

cancer answers

Cancer Answers is a series of free public lectures, presented by *Cancer Care Nova Scotia*, on a variety of cancer-related topics. The lectures, delivered by cancer experts, are designed to raise awareness and educate participants about issues related to prevention, screening, early diagnosis, treatment, survivorship and palliative care.

Following each lecture, the presentations are posted on the *Cancer Care Nova Scotia* website @ www.cancercare.ns.ca





Gastrointestinal cancer

Des Leddin

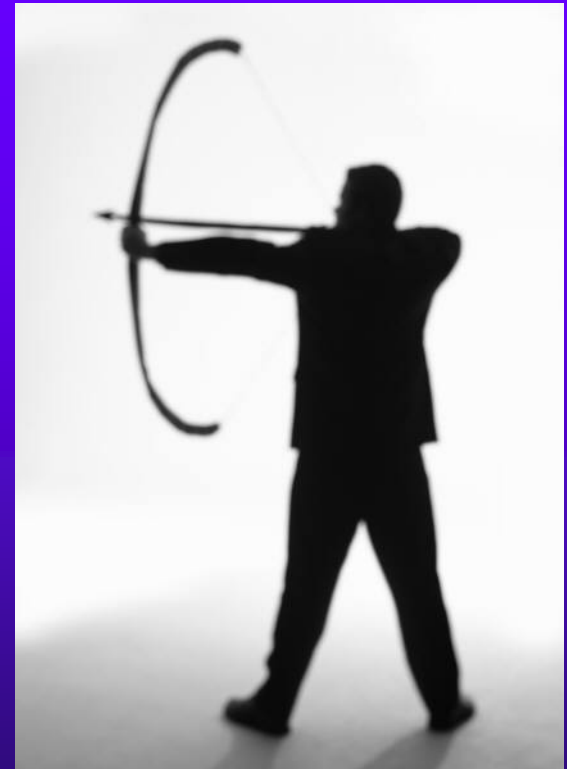
Division of Gastroenterology

Dalhousie University

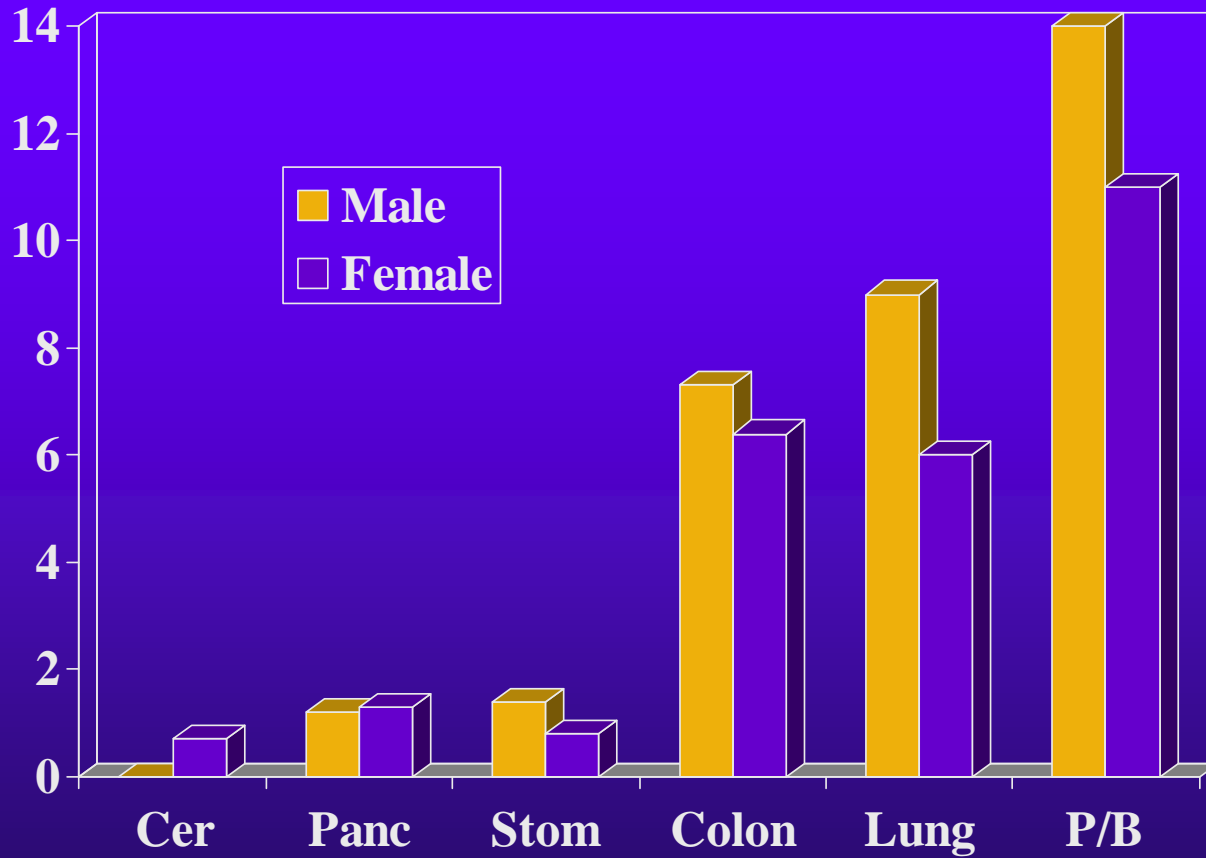
October 12, 2006

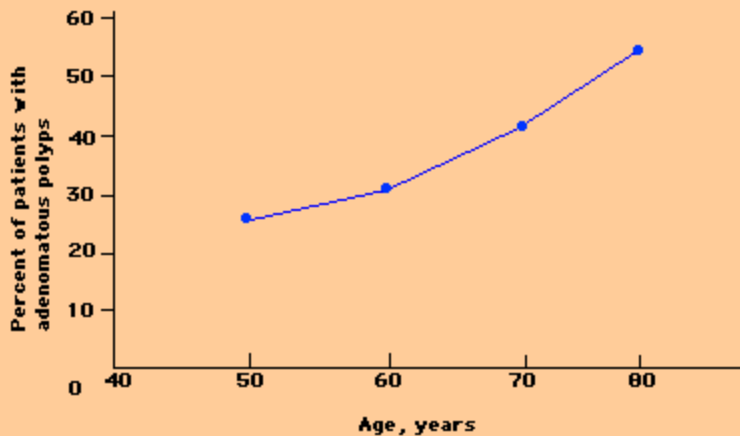
Objectives

- ◆ Background
- ◆ True prevention
- ◆ Screening options
- ◆ Pros and cons
- ◆ Feasibility
- ◆ Conclusion



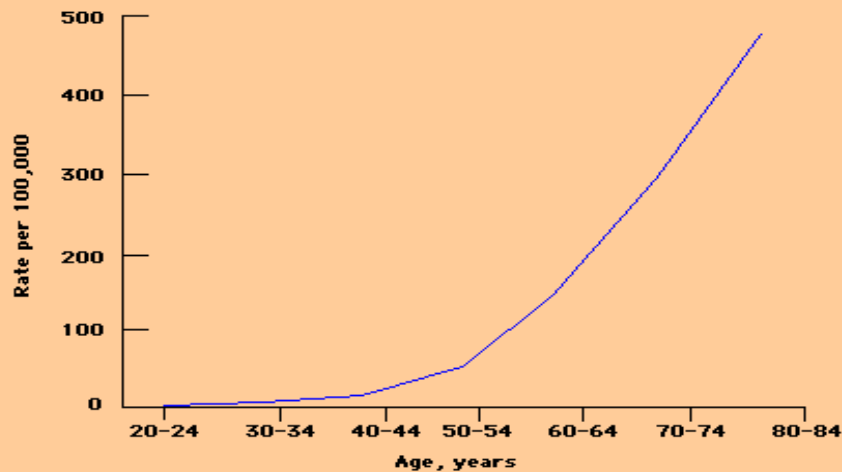
What are the odds?





Prevalence of adenomatous colonic polyps increases with age

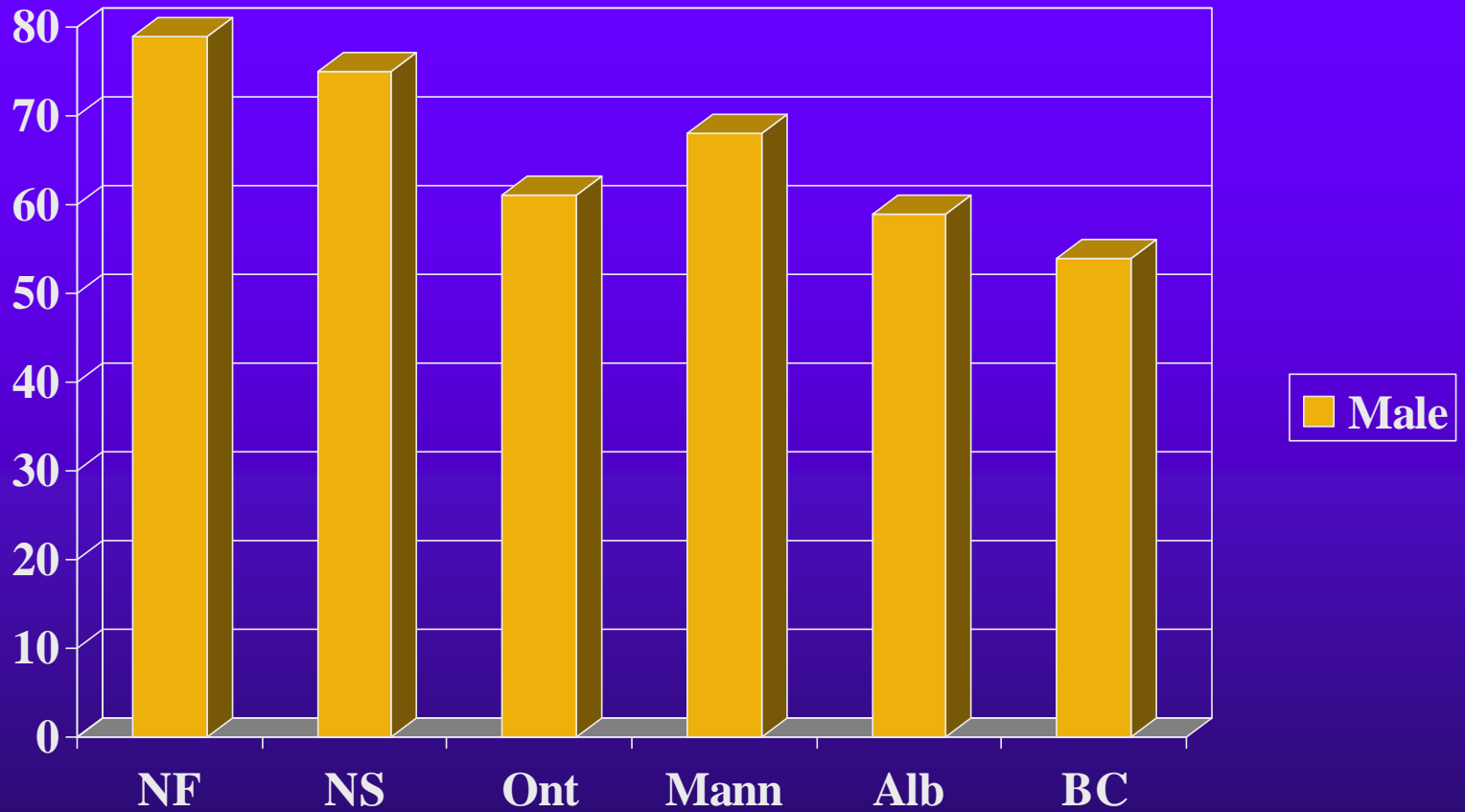
Adenomatous colonic polyps are found in about 25 percent of people by the age of 50; the prevalence continues to increase with increasing age. Data from Williams, AR, Balasooriya, BA, Day, DW, Gut 1982; 123:835.



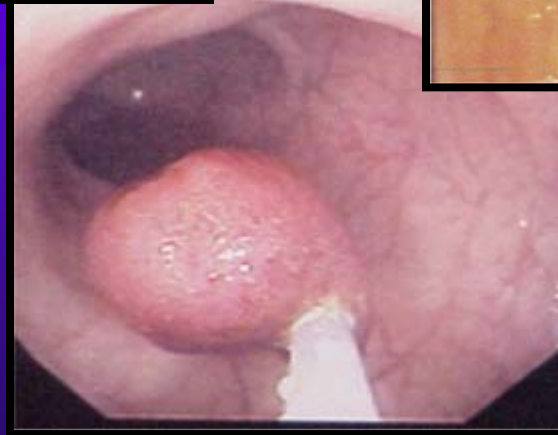
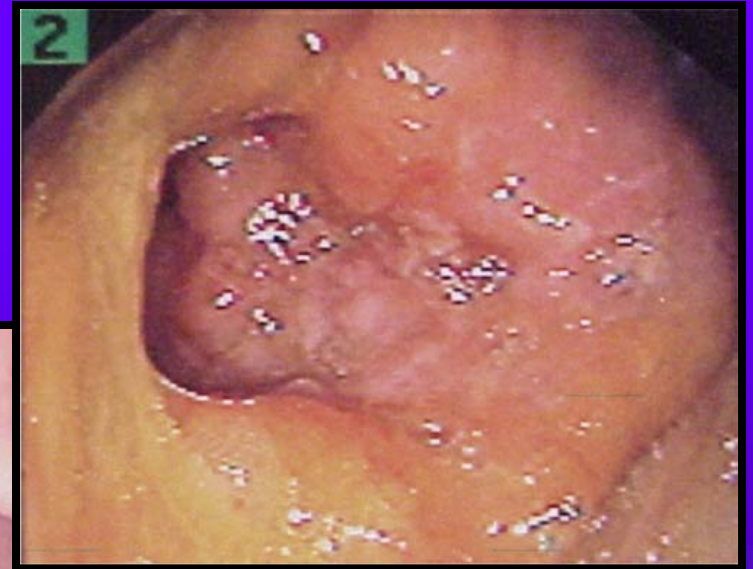
Increasing incidence of colorectal cancer with age

The age-specific incidence of colorectal cancer in the general population was measured between 1988 and 1992 in men and women of all races. (Data from Surveillance, Epidemiology, and End Results (SEER) Program, 1973-1992.)

Age standardized rates



The Polyp Cancer Sequence



Clear genetic basis in 15%, 10 year sequence

Colon cancer facts NS

- ◆ At risk
 - 230,000
- ◆ Colon cancer incidence
 - Colon 750
 - Breast 700
 - Prostate 700
- ◆ Male and female equal
- ◆ Mortality
 - 10%
- ◆ Total colonoscopies
 - 7000
 - Number screened unknown



Screening tools

- ◆ Fecal occult blood
- ◆ Flexible sigmoidoscopy
- ◆ Barium enema
- ◆ Colonoscopy
- ◆ Virtual colonoscopy



Occult blood

- ◆ Stool sample
- ◆ Good evidence
- ◆ Easy to do
- ◆ Feasible

- ◆ Not a very good test
- ◆ Compliance 50%
- ◆ 1:50 positive have cancer
- ◆ Not a true prevention
- ◆ Hidden resource needs
- ◆ Reduces mortality 33%



Colonoscopy

- ◆ Very accurate
- ◆ True prevention
- ◆ Perforation 1:1000
- ◆ Invasive
- ◆ Sedation, preparation
- ◆ Experts
- ◆ Time
- ◆ Evidence
- ◆ Not feasible
 - Difficult
 - Human resources



Flexible sigmoidoscopy

- ◆ Very accurate
- ◆ True prevention
- ◆ Non specialists
- ◆ No sedation
- ◆ Minimal prep

- ◆ Only see half
- ◆ Generates colonoscopies
- ◆ Feasible?



Barium enema

- ◆ Moderate accuracy
- ◆ Infrastructure in place
- ◆ True prevention

- ◆ See something
- ◆ Discomfort
- ◆ Preparation
- ◆ Lower bowel



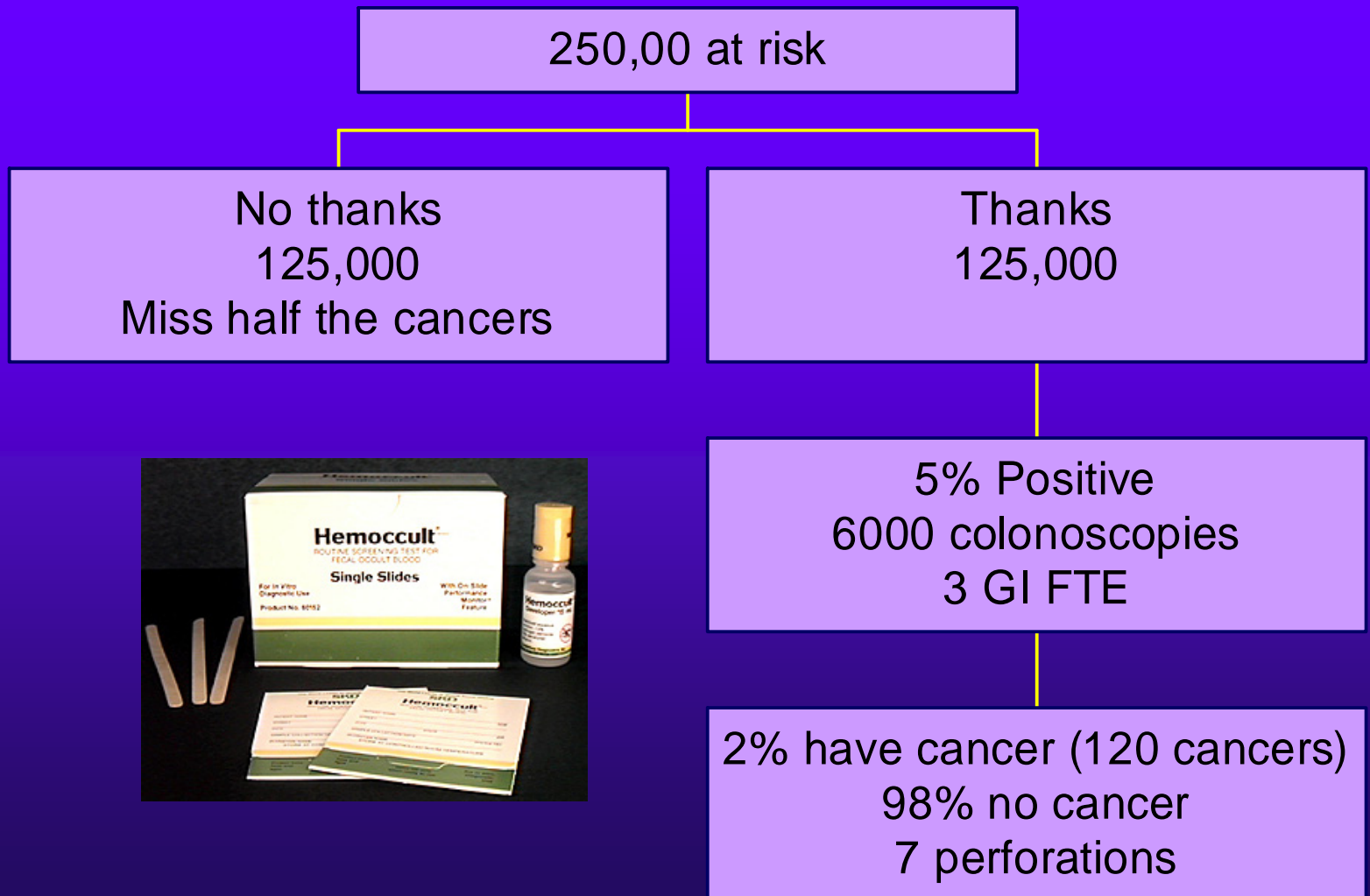
Virtual colonoscopy

- ◆ Increasingly accurate
- ◆ Infrastructure
- ◆ Non invasive
- ◆ Non specialists

- ◆ Reading time
- ◆ Prep and discomfort
- ◆ Small polyps
- ◆ Colonoscopy



Fecal Occult Blood in NS



Average and high risk

- ◆ Average risk
 - Reduce risk
 - Occult blood
 - Sigmoidoscopy
 - Barium enema
 - Colonoscopy
- ◆ High risk
 - Colonoscopy



Nutrition and colon cancer

- ◆ Obesity doubles risk
- ◆ Greens, fiber
- ◆ High fat
- ◆ Vitamins, folate
- ◆ Exercise





Conclusion

- ◆ High rate in NS
- ◆ All tools work
- ◆ Occult blood for average risk
- ◆ Colonoscopy for high risk
- ◆ Healthy population

Future

- ◆ Genetic screening
- ◆ Stool based tests
- ◆ Virtual colonoscopy
- ◆ Alternative providers
- ◆ Prevention and nutrition

