

## Perception versus reality

### Overcoming barriers to colorectal cancer screening

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Colorectal cancer is the second leading cause of cancer death in Canada, claiming an estimated 8700 Canadian lives in 2007.<sup>1</sup> This is greater than the estimated 5300 deaths due to breast cancer and the 4300 deaths due to prostate cancer in the same year. Given its importance, Canadians should make a concerted effort to control colorectal cancer with whatever tools are available for prevention, early detection, and treatment.

There is, in fact, much to offer for the early detection of colorectal cancer. Evidence from several randomized controlled trials suggests that annual or biennial fecal occult blood test (FOBT) screening reduces mortality by 16% to 33%.<sup>2-6</sup> Based on this statistic, the Canadian Task Force on Preventive Health Care recommended, in 2001, that FOBT screening be included in the periodic health examination for those older than 50 years of age (grade A recommendation).<sup>7</sup>

#### Survey says ...

Rapid diffusion of this test, however, has not occurred. In 2003, the Canadian Community Health Survey estimated that use of the FOBT in the previous 2 years was only 4% among women older than 50 in Newfoundland and Labrador.<sup>8</sup> In Saskatchewan and areas of British Columbia and Ontario (the rest of the country was not surveyed) the rate peaked at 13% to 14% for men in that age group. Contact with a family physician over the past year increased the odds of colorectal screening; however, authors of a secondary analysis of the data reported that only 1 in 5 respondents who had seen their physician more than 4 times in the year before the survey were up to date for colorectal screening.<sup>9</sup>

Other Canadian data paint a similar picture. A 2004 survey of average-risk Albertans aged 50 to 74 found that 14.3% were up to date for colorectal screening when *any* screening test, including endoscopy, was considered.<sup>10</sup> In another study, between 1995 and 2000 up to 20.5% of 50- to 59-year-old adults (of any risk status) in Ontario received adequate screening using any test.<sup>11</sup> These rates are much lower than in the United States where, in 2004, 52.1% of adults older than 50 had had an FOBT or endoscopy within the prescribed interval required to define them as up to date.<sup>12</sup>

Why is colorectal screening, FOBTs in particular, not occurring? Evidence, both anecdotal and scientific, points to at least 2 important barriers. One is the degree of physician confidence in the test itself; the other is physicians' perception that patients will not accept this test owing to the "ick" factor. In fact, in discussions about the potential success of colorectal screening programs, which have now been announced in 3 Canadian provinces, the "ick" factor is often brought forward by physicians as the main barrier to future widespread FOBTs.

While this might seem anecdotal (particularly as it is based on personal experience and therefore is just that), there is considerable evidence of its validity from more scientific surveys. In Alberta, 39.8% of primary care providers indicated that they expected low patient compliance with FOBTs,<sup>13</sup> and 36.8% of specialist groups (gastroenterologists, internists, and surgeons) indicated a belief in low patient acceptance of the FOBT.<sup>14</sup> We might, however, be overprotecting our patients' sensibilities. While 55.6% of primary care providers in the United States identified embarrassment and anxiety as barriers to patient participation in colorectal screening, only 8.5% of adults older than 50 (who were not active screeners) shared this concern about the FOBT.<sup>15</sup>

### It is time to act

#### History repeated

This discrepancy should be more than an interesting sidebar in the consideration of colorectal screening uptake in Canada. We have, in fact, been here before. Though the exfoliative cytology test, or Pap test, sparked interest when it was first reported in 1943, it was fully 17 years after Papanicolaou's landmark paper that these words were spoken: "The epitaph for cervical cancer has been inscribed. The methods, skills, and techniques are available to destroy it. The date of death remains unwritten in the hands of the practicing physicians and their patients."<sup>16</sup>

At the time of the address, the annual coverage with Pap smears in the United States was estimated to be about 10%.<sup>16</sup> By 1966, it had risen to about 26%,<sup>17</sup> but it



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took several more years to reach the majority of North American women.

The barriers to the immediate widespread application of the Pap test were similar to those affecting colorectal cancer screening today. Resource issues were key, as the laboratory staffing requirements were beyond the reach of most facilities when the test was first introduced.<sup>18</sup> However, some of the barriers identified were related to assumed patient perceptions of the test. In fact, “do-it-yourself” tests were developed<sup>19,20</sup> in the belief that they would address barriers of time, inconvenience, and, according to some authors, “undue embarrassment of the patient.”<sup>20</sup>

When studies were carried out in an effort to improve uptake, one British paper on Pap screening, published in 1963, noted: “Two practical difficulties had to be faced—the distaste with which some women view a vaginal examination and the fear engendered by any contemplation of the word ‘cancer.’”<sup>21</sup> The study went on to describe a hospital-based program in which female patients were approached “by a married woman doctor” who would suggest a pelvic examination. The result was only 6 refusals in 1200 cases. The study also reported that not a single case of cancerphobia had been induced by the program. Though surprising at the time, these findings paved the way toward office-based interventions designed to increase the uptake of cervical screening.


There are still populations, cultural groups, and individuals for whom embarrassment is a barrier to Pap screening; many public health and practitioner teams are endeavouring to address this. However, it was invaluable to remind practitioners that, in the early days of very slow diffusion of the Pap test, most individuals would—and did—respond positively to a screening test that reduced their risk of cancer mortality, even if it was inconvenient and unpleasant. We wonder if the trajectory toward reduced mortality would have been steeper had there not been a reluctance (due to the assumptions made about the test’s unacceptability) to introduce the test more widely.

### Choosing to act

Today, we have similar evidence of the acceptability of the FOBT. Pilot studies in the United Kingdom, Australia, and Finland that sent unsolicited FOBTs (or similar tests) in the general mail, found the uptake was surprisingly high—45.4% in Australia<sup>22</sup> and nearly 60% in the United Kingdom.<sup>23</sup> With appropriate prompting and education by physicians in the context of an office visit, the positive response rate should be even higher.

The other barrier mentioned is that of physicians’ perceptions of the test’s characteristics. More than half of Alberta primary care physicians surveyed in 2002 agreed with the statement, “Inconsistent recommendations about CRC [colorectal cancer screening] make it difficult to decide which tests to offer.”<sup>13</sup> Moreover,

88.2% indicated that they had concerns about FOBT performance (false-negative and false-positive rates, and a perception of insufficient evidence of efficacy). There appear to be 2 issues here: a lack of awareness of the actual evidence in favour of FOBTs and a belief that other tests, such as colonoscopy, could eventually prove to have better test characteristics. In this regard, however, it should be noted that as of yet there is no randomized controlled trial evidence of the effect on mortality of colonoscopy as a first-line screening tool for people of average risk, and that there would be resource limitations to its use in this manner in many areas in Canada. In several Canadian regions, capacity is being developed to consider its use for individuals at elevated risk. Through the participation of these clinics in population-based screening programs, we might be able to answer many of the questions that still remain.

It is possible that in future there will be evidence that would warrant a grade A recommendation for a test other than the FOBT as a standard test for people of average risk. In the meantime, we need to remember the words of Voltaire, and not allow the “best [to be] the enemy of the good.” We have a good test now, we have evidence that it does reduce mortality, we have guidelines that recommend its use, and we have indications that the public will accept it. Yet we are still not using it. It is time to act so that we might see the expected reductions in colorectal cancer mortality that will inevitably result. 

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### Competing interests

None declared

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