Colorectal Cancer Screening by Colonoscopy in a Rural Community

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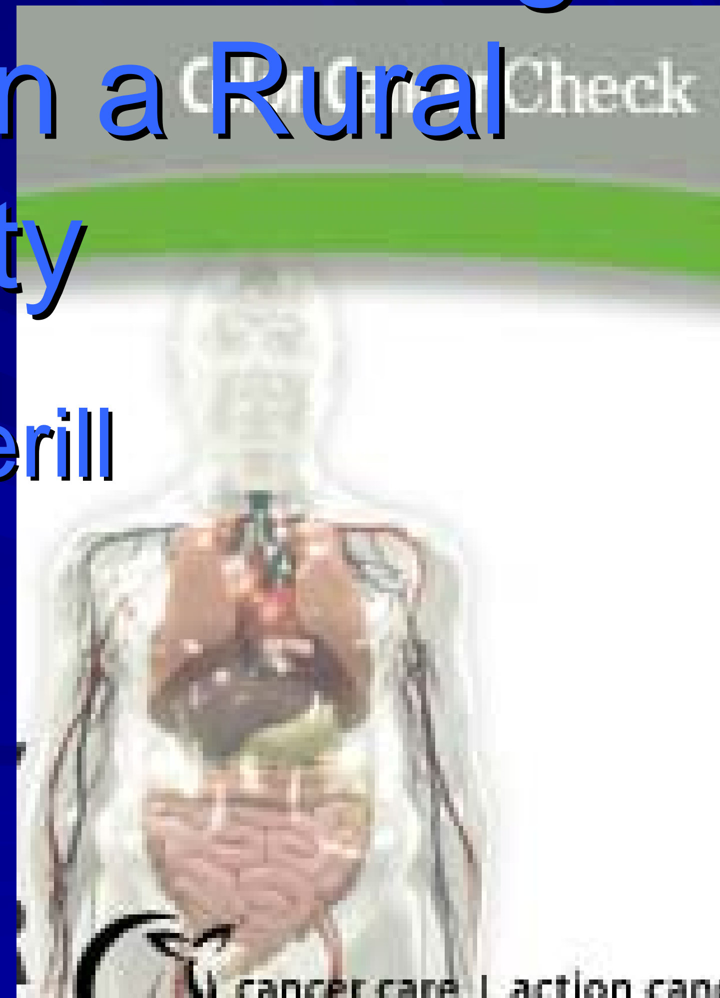


Background

- Colorectal Cancer (CRC) - second leading cause of death from cancer in Canada.
- Estimate for 2008 (Ontario): 8300 new dx, 3250 deaths.
- Screening recommended by numerous groups.
- Screening has been shown to reduce mortality.

- For years, lack of action in North America on CRC screening.
- Up to the present, screening rates in average risk individuals have been low.

- In 1999, an expert panel convened by Cancer Care Ontario produced a report recommending screening.

- Recently, organized screening progams have been initiated in ON, MB, AB.

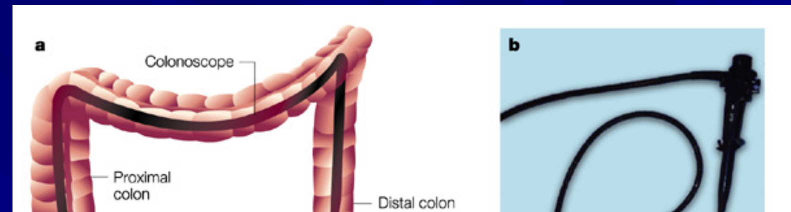
- Unlike other cancers, there are several screening options.
  - FOBT
  - Flexible sigmoidoscopy
  - Colonoscopy
  - Barium enema
  - CT colonography, or “virtual colonscopy”

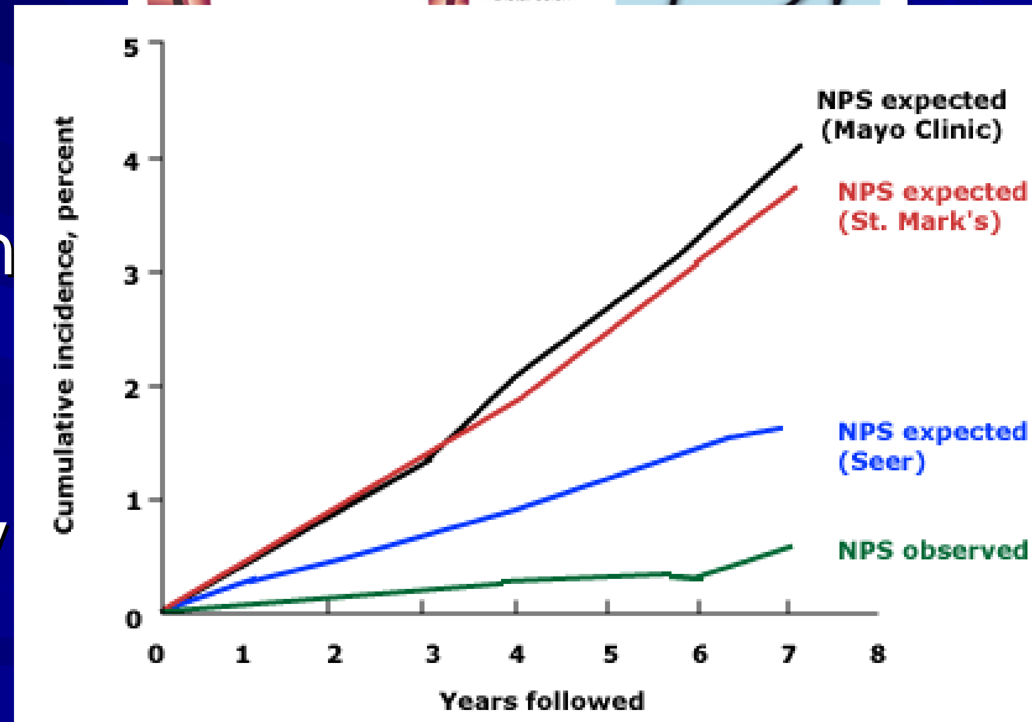
The Wawa Experience

- Small rural community, about 225 km north of Sault Ste Marie
- Physicians had noticed the high burden of CRC, both in mortality, and in morbidity.
- No organized screening program.
- In 2001, decided to organize a screening program.

Why colonoscopy?

- Capacity to perform the tests.
- Only every 10 years.
- Patient acceptance might be greater than for yearly FOBT.
- Therapeutic vs. only diagnostic: possibility of decreasing the incidence of CRC.





Unique Features

- GP endoscopists performing screening colonoscopies in a rural setting.
- MD’s, NP’s and patients can all refer directly for colonoscopy.
- Stepped approach to recruitment: referral (or self-referral), chart reminders, eventually mailout to unscreened patients.
- Endoscopists recording data on personal data assistants (PDA’s).

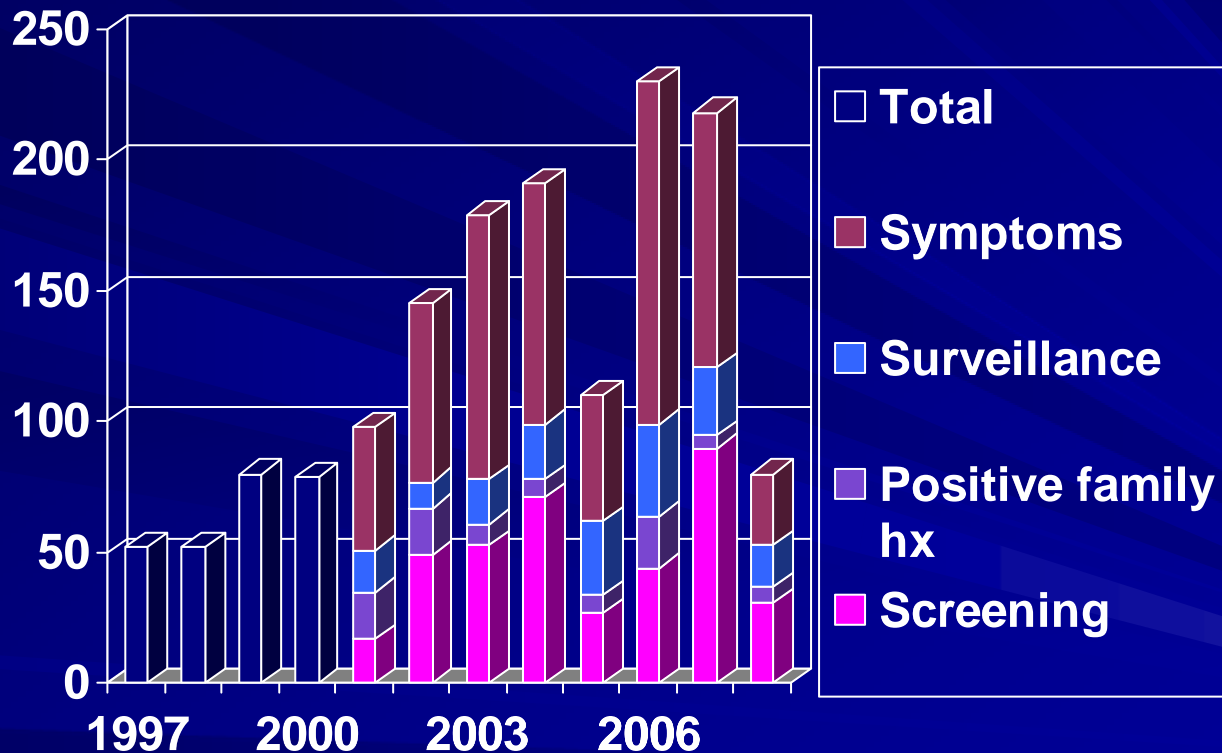
- Estimated 1000 people in the screening group.
- In order to minimize the effect on the hospital, plan was to do 100 screening colonoscopies per year.
- No extra OR days added.
- Can Fam Physician 2005;51:1224-1228

Results

- Combination of prospective and retrospective data collection.
- Not difficult to recruit patients for screening colonoscopy
- Currently, 1 year wait time, and 151 patients on the waiting list.
- Difficult to maintain data entry on PDA's.

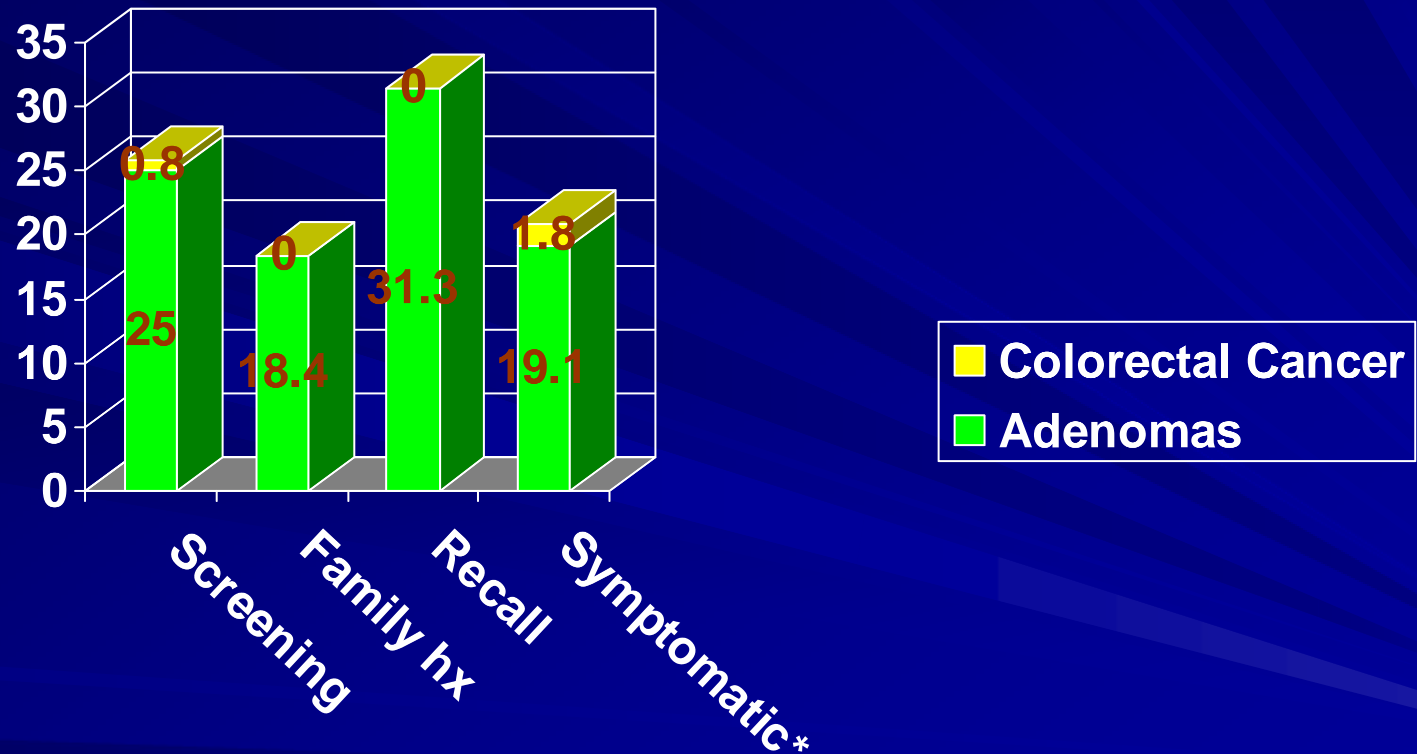
- Currently 1389 people in the 50-75 age group.
- Of these, 612 (44%) have had a colonoscopy.
- Not all patients were placed on the recall list in our EMR, though most were.
- Recall (surveillance) guidelines have changed since the program started.

Reason for colonoscopy



-1257 colonoscopies since 2001 when formal screening began, 382 for screening purposes.

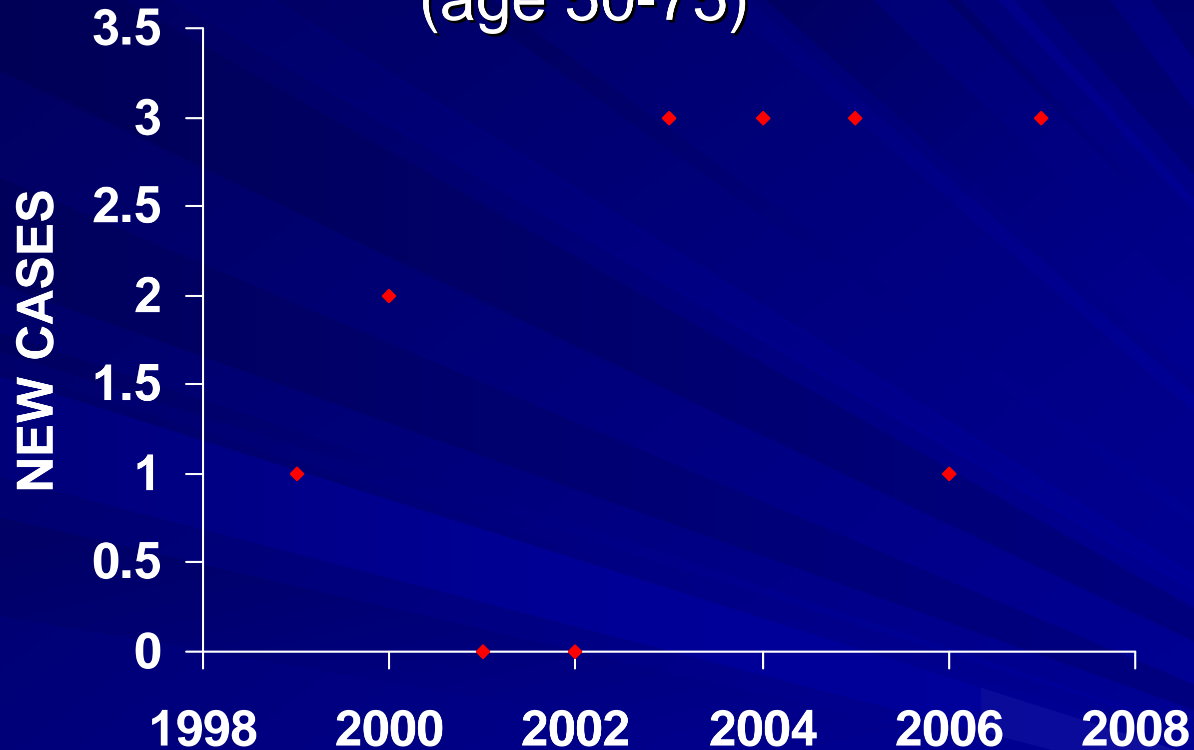
Findings



Reported incidence - Screening: CRC 0.7%, Adenoma 29%; Family hx: 0.7%, 22%, Recall 0.6-2.7%, 25-30%, Symptomatic ?2.8-15%,5-38% From Rex, AJC 1995.

CRC Incidence in Wawa

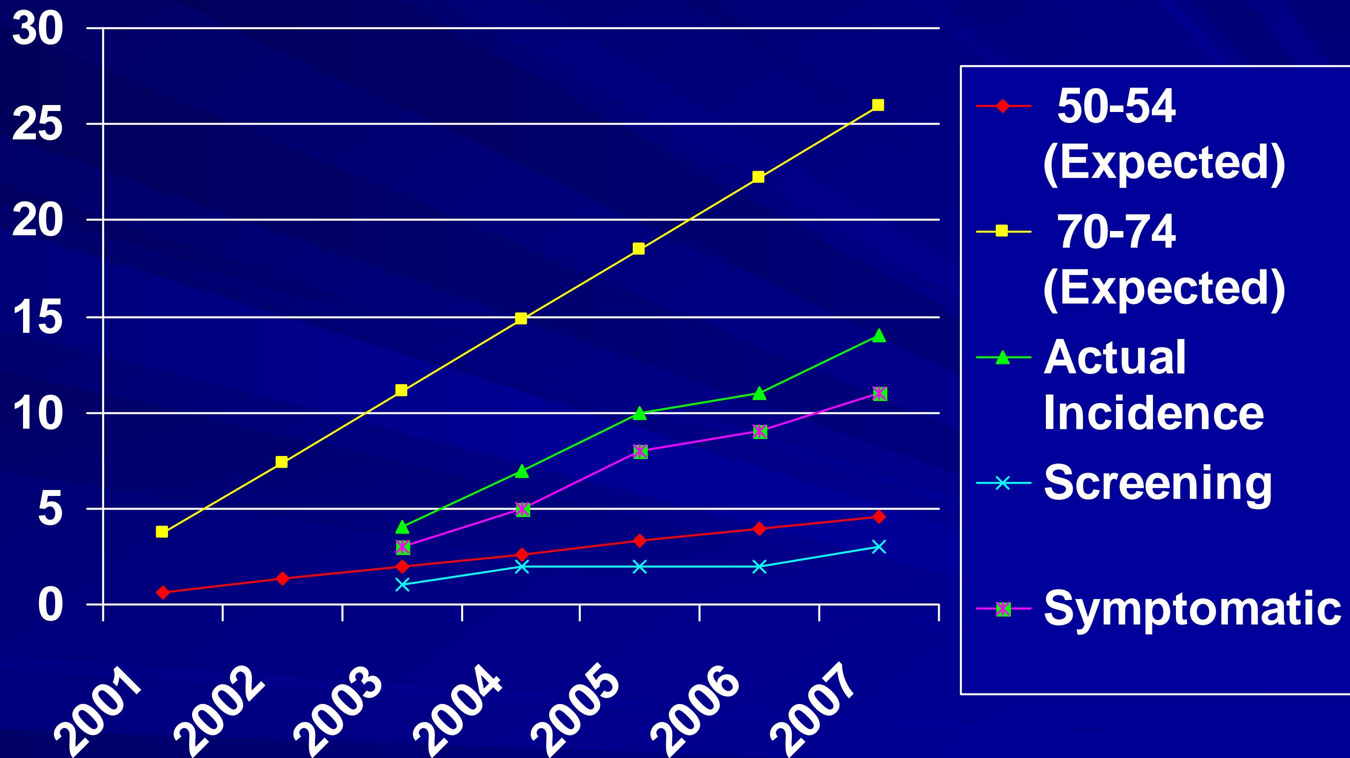
(age 50-75)



*(anal cancers excluded)

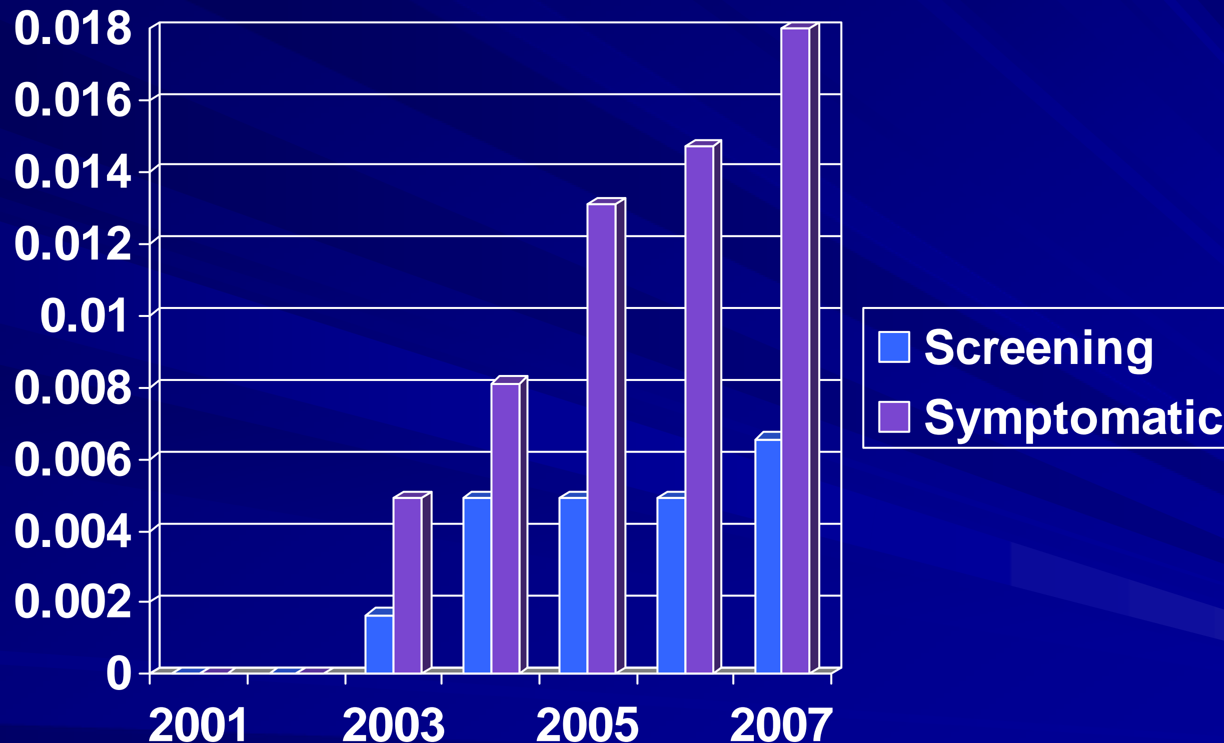
- Since 2001, 3 cancers have been found on screening colonoscopy.

CRC Incidence in Wawa
(cumulative, age 50-75)



(Ontario rates for 2004, from Public Health Agency of Canada website.)

Relative rates of CRC
(cumulative, age 50-75)



No cases of CRC have presented in people who have been screened by colonoscopy in Wawa since formal screening began

Conclusions

- Feasible to run a CRC screening program using colonoscopy as the modality.
- Not difficult to recruit patients.
- Although yearly colonoscopies have more than doubled, haven’t met goal of 100/yr.

- Ways of meeting target of 100% by ten years:
  - Ensure appropriate recall.
  - Consider whether all symptomatic scopes are appropriate.
  - Increase total yearly #.
- Consider prioritizing screening scopes by age or according to FOBT status.
- Although we are running behind our original plan, are much better than the provincial average. (CMAJ 2007;117(6): 593-7)

Future Research

- Does the quality of our colonoscopies measure up?
- With larger numbers screened, are we reducing colon cancer incidence & mortality?
- Percentage of patients with advanced neoplastic change, other findings?