

# Fecal Occult Blood Screening in Northern Idaho

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Large-scale fecal occult blood screening for colorectal cancer has been done in several metropolitan areas.<sup>1</sup> Projects in Minnesota<sup>2</sup> and New York<sup>3,4</sup> screened 3,500 and 23,000 people, respectively. In Cook County, Illinois,<sup>5</sup> as part of a multimedia approach that not only intended for early case finding, but also assessed patient knowledge of colon cancer, 106,551 fecal occult blood test cards were distributed and 45,658 were returned. The Cook County project concluded that mass screening could be done, but that great planning, considerable financial commitment, and adequate follow-up was essential. Projects on this scale are intimidating to isolated rural communities, where a desire to provide state-of-the-art health care exists nonetheless.

## METHODS

A project using fecal occult blood cards was organized in the Silver Valley of Shoshone County, Idaho. The region is rural and geologically and geographically isolated by two mountain passes. The Silver Valley represents 90 to 95 percent of Shoshone County. The Silver Valley community consists of seven towns with individual populations that range from 800 to 3,200. The purpose of the project was to increase physician and patient awareness of the importance of fecal occult blood testing as well as to establish a protocol more suitable to rural communities that have manpower and financial limitations. Cooperation was obtained from all the practicing physicians (11), pharmacists (7), and hospitals (2). The hospitals had 40 beds and 45 beds and are primary care in function. A kit was prepared and assembled that included three fecal occult blood slides, diet instructions, and a brief question-and-answer pamphlet. A number of these kits were given to each physician, clinic, and pharmacy for public distribution. Announcements were placed in the newspaper, on the radio, and on local television stations. Pharmacists

and physicians met separately as groups, and the goals and methodology of the project were outlined. Both groups received a presentation that showed data from previous studies from the American Cancer Society as well as a pictorial review of the types of bowel lesions to be encountered. The target population was individuals aged 40 years and older (6,631 persons estimated from 1980 census data).<sup>6</sup>

The slides were processed over a six-week period. All slides returned to physicians in the county were developed free of charge at the physician's office. Included were slides from any source in addition to those specifically distributed by the fecal occult blood screening project. Effort was directed to distributing kits to individuals who otherwise have no or little contact with the physicians for health care screening either because they were asymptomatic or had symptoms but did not recognize the value of early diagnosis. Participants were not required to make appointments for office visits. Positive results were handled by the individual physicians processing the slides. The physician was responsible for providing feedback and further instruction to participants.

One weakness of the project was that no distinction was made between symptomatic or asymptomatic individuals. Rather, it was hoped that individuals who may have been ignoring symptoms might be identified and introduced into the health care system. An additional weakness, evident in the analysis of results, was that some physicians opted to retest some of the participants who had positive slides.

## RESULTS

Four hundred eighty-seven kits were distributed. One hundred ninety-one kits (or sets of slides) were returned. Twenty-seven (14.14 percent) slides returned were positive for occult blood. Of these 27 occult-positive slides, six were lost to follow-up either because the name and address portion was incorrect or the persons could not be contacted. Three persons were retested, their slides were found to be negative, and no workup was done. The remaining 18 of 27 had air-contrast barium enema and co-

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lonoscopy, and when findings were negative, an upper gastrointestinal barium study. Five were negative (false-positive). Thirteen patients (48 percent) of the 27 had positive findings on workup: one Duke's class C colon cancer, one unclassified cancer of the rectum, one patient with multiple polyps (9) of which one contained carcinoma in situ, four patients with various numbers of benign polyps including coincidental peptic ulcer, two patients with hemorrhoids, two patients with diverticular disease, and two patients with hemorrhagic upper gastrointestinal disorder.

**DISCUSSION**

A baseline of area resident participation has been created. It was disappointing that only 7 percent of the target population made themselves available to consider testing. It was hoped that ignorance of the reasons for testing or the testing procedure itself explained the low response rate. Ongoing information from hospitals, pharmacists, the American Cancer Society, and physicians will likely have a great impact on future participation levels. It is hoped that future projects supported by (and likely financed by) physicians, pharmacists, and hospitals would demonstrate increased awareness and use of mass screening. As a result of all physicians and pharmacists participating, a foundation for future testing was developed.

The design of the project attempted to reach a group of people aged 40 years and older who would otherwise restrict or limit their contact with the health profession because they are asymptomatic and would have had to take time away from work, sit in the waiting room, and then pay to be told what they perceived to have already known to gain access to preventive health screening measures. A more careful analysis and cross-checking of patient charts may have substantiated that conclusion. This project protocol required little extra time and money from physicians and pharmacists other than the coordinator's time. The feasibility of mass screening by family physicians in rural communities was demonstrated and a model was developed.

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