United States General Accounting Office

GAO

Fact Sheet for the Chairman, Subcommittee on Health, Committee on Ways and Means, House of Representatives

November 1988

MEDICARE PROs

Extreme Variation in Organizational Structure and Activities

GAO/PEMD-89-7FS

GAO

United States
General Accounting Office
Washington, D.C. 20548

Program Evaluation and
Methodology Division

B-232368

November 8, 1988

The Honorable Pete Stark
Chairman, Subcommittee on Health
Committee on Ways and Means
House of Representatives

Dear Mr. Chairman:

To help ensure that Medicare beneficiaries receive appropriate, quality health care, Congress has established Utilization and Quality Control Peer Review Organizations (PROs). These 54 organizations, which operate under contract with the Health Care Financing Administration (HCFA), provide nurse and physician review of hospital medical records for discharged Medicare patients. In fiscal year 1987, these contracts totaled $155 million.

This fact sheet constitutes the first report from our ongoing study of the effectiveness of the PRO program, which you requested. Our final report will examine some of the causes and consequences of the trends that are documented in this fact sheet, and it will identify those aspects of the PRO program that can most positively influence the quality of care provided to Medicare beneficiaries.

In the present report, we describe four aspects of PRO operations: (1) organizational characteristics, (2) review activities, (3) PRO objectives and interventions, and (4) relationships with other health and consumer groups in the state in which the PRO is located.

We obtained the data for this fact sheet from two sources. The first source was PRO reports that are compiled by the HCFA Health Standards and Quality Bureau. The second source was completed GAO questionnaires received from 53 of the 54 PROs, reflecting the opinions and estimates of PRO representatives. Our analyses cover the period from the inception of the PRO program in 1984 to the first quarter of 1988.

As you requested, we obtained informal, oral agency comments from HCFA officials. Most of their comments were technical and pertained to the nature of the data base, the definition of certain data elements, and potentially atypical responses. The draft was revised accordingly, where appropriate.

As agreed with your office, copies of the report will be made available to the Secretary of Health and Human Services, the Administrator of the Health Care Financing Administration, and any others who request them. If you have any questions or would like additional information, please call me at (202) 275-1854.

This report was prepared under the direction of Lois-ellin Datta, Associate Director. Other major contributors are listed in the appendix.

Sincerely yours,

Eleanor Chelimsky
Director

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Abbreviations

GAO	General Accounting Office
HCFA	Health Care Financing Administration
HHS	Department of Health and Human Services
OBRA	Omnibus Budget Reconciliation Act
PRO	Utilization and Quality Control Peer Review Organization
TEFRA	Tax Equity and Fiscal Responsibility Act

Introduction

The Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248, commonly referred to as TEFRA) required that the Secretary of Health and Human Services enter into contracts with Utilization and Quality Control Peer Review Organizations (PROs) to review the appropriateness and quality of health care provided to Medicare beneficiaries. Since the first contracts were signed in 1984, the Medicare program has relied on the PROs to be the main safeguard against inadequate medical treatment for individual patients. All hospitals, as a condition of payment by the Medicare program, are required to supply medical records for cases that the PROs have selected for review. In fiscal year 1987, the Health Care Financing Administration (HCFA) distributed a total of $155 million to PROs in amounts ranging from $125,000 to $13,692,000.[1]

An initial step in the PRO case assessment process is the review of a sample of hospital medical records by review coordinators (usually registered nurses). Review coordinators use criteria sets developed or acquired by the PRO, HCFA "generic quality screens," and their own professional judgment to determine the appropriateness of utilization and quality of care represented in each case. When the review coordinator believes that cases present evidence of potential inappropriate or poor quality care, these are forwarded to a PRO physician advisor for a second level of review. Cases that are deemed acceptable by the review coordinators are generally not reexamined by other PRO personnel. Thus, there is no systematic way to know whether a case should have been referred by the review coordinator for in-depth physician review, but was not.

The physician advisor either confirms the existence of a quality or utilization problem, or overturns the judgment of the review coordinator. In addition, most PROs periodically assign a second physician to reexamine a sample of each physician advisor's reviews. There is a good deal of variety in the internal processes and interventions used by the PROs to resolve cases that a physician advisor identifies as having a quality or utilization problem.

Considering the importance of the role PROs are intended to play in controlling costs and assessing quality, surprisingly little is known about their operations or effectiveness. PRO contracts are renewed or not renewed every 2 years on the basis of their compliance with contractual obligations and judgments of performance, and these decisions provide a

[1]For more detail, see our report on strategies for assessing quality of care in Medicare: Improving Quality of Care Assessment and Assurance (GAO/PEMD-88-10, May 2, 1988).

"go/no go" assessment of individual PRO effectiveness.[2] There has been, however, no more systematic analysis above the cut point of contract award of how wide the spread is between the most and least active or aggressive PROs, how PROs vary on factors likely to make a difference in performance, and whether this variation in PRO characteristics is related to variations in their effectiveness that can provide useful guides for upgrading the system as a whole.[3]

In this fact sheet, we discuss that part of the equation that addresses variations in PRO characteristics. In our final report, we will discuss differences in effectiveness, as measured by several outcome variables, including changes in the frequency of adverse patient outcomes resulting from hospital care and comparisons of utilization rates for medical procedures in different states. We plan to assess whether differences in PRO characteristics are associated with differences in these and other outcomes.

We begin the fact sheet with a section on organizational characteristics, followed by PRO review procedures, the attainment of specific PRO review objectives and the intervention techniques they employ in an effort to improve provider performance, PRO relations with other health and consumer groups in the state where it is located, and a final section looking at the possible interrelationships among these variables. These data are presented in the tables that follow according to PRO contract year (years 1-4), in order to display trends over time beginning with the first contract cycle in 1984-1986 and concluding with the most recent round of contracts covering 1986-1988.[4]

The data included in this fact sheet come from two sources: PRO reports compiled by the HCFA Health Quality and Standards Bureau and responses to GAO questionnaires received from 53 of the 54 PROs. The HCFA data are used for internal management purposes, rather than for research or evaluation. They are known to contain some error, which

[2]Third-round PRO contracts have been extended to 3 years.

[3]Officials of HCFA's Health Standards and Quality Bureau told us that they had done some in-house analyses of the effectiveness of certain PRO program features, as part of the process of drafting the request for proposal for the third round of PRO contracts. However, there is no written documentation of the analyses, and we were not able to review their findings.

[4]The number of PROs responding to each question varies. The questionnaires were sent to 53 of the 54 current PRO contract holders (American Samoa was excluded). Nine organizations did not hold first-round PRO contracts and could not provide corresponding information for the first 2 years. The current Pennsylvania PRO began operations in 1985. Thus, the number of respondents for contract years 1 and 2 are 43 and 44, respectively.

may or may not be corrected. HCFA is attempting to improve the quality of data in the third-round contracts. Meanwhile, it deals with invalid data elements by excluding known or suspected problems from its analyses.

Many of the GAO questionnaire items asked about PRO operations that are voluntary or supplement contractual obligations. For this reason, they are often not recorded or counted consistently since they need not be reported to HCFA. Because of this, questionnaire responses often reflect estimates, rather than precise statistics, and opinions about organizational operations, based on the PROs' experiences. We have not independently verified the validity of information from either data set. However, we did reexamine all extreme responses and removed several that seemed logically impossible. We are confident that PRO misinterpretation of the questions is not a cause of seemingly unusual responses. Our work was performed in accordance with generally accepted government auditing standards.

Organizational Characteristics of PROs

Composition of PRO Boards of Directors

PRO boards are influential in determining the overall style and direction that the organization takes. In part, this is because PRO boards usually vote before forwarding a case for sanctioning to the HHS Inspector General's office. Therefore, the composition of PRO boards is a matter of interest. As shown in table 2.1, consumer groups and state medical societies currently are represented on most PRO boards; hospital associations are represented on about half the boards. The significant change over 4 years is in consumer representation, which has grown dramatically from inclusion on about one board in four, to inclusion on almost every board.[1]

Table 2.1: Percent of PROs Having Cited Organizations Represented on Their Boards

	Contract			
Organization	**Year 1**	**Year 2**	**Year 3**	**Year 4**
State medical societies	86%	86%	81%	77%
Hospital associations	44	50	48	52
State medical specialty societies	37	41	38	42
Consumer groups	26	32	64	89

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

Non-Medicare Revenue Sources

The legislation governing PROs encourages them to perform medical review for non-Medicare clients for several reasons. PROs may achieve a greater economy of scale, and lower the overhead attributable to Medicare case review. They may gain greater financial stability and flexibility from the added revenue. And they may receive pertinent experience and expertise from their other lines of work that can improve their Medicare review activities. Thirty-five PROs report that they review care provided to Medicaid recipients. The median PRO receives about 20 percent of its revenue from Medicaid review. Forty-one PROs report doing review for nongovernmental sources (e.g., insurance companies, self-insurors). The median PRO receives about 3 percent of its total revenue from this second type of outside review. (See table 2.2.) The variability among the PROs in the amount of revenue they derive from these other sources has remained fairly wide during the 4 years. Some PROs reported receiving more than half of all their revenue from Medicaid, and as

[1] There are several causes for this increase. The Omnibus Budget Reconciliation Act of 1986 (OBRA '86) mandated consumer representation on PRO boards. Several PROs added the representation earlier, either in anticipation of the bill's passage or because it was a condition of HCFA contracts to review care delivered in health maintenance organizations.

much as 30 percent from other private review. Though the number of PROs with non-Medicare review contracts has increased slightly over time, a sizable minority of PROs still rely exclusively on their Medicare contract for their operating revenue.

Table 2.2: Estimated Percent of PRO Revenue Provided by Non-Medicare Sources

Revenue source	Contract Year 1	Year 2	Year 3	Year 4
State Medicaid Review				
Median	25%	20%	19%	20%
Range	1–66	1–66	4–52	5–52
Percent of PROs reporting Medicaid revenue	58	64	62	66
Number of PROs	25	28	33	35
Private peer review				
Median	5	5	5	3
Range	0.4–25	0.1–90	0.01–25	0.01–30
Percent of PROs reporting revenue from private peer review	72	80	77	77
Number of PROs	31	35	41	41

Note: Median represents the midpoint for PROs receiving revenue from the specified source. PROs who received no revenue from the specified source have been excluded from this table.

Source: GAO survey.

Staffing and Turnover

Hiring, training, and retaining competent staff is an important requirement for organizational effectiveness, so we asked the PROs about staffing trends in their organizations. Most PROs estimated that their review coordinators (usually registered nurses) are working close to full-time schedules, but this varies from PROs that use one-day-a-week part-timers to others whose review coordinators work 50-hour weeks. The amount of overtime seems to have decreased over the 4-year period. Physician advisors have typically been part-time, though here again PRO estimates varied widely, with one PRO reporting it uses physician advisors an average of 60 hours a week. Physicians have worked slightly more hours as the 4 years have progressed. (See table 2.3.)

Turnover among review coordinators has become a major problem. Turnover among physician advisors has also increased in the last 2 years, but to a lesser degree than among nurse reviewers. (See figure 2.1.)

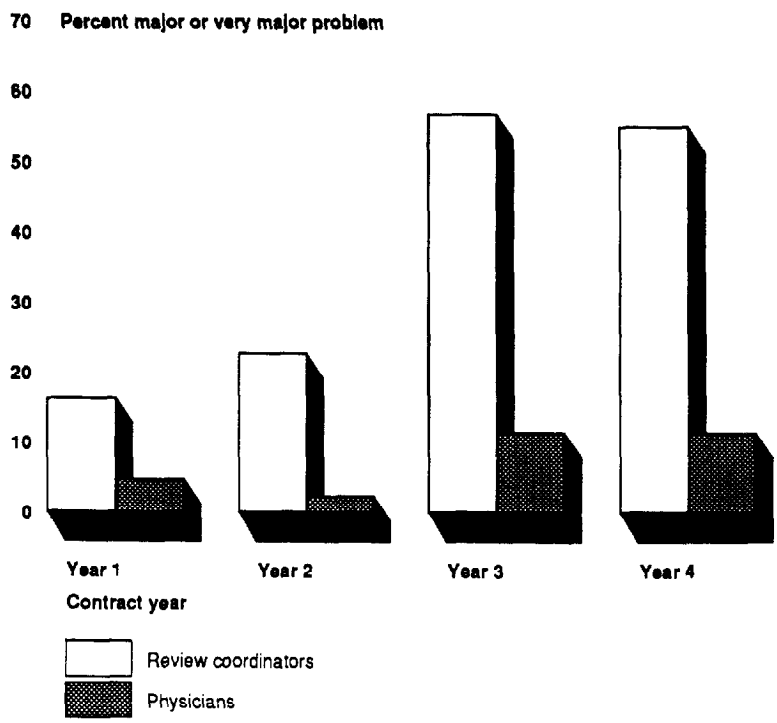
Table 2.3: Estimated Hours Worked by Review Coordinators and Physician Advisors

Staff	Contract Year 1	Year 2	Year 3	Year 4
Review coordinators				
Median weekly hours	40	40	40	40
Range of weekly hours	8–65	8–60	8–50	8–50
Physician advisors				
Median weekly hours	4	4	5	5
Range of weekly hours	1–38	1–51	1–46	1–60

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

Figure 2.1: Severity of Turnover for Review Coordinators and Physician Advisors



Note: Reflects collapsing of PRO responses to the following 5-point "problem" scale: "little or no problem," "a minor problem," "a moderate problem," "a major problem," or "a very major problem." The collapsed percent figures above reflect the percent of PROs that reported either "a major problem" or "a very major problem."

Source: GAO survey.

Table 2.4: PROs' Estimates of Staff Time Devoted to Recruiting and Training

	Contract			
Percent of time	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Recruiting and hiring				
0-3	37%	44%	42%	46%
4-15	37	44	35	31
More than 15	26	12	23	23
Median	8	5	6	4
Range	0–50	0–25	0–35	0–25
Training				
0-5	26	36	22	37
6-14	24	29	35	22
15-20	21	19	16	20
More than 20	29	17	28	22
Median	15	10	11	10
Range	1–45	1–50	1–50	0–45

Note: Number of responding PROs varies because some did not hold first-round contracts, or did not submit usable data.

Source: GAO survey.

Currently, PROs typically invest an estimated 4 percent of their staff time in recruiting, and about 10 percent in training, although the variation is considerable. After the initial effort to recruit and train staff for the first contract cycle, the amount of staff time and effort devoted to recruiting and training has remained fairly stable during the second, third, and fourth years. (See table 2.4.) There is some indication that a subset of PROs have devoted relatively greater efforts to these functions in recent years.

PRO Review Activities

At the core of PRO responsibilities is the review of medical records for selected Medicare patients discharged from hospitals in the state or area over which the PRO has jurisdiction. In 1987, the number of cases reviewed by the PROs ranged from 672 to 184,146.[1]

To examine PRO review activities, we focused on case-finding methods, the results of the reviews, and the added input of the attending physicians. Overall, we found that about 23 cases per 100 reviewed were identified as having potential quality problems, that about 39 percent of these were confirmed by PRO physician advisors, and that additional information from attending physicians supplementing the medical record affected PRO physician advisor judgments in about 68 percent of the cases. We found, however, that the variability among PROs is extreme; that is, the range on many of our indicators is about as high—or low—as our reporting scales permit.

Perceived Relative Effectiveness of Case-Finding Methods

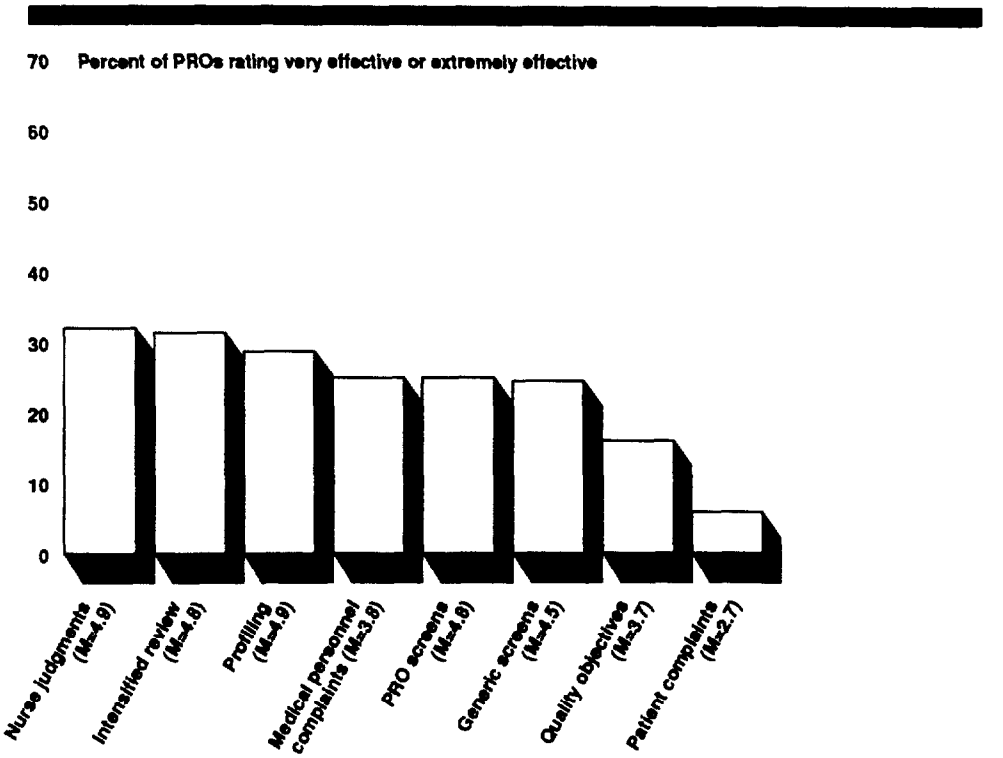
How do PROs detect problem cases? They can, within the terms of their contracts, use a wide variety of methods for identifying quality of care or inappropriate utilization problems. We asked the PROs to give us their subjective ratings of the effectiveness of these various methods for spotting cases of potentially poor quality care or inappropriate utilization. Nurses' judgments, intensified review, and profiling were seen as most effective for finding both quality and utilization problems.[2] However, these rankings did not always correspond to actual review results. Patient complaints were seen as least effective for both types of problems. Mandated quality objectives negotiated with HCFA were seen as relatively less effective for finding quality problems, and mandated preadmission and pre-procedure reviews were seen as relatively less effective for finding cases of inappropriate utilization. (See figures 3.1 and 3.2.)[3]

[1] The lowest volume PRO was located in American Samoa and Guam. The lowest volume among the 50 states was Alaska, with 2,208. The California PRO had the highest volume of case reviews.

[2] We focus on the percent of PROs selecting the upper two points of our effectiveness scale to highlight those techniques that individual PROs found relatively most effective. However, the somewhat different pattern shown by the mean scores (reported in figures 3.1 and 3.2) reflects the fact that other PROs sometimes found the same techniques to be relatively less effective for them.

[3] PROs were asked for their summary opinions of these case-finding methods at only one point in time, so there are no trend data to report on this measure.

Figure 3.1: PROs' Opinions About the Relative Effectiveness of Case-Finding Techniques for Identifying Quality Problems



Notes: Number of responding PROs varies because the requested information was not always pertinent. For example, not all PROs have independently developed their own screens.

PROs were asked to rate the relative effectiveness of the case-finding methodologies "for identifying (or directing you to) cases with potential quality of care problems." Effectiveness was measured on the following 7-point scale: extremely effective (7), very effective (6), effective (5), moderately effective (4), somewhat effective (3), minimally effective (2), and not at all effective (1).

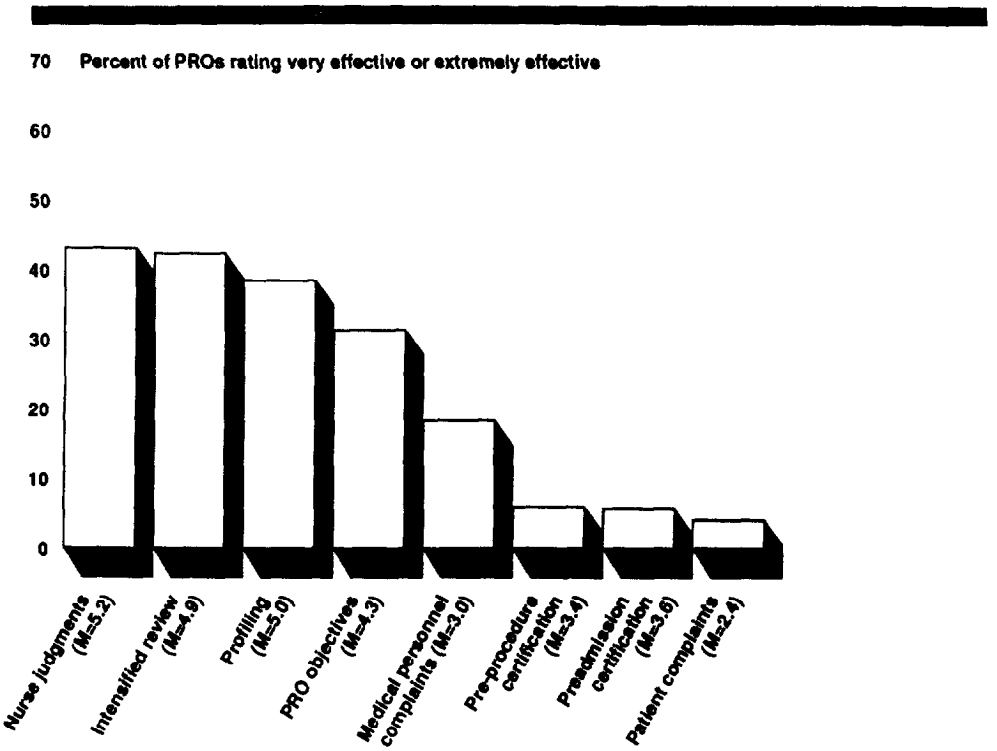
M = mean.

Source: GAO survey.

Results of Review

Detection of cases with quality problems is a two-stage process. Review coordinators (usually registered nurses) initially flag suspected cases for further review. PRO physician advisors examine these cases to confirm that quality problems exist. We used data reported monthly or quarterly to HCFA by the PROs to describe how many quality problem cases they detected using the six HCFA-required generic screens. In addition, our survey asked the PROs to estimate how many other cases they detected using other review techniques.

Figure 3.2: PROs' Opinions About the Relative Effectiveness of Case-Finding Techniques for Identifying Utilization Problems



Notes: Number of responding PROs varies because the requested information was not always pertinent.

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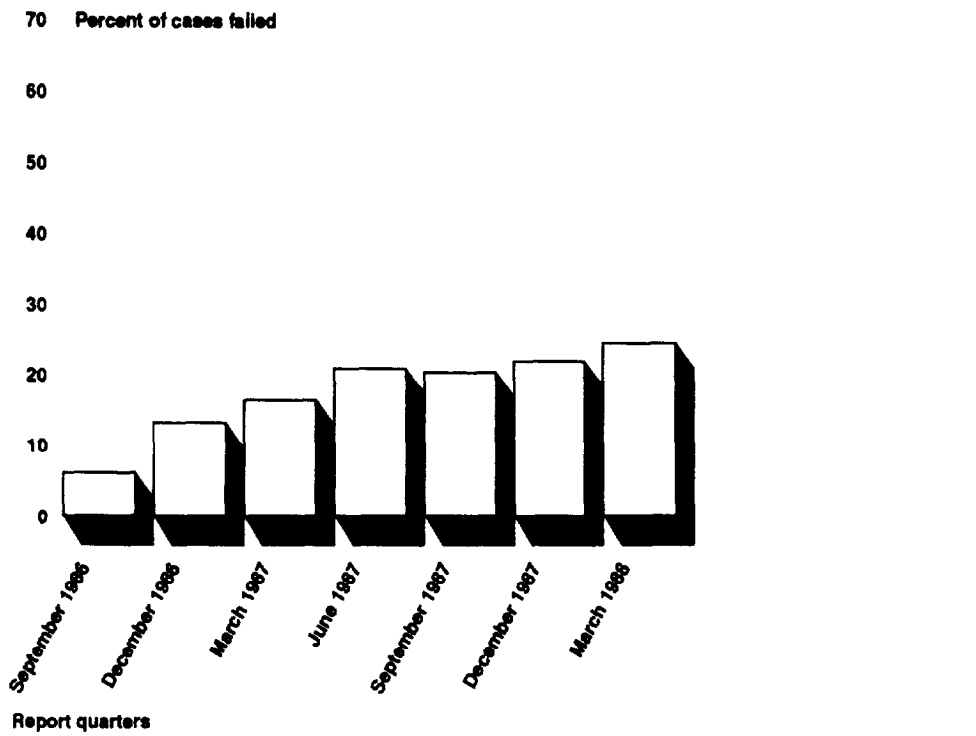
M = mean.

Source: GAO survey.

During the most recent months for which we have data, review coordinators flagged for further review about 22 percent of all cases subjected to the generic screens. (See figure 3.3.) For those cases, PRO physician advisors confirmed the existence of quality problems about 38 percent of the time. (See figure 3.4.) There was, however, considerable variation across the PROs in the rates at which review coordinators failed cases based on the generic screens and even more in the rates at which physician advisors confirmed the existence of quality problems.

Figure 3.3: Median Percent of Cases With One or More Generic Screen Failures



Source: HCFA PRO reports.

Review coordinators also fail cases for quality of care on the basis of PRO-developed screens, professional judgment, and other review systems selected by the local PRO—even when the case technically passes the generic screens. The estimated median rate at which nurses failed cases in the last contract year for any of these reasons was 0.4 cases per 100 discharges. (See table 3.1.)

Table 3.1: PRO Estimates of Cases With Quality Problems Identified by Nurses Using Techniques Other Than the Generic Screens

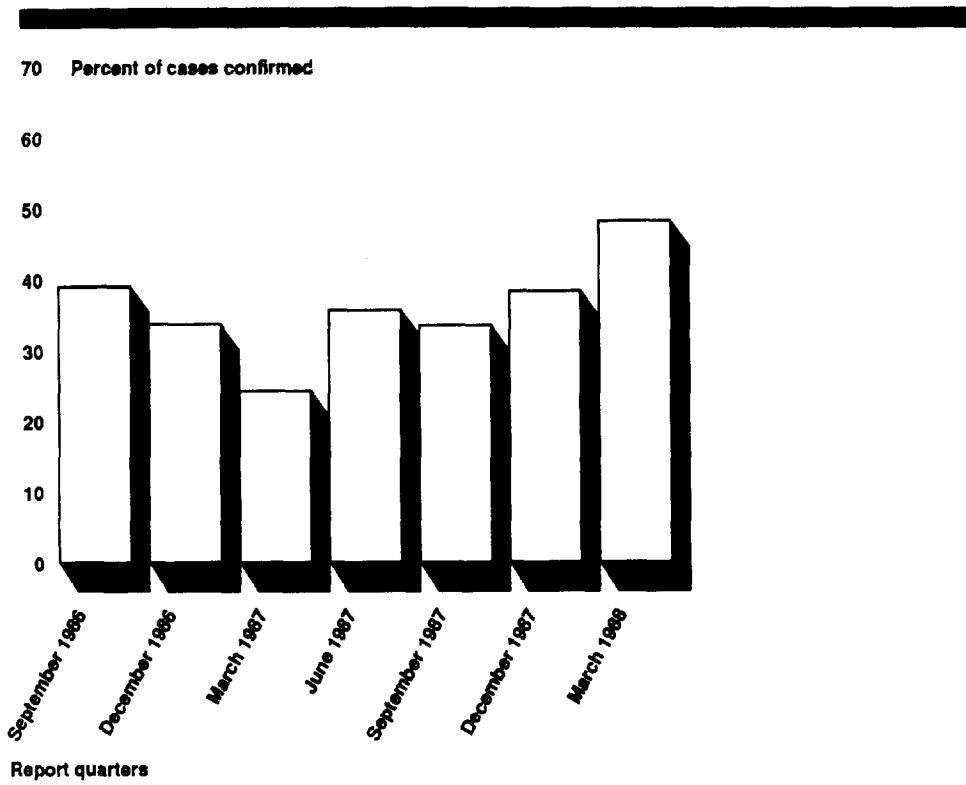
(Per 100 discharges)

	Contract			
Number of cases	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Median	0.2	0.2	0.3	0.4
Range	0–15.1	0–22.7	0–30.3	0–35.8
Number of PROs	40	41	50	50

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was not always pertinent.

Source: GAO survey.

Figure 3.4: Median Percent of Cases With Generic Screen Failures That Physician Advisors Confirmed Had a Quality of Care Problem



Source: HCFA PRO reports.

The rate at which physician advisors confirmed quality problems in these cases was 0.1 per 100 discharges. (See table 3.2.)[4] For both indicators there was, again, extreme variability among the PROs, with the potential problem identification rates ranging from 0 to over 30 per 100 discharges for review coordinators and confirmation rates ranging from 0 to over 3 per 100 discharges for physician advisors.

For these measures, we have trends over time. Problem detection and physician confirmation rates using the generic screens have generally increased, although these data reflect only an 18-month time period. Estimated detection and confirmation rates (and ranges) based on other review techniques have also increased.

[4]By comparison, the rate of generic screen failures, and physician confirmations, was 5.5 and 2.1 per 100 discharges.

Table 3.2: PRO Estimates of Cases Initially Identified by Techniques Other Than the Generic Screens That Physician Advisors Confirmed Had Quality Problems

(Per 100 discharges)

	Contract			
Number of cases	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Median	0	0	0.1	0.1
Range	0–0.6	0–1.6	0–2.4	0–3.1
Number of PROs	40	41	51	51

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was not always pertinent.

Source: GAO survey.

Training and Experience of Physician Advisors

Who shall judge is always an issue in professional reviews. Physicians want to be judged by peers with common standards of medical practice and who understand the circumstances under which they are practicing. Three aspects of "peer review" that are seen as particularly salient are whether the PRO physician advisors are board-certified specialists, whether the specialists are assigned to review cases in their specialty, and whether the cases of physicians practicing in rural areas are reviewed by physician advisors from rural areas. (There is some reason to believe that physicians in rural areas may practice a different style of medicine, due to more limited medical facilities and other environmental factors.)

Board Certification

Over half of the PROs now have an estimated 80 percent or more physician advisors who are board-certified specialists. The variability, however, is extreme: in one PRO only 7 percent were certified specialists, while in others 100 percent were. Over the 4 contract years, the number of PROs with less than 50 percent board-certified specialists has declined. (See table 3.3.)

Table 3.3: Estimated Percent of PRO Physician Advisors Who Are Board-Certified Specialists

	Contract			
Percent board certified	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Less than 50	14%	12%	8%	8%
Between 50-75	33	35	34	30
More than 75	52	54	59	62
Median	79	80	80	80
Range	1–100	1–100	5–100	7–100

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

Case Reviews by Relevant Specialists

By contract year 4, the PROs estimated that specialists reviewed cases in their specialty for about 30 percent of the cases forwarded by the review coordinators at the initial stage of review. This percentage has increased over the 4 years, but remains highly variable among the PROs. Some report that they did not match physician specialists to relevant cases at the initial physician review stage at all, while others reported matching in all cases. (See table 3.4.)

Table 3.4: Estimated Percent of Cases Where Specialists Were Matched to Cases at the Initial Physician Review Stage

	Contract			
Percent of cases	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Median	15%	13%	25%	30%
Range	0–100	0–100	0–100	0–100

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

Rural Case Reviews

We also asked the PROs if rural physician advisors review rural cases at the initial physician review stage. Over half estimated that in about 50 percent of the cases, they matched rural cases with rural physician advisors at this stage. Again, the range was wide: some PROs indicated they never matched a rural case at the initial review stage, while others indicated they matched 100 percent of the cases. The trend is clearly upward: PROs reported making a greater effort by the fourth contract year to match rural physician advisors with cases from rural areas. (See table 3.5.)[5]

Table 3.5: Estimated Percent of Rural Cases Reviewed by Rural Physicians at the Initial Review Stage

	Contract			
Percent of cases	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Median	1%	8%	25%	50%
Range	0–100	0–100	0–100	0–100

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

[5]OBRA '87 requires PROs to take into account the special problems associated with delivery of care in remote rural areas. In response, HCFA now requires that, whenever possible, a PRO must use physician reviewers who practice in a setting similar to the setting of the physician whose services are under review.

Input From Attending Physicians

When potential quality and utilization problems are detected by the review coordinator and confirmed by the physician advisor, the attending physicians have the right to provide additional information about their patients and the care they gave. This information may influence the PRO reviewers' determinations.

With regard to quality problems, about 50 percent of the PROs received physician input in an estimated 75 percent or more of their cases, although some received input in virtually no cases, and others in virtually all cases. Attending physician input on quality issues has increased by more than 300 percent in 4 years, from an estimated median of 20 percent to 75 percent.

With regard to utilization problems in the fourth contract year, attending physician input was received by half the PROs in at least an estimated 60 percent of the cases. This figure has increased over the 4 contract years. Variability in this input is about as great for utilization questions as it is for quality questions. (See table 3.6.)

Table 3.6: Percent of Attending Physicians Who Provided PROs With Additional Information

Estimated percent of physicans	Contract			
	Year 1	Year 2	Year 3	Year 4
Quality cases				
Less than 50	62%	47%	25%	21%
Between 50-75	24	33	43	32
More than 75	14	21	32	47
Median	20	50	70	75
Range	0–95	0–95	0–99	0–100
Utilization cases				
Less than 50	51	57	42	34
Between 50-75	33	25	40	38
More than 75	16	18	19	28
Median	40	38	50	60
Range	0–90	0–90	0–95	0–95

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

The additional information from attending physicians has had an effect on problem resolution. Where additional information was received, over half the PROs estimated that it resolved the quality problems in almost 70 percent of the cases and the utilization problems in at least 50 percent of the cases. Variability, again, was wide: some PROs reported that

the information resolved the problem in only 5 percent of their cases; others, for almost all of their cases. A modest trend over the 4 years shows that the additional information helped resolve more quality problems but not utilization problems. (See table 3.7.)

Table 3.7: Percent of Problems Resolved Because of Additional Information

Estimated percent of problems resolved	Contract			
	Year 1	Year 2	Year 3	Year 4
Quality cases				
Less than 50	29%	26%	17%	19%
Between 50-75	48	49	52	40
More than 75	23	26	31	40
Median	50	60	69	68
Range	0–99	3–97	10–99	10–98
Utilization cases				
Less than 50	43	43	39	40
Between 50-75	43	41	42	40
More than 75	14	17	19	19
Median	50	50	50	50
Range	0–99	5–99	5–99	5–98

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey.

What actions did the PROs take with respect to physicians and hospitals involved with confirmed quality or utilization problems? We turn to this issue next.

PRO Objectives and Interventions

Several items from PRO reports to HCFA and our survey of PROs provide some insight on what PROs do when they confirm a quality or utilization problem. The information we gathered includes the extent to which PROs meet their objectives for reducing confirmed problems, the frequency of using interventions in an attempt to alter provider behavior, and how effective the PROs judge these interventions to be.

Objectives Met

Many PROs have individually negotiated with HCFA specific review objectives based on the results of their past generic screen reviews. In most instances the objectives are global, and efforts are made to reduce the incidence of a generic screen-related problem statewide. In other instances, the objective is focused on particular groups of physicians or hospitals.

The reports the PROs have submitted to HCFA indicate that they are highly successful in reaching their negotiated objectives. Table 4.1 illustrates what this success looks like in terms of the generic quality screens for which we have detailed information. Screen 1, for example, involves a search of the medical record for evidence of adequate discharge planning.

Table 4.1: Status of PRO Generic Screen-Based Quality Objectives

			Problem reduction		
Screen	Number[a]	Median[b] baseline	Median target	Median actual	Actual exceeds target
Screen 1 (discharge planning)	32	44	50%	100%	+50%
Screen 2 (medical stability)	19	6	50	87	+37
Screen 3 (preventable deaths)	7	8	75	87	+12
Screen 4 (nosocomial infections)	4	7	71	74	+3
Screen 5 (unscheduled return to surgery)	1	4	75	100	+25
Screen 6 (hospital-based trauma)	8	2	30	82	+52

[a]Number of PROs designating this screen as a quality objective.

[b]Average frequency of cases failing generic screens, September-December 1986.

Source: HCFA PRO reports.

For the 32 PROs that had this as a sub-objective in the most recent contract year, the median baseline rate was about 44 problems per report quarter. The median target level was to reduce this by about 50 percent, to a rate of about 22 problems per quarter. The median PRO reported

that it exceeded the target by an additional 50 percent, essentially eliminating all discharge planning problems in its state.

Relative Frequency of Various Interventions

What actions did the PROs take with the problem cases confirmed through their case reviews? They have a considerable array of possibilities: letters of notification, intensive reviews of subsequent cases involving the physician or hospital in question, recommendations for continuing education, and initiating the PRO's sanction consideration process, as well as denial of payments to specific physicians and hospitals for cases involving inappropriate utilization.

According to PRO reports submitted to HCFA, PROs clearly used one intervention method far more frequently than any other for quality of care problems involving physicians: sending a formal letter of notification to physicians identified for the first time as having such problems ("new" physicians). Each quarter, the PROs sent about 6 letters for every 1,000 physicians in their jurisdiction. In contrast, intensive review, recommending continuing education, or initiating the PRO's sanction consideration process occurs very infrequently. Variability among PROs was large: some interventions were not used at all (in a given quarter) by at least one PRO, while for others, PROs reported quarterly rates as high as about 111 for every 1,000 physicians. (See table 4.2.)

Table 4.2: Interventions Reported Quarterly by PROs When a "New" Physician Had a Confirmed Quality Problem

(Per 1,000 physicians)

Intervention	Median	Range
Notification letter	6	0–111
Formal education	0	0–1
Intensified review	0	0–12
Initial consideration for possible sanction	0	0–3

Notes: Based on quarterly reports from March 1987 to March 1988.

The definitions for these report categories may be inconsistently applied across PROs.

Source: HCFA PRO reports.

We also obtained information on rates and types of interventions for physicians with previously identified quality of care problems ("repeat" physicians). For them, the PROs continued to use letters of notification as the predominant strategy, although at a lower rate than for "new" physicians. The rates of using other strategies were very low. Variability among PROs in how frequently these interventions were used was much

larger, however, for "repeat" physicians than for "new" physicians. (See table 4.3.)

Table 4.3: Interventions Reported Quarterly by PROs When a "Repeat" Physician Had a Confirmed Quality Problem

(Per 1,000 physicians)

Intervention	Median	Range
Notification letter	0	0–396
Formal education	0	0–3
Intensified review	0	0–7
Sanctions	0	0–50

Notes: Based on quarterly reports from March 1987 to March 1988.

The definitions for these report categories may be inconsistently applied across PROs.

Source: HCFA PRO reports.

Over the roughly 18 months for which we obtained data from HCFA, rates of use for the different methods did not change substantially and there was no evidence that PROs were shifting intervention strategies.

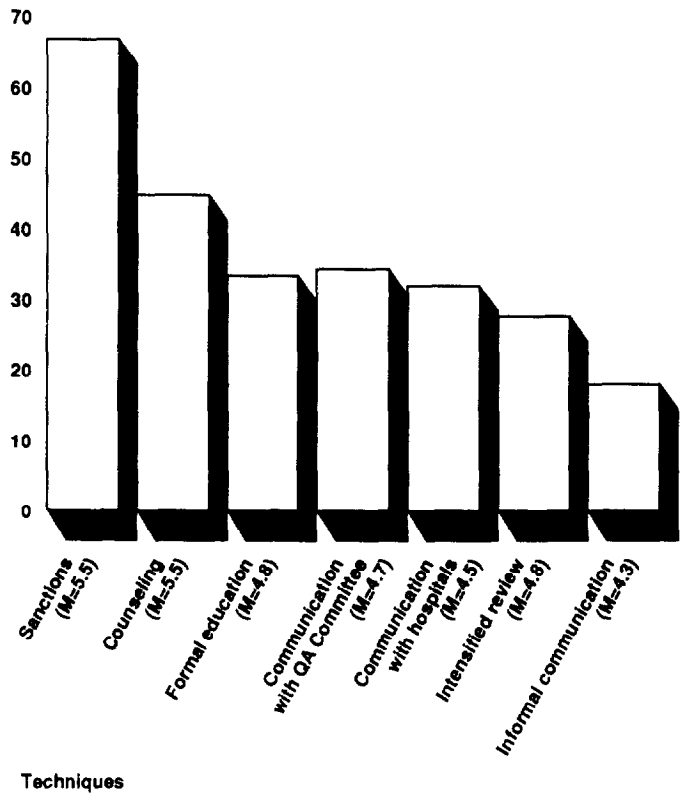
Perceived Effectiveness of Interventions

Does the lack of change in strategies indicate PROs believe they have very effective interventions? Here our information comes from a different data source: our survey of PROs. This information suggests the PROs feel they have a variety of interventions that "work."

More specifically, two interventions—sanctions and one-on-one counseling—are seen by many PROs to be the most effective for correcting quality problems. All the other interventions about which we asked (which did not include the frequently used formal letter of notification) were also regarded as effective in dealing with quality problems, but somewhat less so. (See figure 4.1.) PRO responses were again quite variable: for each intervention, at least one PRO did not regard it as "extremely" effective and at least one did.[1]

[1] We focus on the percent of PROs selecting the upper two points of our effectiveness scale to highlight those techniques that individual PROs found relatively most effective. However, the somewhat different pattern shown by the mean scores (also reported in figures 4.1 and 4.2) reflects the fact that other PROs sometimes found the same techniques to be relatively less effective for them.

Figure 4.1: PROs' Opinions About the Relative Effectiveness of Intervention Techniques for Quality Problems



Notes: Number of responding PROs varies because the requested information was not always pertinent.

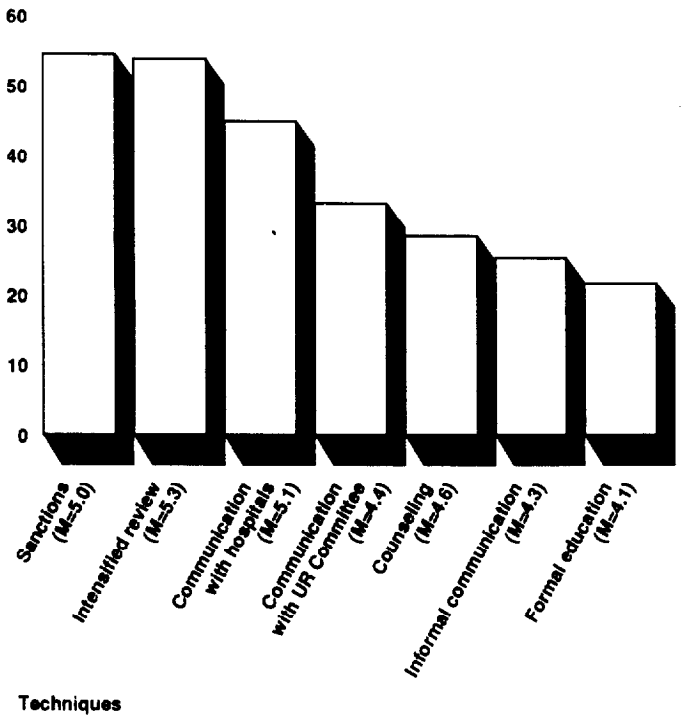
PROs were asked to rate the relative effectiveness of the intervention strategies "for correcting quality problems." Effectiveness was measured on the following 7-point scale: extremely effective (7), very effective (6), effective (5), moderately effective (4), somewhat effective (3), minimally effective (2), and not at all effective (1).

M = mean.

Source: GAO survey.

With regard to utilization problems, sanctions, intensive review, and contacts with hospital management were regarded as the most effective. All the other remedies were less enthusiastically regarded by the PROs as a whole. The individual differences among PROs were large: at least one PRO rated every technique of minimal effectiveness, and at least one as very effective. (See figure 4.2.)

Figure 4.2: PROs' Opinions About the Relative Effectiveness of Intervention Techniques for Utilization Problems



Note: Number of responding PROs varies because the requested information was not always pertinent.

PROs were asked to rate the relative effectiveness of the intervention strategies "for correcting quality problems." Effectiveness was measured on the following 7-point scale: extremely effective (7), very effective (6), effective (5), moderately effective (4), somewhat effective (3), minimally effective (2), and not at all effective (1).

M = mean.

Source: GAO survey.

These data show that PROs often differ on the intervention strategies they believe to be most useful in dealing with individual problem providers. Whether these differences translate into differences in the effectiveness of PRO review, as measured by improvements in the outcomes of care over time, will be the topic of our next report.

External Relationships

PROs have ongoing interactions with a variety of health care providers, payers, and regulators at the state level, as well as with Medicare beneficiaries whose care they review. The frequency and nature of these relationships may influence PRO effectiveness to some degree.

Complaints From Medicare Beneficiaries

Medicare beneficiaries are notified at the time of hospital admission that they have the right to complain to their Peer Review Organization about any aspect of the care they receive. The median number of beneficiary complaints per 100,000 discharges has increased over the past 4 years in each of the two categories: quality complaints, and Medicare coverage issues. Even more striking is the fact that the range in the frequency of complaints has also widened. More PROs have begun receiving beneficiary complaints each year, but some were still not receiving any by contract year 4. (See table 5.1.)

Table 5.1: Beneficiary Complaints

(Per 100,000 discharges)

	Contract			
Type of complaint	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Quality				
Median number	0	2	6	9
Range	0–15	0–24	0–108	0–104
Percent of PROs reporting	43	67	91	89
Number of PROs	18	29	48	47
Coverage				
Median number	0	0	6	6
Range	0–69	0–92	0–206	0–307
Percent of PROs reporting	45	52	75	73
Number of PROs	18	22	39	38

Note: Number of responding PROs varies because some did not hold first-round contracts, or the requested information was unavailable.

Source: GAO survey

How valid are these complaints? The median percent of quality and Medicare coverage complaints that the PROs have confirmed has hovered between 0 and 4 percent. The range between different PROs in these confirmation rates has remained large over the 4 years. However, caution should be used in interpreting this, since the percentage of confirmed complaints often reflects a very few cases. (See table 5.2.)

Table 5.2: Percentage of Beneficiary Complaints That Resulted in a Confirmed Problem

	Contract			
Type of complaint	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Quality				
Median	2%	0%	4%	4%
Range	0–42	0–80	0–100	0–100
Coverage				
Median	1	0	3	4
Range	0–100	0–100	0–100	0–100

Note: The figures in this table include only those PROs who reported receiving any patient complaints (see table 5.1), since by definition, a PRO receiving no complaints cannot confirm any as problems.

Source: GAO survey.

Contacts With State Medical Licensing Boards

Another community group with which PROs sometimes interact is the state medical licensing boards that are responsible for investigating and disciplining physicians who might have violated a condition of their state medical licensure. HHS regulations authorize and, in specified instances, require PROs to share information pertaining to physicians with their state licensing boards. Nonetheless, although PROs have slowly begun to communicate with the boards, more than half of the PROs had still not shared any information with their state licensing boards by year 4. (See table 5.3.)

Table 5.3: Percent of PROs Reporting Information Exchanges Between PROs and State Medical Licensing Boards

	Contract			
Number of exchanges	**Year 1**	**Year 2**	**Year 3**	**Year 4**
None	83%	77%	70%	57%
One	5	7	4	17
Two	7	9	8	9
Three	2	2	9	6
Four	2	5	4	4
Five	0	0	2	2
More than five	0	0	4	6
Number of PROs reporting	42	43	53	53

Note: Number of responding PROs varies because some did not hold first-round contracts.

Source: GAO survey.

Interrelationships Among PRO Characteristics

The data presented in this fact sheet clearly demonstrate that PROs vary tremendously in the ways they are organized to carry out their mission and in the opinions they hold about the relative effectiveness of the various case-finding and intervention strategies they use. We searched our data set to determine whether any patterns emerged among PRO characteristics. Was the composition of the governing boards, for example, associated with particular approaches to case review or particular strategies for intervening with problem providers?

We found a few associations among pairs of PRO characteristics, but no overall pattern. For instance

- High-volume PROs (as measured by discharge volume) tend to fail cases on the generic quality screens at a higher rate than low-volume PROs, and the physician advisors at these larger PROs also tend to confirm the existence of quality problems at a higher rate.
- PROs who were sponsored by state medical societies, or who have other ties to these organizations, are more likely to hold contracts to do Medicaid review and, on average, receive more of their revenue from this source.
- PROs in the Northeast tend to believe that nurses' professional judgments are a more effective case-finding tool than do PROs in the Rocky Mountain and Northwestern states.

Apart from these kinds of paired associations, there were no other, more all-encompassing trends in the data. There were no PROs who consistently fell in the top or bottom ranges of all our performance, or opinion measures. Nor did any organizational characteristic or attitudinal stance predict PRO performance or responses to a wide range of measures. This suggests that a number of different forces all play a role in shaping the functioning of the individual PROs.

In a future report, using a more extensive data base including measures of health care outcomes within each PRO area, we intend to further analyze the contribution that PRO characteristics make to overall PRO effectiveness. From that analysis, we hope to be able to recommend ways to improve the structure and effects of the PRO program.

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Glossary

Beneficiary Complaint	A written expression of dissatisfaction conveyed to a PRO by a Medicare beneficiary concerning a perceived problem associated with a health care encounter.
Board Certified Specialist	A physician who is formally identified as having completed a specified amount of training and a certain set of requirements and has passed an examination required by a medical specialty board.
Generic Quality Screens	The list of occurrences applied by PRO review coordinators to select cases that may have potential quality problems and therefore merit further scrutiny. The possible occurrences for which review is conducted are: adequacy of discharge planning, medical stability at discharge, unexpected deaths, nosocomial infection, unscheduled return to surgery, and drug- or medication-induced trauma.
Intensified Review	Involves monitoring a larger proportion of a particular physician's or hospital's records (often 100 percent) to verify whether or not a previously identified quality or utilization problem has been alleviated.
Intervention Techniques	Actions taken by the PROs with physicians or hospitals designed to correct identified quality or utilization problems (formal education, sanctions, intensified review).
Letter of Notification	Action by PRO to inform physician or hospital that the PRO is reviewing the care delivered to patients for whom they provided treatment.
Median	Value of the 50th-percentile case; half the values are above this value, half are below.
Physician Advisor	PRO-employed physician who conducts second-round medical reviews. Second-round review is performed on those cases identified by review coordinators as having potential quality or utilization problems.
Preadmission Reviews	Review by PROs of all cases with specified principal diagnoses to determine the appropriateness of a requested hospitalization.

Pre-Procedure Reviews	Reviews by PROs of cases to determine the appropriateness of a planned procedure.
Profiling	Statistical analysis using PRO data gathered over a period of time to monitor medical practice patterns; can be used to identify particular physicians or hospitals having potentially aberrant patterns of care.
PRO Objectives	Goals for reducing the incidence of particular quality or utilization problems; negotiated between HCFA and individual PROs.
Range	The interval between the lowest and highest value in a distribution.
Review Coordinators	PRO staff members who conduct first-round medical reviews, usually registered nurses.
Sanctions	An action taken by the HHS Office of the Inspector General, based on a PRO's recommendation, for a case involving a "gross and flagrant" violation or "substantially failing in a substantial number of cases." The Inspector General may impose a monetary penalty or temporarily or permanently exclude the provider from further Medicare participation.

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