

Health readers of information relevant to their own interests and that the concept of thematic issues of the Journal is a better way of increasing the number and improving the quality of international health papers.

Several successful programs are trying to promote the development of health service and epidemiologic research in the developing world. Among them are the Independent International Commission on Health Research for Development,⁸ the International Clinical Epidemiology Network,⁹ the Rockefeller Foundation's Greatly Neglected Diseases Network,¹⁰ and several World Health Organization initiatives, such as the Tropical Diseases Research Program. All of these programs aim at international cooperation in research. The fruits of such international

collaboration are reflected in the Journal's high acceptance rate of papers whose authors were from both developing and industrialized countries. □

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Screening for Colorectal Neoplasia: Physicians' Adherence to Complete Diagnostic Evaluation

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Introduction

During their lifetimes, American men and women have about a 5% chance of developing large-bowel cancer.^{1,2} Recent figures indicate that in 1992, there were over 156 000 new colorectal cancer cases and more than 58 300 deaths from colorectal cancer.³

Screening programs for colorectal cancer usually employ fecal occult blood tests to detect early-stage cancer. This screening test is recommended by the American Cancer Society and the National Cancer Institute for annual use by men and women 50 or more years of age. Controlled trials are being carried out in the United States and Europe to determine whether mortality can be reduced by screening for fecal occult blood.^{4–8}

It is recommended that persons with abnormal fecal occult blood test results undergo complete diagnostic evaluation (i.e., either colonoscopy or barium enema x-ray plus flexible sigmoidoscopy).^{9,10} The study described here is a prospective assessment of adherence to complete di-

agnostic evaluation guidelines in colorectal cancer screening.

Methods

In spring 1989, a cohort of men and women (n = 2201) 50 or more years of age was randomly selected from 12 800 individuals who had joined HMO PA/NJ within the previous year. HMO PA/NJ is a prepaid health care plan of US Healthcare Inc, an independent practice association-type health maintenance organization (HMO). On joining the HMO, each subject had selected an affiliated primary-physician office as his or her medical care provider. Study subjects were mailed a

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ABSTRACT

This prospective study was done in a health maintenance organization colorectal cancer screening program to determine whether 166 persons found to have abnormal fecal occult blood test results typically underwent complete diagnostic evaluation (i.e., either colonoscopy or barium enema x-ray plus flexible sigmoidoscopy). Chart audit data show that 137 (82%) subjects contacted a physician to discuss follow-up. A complete diagnostic evaluation was recommended to only 52 (38%) patients who talked with a physician. Forty-two (81%) patients who were advised to get a complete diagnostic evaluation actually complied. Significant differences in clinical findings were observed for patients who did and did not have a complete diagnostic evaluation. (*Am J Public Health.* 1993;83:1620–1622)

free screening kit, which included three HemaWipe fecal occult blood tests, through an HMO colorectal cancer prevention program known as US HEALTHCARE CHECK. Persons who did not return tests within 15 days were mailed a reminder letter. Subjects whose test results were positive ($n = 166$) were notified by mail, as were the offices of their primary physician ($n = 121$). The subject notification letter encouraged recipients to discuss follow-up with their primary physician. A medical chart audit was done 6 months later to collect data on diagnostic evaluation and diagnosis.

Results

The chart audit revealed that 137 (83%) subjects had contacted a primary physician to discuss follow-up. This figure was significantly lower ($P = .0006$) than our projected rate of contact (i.e., 90%).¹¹ For 18 (11%) subjects, there was no record in the chart of any contact in which follow-up of the abnormal test result was discussed. In 11 (7%) cases, no patient chart could be located. This situation indicates that the patient had never visited the office.

For the 137 patients who had contacted a physician, it was found that only 52 (38%) were advised to have a complete diagnostic evaluation; 75 (55%) were advised to have diagnostic procedure(s) other than a complete evaluation. Recommended procedures other than a complete diagnostic evaluation included a repeat fecal occult blood test ($n = 34$), digital rectal examination ($n = 18$), barium enema x-ray ($n = 14$), complete blood count ($n = 14$), flexible sigmoidoscopy ($n = 8$), upper gastrointestinal x-ray ($n = 7$), rigid sigmoidoscopy ($n = 3$), and other unspecified procedures ($n = 2$). The number of procedures totals more than 75 because some patients were advised to have more than one procedure. Finally, it was determined that 10 (7%) patients were advised to have no further workup. It was also discovered that of the 52 individuals who were advised to have a complete diagnostic evaluation, 42 (81%) actually underwent the procedure(s).

Differences in findings for subjects who did and did not undergo complete evaluation were marked ($P < .0001$).¹² Specifically, diagnoses of patients for whom it was verified that a complete diagnostic evaluation was done ($n = 42$) included 1 cancer case, 10 polyp cases, 21 "other" cases (i.e., hemorrhoids, diverticulitis, stomach ulcer), and 10 cases with

normal findings. Diagnoses recorded for patients who underwent procedures other than complete evaluation ($n = 75$) were 3 polyp cases, 25 "other" cases (i.e., hemorrhoids, diverticulitis, stomach ulcer), and 57 cases with normal findings. No diagnosis was available for 20 subjects.

Discussion

Complete diagnostic evaluation is routinely done for persons with a positive fecal occult blood test result in randomized controlled trials. When colorectal cancer screening is done at the community level, however, complete evaluation of abnormal test results is often not done.¹³⁻¹⁵ We have discovered that most patients with an abnormal fecal occult blood test contact a physician to discuss follow-up care; however, many do not actually undergo a complete diagnostic evaluation. Our findings are consistent with a recent report that suggested that 37% to 63% of patients who present at a physician's office with an abnormal fecal occult blood test result undergo a complete diagnostic evaluation.¹⁶ For individual patients, incomplete diagnostic evaluation may result in delay or failure to detect colorectal cancer and polyps. At the population level, a low rate of complete diagnostic evaluation in a screening program is likely to minimize any potential contribution of screening to the reduction of morbidity and mortality. It should be noted that the problem of incomplete diagnostic evaluation has also been reported in screening for other types of cancer.¹⁷⁻¹⁹

By observing physician-patient contact in follow-up care, we also found that most persons with a positive fecal occult blood test result had consulted with a physician; however, in most cases, it appears that they were not advised to have a complete diagnostic evaluation. The practice of recommending follow-up procedures other than complete diagnostic evaluation may reflect physicians' uncertainty about preventive care in general²⁰⁻²² or about colorectal cancer screening in particular.²³ It may be hypothesized that factors that could give rise to physicians' uncertainty about recommending complete diagnostic evaluation include physician confidence in screening, knowledge about the procedures that constitute complete evaluation, past experience in following up positive fecal occult blood test results, concern about cost and safety issues, and perceived patient preferences.²⁴⁻²⁶ Unfortunately, data were not collected in this study to determine which, if any, of these

factors were associated with physicians' reluctance to recommend complete evaluation. Further research is required to understand why physicians eschew recommending complete evaluation. Studies are also needed to determine how to increase the use of complete evaluation. In this regard, HMO PA/NJ has introduced a continuing medical education program for physicians to enhance the quality of care delivered to screening program participants.

The extent to which the observations reported here can be generalized may be limited by characteristics of the HMO, the affiliated physicians and subscribing members, and the screening program. It also should be acknowledged that chart audit data are limited in accurately reflecting physicians' recommendations to patients. □

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The Epidemiology of Child Abuse: Findings from the Second National Incidence and Prevalence Study of Child Abuse and Neglect

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ABSTRACT

The epidemiology of child abuse was investigated with data from the Second National Incidence and Prevalence Study of Child Abuse and Neglect. A statistical comparison of incidence rates suggested that age, family income, and ethnicity were risk factors for both sexual abuse and physical abuse, but county metrostatus was not. Gender was a risk factor for sexual abuse but not for physical abuse. A logistic regression analysis showed that ethnicity, county metrostatus, and a gender-by-income interaction distinguished sexual abuse from physical abuse. (*Am J Public Health*. 1993;83:1622-1624)

Introduction

The Second National Incidence and Prevalence Study of Child Abuse and Neglect was mandated by Congress in 1984 (1) to assess the current national incidence and prevalence of child abuse and neglect and (2) to determine how the severity, frequency, and character of child maltreatment had changed since 1980 when the First National Incidence Study was conducted.¹⁻³ A more extensive analysis of these large-scale, nationally representative studies could provide valuable scientific knowledge on the scope and nature of child maltreatment and its impact on public health issues.⁴⁻⁷

Using data from the Second National Incidence Study, we sought to examine the impact of five key demographic factors—age at discovery, gender, income, ethnicity, and county metrostatus—on sexual abuse and physical abuse. In addition, using these variables, we compared the risk of sexual abuse with the risk of physical abuse. The latter anal-

ysis is similar to one previously conducted by Jones and McCurdy.⁵ However, these investigators used unweighted data, whereas we used the appropriate sampling weights, which gave the correct estimates of the standard errors associated with the regression coefficients and hence were more reliable for hypothesis tests and confidence interval estimations. Emotional abuse has been excluded from our analyses because it was more difficult to define and measure.^{8,9}

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