This article identifies factors that influence health maintenance organizations’ (HMOs) decisions about offering a Medicare risk product in rural areas; describes HMOs’ recent experiences serving rural Medicare risk enrollees; and assesses the potential impact of Medicare program changes on the future willingness of HMOs to offer a Medicare risk product in rural areas. Data for the analysis were collected through interviews with a national sample of 27 HMOs. The results underscore the importance of adjusted average per capita cost (AAPCC) rates in HMOs’ decisions to offer Medicare risk products in rural areas, but also indicate that other factors influence these decisions.

Although the number of HMOs serving rural Medicare beneficiaries has increased since 1990, Medicare risk enrollment in rural areas still lags far behind urban areas (Moscovice, Casey, and Krein, 1998). Most rural Medicare beneficiaries do not have the option of enrolling in a Medicare risk plan (Physician Payment Review Commission, 1997), and rural Medicare risk enrollment is concentrated in a small number of States and health plans. The Balanced Budget Act of 1997 contains several provisions designed to reduce geographic variation in AAPCC payment rates for Medicare risk plans. However, it is unclear whether these changes will encourage HMOs to serve more beneficiaries in rural areas through Medicare risk contracts.

The results of a recent study conducted by the University of Minnesota Rural Health Research Center may suggest the future direction of the HMO response. This study had three purposes: first, to identify factors that influence HMOs’ decisions whether or not to offer a Medicare risk product in rural areas; second, to describe HMOs’ recent experiences serving rural Medicare risk enrollees; and third, to assess the potential impact of changes in the Medicare program on the future willingness of HMOs to offer a Medicare risk product in rural areas.¹

The relationship between AAPCC rates and Medicare risk enrollment in urban and rural areas has been examined by several national studies (Physician Payment Review Commission, 1995, 1996, 1997; U.S. General Accounting Office, 1997; Congressional Budget Office, 1997; Rural Policy Research Institute, 1997). In 1990, a Mathematica Policy Research study identified low and volatile AAPCC rates, the high fixed costs of marketing and administering Medicare risk plans, difficulty contracting with rural physicians, and HMOs’ perceptions that they were more likely to encounter adverse selection in rural areas as deterrents to Medicare risk contracting in rural areas (Serrato, Brown, and

¹Rural areas were defined as counties located outside of metropolitan statistical areas (MSAs). The Office of Management and Budget defines an area as an MSA if it includes at least one city with 50,000 inhabitants or an urbanized area with at least 50,000 inhabitants and a total metropolitan population of at least 100,000.
Bergeron, 1995). The current study focused on the decisionmaking and experiences of HMOs currently serving rural Medicare beneficiaries under risk contracts, and the rural implications of changes in the Medicare program. It also assessed whether the barriers identified by the Mathematica study continue to discourage HMOs from serving rural Medicare risk enrollees.

**METHODS**

Data for the analysis were collected through structured phone interviews with a national sample of 27 HMOs. The surveyed HMOs include 15 HMOs currently serving rural Medicare risk enrollees, 1 HMO that recently dropped its Medicare risk contract to serve rural enrollees, and 11 HMOs that have commercial enrollees in 5 or more rural counties, but no rural Medicare risk enrollees. The study also analyzed secondary data on HMO characteristics, Medicare risk enrollment, and AAPCC rates.

Two stratified random samples of HMOs were selected for the study. The “risk sample” consisted of HMOs serving 100 or more rural Medicare risk enrollees as of December 1995, stratified by the number of rural Medicare risk enrollees. The “commercial sample” consisted of HMOs that had five or more rural counties in their commercial service areas, but were not serving rural Medicare risk enrollees as of December 1995; this sample was stratified by census region. Two Minnesota HMOs were chosen as pre-test sites. Interview protocols were developed using the literature on HMOs and Medicare risk contracts, including the 1990 Mathematica study, and consisted of open-ended questions and probes regarding the HMO’s decisionmaking, experiences, and future plans regarding Medicare risk products in rural areas. At each HMO, one or more senior managers who were knowledgeable about the HMO’s Medicare risk product or the HMO’s decision not to offer the product were interviewed. The interviews were conducted from May through early September 1997.

Three of the HMOs in the risk sample had pre-Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 demonstration projects, five HMOs began their Medicare risk contracts between the mid-1980s and 1991, and eight HMOs signed contracts after 1993. These HMOs range in age from 8 to 51 years, with a median age of 13 years (Table 1). Six are mixed-model HMOs, seven are individual practice associations (IPAs), one is a group model, and one is a staff model. Ten are for-profit entities. Their rural Medicare risk enrollment ranges from just over 200 to almost 15,000 enrollees. The 11 HMOs in the commercial sample are younger than those in the risk sample, and a greater percentage are IPA models (Table 2). Only 2 of these plans have more than 100,000 enrollees, compared with 12 of the 15 plans with rural Medicare risk enrollees. The percentages of for-profit HMOs and non-profit HMOs in the two groups are similar.

Compared with HMO plans nationally (InterStudy, 1996), the HMOs in the risk sample are older, have larger total enrollment, are less likely to have for-profit tax status, and are more likely to be mixed-model HMOs. Their organizational characteristics resemble those of all HMOs with Medicare risk contracts (Physician Payment Review Commission and Prospective Payment Assessment Commission, 1995). The risk sample HMOs represent more than one-fourth of the 50 HMOs nationally that were serving at least 100 rural Medicare risk enrollees at the end of 1995. Therefore, we are reasonably confident that the study results are
| Plan Age | Model Type       | Tax Status   | Total Enrollment | Medicare Risk Enrollment | Rural Medicare Risk Enrollment |
|----------|------------------|--------------|------------------|-------------------------|-------------------------------|
| Preferred Care, NY  | 17 | IPA | Non-profit | 178,652 | 17,258 | 206 |
| Medica Health Plan, MN | 21 | IPA/Network | Non-profit | 586,265 | 40,637 | 233 |
| Blue Care Network Health Central, MI | 18 | Staff/Network | Non-profit | 67,536 | 5,901 | 304 |
| PCA Health Plans, FL | 8 | IPA | For-profit | 111,230 | 38,236 | 1,149 |
| FHP of Colorado, CO | 8 | IPA | For-profit | 311,133 | 49,628 | 1,255 |
| United Health Care of Louisiana, LA | 9 | IPA | For-profit | 110,794 | 18,433 | 1,582 |
| Lovelace Health Plan, NM | 23 | Staff/IPA | For-profit | 102,475 | 16,159 | 1,626 |
| NYL Care Health Plans of Gulf Coast, TX | 13 | IPA | For-profit | 347,988 | 37,935 | 1,839 |
| HMO Partners, AR | 10 | IPA | For-profit | 55,709 | 6,658 | 2,475 |
| PacifiCare of Texas, TX | 9 | Group/IPA | For-profit | 151,698 | 65,349 | 2,657 |
| WellCare of New York, NY | 10 | IPA | For-profit | 92,892 | 7,825 | 3,860 |
| Kaiser FHP of Northwest, OR | 51 | Group | Non-profit | 394,131 | 33,075 | 4,394 |
| PacifiCare of Oregon, OR | 11 | Network/IPA | For-profit | 174,256 | 40,330 | 6,883 |
| Intergroup of Arizona, AZ | 15 | Network/IPA | For-profit | 318,752 | 46,027 | 8,523 |
| Geisinger Health Plan, PA | 24 | Group/IPA | Non-profit | 155,276 | 27,374 | 14,755 |

NOTES: HMO is health maintenance organization. IPA is individual practice association.
SOURCE: InterStudy Competitive Edge, August 1996 and HCFA Medicare Managed Care Market Penetration File, June 1997.
Table 2
Characteristics of Participating HMOs With Rural Commercial Enrollment, But No Rural Medicare Risk Enrollment

| Plan Age (years) | Model Type | Tax Status | Total Enrollment |
|------------------|------------|------------|------------------|
| DAKOTA CARE, SD  | IPA        | For-profit | 19,819           |
| Advantage Care, KY| Group/IPA  | For-profit | 21,818           |
| Trigon Blue Cross Blue Shield, VA | IPA | For-profit | 21,583           |
| United Health Care of Texas, Inc., TX | IPA | For-profit | 34,103           |
| Welborn Health Plans, IN | Staff      | For-profit | 35,082           |
| North Central Health Protection Plan, WI | IPA | Non-profit | 40,969           |
| Rockford Health Plans, IL | Network   | For-profit | 44,995           |
| HealthSource Maine, ME | IPA | For-profit | 66,011           |
| Blue Plus, MN | IPA        | Non-profit | 70,201           |
| Physicians Health Plan, MI | IPA       | Non-profit | 190,231          |
| Blue Shield of California HMO, CA | Group/IPA | Non-profit | 277,815          |

NOTES: HMO is health maintenance organization. IPA is individual practice association.

SOURCE: InterStudy Competitive Edge, August 1996.

RESULTS

Decisions to Serve Rural Areas

Most of the risk sample HMOs cited a combination of factors in their decisions to serve rural Medicare risk enrollees. These HMOs are all well-established plans with large commercial populations, and several indicated that their decision to offer a Medicare risk product in rural areas was influenced by their experiences offering commercial products in those areas.

Seven HMOs cited the presence of significant senior populations in some rural areas as a motivating factor for offering the Medicare risk product. For six HMOs, having an established provider network in rural areas was a major factor. Six HMOs reported that employer demand for retiree coverage was an important incentive. The HMOs were especially interested in contracting with major employers with large numbers of retirees in rural areas. They were also interested in retaining commercial members who retired.

For three HMOs, corporate mission influenced their decision. One HMO official stated: “We wanted to have a well-rounded offering, from a provider and consumer perspective, by covering Medicare and Medicaid as well as commercial. The HMO has a corporate mission to serve all populations.” This HMO added that it did not enter the Medicare risk business thinking it would make money. Two HMOs described HCFA’s requirement that a Medicare risk service area be contiguous as a factor in their decisions. Two HMOs specifically mentioned competition from other HMOs in rural areas as a motivating
force for serving rural Medicare enrollees. Geographic necessity, i.e., the desire to expand in a State that is mostly rural, played a role in one HMO’s decision to expand to rural counties. For one HMO, serving rural Medicare risk enrollees was a “secondary effect;” it chose to serve urban areas and “portions of the nearby rural counties just came with them.”

Four HMOs described AAPCC rates as one of several factors they considered in their decisions to serve rural counties. One HMO selected rural counties where AAPCC rates were “not outrageously low” compared with the urban counties in its service area; other HMOs indicated that they were serving rural areas in spite of low AAPCC rates. These HMOs balanced low rural AAPCC rates with other factors such as capacity in the provider network, provider willingness to work with the plan, the growing number of retirees in some rural areas, and a desire to establish their Medicare risk products in advance of the competition.

For the commercial sample, AAPCC rates emerged as the most important factor in HMOs’ decisions not to offer a Medicare risk product in rural areas. Several HMOs described low AAPCC rates in rural counties as the only reason why they are not offering a Medicare risk product in the rural portions of their commercial service areas. Other HMOs cited a combination of factors, including low AAPCC rates, inability to develop a sufficient provider network, and small numbers of Medicare beneficiaries.

These findings are in accord with research indicating that the rural counties currently served by Medicare risk HMOs have significantly larger populations, higher population density, and higher AAPCC rates, and are more likely to be located adjacent to urban areas, compared with rural counties not served by Medicare risk HMOs (Moscovice, Casey, and Krein, 1998).

Experience in Rural Areas

The 15 HMOs in the rural sample have rural Medicare service areas that range in size from 1 county to 20 counties, with a median of 5 rural counties. Twelve of these HMOs currently have a rural Medicare service area that is smaller than their rural commercial service area. The differences between the HMOs’ Medicare and commercial service areas range from one county to the majority of rural counties in a State. These HMOs most frequently cited low AAPCC rates and difficulty contracting with providers in some counties as reasons for selective exclusion of rural counties from their Medicare service areas.

Five of the 15 risk sample HMOs and 3 of the 11 commercial sample HMOs identified HCFA’s access standards (which require that enrollees have access to primary and specialty care within certain distance or travel times) as Federal requirements that are more difficult for the HMO to meet in rural areas. Other HMOs reported that provider “monopolies” in some rural counties (e.g., counties with a single IPA or hospital that refuses to negotiate a capitated contract) make it more difficult to meet the access standards. The risk sample HMOs reported using a variety of reimbursement methods for their Medicare risk products, depending on the HMO model type, its ability to negotiate capitated contracts, and/or the volume of Medicare risk patients. Most frequently, these HMOs pay some or all rural physicians on a discounted fee-for-service (FFS) basis, while capitating urban physicians.

The risk sample HMOs reported varying degrees of competition from other HMOs in their rural Medicare risk service areas. Two HMOs described the rural environment for their Medicare risk products as “competitive.” Most of the HMOs, however, reported that competition is limited to
one or two other Medicare risk plans in a portion of their rural service areas, in contrast to the significant competition that exists in many urban areas. For a few HMOs, competition in their rural service areas is primarily in the form of Medicare cost and/or supplemental products.

Five HMOs did not know whether the utilization patterns of their rural Medicare risk enrollees differ from those of urban enrollees. For most of these HMOs, rural enrollees comprise a small percentage of their Medicare risk enrollees, and they have not examined rural utilization patterns separately. A few HMOs have not observed any differences in rural and urban utilization patterns while others, including two HMOs with large numbers of rural enrollees, reported that utilization has been higher in rural areas.

Of the 15 HMOs with rural Medicare risk enrollees, 8 HMOs were able to differentiate between the financial experience of their Medicare risk product in rural areas and in urban areas. Five of these eight HMOs said their Medicare risk products were unprofitable in rural areas (and either profitable or breaking even in urban areas), while two HMOs said they were breaking even in rural areas and making a profit in urban areas. One HMO reported that its financial experience in both urban and rural areas has been “moderately positive.”

One HMO did not describe its financial experience with the Medicare risk product, and six HMOs described their overall financial experience without distinguishing between rural and urban areas. Two of these HMOs said their Medicare risk products were unprofitable overall, two HMOs said they were breaking even, and two reported that their financial experience varied from county to county within their service area. In addition, the interviewed HMO that dropped its Medicare risk contract did so because both the HMO and the rural clinic, its only provider in the area, were experiencing financial losses under the risk contract.

No clear relationship emerged between the HMOs’ financial experience with Medicare risk products in rural areas and either the length of time the HMO has offered the product or the number of rural enrollees. The HMOs that reported unprofitable Medicare risk products in rural areas include both HMOs that have had these products for several years and HMOs that began offering them more recently. They also include some HMOs with large numbers of rural Medicare risk enrollees, as well as HMOs with relatively fewer rural Medicare risk enrollees. HMOs with low rural AAPCC rates (less than $375) were more likely to say their Medicare risk products are losing money in rural areas, while those with moderate rural rates ($375 to $499) were more likely to say they are breaking even or profitable.

**Future Plans**

Four of the 15 HMOs with Medicare risk products in rural areas plan to expand their rural Medicare service areas in the near future. One of these HMOs plans to add two rural counties, and the other three HMOs plan to add several rural counties. One HMO is “likely” to add one rural county, while another HMO will only add Medicare enrollees from nearby rural areas who obtain care in urban areas.

Four HMOs have no plans to expand their rural Medicare service areas; one of these HMOs plans to drop some rural counties unless rates increase or contracting requirements change. For three HMOs, future rural expansion depends on AAPCC changes; one of these HMOs is also evaluating the status of some rural
counties in its current service area. Two HMOs may expand their Medicare risk service areas in the future as they expand their commercial service areas.

Among the group of HMOs not currently serving rural Medicare risk enrollees, one of the two HMOs with urban Medicare risk enrollees plans to serve rural enrollees in the future, and the other plans to serve them if its rural AAPCC rates increase. Three HMOs in the commercial sample are considering Medicare risk contracts, but have not decided whether to submit applications or which counties would be in their service areas. Six HMOs have no plans to serve rural Medicare risk enrollees in the near future. Two of these HMOs have submitted Medicare risk applications for urban service areas, and another is preparing such an application. One HMO applied for a Medicare cost contract; a second was considering a Medicare cost or Medicare SELECT product, and a third was considering a traditional Medicare supplemental product. Medicare SELECT is an individually purchased Medicare supplemental insurance policy.

This article also shows that AAPCC rates and provider network considerations are important factors in decisions made by a number of HMOs to exclude rural counties in their commercial service areas from their Medicare risk contract service areas.

These results suggest that the changes in the AAPCC payment methodology are most likely to affect the willingness of two groups of HMOs to serve rural Medicare risk enrollees. The first group is HMOs that have excluded rural counties in their commercial service areas from their Medicare risk contract service areas primarily because of low AAPCC rates. The second group includes HMOs that serve rural commercial populations, but do not offer a rural Medicare risk product because of low AAPCC rates in those rural counties. HMOs that are serving rural Medicare risk enrollees unintentionally or only at the HMOs’ urban facilities appear unlikely to increase the number of rural enrollees they serve as a result of the AAPCC changes.

Increases in rural AAPCC rates will not directly affect other factors cited by some HMOs as disincentives to Medicare risk product development in rural areas. These include small numbers of rural Medicare beneficiaries or the unwillingness of rural providers to contract with the HMO on a capitated basis. However, the AAPCC changes may indirectly reduce some of these barriers. For example, to the extent that increased AAPCC rates allow HMOs to offer rural physicians, hospitals, and other providers more favorable reimbursement, the AAPCC changes may encourage previously reluctant rural providers to participate in HMO provider networks. Alternatively, some of these rural providers may be motivated by increased AAPCC rates and the potential regulatory flexibility of Federal PSO standards to

CONCLUSIONS

The results summarized in this article underscore the importance of AAPCC rates as a factor in HMOs’ decisions to offer Medicare risk products in rural areas, but also identify several other factors that influence these decisions, including the HMO’s experience with commercial HMO products in rural areas, whether the HMO has an established rural provider network (or believes it can successfully develop one), employer demand for retiree coverage, the presence of sufficiently large senior populations, the HMO’s corporate mission, contiguous service area requirements, and competition from other HMOs.
develop PSOs, either in competition with HMOs or as joint ventures with HMOs or insurance companies.

Although the majority of Medicare risk enrollees are individuals, this study indicates that large employers seeking HMO coverage for retirees now play a growing role in encouraging HMOs to offer Medicare risk products in some rural areas. This article also suggests that competition in a few Medicare risk markets is motivating some HMOs to expand their Medicare risk service areas to include rural counties. In another sign of potential near-term growth in the rural Medicare risk contract market, several HMOs described a proposed strategy of initially developing their Medicare risk product in urban areas where AAPCC rates are higher and contracting with providers is easier, and then expanding to rural areas.

A number of HMOs, however, reported financial losses on their rural Medicare risk products, and nearly all of the HMOs currently serving rural Medicare risk enrollees indicated that their financial experience in rural areas has been less positive than in urban areas. The for-profit HMOs interviewed have clear expectations that their Medicare risk products will be profitable or will not be continued. A number of the non-profit HMOs suggested that they did not expect to make money on a rural Medicare risk product, however, they acknowledged the need to break even over the long term.

Currently, most rural Medicare beneficiaries have traditional supplemental policies. Some indemnity insurers with substantial numbers of rural Medicare beneficiaries in supplemental products operate affiliated HMOs and are encouraging their rural commercial populations to move to managed care. The future of Medicare risk contracting in rural areas may depend in part on whether these organizations decide to offer Medicare risk products through affiliated HMOs, and the degree to which they encourage their Medicare supplemental subscribers to move to managed care.

The success of Medicare risk contracting in rural areas also will depend on whether increased AAPCC rates allow HMOs to offer rural enrollees the type of Medicare risk products that have competed successfully with Medicare supplemental products in higher AAPCC urban markets, i.e., products with zero premiums or low premiums compared with supplemental products, as well as additional benefits such as prescription coverage.

ACKNOWLEDGMENTS

The author thanks the HMO representatives who participated in interviews for this project; Jon Christianson and Anthony Wellever, who provided helpful comments on an earlier draft of the article; Ira Moscovice, Director of the University of Minnesota Rural Health Research Center, and Patricia Taylor, our Program Officer at the Federal Office of Rural Health Policy, for their support.

REFERENCES

InterStudy: The InterStudy National HMO Census. Minneapolis. InterStudy, 1996.
Moscovice, I., Casey, M., and Krein, S.: Expanding Rural Managed Care: Enrollment Patterns & Prospects. Health Affairs 17(1): 172-179, 1998.
Physician Payment Review Commission: Annual Report to Congress. Washington, D.C. PPRC, 1995.
Physician Payment Review Commission: Annual Report to Congress. Washington, D.C. PPRC, 1996.
Physician Payment Review Commission: Annual Report to Congress. Washington, D.C. PPRC, 1997.
Physician Payment Review Commission and Prospective Payment Assessment Commission: Joint Report to the Congress on Medicare Managed Care. Washington, D.C. PPRC/ProPAC, October 1995.
Rural Policy Research Institute: The Rural Implications of Medicare AAPCC Capitation Changes: Background Assessment and Simulation Results of Key Legislative Proposals. Columbia, M.O. RUPRI, May 1997.

Serrato, C., Brown, R., and Bergeron, J.: “Why Do So Few HMOs Offer Medicare Risk Plans in Rural Areas?” Health Care Financing Review 17(1):85-97, Fall 1995.

U.S. Congressional Budget Office: Predicting How Changes in Medicare Payment Rates Would Affect Risk-sector Enrollment and Costs. Washington, D.C. CBO, March, 1997.

U.S. General Accounting Office: Medicare HMO Enrollment: Area Differences Affected by Factors Other Than Payment Rates. Report No.GAO/HEHS-97-37. Washington, D.C. May 1997.

Reprint Requests: Michelle Casey, Rural Health Research Center, University of Minnesota, 2221 University Avenue SE., Suite 112, Minneapolis, Minnesota 55414. E-mail: mcasey@tc.umn.edu