

# The Effect of HEDIS Measurement of Colorectal Cancer Screening on Insurance Plans in Pennsylvania

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Screening for colorectal cancer (CRC) is a beneficial and cost-effective way to advance the public's health by reducing the incidence and mortality of CRC, the nation's second leading cause of cancer deaths.<sup>1</sup> Colorectal cancer screening was designated as one of the highest priority preventive services by the National Commission on Preventive Priorities after 2 years of deliberation and analysis; the commission's choice rested on 2 criteria, the burden of disease that could be prevented and the cost-effectiveness.<sup>2</sup>

Yet, the national screening rate of approximately 57% remains less than optimal.<sup>3</sup> A nationwide survey of health plans conducted in 1999-2000 showed deficiencies in insurance coverage for recommended CRC screening tests and in the organizational systems that encourage enrollees to make use of such coverage where it exists.<sup>4</sup> Only 57% offered coverage for colonoscopy, 41% had any system for monitoring delivery or outcome of screening, fewer than 25% had patient reminder systems, 16% had provider reminder systems, and 11% had tracking systems to determine whether invited enrollees completed screening. Only 5% tracked to determine whether individuals with positive screens received proper follow-up: 5% tracked the results of the follow-up tests, and 10% tracked adverse events related to the follow-up tests.

Evidence is strong that lack of insurance coverage is an impediment to the use of preventive services, including CRC screening tests.<sup>1,5</sup> There is also considerable evidence supporting the usefulness of patient reminder systems and of tracking and feedback as effective approaches to raising screening rates.<sup>6-10</sup>

In 2003, in an effort to improve the country's screening record, the National Committee for Quality Assurance<sup>11</sup> (NCQA) added the CRC screening rate to the measures it requests from its health maintenance organization (HMO) member plans and announced that it would begin reporting these rates to the public in 2006. Given the earlier national survey,<sup>4</sup> this initiative on the part of the NCQA created the basis for a natural experiment in which it became possible to document the changes associated with this new public policy.

The NCQA is a voluntary organization with the mission of improving the quality of healthcare by creating accountability through application of measurement tools and transparency.<sup>11</sup>

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**Objective:** To determine the effect of Healthcare Effectiveness Data and Information Set (HEDIS) measurement of colorectal cancer (CRC) screening on insurance plans in Pennsylvania.

**Study Design:** Natural experiment tracking changes in CRC screening policies.

**Methods:** Survey data were collected in 2006 on screening policies of 13 Pennsylvania commercial insurers offering 37 plans. All companies that met the inclusion criteria were surveyed. Medical directors answered questions about how HEDIS measures affected plan benefit designs. Responses were analyzed using descriptive statistics.

**Results:** All companies responded and focused their responses on a particular plan as requested, including 2 health maintenance organizations, 3 point-of-service plans, 2 fee-for-service plans, and 6 preferred provider organizations. The survey results indicated that 39% of plans revised their screening guidelines, 46% established new or updated reminder systems, and 46% established new systems for tracking screening rates. Although only the health maintenance organization plans were linked to HEDIS with formal reporting, all types of plans reported changes that they attributed to the HEDIS measure.

**Conclusion:** The establishment of the new HEDIS measure on screening for CRC has been associated with changes in health plan policies and practices in Pennsylvania.

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The organization publishes measures and report cards that reflect the quality of care offered by managed care plans.<sup>12-15</sup> Until recently, only HMOs were part of the NCQA reporting system. Preferred provider organizations (PPOs) subsequently became eligible in 2007. The Healthcare Effectiveness Data and Information Set (HEDIS) is a group of measures that has been published annually by the NCQA to provide information to employers and to other purchasers of health services about the performance of managed care (HMO) plans. The approach of the NCQA and other organizations that promote measurement, transparency, and accountability has been endorsed by the Institute of Medicine in its reports on quality and the healthcare system.<sup>16,17</sup> The transparency achieved through public reporting of CRC screening rates was predicted to stimulate accountability that would raise screening rates among NCQA members. Whether there would also be an effect on non-HMO health plans that do not participate in the NCQA reporting was another question.

Pennsylvania is the sixth largest state, with a population of 12.4 million people (or 4% of the US population according to US census data). In 2006, the Pennsylvania General Assembly sought to gather information that would inform policy making in the area of CRC screening. The assembly was considering the establishment of a state mandate on insurers for the provision of CRC screening coverage that included the full range of options recommended by national consensus panels. An earlier effort to pass such legislation in 2002 was opposed by the insurance industry based on the claim that such screening coverage was already universal and that a mandate was unnecessary. In 2006, an assembly standing committee funded a survey of health insurance companies to provide unbiased information regarding CRC screening coverage. The survey included questions on the effect of HEDIS measurement of screening rates on plan policies. The findings of the survey are reported herein.

## METHODS

### Study Design

Insurance companies that market health plans in Pennsylvania were identified from a listing in the *Directory of Health Plans* published by Atlantic Information Systems, Inc.<sup>18</sup> The listing included all health plans offered by each company with business in the state. There were 37 plans in all. The listing included the size of the enrollment in each plan type and the name of the medical director and his or her contact information.

The following 2 inclusion criteria applied to insurance companies: (1) the insurance company had to offer at least 1

commercial health plan in the state (non-Medicare and non-Medicaid) and (2) at least 1 of its plans had to have a significant enrollment in Pennsylvania, defined as more than 25,000 enrollees. A minimum of 25,000 enrollees was chosen because only 5 plans had fewer than 25,000 enrollees, which added together produced a combined enrollment of less than 1% of the total enrollment, and the next smallest enrollment was 4 times that large. Plans designated for Medicare or Medicaid enrollees were excluded because their policies are determined at the state or federal level and not by the insurance company and because they would not have been affected by a proposed state insurance mandate. The study was given an expedited review and was approved by the Thomas Jefferson University Institutional Review Board.

### Sample and Population

The medical directors were the principal recipients of the survey. They were asked to complete the survey based on the policies of a specific plan offered by their company. Their response about a single plan protected them from responding to more than 1 survey and assured that an assortment of plan types would be included in the survey. The plans included HMOs, PPOs, point-of-service (POS) plans, and fee-for-service (FFS) plans. To ensure adequate reporting about each type of plan, an effort was made to distribute plan types so that the sample would have the largest number of patients possible in each plan type. The company with the largest enrollment in a specific type of plan across all companies was asked to complete the survey about that plan. When a company had the largest plan in 2 classes of plans, the company was designated to represent the plan that was the largest product line for that company, and another company was selected to represent the next plan type.<sup>19</sup> Enrollment in the designated plans of each plan type accounted for more than 25% of the total enrollment in that plan type. Health maintenance organizations offered by several companies were excluded because they were designed for Medicare or Medicaid enrollment.

The survey questionnaire was adapted from one used by the National Cancer Institute<sup>20</sup> for an earlier national survey that the institute updated with questions pertaining to HEDIS and posted on its Web site. The survey may be found at the Web site. For the purpose of this research, the investigators created hard copy and Web-based surveys. The survey domains were the following: (1) plan characteristics and benefits, (2) guidelines and clinical policies, (3) systems for cancer screening such as patient recruitment and reporting of results, and (4) plan experience with screening. Every survey page had a unique identification number that corresponded to

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the specific respondent. The Web-based survey was posted on the Internet (<http://surveymonkey.com>).

An advance telephone call was made to identify the correct survey respondent, up-to-date contact information, and availability in the next 2 weeks. His or her availability in the next 2 weeks was documented. The surveys were mailed in the summer of 2006 with a stamped return envelope and a cover letter that explained the purpose of the survey and options for responding (hard copy vs Internet). Data from the responses to the hard copy were input into the Web-based survey during the next several months by research staff. The follow-up protocol involved reminder telephone calls, e-mails, and repeat mailings.

Descriptive statistics were used to report frequency and percentage of responses to each question. Commercially available statistical software was used in the data analysis (SAS version 9.1; SAS Institute, Cary, North Carolina). All percentages that describe the proportion of plans that responded are calculated based on the total number of 13 (the number of plans that received surveys). To maintain confidentiality, results were not analyzed by type of plan.

## RESULTS

Thirteen companies met the inclusion criteria. The companies insured 8.3 million people. Eleven of 13 companies offered several types of plans, for a total of 37 plans. Two companies offered only HMOs; the rest offered several types of plans. Every company offered at least 1 HMO, 11 companies offered PPOs, 9 companies offered POS plans (an HMO or a PPO plus an indemnity plan), and 8 companies offered FFS plans. Although HMO was the most common plan type in the state, the enrollment in PPOs exceeded that of HMOs.

### Survey Response

All 13 companies responded to the survey with answers based on the policies for the plan type that was identified by the research team, including 2 HMOs, 3 POS plans, 2 FFS plans, and 6 PPOs. The responses about a particular plan type offered by a particular company did not mean that all policies of that plan type (ie, all PPO plans sold by a single company) were uniform. A company could have a plan type (PPO, POS, or FFS) with different features depending on the purchaser of the plan.

Across all insurance companies that participated in our survey,

enrollment in PPOs was the largest, accounting for 71% of the enrollees. Health maintenance organizations and POS plans had the next highest enrollment with 16% and 12% of the enrolled population, respectively, followed by FFS plans with 11% of the enrolled population. Compared with statewide distribution across plan types (61% PPO, 35% HMO, and 4% FFS and POS), this sample overselected for PPO, FFS, and POS plans, none of which had a formal reporting relationship with the NCQA. The median enrollment was 350,000.

### Screening Guidelines

Ten of 13 respondents (77%) had guidelines or protocols regarding CRC screening for individuals at average risk. Seven plans (54%) also had guidelines or protocols for individuals at increased risk or high risk. Only 3 medical directors (23%) reported having no guidelines or protocols regarding CRC screening (Table 1).

Five respondents (39%) reported that they revised their guidelines specifically as a result of the new HEDIS CRC measure; although 7 (54%) revised their guidelines after 2003. The question read, "Has your plan implemented any of the following in response to the HEDIS CRC screening measure" and then listed choices, including revised guidelines.

In response to a question about which practice guidelines influenced the plan screening policies, the US Preventive Services Task Force guidelines were the most influential (very) with 92% of plans. Other guidelines and sources were very or somewhat influential, including guidelines of the American Cancer Society, clinical evidence published in the literature, Medicare policy, and technology assessment reports.

### Measurement

Respondents were asked whether the plan measured the CRC screening rate and whether they measured the HEDIS rate specifically. The first question read, "Does your plan measure colorectal cancer screening tests?" A subsequent question asked, "Has your plan implemented the HEDIS measure on colorectal cancer screening?" (the measure is a rate based on enrollees aged  $\geq 50$  years).

■ **Table 1.** Plans With Screening Guidelines or Protocols

Activity	No. (%)	
	Yes	No
For individuals at average risk	10 (77)	3 (23)
For individuals at increased risk or high risk	7 (54)	6 (46)

■ **Table 2.** Screening Policies Before and After the 2003 NCQA Announcement of the New Healthcare Effectiveness Data and Information Set (HEDIS) Colorectal Cancer (CRC) Screening Measure

Activity	No. (%)			
	Before 2003	2003 or After	Unknown	No Response
Adopted practice guidelines	6 (46)	2 (15)	2 (15)	3 (23)
Revised guidelines	2 (15)	7 (54)	0	4 (31)
Measured CRC screening rate	1 (8)	8 (62)	1 (8)	3 (23)
Implemented the HEDIS measure	—	9 (69)	0	5 (39)

Nine respondents (69%) measured CRC screening tests, although only 8 gave a specific starting date for doing so. Nine respondents (69%) implemented the HEDIS measure, although only 8 attested in response to another question that they measured the HEDIS rate (Table 2). Three more respondents anticipated that they would implement the HEDIS measure in the next 12 months. The 9 plans included every type of plan (HMO, PPO, POS, and FFS). One plan began measuring CRC screening before 2003, and 7 plans began during or after 2003. All but 1 plan (which started later) began measuring the HEDIS rate in 2004, the first year the measure was reported.

### Screening Recruitment, Reminders, and Tracking

Most plans reported recruitment and reminder activities. For recruitment, 9 plans (69%) distributed printed information about screening directly to enrollees; 8 plans (62%) provided information over the Internet on Web sites.

Nine plans (69%) reminded individual enrollees that they were due for screening. Six plans (46%) implemented new or updated reminder systems in response to the HEDIS measure (Table 3). The most common form of reminder was regular mail, used by all 9 plans. Two plans used other approaches as well, including verbal prompts, e-mails, telephone calls, and personalized Web pages.

Six plans (46%) implemented new or updated data systems to track CRC screening in response to the HEDIS measure. Seven plans (54%) counted the number of eligible enrollees who received reminders, 4 plans (31%) routinely gave lists of enrollees who were not up-to-date to their primary care providers, 5 plans (39%) tracked the number of reminded enrollees to see who completed the tests, and 2 plans (15%) recontacted enrollees directly if they were not screened after the initial contact.

Of 12 respondents to a question about the level of implementation of recruitment and tracking activities (plan or provider level), 5 (39%) engaged in these activities at the

plan level only, 5 (39%) at provider and plan levels, and 2 (15%) at the provider level only.

### Other Quality Measures

Health plans initiated other steps as a part of their response to the HEDIS measure. Three plans (23%) covered more types of CRC screening tests, and 1 plan (8%) lowered out-of-pocket charges for CRC screening (Table 3). One plan (8%) provided financial incentives to physicians for achieving performance measures on CRC screening (pay for performance).

Three plans (23%) conducted quality improvement studies (“Has your plan conducted any quality improvement studies of colorectal cancer screening?”). The activities included studies of mailed reminders, interactive voice recognition calls, barrier analyses regarding obstacles to screening, and quality assessment for plan members older than 65 years. One plan had implemented these activities in 2004 and 2 plans in 2005 or later.

### Follow-up

Respondents were asked if the plan ascertained whether follow-up procedures were obtained. None of 10 plans that answered this question performed this assessment. Only 1 plan tracked the results of the follow-up procedures. One plan also tracked adverse events associated with the follow-up procedures.

### Summary

Our findings indicate that Pennsylvania insurers and health plans took specific actions in response to the new HEDIS measure on CRC screening. Nine plans (69%) implemented the HEDIS measure, 5 plans (39%) revised their screening guidelines, 6 plans (46%) established new or updated enrollee or provider reminder systems, 6 plans (46%) established new or updated data systems to track CRC screening, 1 plan (8%) provided new financial incentives to physicians, and 1 plan (8%)

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lowered out-of-pocket payments. No plans tracked whether follow-up procedures were obtained after screening; however, 1 plan tracked the results of the follow-up procedure, and 1 plan tracked adverse events associated with the follow-up procedure.

### DISCUSSION

Findings from the 2006 Pennsylvania survey represent changes in several areas over those reported in the national survey of health plans conducted in 1999-2000.<sup>4</sup> In the earlier nationwide survey, 65% of plans provided screening guidelines to their physicians compared with 77% of insurers in Pennsylvania 6 years later, and only 41% on the earlier survey had any system for monitoring CRC screening compared with 69% that implemented the HEDIS CRC screening rate according to the latter survey. In 1999-2000, only 13.6% tracked enrollees to identify the screening rate compared with at least twice that many in Pennsylvania at this time.<sup>4</sup> Finally, in the earlier survey, 25% of plans nationwide provided reminders to patients or providers that they were due for CRC screening compared with 69% of Pennsylvania plans in 2006. Few plans had systems for following up on abnormal screen results. No plans had such a system in our survey.

If implementation of guidelines and measurement are the foundation for quality improvement, then many health plans in Pennsylvania have taken these basic steps. Some other steps that are documented to increase screening rates such as reminder systems have been implemented, while others such as feedback and tracking have been implemented by fewer than half of plans.

A limitation of this study is that it is based on the report of the medical directors about health plan policy and is only as accurate as their report. Another limitation is that the survey was performed in a single state and may have limited generalizability. Other developments during the same period may have influenced health plans to adopt new policies and strategies. These include Medicare coverage for CRC screening (starting in 2001), changes in the national consensus guidelines, efforts by nonprofits and the media to promote screening, and development of state comprehensive cancer control plans, including a plan in Pennsylvania under the guidance of the Centers for Disease Control and Prevention (<http://www.pac3.org><sup>12</sup>). While these developments most likely influenced

■ **Table 3.** Has Your Plan Implemented Any of the Following in Response to the Healthcare Effectiveness Data and Information Set (HEDIS) Colorectal Cancer (CRC) Screening Measure?

Activity	No. (%)	
	Yes	No
Coverage of more types of CRC screening tests <sup>a</sup>	3 (23)	9 (69)
Lowered out-of-pocket charges for CRC screening <sup>b</sup>	1 (8)	10 (77)
New or updated enrollee or provider reminder systems <sup>a</sup>	6 (46)	6 (46)
New or updated data systems to track CRC screening <sup>a</sup>	6 (46)	6 (46)

<sup>a</sup>There were 12 respondents to this question.

<sup>b</sup>There were only 11 respondents to this question.

medical practice, it would be difficult to argue that the changes in NCQA policy documented by this survey had no effect, especially when survey questions asked about actions taken in response to publication of the HEDIS measurement.

Although only 2 of the plans in this sample were bound to report HEDIS measures to NCQA because they were accredited HMOs, all of the companies marketed at least 1 HMO product line. This may help explain the decision by non-HMO plans to perform HEDIS measurement. Other influential factors are that any measure included in the HEDIS set of measures for public reporting has been professionally developed and well documented and is available for plans to use for their own purposes, including comparing their performance with that of other plans.

It is unclear what bearing these findings will have on the state decision to adopt a screening mandate. Currently, 48 states mandate coverage for breast cancer screening, while only 20 states do so for CRC screening.<sup>21</sup> Findings from this study suggest that insurer adoption of methods aimed at increasing CRC screening may be facilitated by the transparency occasioned by acceptance of the measurement and publication of screening rates as standard practice. Mandated coverage may more directly serve to support subscriber use of screening.

Transparency and accountability to improve performance of health plans (including preventive services) have been promoted by the NCQA, the Institute of Medicine, and government agencies, including the Agency for Health Care Research and Quality and the Center for Medicare and Medicaid Services. Accreditation by the NCQA is used by the nation's *Fortune 500* employers, federal and state governments, and many consumers to help select among competing health plans. The case of CRC screening in Pennsylvania with the establishment of a new HEDIS measure in 2003 and subsequent changes in practice documented through this 2006

### Take-away Points

The addition of screening for colorectal cancer to the publicly reported Healthcare Effectiveness Data and Information Set (HEDIS) measures in 2006 is associated with changes implemented by Pennsylvania health plans that have been shown to increase screening rates, such as the following:

- Revised screening guidelines that shape physician recommendations for screening
- Implementation of guidelines for those plans that did not previously have them
- Measurement of screening rates
- New reminder systems for patients
- New tracking systems

These changes were implemented even by plans that did not have a formal reporting relationship with the National Committee for Quality Assurance, which collects and reports the HEDIS data.

survey of insurance companies provides evidence of positive effects that stem from this approach.

### CONCLUSIONS

Colorectal cancer is the second leading cause of cancer mortality nationwide. It is largely preventable through regular screening and polyp removal, and morbidity and mortality could be reduced through early detection. It is clear that a rise in screening rates associated with efforts to improve awareness of and access to preventive services will reduce the clinical burden of CRC.<sup>22</sup> The addition of a measure on CRC screening to the HEDIS reporting system of the NCQA was intended to improve accountability in the delivery of preventive services through reporting and transparency within those plans for which HEDIS reporting is required. This study provides preliminary evidence that the presence of the measure has contributed to insurer policy changes in the state of Pennsylvania. Assessment of the developments associated with the new HEDIS measure on a nationwide basis will provide a fuller picture.

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### REFERENCES

1. Levin B, Smith RA, Feldman GE, et al; **National Colorectal Cancer Roundtable.** Promoting early detection tests for colorectal carcinoma and adenomatous polyps: a framework for action: the strategic plan of the National Colorectal Cancer Roundtable [published correction appears in *Cancer*. 2002;95(12):2580]. *Cancer*. 2002;95(8):1618-1628.
2. Maciosek MV, Coffield AB, Edwards NM, Flottesmesch TJ, Goodman MJ, Solberg LI. Priorities among effective clinical preventive services: results of a systematic review and analysis. *Am J Prev Med*. 2006;31(1):52-61.
3. **Behavioral Risk Factor Surveillance System Web site.** State prevalence data 2006. <http://www.cdc.gov/BRFSS>. Accessed September 23, 2007.
4. Klabunde CN, Riley GF, Mandelson MT, Frame PS, Brown ML. Health plan policies and programs for colorectal cancer screening: a national profile. *Am J Manag Care*. 2004;10(4):273-279.
5. Cairns CP, Viswanath K. Communication and colorectal cancer screening among the uninsured: data from the Health Information National Trends Survey (United States). *Cancer Causes Control*. 2006;17(9):1115-1125.
6. Yabroff KR, Mandelblatt JS. Interventions targeted toward patients to increase mammography use. *Cancer Epidemiol Biomarkers Prev*. 1999;8(9):749-757.
7. Sarfaty M, Wender R. How to increase colorectal cancer screening rates in practice. *CA Cancer J Clin*. 2007;57(6):354-366.
8. Myers RE, Ross EA, Wolf TA, Balshem A, Jepson C, Millner L. Behavioral interventions to increase adherence in colorectal cancer screening. *Med Care*. 1991;29(10):1039-1050.
9. Myers RE, Turner B, Weinberg D, et al. Impact of a physician-oriented intervention on follow-up in colorectal cancer screening. *Prev Med*. 2004;38(4):375-381.
10. Balas EA, Weingarten S, Garb CT, Blumenthal D, Boren SA, Brown GD. Improving preventive care by prompting physicians. *Arch Intern Med*. 2000;160(3):301-308.
11. **National Committee for Quality Assurance Web site.** About NCQA's new look. 2007. <http://www.ncqa.org/tabid/65/Default.aspx>. Accessed April 25, 2007.
12. Sarfaty M. Quality in the delivery of preventive services: the National Colorectal Cancer Roundtable. *Am J Med Qual*. 2007;22(2):127-132.
13. Marwick C. NCQA: quality through evaluation: National Committee for Quality Assurance. *JAMA*. 1997;278(19):1555-1556.
14. Schneider EC, Riehl V, Courte-Wienecke S, Eddy DM, Sennett C. Enhancing performance measurement: NCQA's road map for a health information framework: National Committee for Quality Assurance. *JAMA*. 1999;282(12):1184-1190.
15. Skolnick AA. JCAHO, NCQA, and AMAP establish council to coordinate health care performance measurement: Joint Commission on Accreditation of Healthcare Organizations, National Committee for Quality Assurance, American Medical Accreditation Program. *JAMA*. 1998;279(22):1769-1770.
16. **Committee on Quality of Health Care in America, Institute of Medicine.** *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; June 2004.
17. Kohn LT, Corrigan JM, Donaldson MS. *To Err Is Human: Building a Safer Health System*. Washington, DC: Institute of Medicine, National Academy Press; 2000.
18. Namovicz-Peat S. *AIS's Directory of Health Plans: 2006*. Washington, DC: Atlantic Information Services Inc; 2006.
19. P.A. **Department of Health Web site.** [http://www.dsf.health.state.pa.us/health/lib/health/managedcare/2006\\_enrollment\\_by\\_county.xls](http://www.dsf.health.state.pa.us/health/lib/health/managedcare/2006_enrollment_by_county.xls). Accessed September 23, 2007.
20. **National Cancer Institute Web site.** National surveys of colorectal cancer screening policies and practices. <http://healthservices.cancer.gov/surveys/colorectal/>. Accessed June 27, 2006.
21. **Entertainment Industry Foundation Web site.** Colon cancer screening laws now cover half of U.S. population. <http://www.eifoundation.org>. Accessed March 19, 2008.
22. Vogelaar I, van Ballegoijen M, Schrag D, et al. How much can current interventions reduce colorectal cancer mortality in the U.S.? Mortality projections for scenarios of risk-factor modification, screening, and treatment. *Cancer*. 2006;107(7):1624-1633. ■