SUMMARY

The Centers for Medicare and Medicaid Services (CMS, formerly the Health Care Financing Administration) contracted with RAND to analyze special payments that Medicare has been making to rural providers and the implications for access and costs of care for rural Medicare beneficiaries. CMS is interested in developing information for use in formulating future Medicare policy for rural health care services and payments. Although the special payment provisions are diverse, they all are intended to support the rural health care infrastructure to help ensure access to care for Medicare beneficiaries residing in rural areas. These provisions were introduced at various times during the past decade or earlier.

The purpose of this research was to provide a comprehensive overview of Medicare special payments to rural providers over the last decade, including documentation of the supply of providers, trends in payments made by Medicare, resulting Medicare costs per beneficiary, and implications for access to care for Medicare beneficiaries living in rural areas. One focus of the study was on services in geographic areas designated as underserved areas by the Health Resources and Services Administration (HRSA), using either Health Professional Shortage Area (HPSA) or Medically Underserved Area (MUA) designations. The special payment provisions examined were:

- Special payments for sole community hospitals, rural referral centers, and Medicare-dependent hospitals;
- Reimbursements to Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs);
- Bonus payments to physicians in rural HPSAs; and
- Medicare Adjusted Average per Capita Cost (AAPCC) capitation payments for rural counties, especially underserved areas.

Using results of the trend analyses, we estimated the relative contribution of special payments for rural hospitals to the Medicare per capita costs in rural counties, which are the basis for Medicare capitation rates. The results of this analysis also are presented in this report. Similar analyses were not performed for RHC/FQHC services or for physician bonus payments because the trend analyses showed that both of these payment provisions had quite small effects on Medicare costs per beneficiary.

BACKGROUND

The access of the rural elderly to health care services has been a continuing source of concern for policymakers. Elderly people live in rural areas in disproportionate numbers, and a larger proportion of them suffer from activity-limiting chronic diseases (Rogers et al., 1993; Schlenker and Shaughnessy, 1996). Elderly people in rural areas also travel longer and wait longer for outpatient care and use fewer preventive services than their non-rural counterparts (Taylor et al., 1993; Van Nostrand et al., 1993). Rural communities face difficulties protecting provider supplies, including recruitment and retention of physicians and the viability of rural hospitals. Rural hospitals tend to be small and offer a more limited range of services than their counterparts in more densely populated regions, and their numbers continue to decline. Rural

hospitals with fewer than 100 beds are less likely to offer a range of acute care services. Instead, outpatient and long-term care services have become more important shares of total rural hospital services during the 1990s (Moscovice et al., 1999).

Congress created several new categories of rural hospitals with more favorable payment provisions to improve their financial performance. Sole community hospitals were designated early in the 1980s to ensure access for Medicare beneficiaries residing in non-metropolitan counties. Rural referral centers (RRCs) are larger rural hospitals with a range of services that offer specialty referral resources for other rural hospitals. Small rural Medicare-dependent hospitals were designated from April 1990 through September 1994, and the Balanced Budget Act (BBA) reactivated them in 1997. Two demonstrations also were in operation during the 1990s to test alternative models for limited-service rural hospitals that refer to larger, full-service facilities, including the Montana Medical Assistance Facility demonstration and the Essential Access Community Hospital program. These hospitals transitioned to Critical Access Hospitals after passage of the BBA.

Rural Health Clinics were created by the Rural Health Clinics Act (P.L. 95-210) of 1977 to extend Medicare and Medicaid coverage and cost-based reimbursement to support health care services for beneficiaries in underserved rural areas, including non-physician practitioner services. Separate designations were created for independent and provider-based RHCs. The Omnibus Budget Reconciliation Act (OBRA) of 1989 created the FQHC program to establish cost-based reimbursement for services provided to Medicaid beneficiaries by an existing network of federally funded community health centers, migrant health centers, and similar facilities. OBRA 1990 extended FQHC reimbursement to cover services provided to Medicare beneficiaries. Both urban and rural health centers are eligible for designation as FQHCs, and the scope of services the clinics are required to provide is broader than those required for RHCs.

To encourage physicians with established practices to relocate to rural areas, a payment incentive program was identified as a method to help offset the opportunity costs associated with relocation and starting a new practice (PPRC, 1992). Congress enacted a bonus payment program in 1989 that provided additional payments to physicians, above the amount paid by Medicare under the Physician Fee Schedule, for providing health care services in HPSAs. The original program gave 5 percent bonus payments to physicians providing care in rural HPSAs. In 1991, the bonus payment was increased to 10 percent and eligibility was expanded to include reimbursement for services provided by physicians in urban HPSAs.

Medicare spending for rural fee-for-service beneficiaries is the basis for the county-level AAPCCs that serve as the basis for capitation payments to Medicare health maintenance organizations. In general, the AAPCC rates for counties outside Metropolitan Statistical Areas (MSAs) are lower than those for more urbanized counties, reflecting lower rural utilization and payment rates. AAPCC rates for these counties also tend to fluctuate from year to year because they are based on spending for smaller populations. Given these payment issues and rural provider supply problems, few HMOs have contracted to serve Medicare beneficiaries in rural areas (PPRC, 1995), and several that entered these areas have subsequently withdrawn.

Eligibility for many of the rural programs and payments being addressed by this project requires service providers to operate in underserved areas, which are designated based on Congressional provisions for Medically Underserved Areas/Populations (MUA/P) and HPSAs. These areas are designated by HRSA through its regulatory process. HRSA reviews HPSA

designations every three years, adding or deleting area designations as appropriate. In 1997, roughly 64 percent of counties outside MSAs contained at least one region officially designated as an HPSA and roughly 10 percent of non-MSA counties had no active primary care physician (NC-RHRPAC, 1998). In response to the Health Centers Consolidation Act of 1996, HRSA is revising the criteria and procedures for designating MUA/Ps and HPSAs, with plans to publish the new provisions in the near future. (See Section 1 for designation criteria.)

The 1997 BBA, as well as follow-up legislation in subsequent years, contained a number of provisions with important implications for the financing and delivery of Medicare-funded services in rural areas. Some provisions addressed fee-for-service payments for rural hospitals, skilled nursing facilities (SNFs), and home health agencies, which can be anticipated to have complex effects for rural providers. Some changes also were made in payment provisions for Rural Health Clinics and Federally Qualified Health Centers. Other provisions established a new methodology for capitation payments for the new Medicare+Choice organizations, including provisions to encourage plans to serve rural areas. The 1997 AAPCC rates were the baseline rates for this new payment formula.

METHODS AND DATA

With a few exceptions, the analyses performed in this research were descriptive analyses of trends in the supplies of providers qualified for Medicare special rural payment provisions, utilization of services, and Medicare spending for these services. The data, key variables derived, and analytic methods are described in detail in Section 2. The method we used to define rural locations was based on whether or not a county is part of an MSA, as defined by the Census Bureau. All counties outside an MSA were considered to be rural for purposes of this analysis. We note that this is an imperfect definition of rurality because each county contains a mix of urbanized and more truly rural locations and county boundaries obscure a wide range of local characteristics. Counties outside MSAs have fewer and smaller urbanized locations than MSA counties, but they are not uniformly rural in nature. Therefore, we use the term “non-metropolitan” counties, rather than “rural.”

For all analyses, we compared measures across five categories of non-metropolitan counties that group counties according to their extent of rurality. We used the Urban Influence Codes (UICs) to establish these categories, collapsing the codes for non-metropolitan counties from seven to five categories (see Section 2 and Appendix B). In addition, non-metropolitan counties were classified as frontier counties if they were in the western part of the country and had population densities of fewer than 6 persons per square mile.

The various analyses of trends in special payments for rural providers and AAPCC payments involved linking data for 1992 through 1998 from several sources. Public use data sources included the annual Medicare Provider of Service (POS) files, annual Provider Specific Files, annual Medicare Impact files for hospital inpatient payment factors, an extract of the Area Resource File (ARF extract), summary files containing county-level counts of Medicare beneficiaries and Medicare health plan enrollees, and county-level files of AAPCC capitation rates for 1990 through 1997. We also used Medicare data for 1992 through 1998 for the 100 percent denominator files, MEDPAR claims for short-term inpatient hospital services for the 100 percent sample of Medicare beneficiaries, Medicare institutional outpatient claims from RHCs and FQHCs for the 5 percent sample of Medicare beneficiaries, and Medicare Part B claims for physicians’ services for the 5 percent sample of beneficiaries.

Social Security Administration (SSA) state and county codes were used to link provider-level data or Medicare claims to county-level measures (e.g., extent of rurality, HPSA) in the ARF extract file. For population-based analyses, the data were linked based on the state and county of residence for Medicare beneficiaries; for facility-based analyses, the linkages were based on provider location. The geographic areas of interest were all counties not located within a metropolitan statistical area (called non-metropolitan counties).

SUMMARY OF FINDINGS

Characteristics and Provider Supply for Non-Metropolitan Counties

The non-metropolitan counties of the United States vary substantially in their population density, demographics, socioeconomic status, and supply of health care providers. Historically, classification methods have been less than successful in grouping rural areas by these characteristics to achieve relatively homogeneous groupings by "extent of rurality." The results of this descriptive analysis highlight this challenge.

- Although the non-metropolitan counties far outnumber the metropolitan counties (2,292 non-metropolitan compared to 834 urban counties), they contain only one-quarter of the Medicare population.
- Medicare beneficiaries represent larger shares of the total population in non-metropolitan counties, and the most remote counties have the largest shares of beneficiaries (20 percent of the population in 1997 compared to 16.3 percent for counties adjacent to an MSA and with a city of 10,000 or more).
- Large percentages of non-metropolitan counties have been designated as either whole-county or partial-county underserved areas (64.4 percent were HPSAs in 1997 and 65.5 percent were MUAs); 54.4 percent of non-metropolitan counties were designated as both HPSAs and MUAs, and only 9.6 percent were designated as neither.
- Physician-to-population ratios were substantially higher for metropolitan counties, but per capita ratios of hospitals and hospital beds, skilled nursing facilities, nursing homes, home health agencies, and rural health clinics were higher for non-metropolitan counties, especially the more remote county categories.
- Within the non-metropolitan counties, different patterns of provider supply were found for physicians and hospital beds. The ratios of physicians to population were highest in counties adjacent to an MSA and lowest for the most remote counties; ratios of hospital beds were higher for the more remote counties.

Special Payments for Rural Hospital Inpatient Services

A chronic issue for beneficiaries in the more remote areas of the country has been geographic access to hospital services. The most remote counties had the sparsest supplies of hospitals and certified hospital beds. The richest supplies were in counties with a city of at least 10,000 population, especially those adjacent to MSAs. Beneficiaries residing in the more remote counties tended to have *higher rates of inpatient stays* than those in more urbanized non-metropolitan counties, despite the generally longer distances to hospital locations. The *average Medicare payment per inpatient stay*, however, tended to be lower for beneficiaries in remote

counties. Whereas beneficiaries in frontier counties had the lowest rates of inpatient stays per 1,000 beneficiaries, the average Medicare spending per inpatient stay was higher than for any of the other remote counties.

There was a gradual decline from 1992 to 1998 in the numbers of Medicare-certified hospitals serving non-metropolitan counties, with a total decrease of 5.5 percent between 1992 and 1998. The declining trends varied across geographic areas, and those hospitals that remained in operation showed encouraging signs of viability:

- The greatest losses of hospitals for non-metropolitan county categories were in the most remote rural counties (8.3 percent decline) and frontier counties (9.5 percent decline).
- Loss of non-metropolitan hospitals was greatest in the New York region designated by the HHS, and also was large in the Kansas City and Denver HHS regions.
- There was an increase in the number of non-metropolitan counties that had no hospitals, and a decrease in the number of hospitals in counties with more than one hospital.
- Growing numbers of hospitals in non-metropolitan counties offered home care (18.1 percent increase), hospice services (39.0 percent increase), and organized psychiatric inpatient units (42.1 percent increase), which should enhance access to care for Medicare beneficiaries.
- As the number of hospitals declined, increasing percentages of the non-metropolitan hospitals were owned by independent hospital districts or authorities, while ownership by local municipal governments decreased.
- The percentage of hospitals that had for-profit ownership increased in some categories of non-metropolitan counties but decreased in others, with little overall change in for-profit ownership across all non-metropolitan counties.

There were changes in the mix of hospitals designated for Medicare special payment provisions or reclassified for wage indexes for higher payments. The overall percentage of non-metropolitan hospitals with special payment designations decreased from 54.8 percent in 1992 to 38.2 percent in 1998, with a subsequent increase to 60.9 percent in 2000 as BBA provisions went into effect.

- Most of the overall reduction in special designations was due to discontinuation of Medicare-dependent hospitals after 1993; numbers increased when this designation was reactivated in 1997 by the BBA.
- The number of sole community hospitals increased somewhat from 1992 through 1998, whereas the number of rural referral centers decreased through 1998 and then increased by 2000.
- The percentage of hospitals reclassified for wage index declined from 25.8 percent in 1992 to 12.7 percent in 1998.
- Hospitals designated as rural referral centers were consistently much larger, on average, than other non-metropolitan hospitals, and they provided a greater diversity of services. The rural referral centers also were much more likely than the sole community hospitals to elect wage index reclassification.

We looked at changes in inpatient utilization and spending from two perspectives: (1) services provided by non-metropolitan hospitals and (2) services utilized by beneficiaries residing in non-metropolitan counties regardless of hospital location. From 1992 to 1998, the total number of Medicare inpatient stays in non-metropolitan hospitals increased by 12 percent, even as the number of hospitals declined. Differing trends were found by type of hospital designation.

- Percentages of total inpatient stays increased between 1992 and 1998 for sole community hospitals (from 15.0 percent to 20.6 percent) and for hospitals with no special payment designation (from 41.1 percent to 56.5 percent), whereas the percentage declined for rural referral centers (from 26.8 percent to 15.0 percent). These trends reflect trends in the number of hospitals—increasing numbers of SCHs and declining numbers of RRCs.
- In general, sole community hospitals had the largest shares of the Medicare inpatient stays provided by hospitals in the more remote counties, whereas rural referral centers had the largest shares of stays among hospitals in counties with a city of 10,000 population or greater (either adjacent to an MSA or remote), where many of them are located.
- Rural referral centers had much higher case mixes than other non-metropolitan hospitals, as reflected in the average DRG weights for inpatient stays at these hospitals.
- All groups of hospitals with special payment designations had higher average standardized payments (based on a DRG weight equal to 1.0) than those for other non-metropolitan hospitals, reflecting the higher payments provided under these designations.
- The average Medicare payment per stay for rural referral centers was higher than payments for other types of hospitals. After standardizing the payments to control for the higher case mix at rural referral centers, the average payments for rural referral centers and sole community hospitals were more similar.
- Metropolitan hospitals represented 31 percent of inpatient stays for beneficiaries residing in non-metropolitan counties and more than 45 percent of total Medicare spending on their inpatient care. The average payment per stay for metropolitan hospitals was much larger than the average payment per stay at non-metropolitan hospitals, because of a combination of a higher case mix and higher payment rates for urban facilities.

Rural Health Clinics and Federally Qualified Health Centers

The supply of RHCs and non-metropolitan FQHCs increased substantially between 1992 and 1998, and the mix of facility types changed.

- According to the POS files, 248 provider-based RHCs operated in 1992 and 1,860 in 1998. This growth represented an average annual increase of 100 percent, although the fastest rates of growth occurred early in the decade. The number of independent RHCs increased at a somewhat lower rate from 824 clinics in 1992 to 1,905 clinics in 1998 (58 percent annually).
- The number of independent RHCs increased faster in the more urbanized non-metropolitan counties, whereas growth in the provider-based RHCs tended to be in more remote counties with smaller towns.

- Non-metropolitan FQHCs increased from 364 facilities in 1992 to 795 facilities in 1998 (20 percent annual growth). The greatest growth in FQHCs tended to occur in counties adjacent to metropolitan areas and in remote counties with a city of at least 10,000 population.
- For the provider-based RHCs, for-profit ownership declined from 23.0 percent in 1992 to 18.9 percent in 1998. The opposite trend was found for independent RHCs, with for-profit ownership increasing from 45.4 percent in 1992 to 65.3 percent in 1998.

With greater numbers of FQHCs and RHCs delivering primary care services to Medicare beneficiaries across rural areas, Medicare utilization and spending for these services increased accordingly. Judging by data from provider claims for the 5 percent beneficiary sample, Medicare spending for all FQHC and RHC services (for rural and urban beneficiaries) was an estimated $54.5 million in 1991. Spending more than tripled to $175.8 million in 1994 and doubled again to $390.3 million in 1998.

- As of 1991, beneficiaries in the most remote counties (with no town of at least 2,500) were the most likely to use FQHCs and RHCs (e.g., 8.5 percent used FQHCs compared to 0.5 percent of all non-metropolitan beneficiaries). These areas are of special policy interest for access to care. The percentage of beneficiaries using FQHCs and RHCs increased through 1998 for remote counties with small towns and with no towns.
- Despite the increase in numbers of FQHCs and both types of RHCs in the most remote counties, facilities in these counties represented a declining share of the total number of facilities in non-metropolitan areas from 1991 to 1998 because the number of facilities grew faster in other county categories.
- Medicare spent an estimated $28.8 million in 1991 for RHC and FQHC services to beneficiaries living in non-metropolitan counties (52.9 percent of the total for these services), which increased to $276.3 million in 1998 (70.8 percent of the total).
- The distribution of spending shifted toward payments for provider-based RHC services during the 1990s. As of 1998, 28.8 percent of spending was for provider-based RHCs (up from 6.2 percent in 1991), 37.3 percent for independent RHCs (down from 47.1 percent in 1991), and 33.9 percent for FQHCs (down from 46.7 percent in 1991). Even with this shift in shares, the amounts of spending increased for all three types of facilities during this time.
- The average Medicare spending per beneficiary increased more than sixfold (from $1.54 per beneficiary in 1991 to $10.16 in 1998), indicating that all but a small portion of the increased spending was due to growth in the amount of services per beneficiary rather than to the size of the beneficiary population. (Inflation contributed a small share of the total spending increase.)

Physician Bonus Payments

Medicare spending for physician services to non-metropolitan beneficiaries increased steadily during the 1990s, but this trend did not translate into the same growth pattern for bonus payments. As expected, bonus payments were made predominantly for services to beneficiaries residing in non-metropolitan HPSAs, but some also were made for those residing in non-HPSA

locations. These findings suggest that bonus payments may have contributed to access on a broader geographical scale than the strict limits of the HPSA boundaries, possibly reflecting the distances that rural beneficiaries often travel for care.

- After substantial increases during the first half of the decade, total bonus payments to physicians began to level off between 1994 and 1996 and then declined by 13.3 percent between 1996 and 1998.
- Bonus payments measured as a percentage of basic Medicare payments to physicians were 0.5 percent of basic payments in 1992, 0.7 percent in 1994, 0.6 percent in 1996, and 0.5 percent in 1998. These percentages reflect the flat trend in bonus payments, and they also highlight that bonus payments are an extremely small share of total Medicare costs for physician services to non-metropolitan beneficiaries.
- For each of the four years studied, close to an estimated 60 percent of bonus payments were made for physician services to beneficiaries residing in whole-county HPSAs, and 30 percent were for beneficiaries in partial-county HPSAs, including those residing outside the HPSA portion of the county.
- A relatively substantial balance of 10 percent of bonus payments was attributable to services for beneficiaries residing in non-HPSA counties.

We found that bonus payments had targeted primary care. Different trends were found for bonus payments for primary care physicians and for primary care services.

- An estimated 55.9 percent of total bonus payments in 1992 was paid to primary care physicians, although their shares decreased steadily over time to reach 49.7 percent in 1998.
- In 1992, payments for primary care services represented 14.0 percent of total basic Medicare payments for physician services and 29.7 percent of total bonus payments for beneficiaries in non-metropolitan counties. By 1998, these shares had grown to 18.6 percent of basic Medicare payments and 37.0 percent of total bonus payments.

The analysis of Medicare payments for non-physician practitioner services indicates that NPP services billed directly to Medicare were a very small but growing fraction of Medicare payments for physician/NPP services (sum of physician and NPP services) provided to Medicare beneficiaries in non-metropolitan areas. These findings may reflect a situation where both physicians and NPPs had a financial incentive to bill Medicare for NPP services through physicians' practices rather than through independent billing by the NPPs, to obtain payment at the full fee schedule rates rather than 75 percent (85 percent as of 1998). Anecdotal information indicates that physicians have been submitting Medicare claims and paying NPPs from payments received. Medicare regulations allow for such arrangements if the NPP is practicing under the active supervision of the physician. As a result, the Medicare claims for services directly billed by NPPs represent a small fraction of Medicare spending for NPP services, especially when considering services by NPPs employed in clinics or group practices, RHCs, FQHCs, or C/MHCs, for which the clinics bill Medicare.

Trends in AAPCC Rates

The AAPCC comparisons in this report document the well-known differences between metropolitan and non-metropolitan counties in their profiles of provider supply and mix as well as Medicare spending levels for its fee-for-service beneficiaries. We consider the average AAPCC rates, their volatility over time, and the share attributable to Part A costs. We defined relative volatility as the four-year average of absolute differences between a reference year and two years before and after it, measured as a percentage of the average AAPCC for the five years. Differences between metropolitan and non-metropolitan counties in AAPCC levels and volatility persisted over the past decade.

- AAPCC levels for metropolitan counties ($493 per month in 1997) were substantially higher than those for non-metropolitan counties ($386 per month), and relative volatility was somewhat lower (9.5 percent for 1995 compared to 10.7 percent for 1990)
- The gap between rates for metropolitan and non-metropolitan counties was reduced somewhat between 1990 and 1997 as a result of relatively higher annual increases in the AAPCC rates for non-metropolitan counties.
- At the same time, AAPCC relative volatility declined for all categories of counties except the most remote counties with no town. This decline was smaller for more remote counties than for metropolitan counties or counties adjacent to an MSA.
- The Part A AAPCC increased from an estimated 61 percent of the total AAPCC in 1990 to 66 percent in 1997. This trend reflects the net effect of reduced spending on hospital inpatient services and increased spending on home health and skilled nursing services.
- The Part A AAPCC as a percentage of total AAPCC was lower for metropolitan counties than for non-metropolitan counties (60 percent compared to 63 percent) in 1990, but this difference all but disappeared by 1997.
- Beneficiaries in non-metropolitan counties had much less access to Medicare health plans. In 1997 only 36.7 percent of counties had at least one health plan (compared to 84.1 percent of metropolitan counties) and only 6.5 percent of beneficiaries in those counties were enrolled (compared to 19.9 percent for metropolitan counties with plans).
- Non-metropolitan counties with at least one Medicare health plan had higher monthly AAPCC rates than counties without a plan available ($403 compared to $388).

The results of our regression models highlight the contrasts in AAPCCs between metropolitan and non-metropolitan counties. The models for all counties and for non-metropolitan counties explained a large percentage of the variation in AAPCC rates across counties, but the model for non-metropolitan counties explained much less. In addition, many factors for the models for all counties and for metropolitan counties had significant effects on AAPCC rates, but fewer factors were significant in the model for non-metropolitan counties.

These results could be interpreted in two ways. Other factors exist that we did not measure but that are predictors of AAPCC rates in non-metropolitan areas (e.g., patient characteristics and health status). On the other hand, the county-level AAPCC rates in non-metropolitan areas may be the net result of such a diversity of local service use patterns within each county that it may be impossible to explain much more of the variation in county rates than our models capture. For example, some remote non-metropolitan counties may have many small

urbanized locations (communities or cities) within them, each of which has enough providers to support the demand for primary health care, but others may have only one or two urbanized locations that make access more difficult for beneficiaries living outside those locations. These two counties could have similar county-level averages of provider supply but different rates of utilization (and resulting AAPCC rates).

The models also showed positive associations between AAPCC rates and the supply of physicians and hospitals, but negative associations for SNFs, nursing homes, and home health agencies. Although these effects on AAPCCs were small, they do suggest that the mix of acute care and post-acute care services in non-metropolitan counties may be an important factor in access to care for Medicare beneficiaries and resulting service utilization and costs.

HPSAs and MUAs are, by definition, underserved areas. Therefore, there should be lower utilization rates by Medicare beneficiaries in these areas, which would be observable in lower AAPCC rates. The absence of strong relationships between AAPCC rates and either MUAs or HPSAs may reflect flaws in the criteria for these designation, such that the designated areas are not truly the most underserved areas, or there are enough other underserved areas that were not designated to dilute observed differences in AAPCC rates between the two groups. Alternatively, beneficiaries residing in these areas might have gone outside them for care, or we could hypothesize that these designations indeed had accomplished what was intended—increasing access to care for residents of the designated areas.

Effects of Rural Hospital Special Payments on Part A Costs

In considering the effects of the Medicare special payments for rural hospitals on Medicare Part A spending, we first examined the effects of these payments on hospital payments per inpatient stay, then looked at effects on payments per beneficiary for hospital inpatient services, and finally extended the analysis to effects on total Medicare Part A spending. This stepped approach allowed us to develop an understanding of the factors contributing to the ultimate effects of these payment provisions on Part A spending for non-metropolitan beneficiaries, including the costs per stay, rates of hospital inpatient utilizations, and the share of Part A spending that was for hospital inpatient services. Variations across counties in these factors also were examined in the analysis.

The three-year average data for 1996 through 1998 showed that, overall, the special payments for rural hospitals represented 2.6 percent of the actual payments for Medicare beneficiaries, with some variation in percentages across county categories.

- The percentage of inpatient stays at special payment hospitals differed by county category, and the average payment per stay differed by type of hospitals.
- Almost half the non-metropolitan counties would have less than a 1 percent reduction in average payment per stay as a result of removing the special payment component, whereas 17 percent would have a 5 percent reduction or greater.
- The percentages of total payments for inpatient stays attributable to special payment provisions were highest for beneficiaries in the more remote non-metropolitan counties and frontier counties.
- The shares of total inpatient payments for sole community hospitals, rural referral centers, and Medicare-dependent hospitals were larger in the more remote non-

metropolitan counties and the frontier counties, thus explaining the larger reduction in payments for those counties.

Although the special payment provisions have had a relatively small overall effect on Medicare spending for inpatient services, these provisions have been important for the rural hospitals qualified for the payments. Without the special payment components, these hospitals would be paid an estimated 9 to 11 percent less per Medicare inpatient stay, on average, which could have a substantial effect on their financial viability.

The 2.6 percent reduction in Medicare payment per beneficiary for inpatient services would translate to an average 1.9 percent reduction in Medicare payments for all Part A services for non-metropolitan counties. Effects on Part A payments varied across categories of counties, and the greatest reductions would occur in the most remote counties and frontier counties.

ISSUES AND IMPLICATIONS

This study covered a broad range of topics and issues involved in the Medicare payment policies for rural health care providers and their effects on Medicare costs. The special payment policies for rural hospitals appear to have had the largest effects on Medicare spending and also may have contributed to retaining viable providers in the more remote rural areas. Payments for RHCs and FQHCs and bonus payments for physicians represented quite small portions of total per capita costs for Medicare beneficiaries. The decreased spending for physician bonus payments in the later years of the decade is a signal that the program may not be of value to physicians and, therefore, may not be achieving its goal of attracting and retaining physicians in rural locations. Physicians may have been using the RHC option rather than bonus payments to enhance their payments from Medicare. The extent to which payments for RHCs and FQHCs are contributing toward that goal is not clear, but it would be useful to develop further information on this question.

The sheer complexity of the Medicare policies for rural provider payments, which are revealed in this research, poses a challenge for the Congress and CMS with respect to policy changes they may contemplate. For example, this type of research cannot document whether a payment policy may be preventing erosion of provider supply in rural areas. If a decision were made to eliminate a particular policy, an “invisible” effect could become observable in the form of loss of providers. Furthermore, there appears to be a need to establish a coordinated payment policy framework that addresses rural providers as a system of care for beneficiaries residing in rural areas, with goals to support the achievement of such a system approach. This framework should pay attention to which roles are appropriate for both rural and urban providers of health care for rural beneficiaries.

We summarize a number of the policy issues that surfaced from these analyses in Section 9, and we discuss implications for future Medicare policy decisions. In addition, we present recommendations for future research in two general areas: (1) to continue to track service use and costs as Medicare payment policies change (as a result of the BBA, BBRA, and subsequent legislation) and (2) to explore in more depth issues identified in this research.

The report is organized to first describe the study background and the methods and data used in the analyses, followed by presentation of results for each research component. Section 1 presents background on rural issues and Medicare payment methods. In Section 2, we describe the methods and data we used for the trend analyses. The demographic and service supply

profiles of urban and rural counties are presented in Section 3. Results of the four analyses are in subsequent chapters: rural hospitals in Section 4, RHC/FQHC payments in Section 5, physician bonus payments in Section 6, and the AAPCC rates in Section 7. Section 8 presents the county-level analysis of effects of special hospital payments on estimated Part A per capita costs for Medicare beneficiaries. Section 9 considers implications of our findings for future Medicare policy and research, including specific issues identified and tracking of effects of changes made by the BBA and subsequent legislation.