Alignment & Coordination



**Today**  
Regional VPs;  
Regional Clinical Leads;  
Regional Cancer Programs;  
Alignment with LHINs.

1. Erie St. Clair
2. South West
3. Waterloo Wellington
4. Hamilton Niagara Haldimand Brant
- 5/6. Mississauga Halton/ Central West
7. Toronto Central
8. Central
9. Central East
10. South East
11. Champlain
12. North Simcoe Muskoka
13. North East
14. North West

4

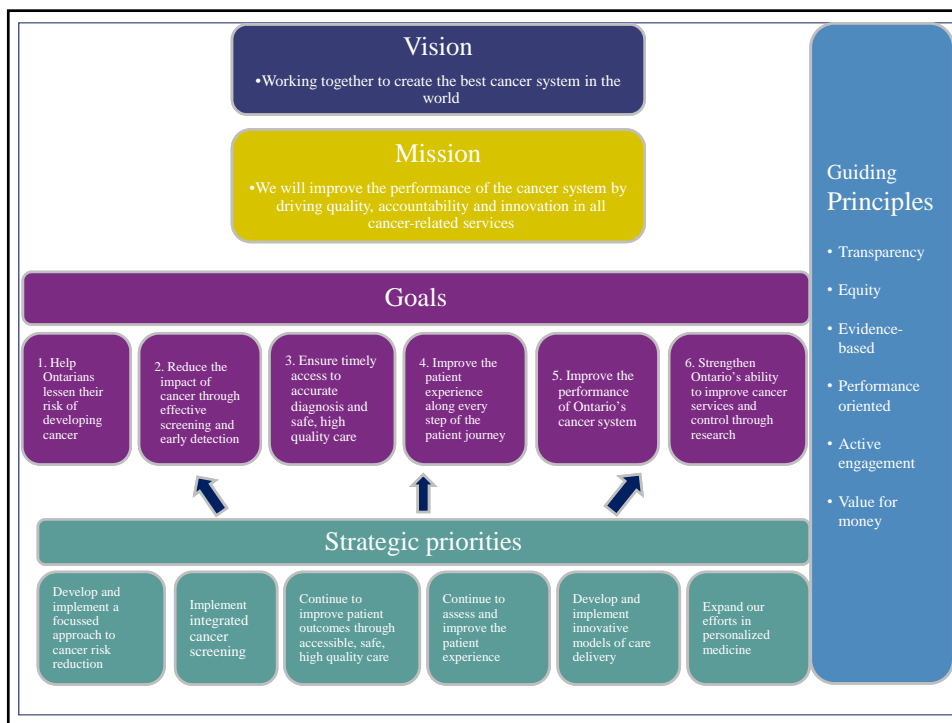
## System-wide strategy



Ontario Cancer Plan  
2008–2011

cancer care  
ontario | action cancer  
ontario

Better cancer services every step of the way



## How do we drive change?

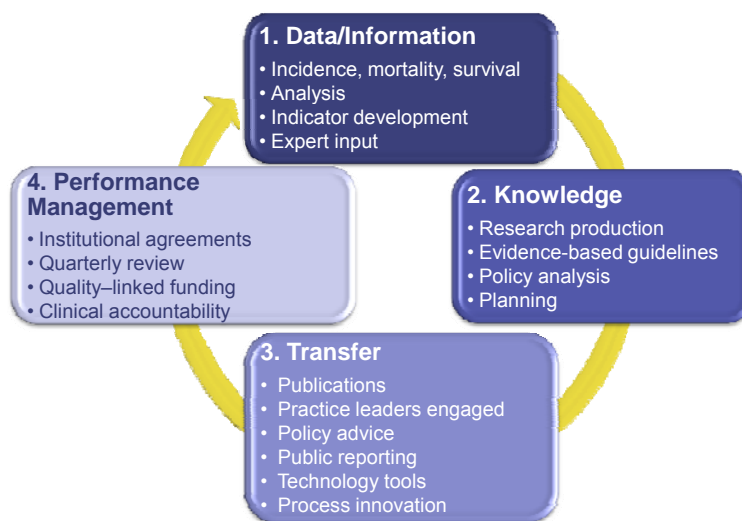
Performance  
improvement cycle



Clinical  
accountability framework

Extensive clinical engagement and joint  
clinical/administrative accountability for  
quality at provincial and regional levels

## The Performance Improvement Cycle

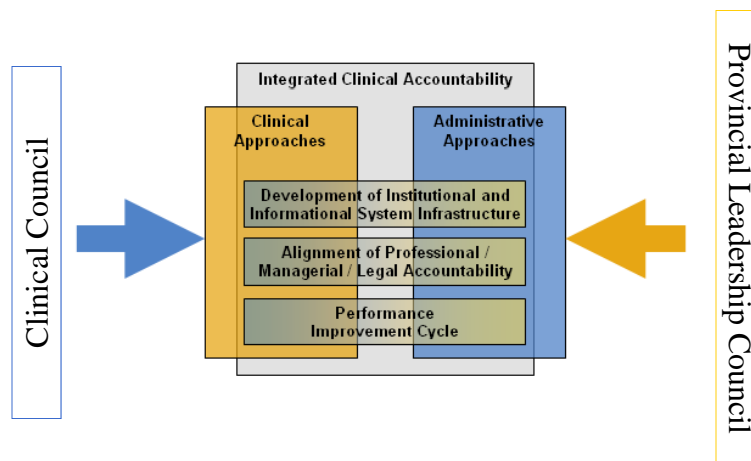


## Clinical accountability structures

### Clinical Council

- Prevention
- Family medicine
- Screening
- Imaging
- Pathology and Laboratory Medicine
- Surgical Oncology
- Systemic Therapy
- Radiation Therapy
- Oncology Nursing
- Patient Education
- Palliative Care

## Integrated Approach to Clinical Accountability



# Our Quality Framework

**Surveillance:** incidence, mortality, survival prevalence  
**Population Studies:** risk factors & socio-demographic factors

		Quality Dimensions						
		Safe	Effective	Accessible/ Timely	Patient Centred/ Responsive	Equitable	Integrated	Efficient
Patient Journey	Prevention							
	Screening							
	Diagnosis							
	Treatment							
	Recovery							
	End-of-Life Care							

**Framework examines all aspects in Journey:**

- Structure
- Process
- Outcome

**Framework examines all levels:**

- Macro
- Meso
- Micro

# Cancer System Quality Index: Currently publicly reported indicators

		Quality Dimensions						
		Safe	Effective	Accessible/ Timely	Patient Centred/ Responsive	Equitable	Integrated	Efficient
Patient Journey	Prevention		Guideline production: Quitting smoking; Second-hand smoke					
	Screening		Guideline production:	Population FOBT rates; Population breast cancer screening; Cervical screening; Composite screening				
	Diagnosis		Guideline production: Completeness of pathology reports; Stage capture	Wait times for breast cancer assessment; Colonoscopy wait time (positive FOBT)				
	Treatment	Deaths following surgery; Thoracic standards; WPB standards; Admission or ER visit within 4 weeks of IV chemo; Safe handling of cytotoxics; CPOE	Guideline concordance- lung cancer; guideline concordance - CRC; Guideline production	Wait times for cancer surgery; Wait times for radiation treatment; Wait times for systemic treatment; Clinical trials	Patient experience	Availability of MCCs; Radiation therapy utilization; IMRT utilization		Radiation efficiency composite
	Recovery		Guideline production					
	End-of-Life Care		Guideline production		Hospitalization in the last 6 months of life; In-hospital death from cancer; Chemo in the last 2 weeks of life			ER visits in the last 2 weeks of life

**Gaps guide future work**



## **Examples:**

1. Pathology reports
2. Cancer surgery
3. Symptom management
4. Regional performance across the cancer journey

## **Pathology Reporting**

- Completeness according to CAP checklists
- Synoptic standardized reporting



## 80% of Ontario hospitals have adopted CAP; new hospital e-Tools, and standards are ensuring sustainability of the clinical reporting standard

**Leading edge**

Proportion of Ontario hospitals reporting cancer pathology to CCO, by level of standardization from narrative to synoptic

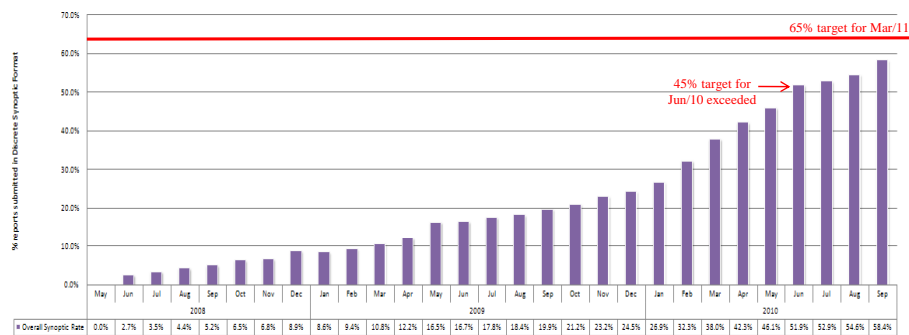
Reporting Level	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Description	<ul style="list-style-type: none"> <li>Narrative</li> <li>No CAP content</li> <li>Single text field data</li> </ul>	<ul style="list-style-type: none"> <li>Narrative</li> <li>CAP content</li> <li>Single text field data</li> </ul>	<ul style="list-style-type: none"> <li>Level 2 +</li> <li>Synoptic-like structured format</li> </ul>	<ul style="list-style-type: none"> <li>Level 3 +</li> <li>Electronic reporting tools using drop-down menus</li> </ul>	<ul style="list-style-type: none"> <li>Level 4 +</li> <li>Standardized reporting language</li> <li>Data elements stored in discrete data fields</li> </ul>	<ul style="list-style-type: none"> <li>Level 5 +</li> <li>Common data and messaging standards with C-Keys, SNOMED CT or other encoding</li> </ul>
% Ontario Hospitals 2004-05	5%	40%	50%	5%	0%	0%
% Ontario Hospitals 2006-07	0%	5%	70%	25%	0%	0%
% Ontario Hospitals 2008-09	0%	0%	65%	17%	18%	0%
% Ontario Hospitals 2009-10	0%	0%	20%	2%	78%	0%
% Ontario Hospitals November 2010	0%	0%	20%	2%	69%	9%

↑ Phase 1  
CCO Standard aligned to 2005 CAP/CS  
5 common cancer resections
↑ Phase 2  
2010 CAP Standard with NAACCR Vol. V, v3  
All mandated resections

Data Source: CCO PIMS ePath Database; As of November 1, 2010.

## Almost 60% of all pathology resection reports were received in discrete data field synoptic format for cancer surgeries completed in September 2010

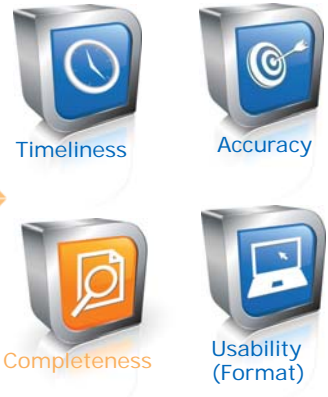
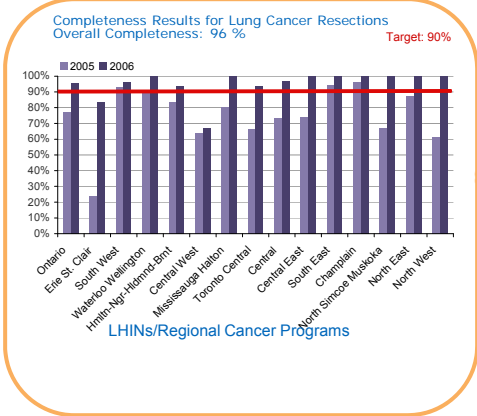
Initial focus in 2008-10 – implement top 5 common cancer resections  
Current focus 2010-12 – expand to all other cancer resections



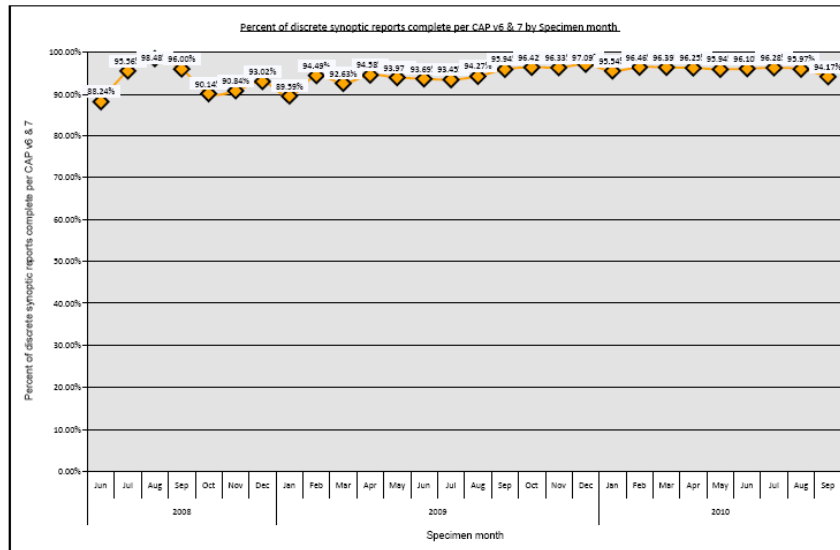
Data Source: CCO PIMS Database; Reports received by month of date of surgery; from May 08 to Aug 10, as of Oct 30/10.

**Discrete data field synoptic pathology reporting is foundation for Ontario's pathology data quality program with monthly reporting back to hospitals**

This indicator was developed using data from a labor intensive manual audit of electronic reports, with 3 staff over 5 months



**Since implementation of discrete data field synoptic reporting, 95% of synoptic pathology reports were complete against the CAP standard**



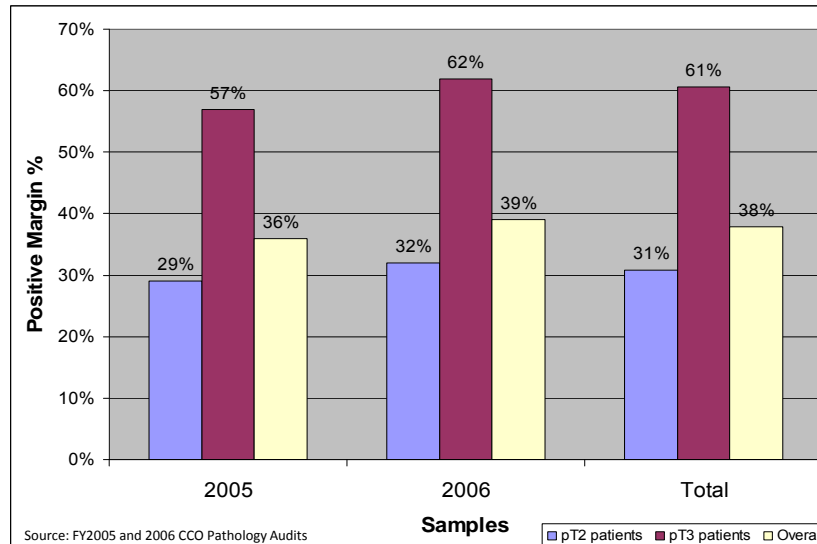
Data Source: CCO PIMS Database; Reports received by month of date of surgery: from May 08 to Aug 10, as of Oct 30/10.

**Synoptic reporting in discrete data field format supports secondary data uses of the rich information in cancer pathology reports**

- Enables automated tumour registration and stage data capture to support cancer surveillance
- Supports the provincial and national pathology data quality program
- Enables surgical indicator reporting for quality improvement
- Provides standardized data in discrete synoptic format to enable electronic data mining to support cancer system planning, evaluation and research

**Cancer Surgery: positive margin rates with radical prostatectomy**

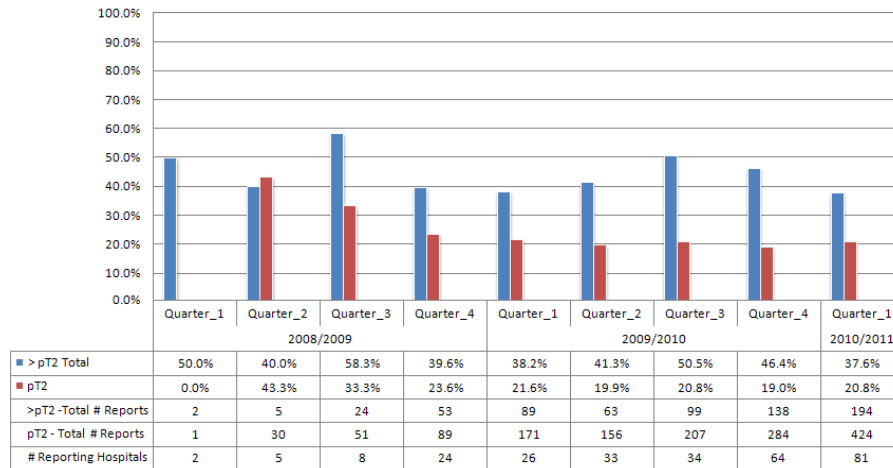
## % Positive surgical margin (PSM) rate for Radical Prostatectomies for pT2 patients, pT3 patients and Overall, by Province



## Prostate Margin Rate – 2008 to 2010

- *Guideline for Optimization of Surgical and Pathological Quality Performance for Radical Prostatectomy in Prostate Cancer Management Released 2008*
  - "... a positive margin rate of <25% for pT2 disease should be an achievable goal."
- Implementation of synoptic pathology reporting, near-real time reporting
- KT Initiatives:
  - provincial workshops (2)    numerous regional workshops
- Provincial positive margin rate for pT2 patients:  
**31%** (2005 & 2006) to approx **20%** (FY10/11, Q1)

## Positive margin Rates for Radical Prostatectomy, for pT2 and >pT2 patients, FY08/09 to FY10/11

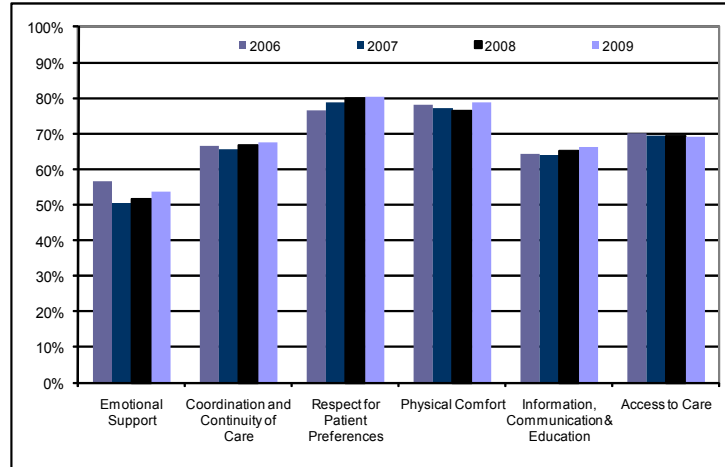


Source: Cancer Care Ontario, Pathology / Stage Capture program; PIMS

## Symptom Management

**Patient experience**

Average cancer patient satisfaction scores for outpatient care, 2006-2009

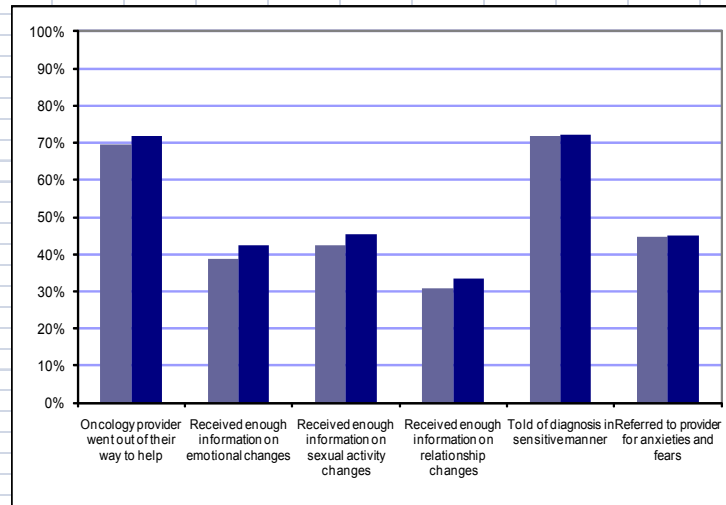


Source: Ambulatory Oncology Patient Satisfaction Survey, 2006-2009

Report date: January 2010

**Patient experience**

Average cancer patient satisfaction scores for selected concerns related to Emotional Support, 2008-2009



Source: Ambulatory Oncology Patient Satisfaction Survey, 2004-2008

Report date: January 2010

## OCSMC targets improvement in cancer patient's physical and emotional symptoms

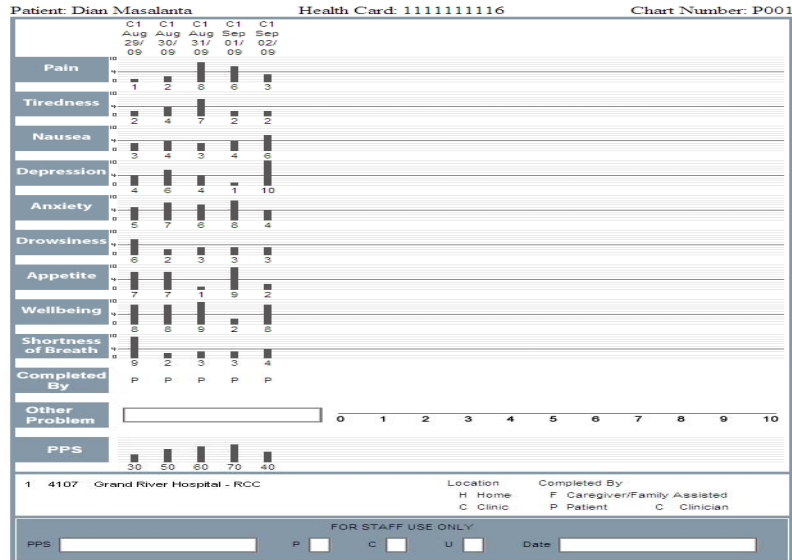
<b>Rationale</b>	<ul style="list-style-type: none"> <li>▪ Inconsistency in cancer symptom management practices across province               <ul style="list-style-type: none"> <li>• Limited use of standardized tools</li> </ul> </li> <li>▪ Lack of palliative care service integration</li> <li>▪ Poor system outcomes– 40% visit ED last 2 weeks; acute care LOS (14 days)</li> </ul>
<b>Purpose</b>	<ul style="list-style-type: none"> <li>▪ To improve the quality and consistency of patient's physical and emotional symptom management across the patient journey               <ul style="list-style-type: none"> <li>• Earlier identification and communication of symptoms</li> <li>• Improved symptom management</li> <li>• Improved collaborative care planning for patients</li> </ul> </li> <li>▪ To improve the patient experience</li> </ul>
<b>Approach</b>	<ul style="list-style-type: none"> <li>▪ Implement and assist in adoption of common tools: ESAS<sup>1</sup>, PPS<sup>2</sup>, symptom management guides, collaborative care plans</li> <li>▪ Host and support ISAAC<sup>3</sup> - electronic tool for ESAS and PPS</li> <li>▪ Establish and monitor improvement aims and regional targets (RCCs)               <ul style="list-style-type: none"> <li>• 90% lung cancer patients screened with ESAS</li> <li>• 65% all other cancer patients screened with ESAS (2010/11)</li> </ul> </li> </ul>

1. ESAS – Edmonton Symptom Assessment System
2. PPS – Palliative Performance Scale
3. ISAAC – Interactive Symptom Assessment and Collection

## Information captured in ISAAC has uses ranging from individual patient care to system planning and performance

<b>Improving Patient Care</b>	<ul style="list-style-type: none"> <li>• Monitoring patients symptoms over time and across care settings</li> </ul>
<b>Guide regional improvement and clinical practice</b>	<ul style="list-style-type: none"> <li>• Regional monthly progress reports</li> <li>• Provider level reports</li> </ul>
<b>Performance Measurement</b>	<ul style="list-style-type: none"> <li>• CCO's quarterly reviews with regions</li> <li>• CCO's performance scorecard</li> </ul>
<b>Public Reporting</b>	<ul style="list-style-type: none"> <li>• Cancer System Quality Index (CSQI)</li> </ul>
<b>Inform planning and impact on system outcomes</b>	<ul style="list-style-type: none"> <li>• Researchers accessing Symptom Management database</li> </ul>

## Monitoring patients symptoms over time and across care settings



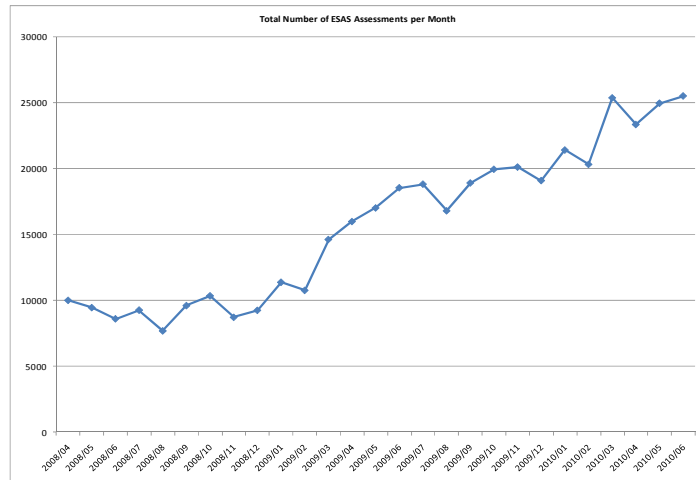
## Overall growth in number of screens & patients

- ~530,000 ESAS records to June 2010
  - > 250,000 ESAS screens in past year
- > 25,000 ESAS screens in June 2010
  - 38% increase over June 2009 (18,500)
- ~ 18,500 unique patient screened at RCCs (June 2010)
  - 32% increase over June 2009 (14,000)



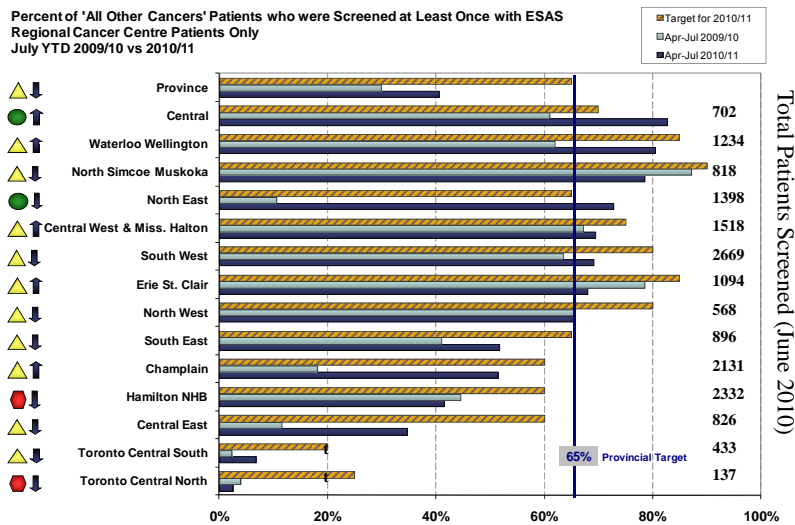


## Upward momentum continues Greater than 250,000 ESAS screens in past year



## >1/3 increase in provincial "all other cancer" performance

Percent of 'All Other Cancers' Patients who were Screened at Least Once with ESAS  
Regional Cancer Centre Patients Only  
July YTD 2009/10 vs 2010/11



## Patients value ISAAC approach to symptom assessment

**89 %**  
(85% in 2007)

- Thought ESAS was important to complete as it helps health care providers know how they are feeling

**70%**

- Preferred the kiosk/internet version of ESAS over the paper tool

**78%**  
(62% in 2007)

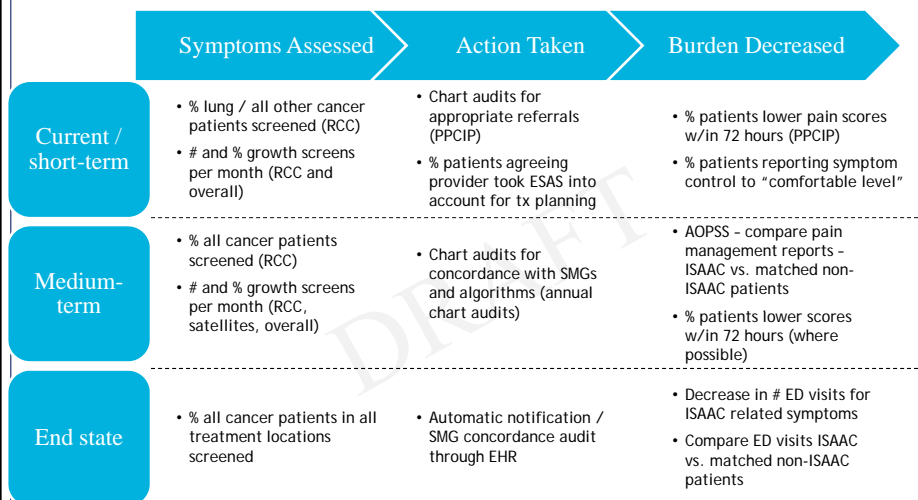
- Agreed that their pain and other symptoms have been controlled to a comfortable level

**79%**  
(61% in 2007)

- Agreed that their providers took into consideration ESAS symptom ratings in developing a care plan

ESAS Satisfaction Survey 2009/10 (Sample of 8 RCCS – 844 patients completed)

## Developing measurement strategy beyond screening Incorporates clinician action and decreases symptom burden

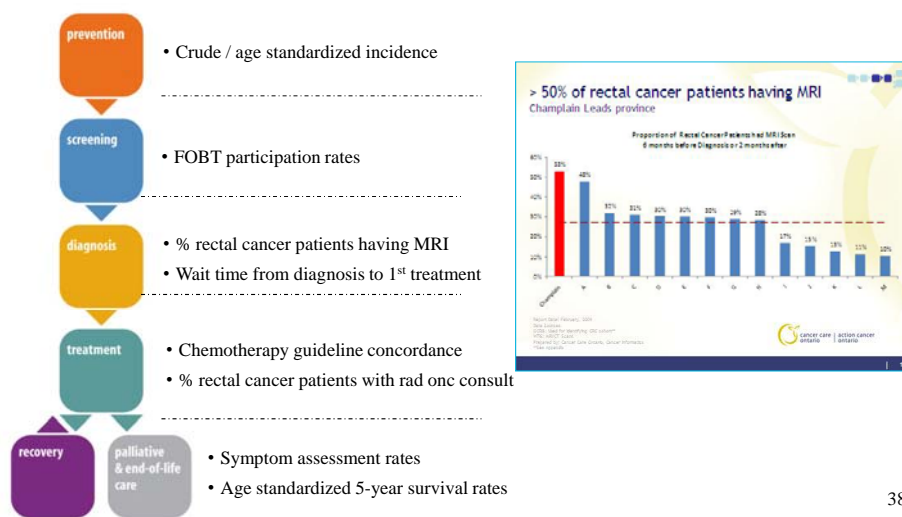


## Regional performance across the journey

- Overall strategy to improve regional performance in specific cancer types

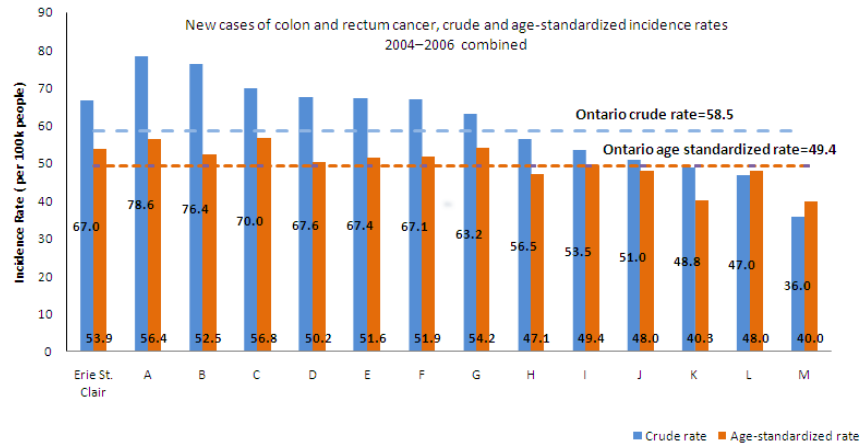
**Example:** Colorectal cancer performance in Erie/St.Clair Region

## Colorectal Cancer Pathway Regional Visits: Discussion of region-specific data for each phase of the journey



## CRC should be top of mind in Erie St. Clair

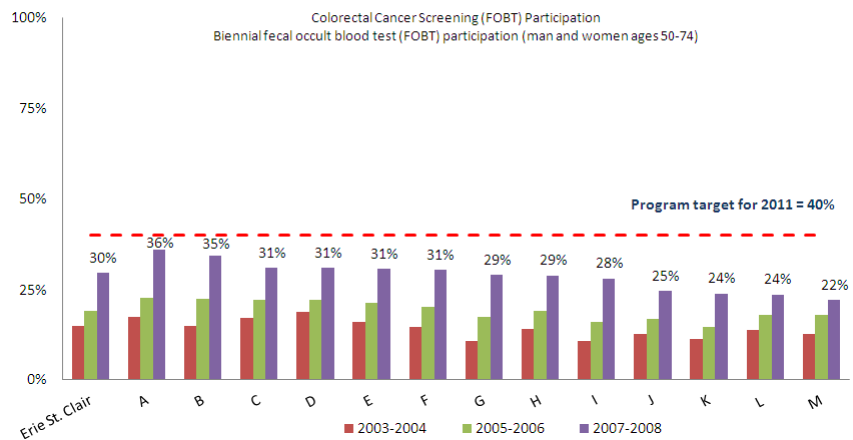
Above average crude and standardized incidence



Report Date: February 2009  
 Data Source: Cancer Care Ontario (Ontario Cancer Registry, 2009)  
 Prepared by: Cancer Care Ontario, Surveillance

Notes:  
 1. Colon and rectum (ICD-O-3 C18-C20, C26.0).  
 2. Crude rates are per 100,000.  
 3. Age-standardized rates are per 100,000 and adjusted to the age distribution of the 1991 Canadian population.  
 4. Cases with unknown LHM were excluded.

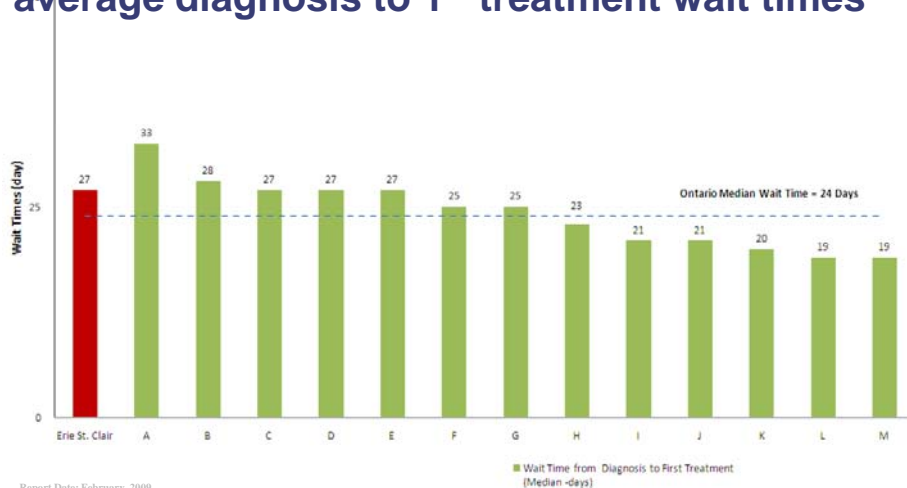
## Progress being made on FOBT screening targets



Report date: July, 2010  
 Data Sources: Ontario Health Insurance Plan database; Statistics Canada population estimates  
 Prepared by: ICES

Notes:  
 1. Rates are standardized to the 1991 Canadian population

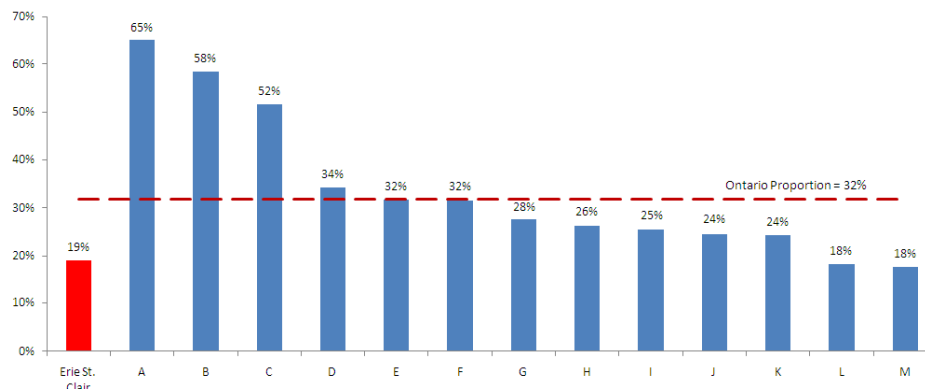
## Erie St. Clair - Slightly longer than average diagnosis to 1<sup>st</sup> treatment wait times



Report Date: February, 2009  
 Data Sources:  
 OCRIS: Used for identifying CRC cohort\*\*  
 CIHI DAD/NAIRS: Non-RCC Systemic treatment dates and Surgical treatment dates\*\*  
 ALR: RCC Systemic and Radiation treatment\*\*  
 Prepared by: Cancer Care Ontario, Cancer Informatics  
 \*\*See Appendix

## 19% of rectal cancer patients having MRI Erie St. Clair below Ontario average

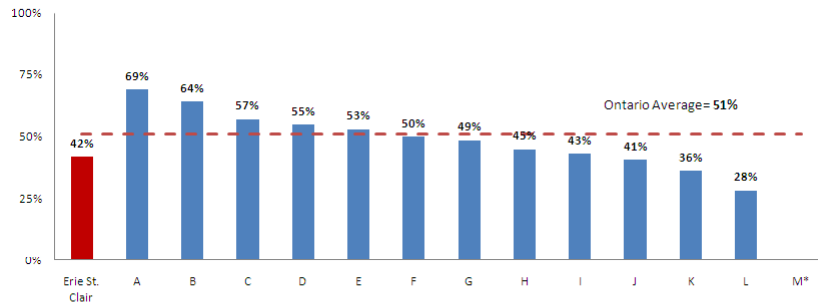
Proportion of 2009 Rectal Cancer Patients having MRI Pelvis Scan  
6 months before or after diagnosis



Data Sources:  
 OCRIS: Used for identifying CRC cohort\*\*  
 WTS: MRI/CT Scans  
 Prepared by: Cancer Care Ontario, Cancer Informatics  
 \*\*See Appendix

## Does oral chemotherapy explain gap in guideline concordance?

Percent of stage III colon cancer patients treated with guideline recommended chemotherapy following surgery (Apr 2006 - Mar 2008)



Report date: March, 2009  
Data source: Cancer Care Ontario, ALR, OCR  
Prepared by: CCO Stage Capture Project

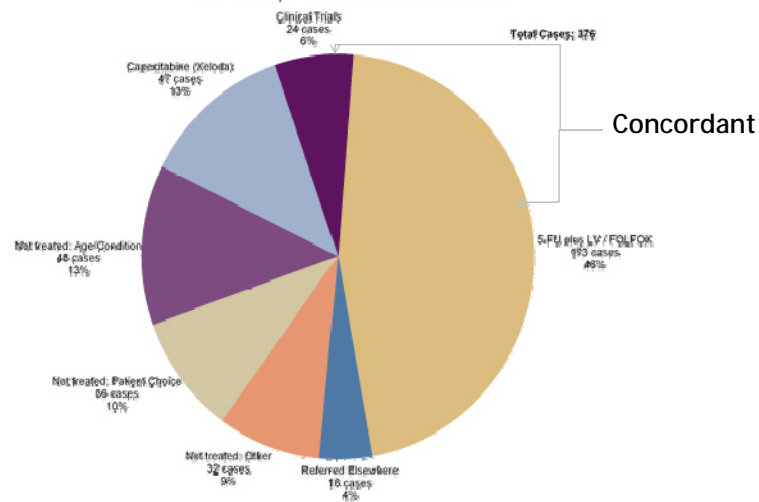
**Notes:**

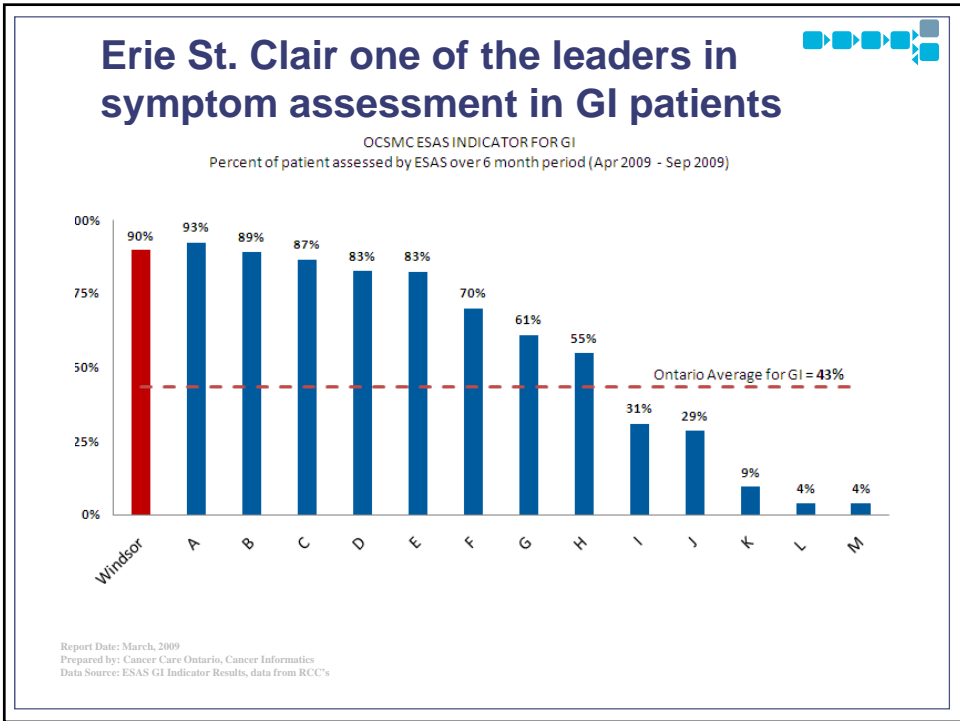
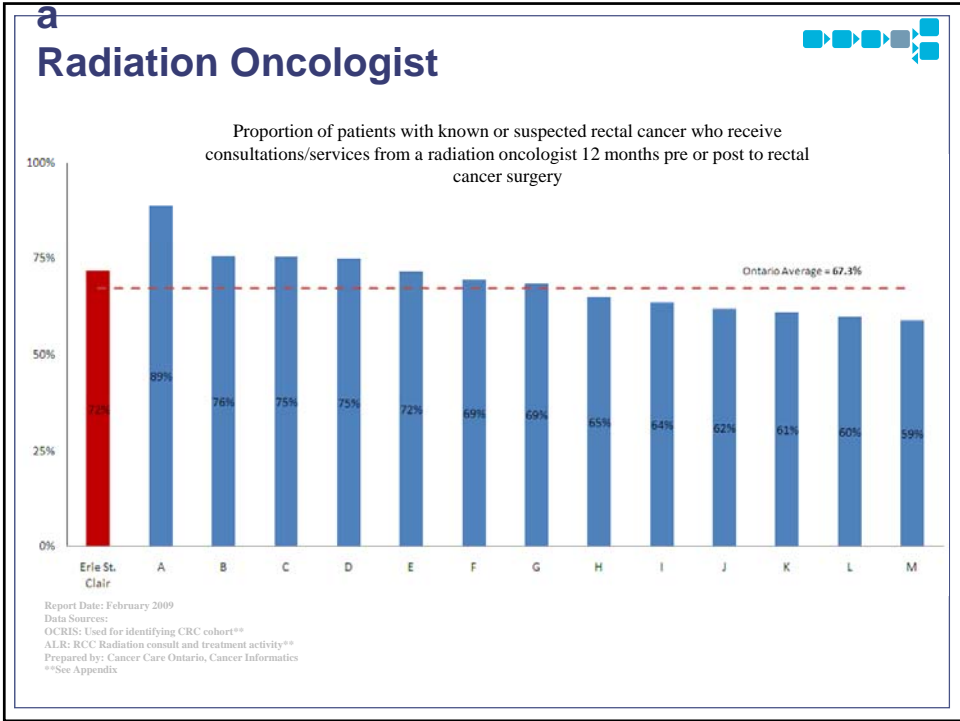
1. \*Results from Central West LHIN excluded due to low case volumes.
2. Includes only cases referred to a cancer centre with valid stage reported to CCO (38% of total Ontario resected colon cases).
3. Results are standardized by patient age and comorbidity (pre-existing conditions such as cardiac disease or diabetes).

Notes: \*MLHIN excluded due to low case volumes.

## Chart audits provide explanation for non-concordance

Treating Colon Cancer According to Guidelines  
Results of a review of Stage III colon cancer patient charts conducted for cases resected in 2007/08 showing treatment and reasons for non-treatment

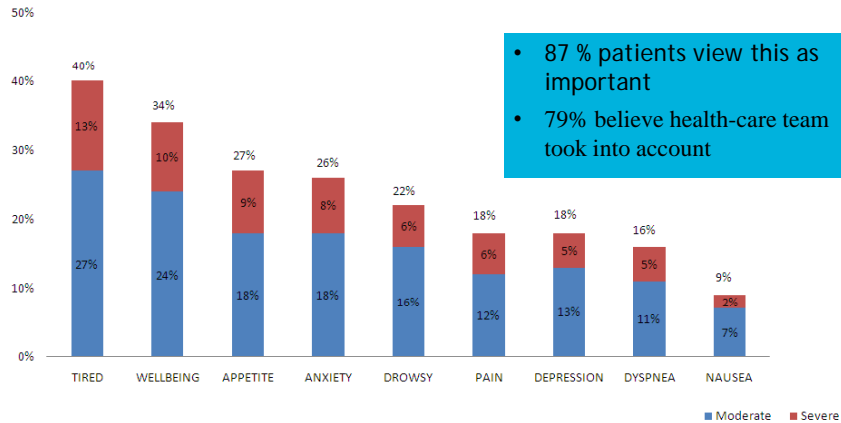




## ESAS can help direct symptom management for GI patients

% Patients reporting severe or moderate symptom

Eric St. Clair LHIN Palliative Care - Symptom Assessment  
Symptom Distribution in GI Cancer Patients

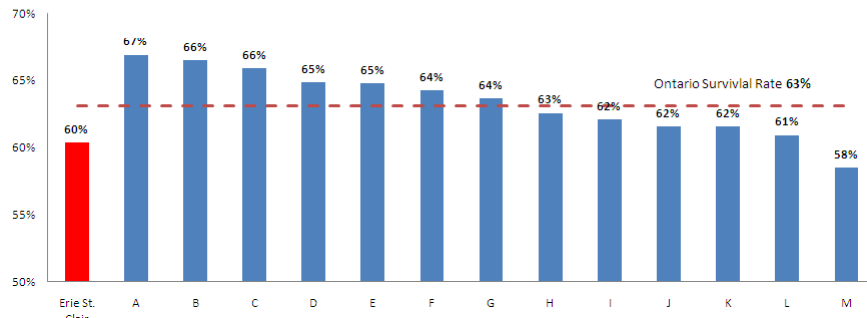


Report Date: March, 2009  
Prepared by: Cancer Care Ontario, Cancer Informatics  
Data Source: ESAS GI Indicator Results, data from all RCC's

## More people surviving colorectal cancer Erie St. Clair below provincial average

Survival Rate  
(100k people)

Age-standardized 5-year relative survival for colon and rectum cancer by LHIN  
(2002-2006, both sexes combined)



Report Date: February 2009  
Data Source: Cancer Care Ontario (Ontario Cancer Registry, 2009)  
Prepared by: Cancer Care Ontario, Surveillance  
Notes  
1. See Technical Information for method  
2. Using Brenner's period method, which estimates survival of all cases followed up during the specified period  
3. Colon and Rectum (ICD-O-3 C18-C20, C26.0)  
4. \*\*Cases with missing LHIN excluded



**For more information go to:**  
<http://csqi.cancercare.on.ca>

