HMOs Serving Rural Areas: Experiences with HMO Accreditation and HEDIS Reporting

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EXECUTIVE SUMMARY

This paper is the third in a series examining the relationship between HMO accreditation and HMOs that serve rural areas. Earlier research examined the statistical relationship between HMO accreditation and the rural proportion of an HMO's service area population, and analyzed the implications of state HMO accreditation requirements for HMOs serving rural areas. The purpose of the current study is to explore in further depth the relationship between HMOs serving rural areas and accreditation by interviewing representatives of two groups of HMOs that serve rural areas. The first group consists of 21 HMOs that have applied for National Committee for Quality Assurance (NCQA) accreditation, and the second group is composed of 10 HMOs that have not.

This study addresses the reasons the HMOs have or have not applied for accreditation; any difficulties they have had or anticipate with NCQA accreditation standards, especially in the rural portions of their service areas; and their plans regarding accreditation by NCQA and other accrediting organizations. It also explores the HMOs' experiences collecting and reporting HEDIS data, including any difficulties they have experienced with HEDIS measures in the rural portions of their service areas.

The results indicate that major factors influencing these HMOs to seek accreditation are requests from large employers and competition from other HMOs, especially in the urban portions of their service areas. The study also highlights the importance of Medicare, Medicaid, and state requirements, and internal motivation to improve the quality of care, in some HMOs' decisions to seek accreditation, and to collect HEDIS data. For a subset of non-applicant HMOs serving rural areas**C** in particular smaller and younger plans, and those with high proportions of Medicaid enrollees**C** the costs of preparing and applying for accreditation are a significant barrier. Uncertainty about their ability to meet NCQA standards, especially among younger and smaller HMOs, is an additional barrier to seeking accreditation.

A number of applicant HMOs cited positive benefits of participating in the accreditation process. The majority plan to reapply for accreditation, and most of the unaccredited HMOs also plan to apply for NCQA or another type of accreditation in the near future. For the most part, neither the accredited nor non-accredited HMOs find the NCQA accreditation standards unreasonable *per se*. In fact, some HMOs in the non-applicant group indicated that they are using the NCQA standards for internal quality improvement (QI) purposes.

At the same time, though, several HMOs in both groups identified difficulties or potential difficulties with accreditation standards, especially as they apply to rural areas. The majority of these difficulties were in three categories: quality improvement, preventive health, and medical records. Many of the difficulties relate to characteristics of the HMOs and of the rural physician practices with whom they contract, e.g., predominantly solo or small group practices. A few HMOs expressed frustration with NCQA's position that all accredited HMOs should meet the same standards, describing it as a "one size fits all" process that does not take into account differences in HMO structure and size, or local health care delivery systems.

Both the applicant and non-applicant plans collect HEDIS measures to meet external requirements, e.g., Medicare, Medicaid and state requirements, and employer requests, as well as for internal quality improvement needs. The majority of HMOs interviewed have difficulty collecting some HEDIS measures and identify a number of issues that are more problematic in rural areas. Half of the HMOs interviewed lack enough eligible enrollees to meet sample size requirements for some HEDIS measures. Insufficient sample sizes are a particular concern for HMOs with Medicaid and Medicare enrollees.

Two rural health policy issues pertaining to HMO accreditation merit further research. The first is whether the lower accreditation rate among HMOs serving rural areas has had an impact on the quality of care received by rural HMO enrollees. A second is whether the HMO accreditation process validly assesses the capacity of HMOs with predominantly urban enrollees to provide quality care to rural enrollees.

Uncertainty about the ability of the accreditation process to assess and improve the quality of care provided to rural HMO enrollees leaves policymakers and rural health advocates in a difficult position. Clearly, rural HMO enrollees should have access to the highest possible quality of care. What is not clear is whether HMOs serving rural areas should be encouraged or required to seek accreditation. On one hand, having more accredited HMOs serving rural areas may improve rural enrollees' quality of care. On the other hand, the costs of preparing and applying for accreditation are significant, and may divert resources from other activities that affect the quality of care. If HMO accreditation is required, actual or perceived difficulties with the standards and process may make some HMOs more reluctant to serve rural populations. Alternatively, rural residents may only be able to enroll in large, nationally affiliated HMOs that have the financial and organizational resources to obtain accreditation.

INTRODUCTION

Increasingly, public and private purchasers are relying on HMO accreditation and Health Plan Employer Data and Information Set (HEDIS) measures to evaluate HMOs' quality of care systems and compare performance across plans (Iglehart, 1996; HCFA, 1997; Partridge and Torda, 1997; Thompson, Bost, Ahmed, Ingalls, and Sennett, 1998). These trends have implications for HMOs serving rural areas, rural providers in HMO networks, and rural enrollees.

This paper is the third in a series examining the relationship between HMO accreditation and HMOs that serve rural areas. The first study found that the rural proportion of an HMO's service area population was significantly and negatively related to the probability of applying for NCQA accreditation (Casey and Brasure, 1998). Several organizational and market variables, including size, national affiliation, federal qualification, age, the HMO market penetration rate, and state HMO accreditation requirements, were significantly and positively related to the likelihood of applying for accreditation. HMOs with high proportions of Medicaid enrollees were significantly less likely to apply for accreditation.

The second study analyzed the implications of state HMO accreditation requirements for HMOs serving rural areas (Casey, 1999). Based on an analysis of state regulations and interviews with state officials, the study identified nine states that have regulations requiring HMOs to apply for or obtain accreditation, or to undergo an external quality review, as a condition of licensure. Four states were identified as implementing requirements that an HMO be accredited in order to serve state employees.

The purpose of the current study is to explore in further depth the relationship between accreditation and HMOs serving rural areas by interviewing two groups of HMOs that serve

rural areas. The first group consists of HMOs that have applied for accreditation from the National Committee for Quality Assurance (NCQA), the accrediting organization that currently accredits the vast majority of the country's accredited HMOs. The second group is composed of HMOs that have not applied for NCQA accreditation.

This study addresses the reasons why the HMOs have or have not applied for accreditation; any difficulties that they have had or anticipate with NCQA accreditation standards, especially in the rural portions of their service areas; and their plans regarding accreditation by NCQA and other accrediting organizations. It also explores the HMOs' experiences collecting and reporting HEDIS data, including any difficulties they have experienced with HEDIS measures in the rural portions of their service areas.

STUDY DESIGN

Two groups of HMOs serving rural areas were selected for this study: 1) HMOs that have applied for accreditation and undergone an NCQA accreditation survey (the applicant sample); 2) HMOs that have not applied for NCQA accreditation (the non-applicant sample).[1] Using the matched InterStudy data and NCQA accreditation status data developed for our earlier research (Casey and Brasure, 1998), we identified all HMOs nationally that had 20 percent or more of their service area populations in rural areas as of January 1997 (n = 182).[2] These HMOs were then divided into lists of NCQA applicants (n = 75) and non-applicants (n = 106).

Random samples of 20 applicant and 10 non-applicant HMOs were selected from these lists. Each HMO was contacted by phone and asked to identify the individual or individuals

[1]Throughout this paper, the term "applicant" refers to HMOs that have applied for NCQA accreditation and undergone an NCQA accreditation survey. "Accredited HMO" is not used because two of these HMOs were denied accreditation, and one HMO's status was pending. The term "non-applicant" refers to HMOs that have not applied for NCQA accreditation, although one of these HMOs is JCAHO-accredited.

[2]Rural areas were defined as counties located outside of metropolitan statistical areas, as defined by the federal Office of Management and Budget.

directly responsible for the HMO's accreditation and HEDIS measurement activities (the applicant group), or quality improvement activities (the non-applicant group). The respondents included managers or directors of quality improvement or medical services and accreditation and HEDIS coordinators. Some HMOs identified more than one person to be interviewed.

Sixteen of the 20 originally selected applicant HMOs participated in the study. Four HMOs were replaced: one HMO had been purchased by another HMO, and three HMOs refused to participate because they were "too busy," "did not have enough time," or "did not participate in surveys." Two of the HMOs that refused to participate were fully accredited, and one had one-year accreditation. Each non-participating HMO was replaced, in order, by the next HMO on the random list of applicant HMOs generated for the study. The four replacement HMOs all participated. One HMO in the non-applicant group had recently applied for accreditation, and was moved to the applicant group, yielding a final sample of 21 applicant HMOs. Nineteen applicant HMOs participated in phone interviews, and two HMOs chose to respond to a written copy of the survey.

Of the 10 originally-selected HMOs in the non-applicant group, four HMOs did not meet the criteria for inclusion in the study and were replaced: one HMO had recently applied for NCQA accreditation; one was a dormant HMO without current enrollment; and two HMOs were currently owned by an accredited HMO. Three HMOs refused to participate in the study and were replaced by the next HMOs on the random list of non-applicant HMOs generated for the study. Two HMOs refused to participate because their corporate policies prevent participating in studies, and the third HMO refused because of a belief that the accreditation process was not applicable to its structure as a group of speciality providers only. All 10 HMOs in the final non-applicant group participated in phone interviews.

The 31 HMOs that participated in the study represent 17 percent of the HMOs nationally that had 20 percent or more of their service area populations in rural areas as of January 1997. The participating HMOs are distributed throughout the country. The 21 applicant HMOs are located in 14 states, and the 10 non-applicant HMOs are located in nine states.

Characteristics of Interviewed HMOs

Table 1 describes the organizational characteristics of the 31 interviewed HMOs. In the final applicant group, eight HMOs were fully accredited, eight HMOs had one-year accreditation, two HMOs were provisionally accredited, two HMOs had been denied accreditation, and one HMO was awaiting the results of its accreditation survey. In comparison to the non-applicant group, the HMOs in the applicant group are on average larger and older, more likely to be nationally affiliated, and have a lower proportion of their service area populations in rural areas. The majority of HMOs in the applicant group have predominantly urban service area populations, while the non-applicant group is evenly divided between HMOs whose service area populations are less than 40 percent rural (n=5) and those that are more than 40 percent rural (n=5). These differences in characteristics are similar to the differences between the entire populations of applicant and non-applicant HMOs (Casey and Brasure, 1998).

RESULTS: HMOS THAT HAVE APPLIED FOR NCQA ACCREDITATION

Reasons for Applying for Accreditation

Representatives of the 21 HMOs that applied for NCQA accreditation were asked to rate six factors in the decision to apply, on a scale from 1 (very important) to 5 (not at all important). For two factors, requests from private employers and competition from other HMOs, the HMO respondents were asked to indicate whether these were primarily in urban areas, or both rural and

Table 1

Characteristics of Interviewed HMOs

	HMOs That Have Applied for NCQA Accreditation and Undergone Survey Process (n=21)	HMOs That Have Not Applied for HCQA Accreditation (n=10)
NCQA Accreditation		N/A
Full	8 (38.1%)	
One-year	8 (38.1%)	
Provisional	2 (9.5%)	
Denial	2 (9.5%)	
Pending	1 (4.8%)	
Model Type		
IPA	10 (47.6%)	6 (60%)
Group	1 (4.8%)	0 (0%)
Staff	1 (4.8%)	0 (0%)
Network	3 (14.3%)	3 (30%)
Mixed	6 (28.6%)	1 (10%)
Total Enrollment (mean)	108,899	27,294
Rural Proportion of Service Area Population (mean)	.32	.42
.20 - .29	9 (42.9%)	4 (40%)
.30 - .39	8 (38.1%)	1 (10%)
.40 - .49	3 (14.3%)	3 (30%)
≥.50	1 (4.1%)	2 (20%)
Plan Age in Years (mean)	12.3	6.7
Serves Medicare Enrollees	9 (42.9%)	1 (10%)
Serves Medicaid Enrollees	6 (28.6%)	2 (20%)
Affiliation		
National	5 (23.8%)	3 (30%)
Blue Cross Blue Shield	6 (28.6%)	0 (0%)
Local	10 (47.6%)	7 (70%)

Date Source: InterStudy HMO Census 1996 and NCQA Accreditation Status List as of June 30, 1998.

urban areas. The respondents were also given an opportunity to describe any additional reasons that were important in their HMO's decision to apply for accreditation.

Table 2 shows the number of HMOs that rated each factor as either very important or important (1 or 2 on a 5-point scale). The highest rated factor was requests from private employers, which received a rating of important or very important from 17 HMOs (81 percent). One HMO indicated that employer request was an important factor in its initial decision to apply for accreditation, but has since found that employers do not understand the accreditation process. Ten HMOs indicated that the employers who request accreditation are located primarily in the urban portions of their service area. Eight HMOs said the requesting employers were in both urban and rural areas, and three HMOs specified that the employers requesting accreditation were "large accounts," or "major national accounts." One of these HMOs said that small accounts, even in urban areas, don't care about accreditation.

The second-highest rated factor was competition from other HMOs, which was rated as important or very important by 15 HMOs (71.4 percent). For 13 of the 21 applicant HMOs, the competition was primarily in the urban portions of their service areas. Another five HMOs indicated the competition was in both the urban and rural areas, and three HMOs said that competition was not a factor in their decision to apply.

The remaining factors and the number of HMOs ranking them as important or very important were: accreditation is required to serve state or public employees (seven HMOs); the HMO accreditation requirement is in state law or regulation (five HMOs); HMO enrollees or potential enrollees value accreditation (four HMOs); and accreditation is required to serve Medicaid enrollees (three HMOs). All four HMOs in states requiring HMO accreditation ranked the state requirement as very important in their decision to apply for accreditation.

Table 2

HMOs' Rating for Reasons for Applying for NCQA Accreditation (n=21 HMOs)

	Number of HMOs Rating as Important or Very Important Reason
Requests from private employers	17 (81.0%)
Competition from other HMOs in the market area	15 (71.4%)
Accreditation is required to serve state and public employees	7 (33.3%)
State laws or regulations require the HMO to seek accreditation	5 (23.8%)
HMO enrollees or potential enrollees value accreditation	4 (10.0%)
Accreditation is required to serve Medicaid enrollees	3 (14.3%)

In response to the open-ended question about additional factors in their decision to apply for accreditation, several HMOs described accreditation as a structured means of improving their quality of care. One HMO stated that it applied for accreditation "to aid in the transition from a traditional insurance company to an MCO. Accreditation helps us get where we should be faster. It forces attention to quality care and service to members." Another HMO stated, "Going through the accreditation process makes the plan look more carefully at all of its processes." A third HMO described accreditation as "a tool to encourage the company in general to seek more opportunities for self-improvement."

Other HMOs indicated that seeking accreditation was "part of our organizational vision," "he way to do business,"or "the right thing to do." Two HMOs described accreditation as an external means of validating the quality of care they provide. "We wanted to get accreditation," said one HMO. "We felt our products are good, and an external review would show that."

Experience with NCQA Accreditation Standards

NCQA evaluates plan performance using accreditation standards in six categories: 1) quality management and improvement (40 percent of a plan's score); 2) credentialing (10 percent); 3) members' rights and responsibilities (17.5 percent); 4) utilization management (17.5 percent); 5) preventive health services (10 percent); 6) medical records (5 percent). During an on-site accreditation survey, an NCQA team of physicians and administrators with managed care expertise reviews the HMO's quality-related systems and assesses the extent to which these systems are in compliance with NCQA standards.

The 21 applicant HMOs were asked if they had any difficulties with the standards in the six categories, especially as they applied to the rural portions of their service areas. The majority of difficulties identified by the HMOs were in three categories: quality improvement, preventive

health, and medical records. Fewer HMOs reported difficulties with the credentialing and utilization management standards. Only two HMOs had problems with the standards in the category of members' rights and responsibilities, and their problems in this category were across the board rather than specifically rural. The issues described by the HMOs are summarized below.

Five of the 21 applicant HMOs (24 percent) reported having difficulty in rural areas with QI standards related to organizational characteristics of the HMO. These characteristics included: 1) having a predominantly PPO rather than an HMO structure, and not being a gatekeeper model, which made it difficult to link members to a physician for HEDIS measures; 2) small size, because "meaningful improvement" is difficult to measure with few enrollees; 3) relatively young organizational age, which resulted in a lack of data to show quality improvements; and 4) IPA structure, with predominantly solo and very small group practices, which one HMO said made it "extremely difficult" to meet the QI standards. This HMO described a "struggle in physicians' minds between fee-for-service and managed care" in its rural service area. The HMO indicated that the QI process takes a "real commitment of time and resources" because the area is isolated and the practices are small. Often, the medical director has to work one-on-one with physicians, who won't accept the information from a nurse. One HMO indicated that it had not built the quality improvement infrastructure needed to meet the QI standards at the time it underwent the accreditation review.

For two HMOs, structural issues also presented challenges to meeting preventive health standards in rural areas. One HMO did not have in place the plan-wide preventive guidelines or improvement measures needed to meet the preventive health standards. A non-gatekeeper model

HMO said its difficulty linking members to a physician for HEDIS measures was a problem in meeting standards in the preventive health category as well as in QI.

HMOs also described a number of challenges meeting QI, preventive health, and medical records standards related to rural practice characteristics. Four HMOs described difficulties meeting QI standards because of lower guideline compliance among rural physicians. One HMO, for example, said that many rural physicians in its provider network are not accustomed to clinical guidelines and need more awareness of the importance of preventive screening, including mammograms, Pap smears, and diabetic testing, as well as asthma care. Other reported challenges to meeting QI standards included the reluctance of many rural solo and small group practices to participate in QI activities, limited HMO enrollment in rural areas, travel logistics, the expense of doing site surveys, and the lack of CME requirements for hospital privileges in some rural areas.

A large HMO with a relatively small proportion of its enrollment in rural areas noted that lack of readiness to participate in QI activities is an issue with solo and small group practices in isolated areas, and that it is expensive to conduct site survey activities in rural areas. Consequently, the HMO focuses its QI activities on urban areas, where it has its largest enrollment. Another HMO noted that its rural providers have a small percentage of HMO enrollees and it's difficult for the providers to manage all payers' expectations regarding guidelines.

In the category of preventive health standards, six HMOs (29 percent) cited problems relating to child and adolescent immunization. The HMOs said that rural practices refer many children to county public health agencies for immunizations because of vaccine storage issues (vaccines must be kept at certain temperatures) and low volume (few pediatricians

in rural areas, and family physicians don't do enough volume in immunizations). When children are referred to public health agencies, HMOs often have difficulty obtaining immunization documentation.

One HMO noted that preventive health services couldn't be offered in the same way in rural areas as they were in urban areas, e.g., it was not feasible to offer classes or discounts for athletic clubs in rural areas. On the positive side, one HMO has seen rural physicians become more accepting of preventive health services. It has changed its contracting procedures for rural physicians to pay them for providing more preventive services, and hopes that the financial incentives will improve performance on preventive health measures.

Thirteen of the 21 HMOs (62 percent) described challenges meeting the NCQA medical records standards. One HMO, which received its lowest score in the medical records category, felt that the surveyors did not communicate enough information on the problems they found, so the HMO could not correct them. When the HMO conducted its own survey of charts, it could not replicate the problems. Three HMOs raised medical records issues related to solo and small group practices in rural areas, including lack of centralized medical records, lack of staff devoted to medical records, and physicians who are not invested in meeting the standards.

Other problems with medical records in rural practices included continued use of family medical records in many rural family practice and general practice offices; lack of electronic medical records; difficulty getting written documentation into paper medical records; and travel time and costs to do medical record audits in rural areas. One HMO concluded that the medical care system works in rural areas, but is not well-documented.

HMOs reported mixed responses to their efforts to assist rural practices with medical records. Two HMOs reported providing forms for practices to use; one said some practices are

willing to use them, while the other indicated that it had met with "a lot of resistance." Another HMO said that it is very time consuming to drive out and do chart audits in rural practices, but the practices were "cooperative and receptive" when they got there.

Six of the 21 applicant HMOs (29 percent) had some challenges or difficulties with NCQA credentialing standards. The problems described included difficulty getting rural physicians, especially solo practitioners, to provide the HMO with the primary source information needed for credentialing and recredentialing, and disability access standards that rural practices cannot afford to meet. One HMO included physician assistants (PAs) in its credentialing process when it expanded its rural service area, because some rural PAs were practicing more independently than their counterparts in the HMO's urban service areas.

NCQA credentialing standards do not require that an MCO's physicians be board-certified, nor that hospitals and other organizational providers be accredited. The standards do require an MCO to verify a physician's board certification, however, if the physician states that he or she is board-certified, and to either verify the accreditation status of hospitals and other organizational providers, or conduct a site visit if the provider is not accredited (NCQA, 1997a). In addition, the proportion of board-certified physicians in the health plan is a HEDIS measure. Overall, rural areas have lower proportions of board-certified physicians and JCAHO-accredited hospitals than urban areas. Nationally, the reluctance of some HMOs to contract with non-board-certified physicians and/or non-accredited hospitals has raised concerns about the ability of rural enrollees to access local providers. Therefore, the applicant HMOs were specifically asked if their provider networks included any rural physicians that are not board-certified or rural hospitals that are not JCAHO-accredited.

The applicant HMOs prefer to contract with board-certified physicians, but 18 of the 21 HMOs (86 percent) do contract with non-board-certified physicians under some circumstances, while two HMOs do not, and one respondent was not sure. One HMO will waive its board certification requirement, but will not waive its residency requirement. One HMO has "grandfathered in" some older non-board-certified physicians, but requires all new physicians to be board-certified. Another HMO allows non-board-certified physicians, but has additional continuing education requirements for these physicians. Twelve of the 21 applicant HMOs (57 percent) have some non-JCAHO accredited hospitals in their provider networks, while nine HMOs do not contract with any non-accredited hospitals.

Three of the 21 HMOs had some challenges or difficulties with NCQA utilization management standards. One HMO said documentation of UM decisions and denials was a problem in rural areas, made more difficult by delegation. Delegation was also a problem for another HMO because its delegation agreements began at the time of its NCQA survey, and the HMO could not provide any history of how the agreements were working. Another HMO indicated that there was a "learning curve" related to UM delegation in rural areas, but it was not a problem after defining systems and providing education. One HMO's problem with utilization management in rural areas has been the physicians' lack of experience with managed care organizations and limited receptivity to assistance from a nurse. However, the HMO did well on NCQA utilization management standards.

Overall, the majority of difficulties with the NCQA accreditation standards reported by the applicant HMOs related either to the HMO's structure and process (i.e., HMO size, age, IPA or non-gatekeeper structure, and delegation) or to rural practice characteristics. Many of the difficulties related to rural practices were primarily a function of practice size (solo or small

group) and autonomy of the physicians involved. Other rural concerns included difficulty obtaining immunization documentation from public health agencies, the costs and logistics of traveling to rural sites to conduct medical record reviews, and limited access to preventive health resources, such as health education classes, for rural enrollees.

Future Plans Regarding Accreditation

Fifteen HMOs in the applicant group (71 percent) plan to reapply for NCQA accreditation in the future, including seven HMOs that currently have full accreditation, five HMOs with one-year accreditation, two HMOs that are provisionally accredited, and one HMO whose status was pending. Three HMOs, including one fully accredited HMO and two HMOs with one-year accreditation, have not made up their minds yet about whether to reapply. One HMO with one-year accreditation did not indicate whether or not it plans to reapply for NCQA accreditation.

One of the two HMOs denied accreditation will not reapply for NCQA accreditation, but is applying for accreditation from another accrediting organization, the American Accreditation Healthcare Commission/Utilization Review Accreditation Commission (URAC). This HMO chose URAC because it thought that URAC's process was a better match for the plan, which is predominantly a PPO. It also felt that URAC was more flexible. The URAC modular accreditation process will allow the plan to first seek accreditation of its utilization management and credentialing components, and then apply for accreditation for the entire organization. The other HMO that was denied accreditation has merged with another plan, and will be applying for accreditation as part of that entity.

The reasons that HMOs plan to reapply for NCQA accreditation are similar to their reasons for applying initially, and include employer requests, state requirements, belief in the

value of accreditation, desire to improve the quality of care provided to members, and investment in the accreditation process. Six HMOs that plan to reapply expressed some concerns about the Accreditation '99 process. The use of HEDIS data to determine 25 percent of a plan's accreditation score was a specific concern for four HMOs. One HMO noted that its rural members are not as willing to participate in preventive health services as urban members, while another HMO located in a tobacco state indicated that it "really struggles" with smoking cessation efforts.

Of the HMOs that are evaluating whether to reapply for accreditation, one stated that changing standards have made the process more expensive, and another was concerned that the "raising of the bar" in the Accreditation '99 process will make it much more difficult to obtain accreditation.

Experience with HEDIS Measures

HMOs face increasing requirements to collect and report HEDIS data on their commercial, Medicaid, and Medicare enrollees. Many large employers require HEDIS reporting (NCQA, 1998). A number of states require HMOs to report HEDIS data for their commercial enrollees (see, for example, General Assembly of North Carolina, 1997; State of Maryland Health Care Access and Cost Commission, 1997; Texas Health Care Information Council, 1997). As of 1996, 11 states required Medicaid HMOs to report HEDIS measures, and 14 more planned to require HEDIS reporting in the future (Partridge and Torda, 1997). HCFA began requiring Medicare managed care plans to report HEDIS measures for their Medicare enrollees as of January 1, 1997 (HCFA, 1997).

Nineteen of the 21 applicant HMOs (90 percent) collect HEDIS measures for their commercial enrollees; 12 plans (51 percent) collect HEDIS measures for their Medicare

enrollees; and seven plans (33 percent) collect them for their Medicaid enrollees. Respondents were asked to rate the importance of several factors in their decision to collect HEDIS data, using a scale of one to five, where one is very important and 5 is not at all important. These factors included requests from private employers, state laws or regulations, Medicare requirements, Medicaid requirements, and requests from enrollees or potential enrollees.

Applicant plans rated requests from employers as the most important reason for collecting HEDIS data, with all 19 HMOs that collect commercial HEDIS data ranking employer requests as important or very important (Table 3). Medicare and Medicaid requirements were also rated highly by HMOs collecting Medicare and Medicaid HEDIS data. Nine of the 12 HMOs that collect Medicare HEDIS data (75 percent) ranked Medicare requirements as important or very important, and three of the seven plans that collect Medicaid HEDIS data (43 percent) rated Medicaid requirements as important or very important. Requests from enrollees or potential enrollees received low ratings; some respondents commented that members were either unaware of HEDIS measures or did not understand them. Additional reasons for collecting HEDIS data volunteered by the HMOs included use of HEDIS data in the NCQA accreditation process, and internal use of HEDIS data to target QI activities.

Fifteen of the 21 applicant HMOs (71 percent) responded affirmatively when asked whether any specific HEDIS measures are difficult to collect, especially with regard to rural providers and enrollees. Three of these HMOs indicated that the difficulties they were experiencing were not just in rural areas, but in urban areas as well. One HMO has not found it more difficult for the HMO to collect HEDIS measures in rural areas, but has noted that scores tend to be lower in the rural areas because preventive screening is not getting done there.

Table 3

Applicant HMOs' Reasons for Collecting HEDIS Data (n=21 HMOs)[a]

	Number of HMOs Ranking as Very Important to Important
Requests from private employers who purchase coverage from HMO	19 (90.5%)
Required by the Medicare program	9 (42.9%)
Required by state laws or regulations	5 (23.8%)
Requests from enrollees or potential enrollees	4 (19.0%)
Required by state's Medicaid program	3 (14.3%)

[a]These HMOs have applied for NCQA accreditation and undergone an accreditation survey.

One HMO has found all HEDIS measures more difficult to collect in rural areas, because of "less complete claims and encounter information, logistics, and medical records coming from less sophisticated provider offices." Four HMOs indicated that HEDIS measures that require medical record reviews were difficult. One HMO indicated that HEDIS measures for Medicaid enrollees were a particular problem, because of multiple changes in enrollment status. Childhood and/or adolescent immunizations were the specific HEDIS measures most frequently described as more difficult to collect in rural areas; they were cited by six HMOs.

Ten of the 21 applicant HMOs (48 percent) said that they did not have enough eligible enrollees to meet sample size requirements for some HEDIS measures.[3] Two HMOs stated that small samples on HEDIS measures were a particular problem for their Medicare products. One HMO was not collecting HEDIS data for its Medicaid enrollees because of overall inadequate sample sizes for some measures. When asked which specific HEDIS measures had insufficient sample sizes, eight HMOs cited the "beta-blocker treatment after a heart attack" measure; two HMOs cited the "eye exams for people with diabetes" measure; and one HMO each mentioned the "follow-up after hospitalization for mental illness" and "prenatal care in the first trimester" measures.

RESULTS: HMOs THAT HAVE NOT APPLIED FOR NCQA ACCREDITATION

Reasons for Not Applying for Accreditation

Representatives of the 10 HMOs that have not applied for NCQA accreditation were asked to rate six factors in the HMO's decision, on a scale from 1 (very important) to 5 (not at all important). Table 4 shows the number of HMOs that rated each factor as either very important

[3]Too small samples sizes result in rates that are more subject to sampling error. If a particular measure applies to less than 100 enrollees, NCQA instructs the HMO to include all members who meet the criteria for the measure in the denominator, and report a 95 percent confidence interval. NCQA also indicates that measures based on fewer than 100 members should not be used for comparisons among health plans (NCQA, 1997a).

Table 4

HMOs' Rating of Reasons for Not Applying for NCQA Accreditation (n=10 HMOs)

	Number of HMOs Rating as Important or Very Important Reason
Costs of preparing for survey	5 (50%)
Concerned might have difficulty meeting accreditation standards	5 (50%)
Application fees	4 (40%)
Employers not requiring/requesting accreditation	3 (30%)
Not competitive advantage to be accredited/other HMOs in market are not accredited	2 (20%)
Accredited by another accrediting organization	1 (10%)

or important (1 or 2 on a 5 point scale). The highest rated factors were 1) the costs of preparing for the survey and 2) the HMO's concern that it might have difficulty meeting the NCQA accreditation standards, both of which were rated as important or very important by five HMOs (50 percent).[4] One HMO added that its concern about meeting the NCQA standards was because of its young age, and another's concern was related to staff turnover, which made it difficult for the HMO to show continuity of improvement.

The next highest rated factor in the HMOs' decisions not to apply for NCQA accreditation was application fees, rated as an important or very important factor by four HMOs (40 percent).[5] The remaining factors and the number of HMOs ranking them as important or very important were: employers are not requiring or requesting that the HMO be accredited (3 HMOs); accreditation is not a competitive advantage/other HMOs in market area are not accredited (2 HMOs); and the HMO is accredited by another accrediting organization (other than NCQA) (1 HMO).

In response to the open-ended question about additional factors in their decision not to apply for NCQA accreditation, five HMOs (50 percent) indicated that their young age was an important factor, and four HMOs (40 percent) mentioned their small size. One HMO, which operates in a state with an HMO external review requirement, noted that it was barely two years old when it had to make a decision about accreditation. Because it lacked the historical data for outcome studies required by NCQA, and because of long delays in scheduling NCQA surveys,

[4]The cost of preparing for an NCQA accreditation survey will, of course, vary by plan. The medical director of United Health Care, which manages health plans around the country, has estimated that UHC spends $1 to $2 million preparing a plan for NCQA accreditation (Iglehart, 1996).

[5]The application fee for NCQA accreditation varies with the size and complexity of the plan. For a full accreditation survey, plans with up to 50,000 members pay a base fee of $35,000; plans with more than 50,000 members pay a base fee of $37,850 plus .011 per member above 50,000. Survey prices may be increased if NCQA determines that certain complexity factors exist, e.g., if a health plan delegates certain functions such as credentialing, QA and UM to providers or is a multi-site entity (NCQA, 1997b).

the HMO chose to seek accreditation from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Another HMO said its main problem is that it is a young plan that lacks data for statistically significant problem identification and improvement. Noting that many HEDIS measures "require labor intensive chart review" and that HEDIS audits also increase costs, this HMO concluded that "NCQA needs to be more cost effective for small or rural plans."

An HMO with predominantly Medicaid enrollment rated both NCQA application fees and the costs of preparing for the survey as very important factors in its decision not to apply for accreditation. This HMO's primary concern was that NCQA accreditation is "so expensive for a health plan our size." The HMO added that NCQA conferences are costly to attend, and HEDIS audits are an "incredibly expensive administrative burden." In the state where the HMO operates, HMOs have limitations on their administrative expenses; consequently, the HMO noted, the costs of NCQA accreditation would use a large proportion of the HMO's administrative dollars, leaving very little funding for any other quality improvement initiatives.

Concerns About NCQA Accreditation Standards

All 10 non-applicant HMOs indicated that they were at least somewhat familiar with NCQA accreditation standards. The HMOs then were asked if they thought they would have any difficulty meeting NCQA accreditation standards in each of the six categories, and in particular, whether the HMO anticipated any problems or challenges with regard to its rural providers and enrollees.

Seven HMOs (70 percent) anticipated some potential difficulties with the quality improvement (QI) standards, including three HMOs concerned about potential difficulties related to their organizations' characteristics. One of these HMOs is concerned that its highly decentralized structure, with employees at several local sites, would cause problems meeting the

NCQA standards in all categories. Another HMO mentioned its young age and the fact that it was still identifying QI problems as a potential challenge in meeting the QI standards. One HMO described its biggest challenge as rural areas with small practices with few members per clinic; the HMO indicated that proportionally the QI requirements exceed the use of the clinics. Other QI areas of concern mentioned by HMOs included logistics and costs of traveling to rural sites for chart reviews; potential problems with statistical measurement; and potential difficulty with documentation for the access standards.

Five HMOs (50 percent) anticipated potential difficulties with the preventive health standards. Two HMOs identified a lack of preventive health resources in rural areas as a problem, and one HMO identified high rates of diabetes, lung cancer, and coronary artery disease as preventive health challenges in its rural service area. Other concerns raised by the HMOs included lack of documentation in medical charts for preventive health care provided at alternative sites and by health departments, and the high costs of monitoring care in physician practices with very few enrollees.

Three HMOs (30 percent) thought that meeting NCQA Utilization Management standards would present some challenges. One HMO noted that some rural providers are not familiar with managed care, and need a lot of education about it. Two non-applicant HMOs anticipated possible difficulties in the medical records area. One of these identified older providers who sometimes have "less consistent record keeping" as a potential problem. The other HMO thought it would be able to meet the medical records standards, but was concerned about time and costs for travel to audit medical records. Two HMOs had concerns in the credentialing category; one HMO indicated that the lack of board-certified physicians in its rural

service area was a potential problem. The other HMO has had problems obtaining verification of credentials from the two states it serves.

Future Plans Regarding Accreditation

Five of the ten non-applicant HMOs (50 percent) plan to apply for NCQA in the next two years. One HMO "probably" will apply for both NCQA and URAC accreditation, while one JCAHO-accredited HMO may consider applying for NCQA after the year 2000. A Medicaid HMO would apply for NCQA accreditation if HCFA required it; and two HMOs have no plans to apply. Three of the five HMOs cite marketing and employer requests as their reasons for planning to apply for NCQA accreditation. Two HMOs plan to apply because they believe that NCQA measures are becoming the standard and that NCQA accreditation gives the HMO credibility. One HMO stated that NCQA accreditation allows for benchmarking, both internal and external to their national organization. Two HMOs that plan to apply remained concerned about their ability to meet the NCQA standards, given the relative youth of their organizations.

Experience with HEDIS Measures

Eight of the 10 non-applicant HMOs (80 percent) collect HEDIS measures for their commercial enrollees; one plan does not have commercial enrollees. Two non-applicant plans collect HEDIS measures for their Medicare enrollees, and four HMOs collect HEDIS data for their Medicaid enrollees. One respondent was not certain whether the plan collected HEDIS measures.

Among the non-applicant plans, employer requests to collect HEDIS data was not as important a reason for collecting HEDIS data as it was for the applicant plans. Three non-applicant HMOs (30 percent) rated requests from private employers as very important or important reasons in their decisions to collect HEDIS data (Table 5). Four HMOs (40 percent)

Table 5

Non-Applicant HMOs' Reasons for Collecting HEDIS Data (n=10 HMOs)[a]

	Number of HMOs Ranking as Very Important to Important
Required by state laws or regulations	4 (40%)
Required by state's Medicare program	4 (40%)
Requests from private employers who purchase coverage from HMO	3 (30%)
Required by the Medicaid program	3 (30%)

[a]These HMOs have not applied for NCQA accreditation.

rated state laws or requirements as important or very important reasons. All of the HMOs that rated the importance of Medicare and Medicaid requirements in the decision to collect HEDIS data ranked these requirements highly: four HMOs rated Medicare requirements as very important, and three HMOs rated Medicaid requirements as very important.

The additional reasons for collecting HEDIS data volunteered by the non-applicant HMOs were similar to those of the applicant HMOs. These reasons included the potential use of HEDIS data in the accreditation process if the non-applicants should decide to apply for accreditation, and the use of HEDIS measures as internal and external benchmarks for quality improvement efforts.

Eight of the nine non-applicant HMOs that collect HEDIS data (89 percent) reported that they have difficulty collecting some HEDIS measures. The ninth HMO did not have any particular difficulties collecting HEDIS measures for rural enrollees, but indicated that constant changes in HEDIS made it difficult to examine trends and show improvement.

Of the eight plans that reported some difficulty with HEDIS measures, three HMOs said that all HEDIS measures were difficult to collect. One of these HMOs, in the process of a total management information system conversion, attributed its difficulties to an "ancient" computer system. Another HMO indicated that it was not able to report some measures at all, and had to use all enrollees that met the criteria for other measures. The third HMO said, "All the measures are a bit difficult to collect because coding is not always good. Claims data are not good in a capitated environment; coding is sloppier."

Four HMOs described difficulties with HEDIS measures that require medical records review. Two HMOs specifically mentioned travel to rural areas for medical record reviews as difficulties. Specific HEDIS measures cited as difficult included childhood and/or adolescent

immunizations (three HMOs); mammograms (two HMOs); and smoking cessation (one HMO). One HMO indicated that documentation of obstetric and prenatal measures was problematic because of global coding.

Two HMOs with Medicaid enrollees indicated that the mobility of this population and continuous enrollment were problems for collecting HEDIS measures. One HMO, however, added that it was actually a little easier to collect HEDIS measures for its rural Medicaid population than its urban Medicaid population because many of its rural areas have only one or two clinics, making it easier to track down data. In one rural county, the clinic also provides public health services, so immunization information gets into the medical record.

Of the nine non-applicant HMOs that collect HEDIS data, only one said that it had enough eligible enrollees to meet sample size requirements for all HEDIS measures. One HMO had not been able to obtain the data on the number of its eligible enrollees because of its outdated computer system. Another HMO had just begun collecting HEDIS data and anticipated not having eligible enrollees for some measures. Six HMOs indicated that they did not have enough eligible enrollees for some HEDIS measures. For two HMOs, low numbers of eligible enrollees for some measures were the result of having relatively new Medicare products with small enrollment. One HMO said all its Medicare numbers were small, even mammograms, while the other HMO said it had insufficient numbers for most measures, including beta blockers after a heart attack, diabetic eye exams, Pap smears, and mammograms. Another HMO also cited diabetic eye exams and beta blockers as measures for which it had less than adequate samples, and two HMOs indicated that they had low numbers of eligible enrollees for immunization measures. The HMO with predominantly Medicaid enrollees indicated that it had the minimum number of enrollees or fewer for most Medicaid HEDIS measures. Continuous enrollment

requirements may reduce its sample for a HEDIS measure by up to 50 percent, because its Medicaid enrollees' average enrollment time is less than a year.

Additional concerns about HEDIS measures raised by the non-applicant HMOs included the costs of separating data on HMO and point-of-service (POS) enrollees; the increasing need for complex statistical and information system expertise; and sampling costs, related particularly to small sample sizes.

In summary, high proportions of both applicant and non-applicant HMOs report difficulty collecting some HEDIS measures. The two groups describe similar problems with HEDIS measures, such as issues related to medical records review, documentation of immunizations, and the volume and stability of their Medicaid and Medicare enrollees. Compared to the applicant HMOs, a higher proportion of non-applicant HMOs report insufficient numbers of eligible enrollees for some HEDIS measures (88 percent versus 50 percent). This difference may reflect the much smaller size of the non-applicant HMOs, which have an average enrollment of 27,294 compared to 108,899 for the applicant HMOs.

CONCLUSIONS

This study provides insight into how HMOs that serve rural areas make decisions about accreditation, as well the collection and analysis of HEDIS data. The results indicate that requests from large employers are important factors. This finding is consistent with the results of a recent survey of employers, which confirmed that very large employers (5,000 or more employees) are more likely than small and medium-size employers to rate accreditation and HEDIS data as important factors in their selection of health plans (Gabel, Hunt, and Hurst, 1998).

The study also highlights the importance of other factors: competition from other HMOs, especially in the urban portions of HMO service areas; Medicare, Medicaid, and state requirements; and internal motivation to improve the quality of care.

For a subset of non-applicant plans serving rural areas **C** in particular, smaller and younger plans, and those with high proportions of Medicaid enrollees **C** the costs of preparing for and applying for accreditation are a significant barrier. Uncertainty about their ability to meet NCQA standards was an important factor in the decisions of several HMOs not to seek accreditation. Much of this uncertainty relates to HMO age and size; for example, younger HMOs were concerned about their lack of historical data for required outcomes studies, and insufficient sample sizes for HEDIS measures were problematic for smaller HMOs. These findings support the results of the earlier statistical analysis, which found significant relationships between the probability of applying for NCQA accreditation and several HMO organizational characteristics such as HMO age, size, and the proportion of Medicaid enrollees.

A number of applicant HMOs cited positive benefits of participating in the accreditation process. The majority of applicant HMOs plan to reapply for accreditation, and most of the unaccredited HMOs also plan to apply for NCQA or another type of accreditation in the near future. For the most part, neither the accredited nor non-accredited HMOs find the NCQA accreditation standards *per se* to be unreasonable. In fact, some HMOs in the non-applicant group indicated that they are using the NCQA standards for internal QI purposes.

At the same time, however, several HMOs in both groups identified actual or potential difficulties with accreditation standards, especially as they apply to rural areas. The majority of difficulties identified were in three categories: quality improvement, preventive health, and medical records. Many of these difficulties relate to characteristics of the HMOs and of the

physician practices with whom they contract in rural areas, e.g., predominantly solo or small group practices A few of the HMOs interviewed expressed frustration with NCQA's requirement that all HMOs should meet the same accreditation standards, describing it as a "one size fits all" process that does not take into account differences in HMO structure and size, or local health care delivery systems.

Both the applicant and non-applicant plans collect HEDIS measures to meet external requirements, e.g., Medicare, Medicaid and state requirements, and employer requests, as well as for internal quality improvement needs. The majority of HMOs interviewed find some HEDIS measures difficult to collect and identify a number of issues with HEDIS measurement that are more problematic in rural areas. Half of the HMOs interviewed lack enough eligible enrollees to meet sample size requirements for some HEDIS measures. Insufficient sample sizes are a particular concern for HMOs with Medicaid and Medicare enrollees.

Beginning in July 1999, the percent of a plan's accreditation score that is based on its compliance with NCQA standards will decrease from 100 percent to 75 percent, and 25 percent of the score will be based on audited results for a selected set of HEDIS performance measures (NCQA, 1997a). The problems with HEDIS measures identified by the HMOs interviewed for this study suggest that this change may be particularly difficult for HMOs that serve rural areas, especially small plans, and plans with small numbers of Medicare and Medicaid enrollees.

The three papers in this series have addressed several policy issues related to accreditation and HMOs that serve rural areas. Two rural health policy issues pertaining to HMO accreditation merit further research. The first is whether the lower accreditation rate among HMOs serving rural areas has had an impact on the quality of care received by rural HMO enrollees. Although there is an implicit assumption that participation in the accreditation process

will improve an HMO's quality of care, accreditation is not, in and of itself, a guarantee that the HMO will provide high quality care. Empirical evidence that accredited HMOs provide a superior quality of care, compared to unaccredited HMOs, is lacking. Some critics, in fact, have cautioned that consumers not rely solely on accreditation as an indicator of HMO quality (National Health Law Program, 1997; Kuttner, 1998).

A second outstanding policy issue is whether the HMO accreditation process validly assesses the capacity of HMOs with predominantly urban enrollees to provide quality care to rural enrollees. Nationally, the majority of HMOs that serve rural enrollees also serve urban enrollees (Moscovice, Casey, and Krein, 1998). In this study, some HMOs with predominantly urban enrollees focus their quality improvement efforts on their urban enrollees. Most of the HMOs do not analyze their HEDIS data separately for urban and rural enrollees.

From the perspective of the HMOs, these decisions make sense. The HMOs are concentrating their QI efforts where they will affect the greatest number of enrollees. Many HMOs already have too few enrollees to calculate some HEDIS measures, even before separating rural enrollees from urban enrollees. The HMOs are also trying to meet NCQA requirements that an HMO provide evidence it is making "meaningful improvements" through interventions "aimed at improving care or service for a significant portion or subset of the membership" (NCQA, 1998). As a result, however, the NCQA accreditation process may fail to identify differences in the quality of health care provided to rural and urban enrollees. It may also fail to provide an HMO with incentives to allocate resources to quality improvement activities in rural areas.

Uncertainty about the ability of the accreditation process to assess and improve the quality of care provided to rural HMO enrollees leaves policymakers and rural health advocates

in a difficult position. Clearly, rural HMO enrollees should have access to the highest possible quality of care. What is not clear is whether HMOs serving rural areas should be encouraged or required to seek accreditation. On one hand, greater participation in accreditation programs may have a positive impact on the quality of care received by rural enrollees. On the other hand, the significant costs of preparing and applying for HMO accreditation may divert resources from other activities that affect the quality of care. The imposition of accreditation requirements may increase the reluctance of some HMOs to serve rural populations, resulting in limited access to managed care options for rural residents. Alternatively, rural residents may be able to enroll only in large, nationally affiliated HMOs that have the financial and organizational resources to obtain accreditation.

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