

UP FRONT

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A Summary of ICES Research Findings for Decision Makers

Use of Large Bowel Procedures in Ontario: An ICES Research Atlas

Colorectal cancer (CRC) is the leading cause of death from cancer in non-smokers in Ontario. Following lung and breast cancer in women, and lung and prostate cancer in men, CRC is the third most common cancer among Canadians. In fact, incidence rates for Canadian men and women are among the highest in the world—the lifetime risk of developing it is approximately one in 17. CRC places a significant burden on the health care system. Of the four most common types of cancer (including lung, prostate, and female breast), CRC has the highest number of hospital bed days at 100,125 compared to female breast cancer, which required less than one fifth the number of bed days in one year.

Strong clinical evidence indicates that the most promising method for increasing screening uptake is through a comprehensive, population-based screening program. It is anticipated that, over the next decade, a number of countries with publicly funded health care systems (e.g. UK, Denmark) will develop population-based CRC screening programs. In Canada, recommendations for such a program have been made at the national level and in Ontario. This research atlas examines colonic evaluation procedure practice patterns and associated resources to inform current discussion about the feasibility of implementing a population-based CRC screening program in Ontario.

Research findings focus on the:

- Type and quantity of colonic evaluation procedures performed in Ontario each year, including FOBT (fecal occult blood testing), rigid sigmoidoscopy, flexible sigmoidoscopy, double contrast barium enema, single contrast barium enema, and colonoscopy.
- Geographic distribution of colonic evaluation procedure rates.
- Proportion of the population receiving colonic evaluation procedures.
- Use of hospital and physician resources in delivery of colonoscopy.

Key Findings

- Colonic evaluation procedures, excluding FOBT, rose from over 307,000 in 1992 to more than 359,000 in 2001. Half of the procedures performed in 2001 were colonoscopies; approximately threefold the number performed in 1992. The year-over-year increase in 1993 was 8%, rising to almost 17% in 2001. For every age group, colonoscopy rates have risen dramatically—in many instances more than 100%. In contrast, sigmoidoscopy and barium enema rates have fallen.
- The proportion of the screen-eligible population (individuals aged 50 to 74) having any procedure rose by about 16% for men and 14% for women during the study period. However, a mere 4% of this group had a colonoscopy in 2001, and FOBT screening rates also remain very low, despite recommendations for annual or biennial testing.
- There was very little difference by county in the proportion of the population having a colonic evaluation procedure when all procedures were taken together. However, rates for the different types of procedures varied widely from county to county. For example, the proportion of the population receiving a colonoscopy ranges from about 40% below the Ontario average to about 50% greater in certain counties. An estimated 67% of the variance in county procedure rates can be directly attributed to the number of active endoscopists.
- Relative to total hospital volume, colonoscopies were performed at more than twice the rate in small hospitals compared with large teaching hospitals.
- Specialist physicians are performing most colonic evaluation procedures. For example, general surgeons and gastroenterologists are primarily performing endoscopic procedures, while radiologists are performing barium enemas.

The following policy options address the key goal of reducing societal burden of CRC in terms of mortality, morbidity and health care costs:

Policy Options	
1. Establish a centrally organized population-based screening program.	3. Monitor and track CRC screening and outcomes. For example, use separate fee codes to distinguish between tests conducted for screening and those done for diagnostic workup.
2. Investigate the feasibility of having flexible sigmoidoscopy performed by non-physicians. For example, train nurse endoscopists.	4. Establish a new funding model for endoscopy. For example, institute ambulatory endoscopy facilities and reappraise current technical fees.

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