Controversy

# Rebuttal

*Drs. Winawer and Zauber respond to Dr. Marshall:*

Kenneth Marshall uses misleading data, unfounded assumptions and exaggerations to support his bias against screening.[1] Calculating the number of people needed to be screened to save one life is misleading when it is used as the only measure of screening benefit. A more complete assessment of screening benefit is years of useful life gained. Using a computer simulation model of the clinical consequence of screening, we can estimate that 12 325 life-years would be saved per 100 000 people screened with fecal occult blood testing annually.[2] Death is inevitable, but premature death can be prevented. Death from colorectal cancer constitutes about 3% of the total mortality; therefore, the effect of colorectal cancer screening on total mortality cannot be demonstrated with the comparatively small sample size of clinical trials.

To say that screening distorts the communal value system is unfounded. What is preferable — a family focused on wellness, or family devastated by a lethal disease? Colorectal cancer screening is as cost-effective as mammography. There is also a cost of failure to screen, failure to detect early curable cancer, failure to prevent morbidity, and failure to find and remove screen-detected adenomatous polyps with the resultant decrease in incidence of colorectal cancer. These polyps are found by screening, not by random chance.[2] With rising medical costs and decreasing screening costs, screening is actually becoming cost-saving.[2–5]

Marshall exaggerates possible screening harms. Psychological and medical harms have been studied and have not been demonstrated.[6,7] False reassurance with a program of annual fecal occult blood testing is uncommon; sensitivity for cancer with this approach is over 90%.[8] Screening has been shown to have a net benefit in reducing colorectal cancer mortality.[2] Marshall's statement of a 7% mortality following surgical resection of polyps is inflated. Resection is rarely needed today, but in those rare instances when it is required it has demonstrated an excellent risk–benefit ratio.[7]

Dr. Marshall raises the specter of colonoscopy complication rates, which have fallen considerably and are now 1 to 2 per 1000 cases.[2] Complications from diagnostic colonoscopy are rare; almost all result from polypectomy, which is performed to prevent cancer. No cardiopulmonary deaths occurred after the 13 000 colonoscopies in the Minnesota trial.[9] Only 2 cases of hepatitis C transmission have been reported,[10] both of which involved improper disinfection of the instrument. The introduction of colonoscopy, its demonstrated safety after 30 years of experience, and standards for training, clinical application and disinfection of equipment now make screening feasible.[11]

An estimated 2250 people in Ontario will die of colorectal cancer this year.[5] Their families should not have to bear the loss. We now have screening techniques with acceptable sensitivity and specificity, accurate diagnostic methods and definitive treatment with colonoscopic polypectomy and cancer surgery. We can intervene and make a difference in their lives. Losing even one life prematurely is a tragedy.[12]

*This article has been peer reviewed.*

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