Report to Congress
State Payment Limitations for Medicare Cost Sharing

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EXECUTIVE SUMMARY

Section 125 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) required the Secretary of Health and Human Services to conduct a study to determine if access to certain services (including mental health services) for qualified Medicare beneficiaries (QMBs) has been affected by limitations on a state's payment for Medicare cost sharing for such beneficiaries. The law also mandated that the study include an analysis of the effects of such payment limitation on providers who serve a disproportionate share of such beneficiaries. In addition, the law required that the report include recommendations for changes necessary to state payment limits under section 1902(n) to ensure appropriate access to services for QMBs.

This study is based on a quasi-experimental design that analyzes changes in beneficiary access between 1996 (pre-BBA) and 1998 (post-BBA). Measures of access are defined as utilization of physician outpatient visits, cancer screening and other preventive services, and outpatient mental health treatment. A state-specific analysis was conducted using a combination of Medicare and Medicaid program data from nine states. In addition, a nationwide analysis was conducted using the Medicare Current Beneficiary Survey (MCBS).

Study Limitations

The scope of policy recommendations that can be made from this analysis is affected by several study limitations. The major limitation of the study is the number of states on which it is based. The estimates of the impact of cost-sharing policies on the utilization of outpatient physician services are based on nine states. The estimates of the impact on the utilization of outpatient mental health services and of the impact on provider revenues are limited to three states. Because there is wide variation among states in Medicaid policies and practices, the small number of states included in the study limits the ability to generalize to other states.

There were also several data limitations that affected the scope of the study. First, the provider analysis and the analysis of access to outpatient mental health treatment are limited to three states that report Current Procedural Terminology version 4 (CPT-4) or HCFA Common Procedure Coding System (HCPCS) procedure codes on their crossover claims. Second, eligibility files available for this study have limited information on the type of dual eligibility. As a result, the study could not determine whether the impact of state policies on beneficiaries varied by reason for eligibility. Finally, the majority of Medicare physician claims for dually eligible beneficiaries in the nine study states had no corresponding crossover claim on the Medicaid claims files. At this time, it is not known whether the crossover claims were zero pay claims not included in the Medicaid claims files or whether providers did not submit claims for Medicare cost-sharing amounts to Medicaid.

Service utilization represented in claims data is the only measure of access available for this study. While these utilization measures are well-accepted indicators of access to personal health services, the current study is not able to directly evaluate the extent any observed changes affected health outcomes. Furthermore, the utilization rates are not adjusted for the underlying health status of the population. This analysis assumes that the health status remains constant across comparison groups over time. As a result, the findings of this study cannot be used to draw conclusions about the appropriateness of the observed utilization rates.

Key Findings

- Reductions in the percent of Medicare cost sharing paid by Medicaid decreased the probability that a dually eligible beneficiary has an outpatient physician visit and reduced the number of visits a beneficiary makes. Although the finding is statistically significant, the absolute size of the impact was small. Decreasing the percent of Medicare cost sharing paid by Medicaid by 10 percent leads to a 1 percent reduction in the probability of an outpatient visit. The probability of an outpatient physician visit decreased by 4.9 percent in the study state with the largest reduction in cost-sharing payments.

- Reducing cost-sharing payments decreased the likelihood that a dual eligible would receive any outpatient mental health treatment. The magnitude of the effect is much larger on outpatient mental health services than on other outpatient physician services. A 10 percent reduction in Medicare cost sharing paid by Medicaid decreased the probability of having an outpatient mental health visit by 3 percent. It is estimated that the probability of an outpatient mental health visit decreased by 21.3 percent in the study state with the highest payment reduction.

- Among physicians with a caseload of 100 or more dually eligible beneficiaries, reductions in Medicare cost sharing paid by Medicaid resulted in a decrease of 4 to 6 percent of providers' Medicare revenues in 1998. This assumes that total Medicare revenue includes both the Medicare program payment and the beneficiary cost-sharing liability and that providers receive the full cost-sharing liability from their non-dually eligible Medicare patients. Likewise, Medicare revenues of mental health providers with large dually eligible caseloads (50+ beneficiaries) were reduced by 11 to 22 percent in 1998 assuming a 50 percent cost-sharing liability and by 5 to 10 percent assuming a 12½ percent cost-sharing liability.

Policy Recommendations

Section 125 of BIPA also asked the Secretary to include recommendations for changes necessary to state payment limits under section 1902(n) to ensure appropriate access to services for QMBs. The analysis done for this report found a statistically significant correlation between reductions in state payment limits and utilization, but those impacts are relatively small and their effect on health outcomes is unknown. Moreover, any statutory change mandating that states pay full Medicare cost sharing on behalf of QMBs

and/or dually eligible beneficiaries would have a substantial budgetary impact. For individual states, the size of the impact would depend not only on their current cost-sharing policies but also the size of their dually eligible populations, the number of Medicare services used by these populations and the state's federal match rate. Given those considerations, the Secretary does not recommend any statutory changes.

Introduction

Section 125 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) required the Secretary of Health and Human Services to conduct a study to determine if access to certain services (including mental health services) for qualified Medicare beneficiaries (QMBs) has been affected by limitations on a state's payment for Medicare cost sharing for such beneficiaries. Congress also mandated that the study include an analysis of the effects of such payment limitation on providers who serve a disproportionate share of such beneficiaries. In addition, Congress required that the report include recommendations for changes necessary to state payment limits under section 1902(n) to ensure appropriate access to services for QMBs.

State Medicaid agencies are required to assist low-income Medicare beneficiaries in paying for Medicare cost sharing, defined as premiums, deductibles, and coinsurance. These Medicare beneficiaries are considered "dual eligibles" because, in addition to their Medicare benefits, they are also eligible for some form of Medicaid benefits. The extent of Medicaid benefits varies, depending on how Medicare beneficiaries qualify for Medicaid. Some Medicare beneficiaries who are categorically eligible for Medicaid or who spend down to Medicaid eligibility are dually entitled to comprehensive Medicaid benefits including prescription drugs and long-term care. Generally, QMBs are Medicare beneficiaries with income at or below 100 percent of the Federal poverty level (FPL) who have resources less than twice the resource level used to determine eligibility for Supplemental Security Income (SSI) benefits. For these beneficiaries, Medicaid programs must pay for all categories of Medicare cost sharing. For Specified Low-Income Medicare Beneficiaries (SLMBs) with incomes between 100 and 120 percent of the FPL, Medicaid programs must only pay for the Part B premium. Some QMBs and SLMBs may, at a state's option, qualify for full Medicaid benefits.

Section 1902(n) of the Social Security Act clarifies the extent of a state's liability to pay Medicare cost sharing for QMBs. States historically have had flexibility in what they paid toward Medicare cost sharing for dually eligible beneficiaries so long as their payment policy was written in their state plan. For dual eligibles receiving comprehensive Medicaid and QMBs, the amount payable by Medicaid can vary from the full Medicare deductibles and coinsurance to the state plan payment rate for the service (i.e., the rate that would be paid for an individual who has Medicaid and not Medicare), or any amount in between. Providers are prohibited from billing the QMB for the difference between the state's payment and full Medicare coinsurance unless the state charges a nominal Medicaid copayment for the service.[1]

In the case of mental health services, section 1833(c) of the Social Security Act provides that, for certain outpatient psychiatric services, the Medicare program will consider for payment purposes only 62½ percent of the Medicare allowed amount. This limitation is

[1] A hypothetical example illustrates what is at stake for providers, beneficiaries, and states. Assume the following: that, for a specific service, Medicare allows $100. Typically, Medicare pays $80 and the beneficiary coinsurance is $20. Medicaid assumes the QMB's liability and can pay $20, $0, or any amount in between, depending on the state plan. The QMB is not liable for any Medicare cost sharing.

called the outpatient mental health treatment limitation. The Medicare program pays the provider 80 percent of the 62½ percent amount. Since the remaining 37½ percent is not considered coinsurance, the state's liability is limited to 20 percent of the 62½ percent amount. Practitioners may bill the Medicare beneficiary for the 37½ percent amount not reimbursed by either the Medicare program or the state.[2]

Over the years, a growing number of states have opted to change their state plans and not reimburse providers for the full Medicare coinsurance, especially if the payment by the Medicare program is as great or greater than what Medicaid would have paid for the same service. It is believed that at least 12 states had such a policy in 1996 (Nemore, 1997). Various provider groups sued a number of states to maintain maximum reimbursement for Medicare cost sharing for QMBs. Reacting to state concerns, Congress enacted section 4714 of the Balanced Budget Act (BBA) in 1997 to clarify that it had intended for states to have flexibility in their reimbursement policies. This section stipulates that a state is not required to pay for full Medicare cost sharing to the extent that payment under Title XVIII for the service would exceed the payment that would be made under the state plan if provided to a recipient who is not dually entitled. In addition, BBA stipulates that the amount paid under Title XVIII and the amount of payment, if any, under the state plan shall be considered payment in full for the service.

Since BBA, a number of states have reduced their provider payment rates for QMBs and aligned them more closely with Medicaid payment rates. A second survey by Nemore (1999) indicates that the number of states limiting their Medicare cost-sharing amount had more than doubled (to at least 30) following BBA. Provider groups have in turn asserted that QMBs' access to services has been compromised. There is some evidence in the literature that documents physician responses to differential fees paid by the various types of health insurers (Sloan et al, 1976; Mitchell and Cromwell, 1982; Mitchell et al, 1988). The research indicates that physicians segment their potential patient pool, based on insurer type (public such as Medicare and Medicaid, or private), and prefer to treat higher paying patients first. Increases in public fees relative to those paid by private payers encourage physicians to treat more public patients. Conversely, relative decreases in public fees encourage physicians to treat fewer public patients, and possibly exit the programs altogether.

This report presents the findings from the study requested by Congress in section 125 of BIPA. After discussing the study methodology, the report documents changes in Medicare cost-sharing payments by Medicaid programs and presents the findings from an analysis of the impact of these changes on beneficiary access to outpatient visits and on physician revenues. The analysis is repeated for mental health services and providers. Finally, recommendations for changes to Medicaid program payments for Medicare cost sharing are discussed.

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[2] In the same hypothetical example above, Medicare allows $100, Medicare now pays $50, and the beneficiary coinsurance is $12.50. Medicaid assumes the QMB's liability and can pay $12.50, $0, or any amount in between, depending on the state plan. Practitioners may bill the beneficiary for the remaining $37.50 amount that is not covered by the state.

Study Methodology

This study is based on a quasi-experimental design that analyzes changes in beneficiary access between 1996 (pre-BBA) and 1998 (post-BBA). Measures of access are defined as utilization of physician outpatient visits, cancer screening and other preventive services, and outpatient mental health treatment. These measures are well-accepted indicators of access to personal health care services (Institute of Medicine, 1993). However, the impact of utilization changes on health outcomes is not evaluated. A state-specific analysis was conducted using a combination of Medicare and Medicaid program data. In addition, a nationwide analysis was conducted using the Medicare Current Beneficiary Survey (MCBS).

State-Specific Analysis

Because of wide variation among states in Medicaid policies and practices, this study would ideally include a state-specific analysis of dually eligible beneficiaries from all 50 states, plus the District of Columbia. Unfortunately, Medicaid program data is not available to support such a comprehensive analysis. Nine states with reliable data for both 1996 and 1998 were chosen to reflect a range of Medicaid program polices pre- and post-BBA. They are classified as follows:

- States that historically paid the full Medicare cost-sharing amount: Arkansas; Indiana.

- States that historically paid up to the Medicaid rates: California; Colorado; Kansas; New Jersey; Wisconsin.

- States that paid the full cost-sharing amount prior to BBA, but changed their policy after BBA: Alabama; Michigan.

The provider analysis and the analysis of access to outpatient mental health treatment are limited to three states (AL, CO, MI) that reported Current Procedural Terminology version 4 (CPT-4) or HCFA Common Procedure Coding System (HCPCS) procedure codes on their crossover physician claims.[3] Both Medicare and Medicaid eligibility and claims data were merged to calculate cost-sharing payments, beneficiary utilization and provider impacts.

The beneficiary is the unit of observation for the analyses of access. Although section 125 of BIPA refers to QMBs, all dually eligible beneficiaries except SLMBs are included in this study for several reasons. First, it is difficult to reliably identify dually eligible beneficiaries by reason for eligibility from files currently available at the Centers for Medicare & Medicaid Services (CMS). Second, providers are not able to distinguish one type of dually eligible beneficiary from another. Hence, any change in provider behavior in response to cost-sharing limitations should affect all dually eligible beneficiaries.

[3] "Crossover claims" refer to claims submitted to a state Medicaid agency for a Medicare beneficiary's cost- sharing liability.

Third, by limiting the analysis to a subset of dually eligible beneficiaries, any impact of cost-sharing limitations on provider revenues would be understated. Finally, the states included in this study generally report similar cost-sharing policies for all types of dually eligible beneficiaries within their respective states.

The beneficiary analyses have both a descriptive and multivariate component. In the descriptive analysis, t-tests are used to identify statistically significant changes in utilization over time by state and between dually eligible and non-dually eligible beneficiaries within each state. Multivariate models are used to identify the impact of changes in Medicaid cost-sharing payments on access to selected outpatient physician and preventive services. These models control for a variety of factors expected to influence service use including utilization trends for non-dually eligible beneficiaries and beneficiary characteristics.

The physician or mental health provider is the unit of observation for the analyses of provider impacts. Provider types include all physicians (except radiologists and pathologists), psychologists, and clinical social workers. T-tests are used to identify statistically significant differences in physician revenue over time by state. Where appropriate, chi-square statistics are used to test for significant differences over time by size of dually eligible practice.

Nationwide Analysis

Supplemental analyses were conducted to determine whether changes in utilization in the nine states could be observed across the United States and to examine whether these changes differ by type of supplemental coverage. The data source for these analyses is the 1996 and 1998 Cost and Use Files of the Medicare Current Beneficiary Survey (MCBS). The survey sample consists of approximately 10,000 Medicare beneficiaries for each year. Sources of supplemental insurance coverage are identified from a combination of CMS administrative and self-reported survey data included in the Cost and Use files.

The methods replicate those used in the state-specific analysis as closely as possible. Persons who were Medicaid or QMB "buy-ins" (but not SLMBs) according to CMS administrative records are classified as "Medicaid buy-ins". Persons who were not buy-ins and had a private supplement (either employer-sponsored or individually purchased) are classified as "private supplement". The private supplement category included individuals who reported HMO coverage but who were not enrolled in a Medicare managed care plan according to Medicare administrative records. Most persons with private supplements have coverage of Medicare Part B coinsurance and many have coverage for Part A and B deductibles. Since their coverage for Medicare is similar to that of the Medicaid buy-ins, the principal comparison in this analysis is between these two groups. Beneficiaries with other public insurance or no supplemental insurance (i.e. Medicare only) are also identified as separate categories but are not the focus of this analysis.

Utilization variables are derived from Medicare claims files included with the MCBS, using the same algorithms as in the state-specific analyses. Some components of the state-specific analysis could not be replicated using the MCBS. Since Medicaid program files are not currently merged onto the MCBS, the multivariate models of the impact of changes in Medicaid cost-sharing payments on beneficiary access could not be estimated. These models require information on the amount of Medicare cost sharing reimbursed by the Medicaid program. In addition, the analysis of the impact of Medicaid cost-sharing payments on provider revenue could not be performed since the MCBS does not have information on all the dually entitled beneficiaries served by individual providers.

Changes in Medicare Cost-Sharing Payments by Medicaid Programs

Table 1 compares each state's Part B physician cost-sharing payments in 1996 and 1998. Medicaid cost-sharing payments are presented as a percentage of Medicare deductibles and coinsurance, i.e., as a percentage of the beneficiary's cost-sharing liability if the beneficiary were not enrolled to Medicaid.[4] In 1996, four of the nine states reported that they paid full Medicare cost sharing (AR, IN, AL, MI). According to this analysis, only Arkansas reimbursed physicians the full cost-sharing amounts for dually eligible beneficiaries they treated. The remaining eight states reimbursed anywhere from 20 to 56 percent of Medicare deductibles and coinsurance.

For some states, cost-sharing payments can be below 100 percent even though their state plan reports that they reimburse for the full cost-sharing amount. States can only pay for cost-sharing amounts if they receive the crossover claim. In order to examine whether the absence of crossover claims explains lower than expected cost-sharing payment amounts, Medicaid claims were merged to the associated Medicare claim in three states (AL, CO, MI).[5] The analysis of these three states showed that the majority of Medicare claims had no matching crossover claim. This suggests that physicians may not have submitted their Medicare claims to the Medicaid program or the claim was submitted, but because the Medicare program payment exceeded the state plan rate, there was no Medicaid payment. For those claims that did match, the cost-sharing payments by Medicaid were generally consistent with state policies.

There are several reasons why physicians may not submit claims to Medicaid. First, and probably most important, many physicians may not bother because of the low expected reimbursement. Second, for the many physicians treating only one or two dually eligible beneficiaries per year, the administrative costs of billing Medicaid for the cost-sharing amounts may be burdensome. Some physicians who do not usually treat Medicaid patients may not even participate in the Medicaid program. Third, litigation by provider groups in the early 1990s and conflicting rulings in various circuit and district courts may have led some physicians to believe that the Medicaid program would not reimburse them for Medicare cost sharing.

[4] For each state, the numerator is derived from Medicaid payments on crossover claims summed across all physician claims. The denominator is calculated from individual Medicare claims data, with the specific calculation depending on the type of service. For each state, the denominator is these amounts summed across all physician claims.

[5] This merge is not possible in the other six study states because procedure codes are not included on crossover claims.

Following BBA, the percentage of Medicare cost sharing paid by Medicaid was reduced in six of the nine study states including, not only the two BBA change states, but also Indiana, New Jersey, California and Wisconsin. One likely explanation is that the state Medicaid fees on which the states' cost-sharing contributions are based were cut or were not updated at the same rate as Medicare allowed amounts between 1996 and 1998. Although it had the opposite effect, cost-sharing payments increased in Kansas, from one of the lowest rates among the nine states (28 percent) in 1996 to one of the highest (48 percent) in 1998. This was due to an increase in the state's Medicaid fee schedule, which raised the state's effective contribution to its Medicare cost sharing. Another possible explanation for the percentage reduction in Medicare cost sharing may be that many physicians, especially those who treat a small number of dually eligible beneficiaries, are increasingly not submitting crossover claims.

State payments for cost sharing for outpatient mental health services were examined separately, because, as discussed previously, these services are subject to a much higher effective cost-sharing rate under the Medicare program. The analysis of outpatient mental health treatment is again limited to three of the nine states due to data limitations in the other states. The reductions in Medicaid payments for Medicare deductibles and coinsurance between 1996 and 1998 were the following: 13 percent in Alabama; 65 percent in Colorado; and 87 percent in Michigan.

As with physicians generally, many mental health providers may not submit crossover claims for their dually eligible patients. The percent of Medicare cost sharing paid by the Medicaid program for outpatient mental health treatment was calculated for those Medicare claims with a matching crossover claim. For matching claims, Alabama paid the 12½ percent deemed beneficiary coinsurance. Colorado, on the other hand, paid almost 50 percent, the full Medicare cost-sharing amount before the outpatient mental health treatment limitation. This was true in both years, but the number of claims that matched was halved in 1998, thus lowering the effective percentage payment. Finally, while Michigan paid about two-thirds of the Medicare amount in 1996, this fell to 25 percent following BBA. However, as in Colorado, the number of Medicare claims for outpatient mental health treatment with a matching Medicaid claim also fell dramatically suggesting that mental health providers are increasingly not submitting crossover claims.

Utilization of Outpatient Physician Visits and Preventive Services

This section presents findings from the descriptive and multivariate analyses of changes in utilization of physician outpatient visits and preventive services. If reduced Medicare cost-sharing payments by the Medicaid program impede access to providers, then utilization is expected to fall (or rise more slowly) for dually eligible beneficiaries compared to non-dually eligible beneficiaries in the states with the greater reductions in Medicaid cost-sharing payments relative to those in states with smaller reductions.

Descriptive Results

Table 2 compares total outpatient physician visits per beneficiary by state from 1996 to 1998. In the state-specific analysis, outpatient visit rates increased for both dually and non-dually eligible beneficiaries in seven of the nine states. These rates reflect an increase in both the percent of beneficiaries with at least one visit and the number of visits per user. Growth in visit rates was significantly lower for dually eligible compared to non-dually eligible beneficiaries in four of these states (AR, IN, WI, AL). In contrast, rates of growth were significantly higher for dually eligible beneficiaries in two of the remaining states (CA, NJ), with no difference between dually and non-dually eligible beneficiaries in the ninth state (KS). Although significant, these differences are generally small, e.g., one to two percentage points. Finally, while visit rates also increased for non-dually eligible beneficiaries in the remaining two states (CO, MI), they declined by a small (two to three percent), but statistically significant, amount for dually eligible beneficiaries. This divergence resulted in a larger increase in the differential in visit rates between dually and non-dually eligible beneficiaries in these two states compared to the other seven states.

In the nationwide analysis, average physician visits per beneficiary increased by 3.8 percent overall. Table 3 compares total outpatient physician visits rates for all Medicare beneficiaries by type of supplemental insurance from 1996 to 1998. Visit rates increased the most for the privately insured (5.3 percent). Medicaid buy-ins experienced a decrease in visit rates of 0.7 percent. The percent of beneficiaries with one or more visits increased only slightly, but the number of visits per user increased significantly overall and for the privately insured, and decreased slightly for Medicaid buy-ins. None of the decreases in visit rates for Medicaid buy-ins are statistically significant.

Utilization of outpatient visits is expected to improve access to preventive services, either because the beneficiary receives the service itself during the visit or because the physician makes a referral for the services. Utilization of four preventive services was examined: flu shots, mammography (women only), Pap tests (women only) and PSA tests (men only). Except for mammography, where rates of increase in use were lower for dually eligible women in every state, there were no consistent patterns of change from 1996 to 1998 in the utilization of preventive services for dually eligible compared to non-dually eligible beneficiaries in the nine states.

In the nationwide analysis, Medicaid buy-in respondents in MCBS used mammography, Pap smears, and PSA tests somewhat more frequently than dually eligible beneficiaries in the state-specific analysis. Among the MCBS respondents, use of mammography increased substantially overall and among the privately insured, while mammography use decreased slightly, but not significantly, among Medicaid buy-ins. The use of Pap tests did not change significantly overall or among the privately insured, but decreased significantly among Medicaid buy-ins. Flu shots and PSA tests did not show strong patterns.

Multivariate Results

The multivariate results relating the cost-sharing policies to utilization of outpatient physician visits and preventive services are limited to the state-specific analysis. Holding changes in service use by non-dually eligible beneficiaries and other factors constant, changes in the percent of cost sharing paid by Medicaid had a statistically significant, but modest, impact on utilization of physician outpatient visits. Reductions in Medicaid cost-sharing payments lowered the probability that a dually eligible beneficiary would have an outpatient visit. Conversely, increases in cost-sharing payments raised outpatient visit rates.

Table 4 shows the estimated effect of the actual change in each state on the probability of an outpatient physician visit, the number of outpatient physician visits, and the probability of a specialist visit. The absolute size of the impact depends on the size of the cost-sharing payment change. For example, decreasing the percent of Medicare cost sharing paid by Medicaid by 10 percent leads to a 1 percent reduction in the probability of an outpatient visit. In those states with relatively large reductions, the impact is considerably larger. Based on the payment reduction that occurred in Michigan between 1996 and 1998, it is estimated that the probability of an outpatient visit decreased by 4.9 percent, while a payment increase of the magnitude found in Kansas is estimated to increase the probability by 4.8 percent. In California, New Jersey, and Alabama, which also had sizable reductions in cost-sharing payments, the estimated reduction in the probability of an outpatient visit is less than 4 percent. Changes in cost-sharing payments had no significant impact on the number of outpatient visits for those with at least one visit and on the probability of having a specialist visit.

It is hypothesized that, if lowering cost-sharing payments reduces utilization of office visits, then access to preventive services would also be affected. However, there is no evidence to support this. Reduced cost-sharing payments for office visits have no effect on the odds of dually eligible beneficiaries receiving a flu shot, of female dually eligible beneficiaries receiving a Pap test or of males receiving a PSA test. Payment reductions are actually associated with an increase in the likelihood of female dually eligible beneficiaries receiving a mammogram.

Financial Impacts on Physicians

This section examines the financial impact of Medicaid policies for Medicare cost sharing on physicians, especially those who serve disproportionate numbers of dually eligible beneficiaries. Because the provider analysis requires merging Medicare Part B and Medicaid claims at the individual claim level, this part of the study is restricted to the three states (AL, CO, MI) for which CPT-4 or HCPCS procedure codes are reported on crossover claims.

Since it seems reasonable to expect that changes in Medicaid reimbursement policies for Medicare cost sharing will have a disproportionate effect on providers with larger

caseloads of dually eligible beneficiaries, physicians are categorized by the number of dually eligible beneficiaries they treated over the course of a calendar year: fewer than 10, 10 to 49, 50 to 99, and 100 or more. The majority of physicians who treat dually eligible beneficiaries actually have relatively few such beneficiaries in their practices. Over one-half of physicians treated fewer than 10 dually eligible patients during the year. This uneven distribution of beneficiaries across providers implies that a small number of providers treat a disproportionate share of dually eligible beneficiaries. About 10 to 12 percent of physicians are responsible for the treatment of roughly one-half of all dually eligible beneficiaries in their respective states. Physicians treating larger numbers of dually eligible beneficiaries also devoted a larger share of their total Medicare practice to dually eligible beneficiaries.

The percent of Medicare cost sharing paid by Medicaid was calculated for each physician who treated dually eligible beneficiaries. The results show that providers with larger dually eligible practices are paid a higher percent of their Medicare cost-sharing amounts by Medicaid. Cost-sharing percentages for smaller dually eligible practices are lower due to the greater number of providers in those practices who received no Medicare cost-sharing payments from Medicaid. This evidence supports the earlier discussion that physicians with small dually eligible practices may find the administrative costs of billing for Medicare cost sharing burdensome or may not participate in the Medicaid program.

Reducing cost-sharing payments may lead providers to either restrict the number of dually eligible beneficiaries they treat, or stop treating them altogether. There appears to be a slight shift toward smaller caseloads in Colorado and Michigan. Growth in managed care enrollment may contribute to this apparent decline, because the number and percent of dually eligible beneficiaries excluded from the state-specific analyses due to managed care enrollment more than doubled from 1996 to 1998. There are mixed results in the number of providers treating dually eligible beneficiaries. The absolute number of physicians treating dually eligible beneficiaries in Colorado decreased by 3 percent from 1996 to 1998. This decline occurred across the specialty distribution of physicians with the exception of internists. While the numbers of general and family practitioners treating dually eligible beneficiaries also decreased from 1996 to 1998 in Alabama and Michigan, a trend that may be attributed to secular decline in these specialties (AMA, 2000), the number of specialists treating these beneficiaries increased in these two states.

In order to estimate the magnitude of the financial impact of state policies on providers, the average reduction in revenue was calculated for each provider. Reductions in revenue are defined as the dollar difference between total Medicare cost-sharing liability and what the Medicaid program paid. Potential Medicare revenue is defined as total Medicare allowed charges. This definition assumes that a physician would receive full Medicare cost sharing from their non-dually eligible Medicare patients. Table 5 presents reductions in Medicare cost-sharing revenues as a percent of physicians' total potential revenues for both dually eligible and non-dually eligible beneficiaries. While reductions are low on average, representing 2 to 3 percent of physicians' total Medicare revenues, they are considerably larger for those physicians with larger caseloads of dually eligible beneficiaries. Among physicians with caseloads of 100 or more dually eligible

beneficiaries, reductions in revenue accounted for 4 to 6 percent of total Medicare revenues. Across all practice sizes, there was a statistically significant increase in these reductions in the two BBA change states (AL, MI). This was also true of physicians with caseloads of 100 or more dually eligible beneficiaries. In Colorado, there was a statistically significant decrease in revenue reductions across all practice sizes.

Utilization of Outpatient Mental Health Services

Because section 125 of BIPA specifically mentions mental health services, the analyses of the impacts of state policies on utilization of outpatient physician services and on provider revenues were repeated for outpatient mental health services and mental health providers. This section presents findings from the descriptive and multivariate analyses of changes in utilization. The multivariate analysis is limited to the three states (AL, CO, MI) where an accurate measure of cost-sharing payments by the Medicaid program is available (i.e. those states with procedure codes on their crossover claims). The state-specific analysis was replicated with the MCBS data but sample sizes by insurance category were too small to find statistically significant changes over time.

Descriptive Results

Table 6 compares outpatient mental health visits per beneficiary by state from 1996 to 1998. Visits rates increased significantly in some states and fell significantly in others due to changes both in the percent of beneficiaries receiving any outpatient mental health visit and in the number of visits for those with at least one visit. Growth in visit rates was significantly higher for dually eligible beneficiaries in one state (AR) and significantly higher for non-dually eligible beneficiaries in another state (CO). Visit rates increased for dually eligible beneficiaries and decreased for non-dually eligible beneficiaries in another two states (IN, AL). In contrast, visit rates decreased for both dually eligible and non-dually eligible beneficiaries in three states (CA, WI, MI). These decreases were significantly greater for dually eligible beneficiaries. There were no significant differences between dually and non-dually eligible beneficiaries in the remaining two states (KS, NJ).

Table 7 shows visits per beneficiary (for those with at least one outpatient mental health visit) by type of mental health provider: psychiatrist, psychologist, and social worker.[6] There is a dramatic reduction in visit rates to psychiatrists in six of the nine states. This decrease was significantly higher for dually eligible beneficiaries compared to non-dually eligible beneficiaries in two states (KS, MI). There were significant differences between dually and non-dually eligible beneficiaries in two other states. In one state (CA), the decline in visit rates to psychiatrists was significantly higher for non-dually eligible beneficiaries while, in another state (AL), the visit rate increased for dually eligible beneficiaries and decreased for non-dually eligible beneficiaries.

[6] Table 6 contains all outpatient mental health services regardless of provider type. Table 7 is restricted to services from psychiatrists, psychologists and social workers. Since providers who are not mental health professionals may provide outpatient mental health services, the number of visits per user in Table 6 is greater than those in Table 7.

In some states, these reductions in visit rates to psychiatrists were more than offset by an increase in visit rates to other mental health providers Visit rates to psychologists increased for dually eligible beneficiaries relative to non-dually eligible beneficiaries in four states (IN, KS, MI, WI). By contrast, visit rates to psychologists decreased for dually eligible beneficiaries relative to non-dually eligible beneficiaries in two states (CA, NJ). In another state (AL), the decrease in visit rates was significantly higher for non-dually eligible beneficiaries. The changes in visit rates to social workers also varied across states, with dually eligible beneficiaries faring relatively better in two states (KS, NJ), and relatively worse in four others (AL, AR, CA, MI).

Multivariate Results

Table 8 shows the estimated effect of the actual change in cost-sharing payments in three states on the probability of an outpatient mental health visit.[7] Changes in cost-sharing payments have a significant effect on the utilization of outpatient mental health services. In addition, the effect of these changes on the probability of using outpatient mental health services is substantially larger than those seen in the outpatient visit and preventive service analyses. The estimated changes in utilization based on the actual payment changes in the three study states are a 3 percent reduction in the probability of an outpatient mental health visit in Alabama, a 16 percent reduction in Colorado, and a 21 percent reduction in Michigan. For those beneficiaries with at least one mental health visit, there are significant changes in the probability of a visit to specific types of providers. The probability of a visit to a psychiatrist decreased while the probability of a visit to a social worker increased. There was no impact on the likelihood of seeing a psychologist.

Financial Impacts on Mental Health Providers

This section examines the financial impact of Medicaid policies for Medicare cost sharing on mental health providers, especially those who serve a disproportionate number of dually eligible beneficiaries. Mental health providers are categorized by the number of dually eligible beneficiaries they treat over the course of a year: fewer than 5, 5 to 49, and 50 or more. As was discussed earlier for physicians generally, mental health providers with larger caseloads of dually eligible beneficiaries (50 or more) represent a small percent of all mental health providers in 1996: 13.2 percent in Alabama, 6.5 percent in Colorado, and 9.5 percent in Michigan. This percentage decreased slightly in 1998: 13.0 percent in Alabama, 4.5 percent in Colorado, and 8.5 percent in Michigan.

Other results from this analysis of impacts on mental health providers are comparable to those discussed earlier for physicians generally. Mental health providers with larger dually eligible practices receive a higher percent of their Medicare cost-sharing amounts

[7] These changes were a 12.5 percent reduction in Alabama, a 65.1 percent reduction in Colorado, and a 86.9 percent reduction in Michigan.

from Medicaid in Alabama and Michigan. Colorado providers received similar cost-sharing payments, regardless of dually eligible practice size. Reducing cost-sharing payments may lead providers to either restrict the number of dually eligible beneficiaries they treat, or stop treating them altogether. There is a shift toward smaller caseloads in Colorado and Michigan. On the other hand, dually eligible caseloads grew by 6 percent in Alabama. There are also mixed results in the number of providers treating dually eligible beneficiaries. The number of mental health providers treating dually eligible beneficiaries decreased by 6 percent in Colorado and 3 percent in Michigan between 1996 and 1998. By contrast, the number of mental health providers, especially psychiatrists, treating dually eligible beneficiaries increased over the same time period in Alabama.

Estimates of the financial impact of state polices on mental health providers depend upon assumptions about potential Medicare revenue. Since a state's liability is limited to 20 percent coinsurance on 62½ percent of the Medicare allowed amount, 12½ percent can be considered full Medicare cost sharing. Alternatively, since some supplemental insurers reimburse both this coinsurance amount and the reduction under the outpatient mental health limitation (i.e. an additional 37½ percent), 50 percent could be considered full Medicare cost sharing. Although state liability for Medicare cost sharing for QMBs is limited to 12 ½ percent, states could elect in their state plan to reimburse providers for services provided to duals who are eligible for full Medicaid up to the 50 percent of the allowed amount that is not paid by Medicare.

Table 9 presents reductions in Medicare cost-sharing revenue as a percent of total potential Medicare revenue assuming that states would pay Medicare cost sharing for dually eligible beneficiaries of 12½ percent. Revenue reductions range from 4 to 8 percent in 1998. Across all practice sizes, there are statistically significant increases in these reductions in the two BBA change states (AL, MI) between 1996 and 1998. Revenue reductions are consistently larger for providers with larger dually eligible caseloads but there is a statistically significant increase in these reductions in only one state (AL). Table 10 presents the same analysis assuming that states were to pay Medicare cost sharing for dually eligible beneficiaries of 50 percent. Under this assumption, revenue reductions range from 10 to 13 percent in 1996 and 9 to 16 percent in 1998. Across all practice sizes, there is a statistically significant increase in these reductions in Alabama and Colorado and a decrease in Michigan. Once again, revenue reductions are generally larger for providers with larger dually eligible caseloads. There are statistically significant increases in these reductions in two states (AL, CO).

Conclusions

This report presents the findings from the study requested by Congress in section 125 of BIPA. The key findings are summarized below. Section 125 also asked for recommendations necessary to state payment limits under section 1902(n) to ensure appropriate access to services for QMBs. Study limitations discussed below restrict the scope of policy recommendations that can be made based upon these findings.

Study Limitations

The scope of policy recommendations that can be made from this analysis is affected by several study limitations. The major limitation of the study is the number of states on which it is based. The estimates of the impact of cost-sharing policies on the utilization of outpatient physician services are based on nine states. The estimates of the impact on the utilization of outpatient mental health services and of the impact on provider revenues are limited to three states. Because there is wide variation among states in Medicaid policies and practices, the small number of states included in the study limits the ability to generalize to other states. Nevertheless, the estimates of impacts were large enough in some states to warrant further work with data from additional states to either confirm or moderate the findings. In addition, as Medicaid data beyond 1998 become available for research purposes, the study period should be extended beyond 1998 to determine whether these impacts persist over time. An extension of the study would be dependent on the availability of funds.

There were also several data limitations that affected the scope of the study. First, as already mentioned above, the provider analysis and the analysis of access to outpatient mental health treatment are limited to three states that report CPT-4 or HCPCS procedure codes on their crossover claims. Second, eligibility files available for this study have limited information on the type of dual eligibility. As a result, the study could not determine whether the impact of state policies on beneficiaries varied by reason for eligibility. New data matching procedures for linking Medicaid beneficiary files with the Medicare beneficiary files were communicated to states on January 2002 and should improve the quality of eligibility information. Finally, the majority of Medicare physician claims for dually eligible beneficiaries in the nine study states had no corresponding crossover claim on the Medicaid claims files. At this time, it is not known whether the crossover claims were zero pay claims not included in the Medicaid claims files or whether providers did not submit claims for Medicare cost-sharing amounts to Medicaid.

Service utilization represented in claims data is the only measure of access available for this study. While these utilization measures are well-accepted indicators of access to personal health services, the current study is not able to directly evaluate the extent any observed changes affected health outcomes. Furthermore, the utilization rates are not adjusted for the underlying health status of the population. This analysis assumes that the health status remains constant across comparison groups over time. As a result, the findings of this study cannot be used to draw conclusions about the appropriateness of the observed utilization rates.

Key Findings

Providers in eight of the nine study states received less than the full Medicare cost-sharing amount from the Medicaid program. The percent of Medicare cost sharing paid by Medicaid decreased in six of the nine states between 1996 and 1998. These reductions

have the hypothesized effects on both the utilization of outpatient physician services and provider revenue.

Reductions in cost-sharing payments decrease the probability that a dually eligible beneficiary will have an outpatient physician visit. Although the finding is statistically significant, the absolute size of the impact is small. Based upon the payment reductions that occurred between 1996 and 1998, it is estimated that the probability of an outpatient physician visit decreased by a range of 0.5 to 4.9 percent. The magnitude of the effect is much larger on outpatient mental health services than on other outpatient physician services. It is estimated that the probability of an outpatient mental health visit decreased by a range of 3.4 to 21.3 percent. An analysis of national data from the MCBS did not identify significant changes in utilization among Medicaid buy-ins. The same data did, however, identify a significant increase in the number of outpatient physician visits by beneficiaries with private supplemental coverage.

Among physicians with a caseload of 100 or more dually eligible beneficiaries, reductions in Medicare cost-sharing revenues resulting from state policies accounted for 4 to 6 percent of providers' Medicare revenues in 1998. This represents a statistically significant increase in these reductions between 1996 and 1998 in two of the three states included in the provider impact analysis. The magnitude of the effect is much larger for mental health providers. Taking into account the outpatient mental health treatment limitation, revenue reductions ranged for 11 to 22 percent in 1998 among mental health providers with caseloads of 50 or more dually eligible beneficiaries. Once again, this represents a statistically significant increase in these reductions between 1996 and 1998 in two states.

Policy Recommendations

Section 125 of BIPA also asked the Secretary to include recommendations for changes necessary to state payment limits under section 1902(n) to ensure appropriate access to services for QMBs. The analysis done for this report found a statistically significant correlation between reductions in state payment limits and utilization, but those impacts are relatively small and their effect on health outcomes is unknown. Moreover, any statutory change mandating that states pay full Medicare cost sharing on behalf of QMBs and/or dually eligible beneficiaries would have a substantial budgetary impact. For individual states, the size of the impact would depend not only on their current cost-sharing policies but also the size of their dually eligible populations, the number of Medicare services used by these populations and the state's federal match rate. Given those considerations, the Secretary does not recommend any statutory changes.

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Table 1

Changes in Medicare Cost-Sharing Payments by Medicaid for Physician Services, 1996 to 1998

	Percent of Medicare Deductibles and Coinsurance Paid by Medicaid		
	1996	1998	Percent Change
States Paying Full Medicare Cost Sharing			
Arkansas	97.4	100.0	2.7%
Indiana	56.4	52.1	-7.6
States Paying up to Medicaid Rates			
California	30.5	15.1	-50.5
Colorado	20.4	20.4	0.0
Kansas	28.1	47.8	70.1
New Jersey	54.4	36.5	-32.9
Wisconsin	24.2	22.4	-7.4
BBA Change States			
Alabama	54.7	28.8	-47.3
Michigan	31.9	7.8	-75.5

SOURCE: Medicare Part B and SMRF OT claims for nine states, 1996 and 1998.

Table 2

Utilization of Outpatient Physician Visits

	Number of Visits Per Beneficiary			Percent of Beneficiaries with at Least One Visit			Number of Visits (users only)		
	1996	1998	% change	1996	1998	% change	1996	1998	% change
States Paying Full Medicare Amounts									
Arkansas									
Dually Eligible Beneficiaries	4.50	4.79**	6.4##	71.9	74.2**	3.2	6.26	6.46**	3.2##
Non-dually Eligible Beneficiaries	4.72	5.16**	9.3	79.7	82.0**	2.9	5.91	6.30**	6.6
Indiana									
Dually Eligible Beneficiaries	4.38	4.68	6.8##	68.0	69.2**	1.8	6.44	6.77**	5.1#
Non-dually Eligible Beneficiaries	5.14	5.57**	8.4	83.8	85.3**	1.8	6.14	6.54**	6.5
States Historically Paying Lower Amounts									
California									
Dually Eligible Beneficiaries	6.92	7.24**	4.6##	76.1	77.1**	1.3##	9.09	9.39**	3.3#
Non-dually Eligible Beneficiaries	6.47	6.73**	4.0	79.6	80.1**	0.6	8.13	8.39**	3.2
Colorado									
Dually Eligible Beneficiaries	4.38	4.26*	-2.7##	67.5	66.6	-1.3##	6.49	6.42	-1.1##
Non-dually Eligible Beneficiaries	4.76	4.98**	4.6	77.6	78.5**	1.2	6.12	6.33**	3.4
Kansas									
Dually Eligible Beneficiaries	3.60	3.85**	6.9	64.2	65.7**	2.3	5.61	5.87**	4.6
Non-dually Eligible Beneficiaries	4.57	4.85**	6.1	78.7	80.1**	1.8	5.81	6.05**	4.1
New Jersey									
Dually Eligible Beneficiaries	4.49	5.09**	13.4##	63.2	67.0**	6.0##	7.11	7.61**	7.0##
Non-dually Eligible Beneficiaries	6.03	6.71**	11.3	82.2	83.6**	1.7	7.34	8.03**	9.4
Wisconsin									
Dually Eligible Beneficiaries	4.39	4.55**	3.6##	73.6	74.4**	1.1	5.97	6.13**	2.7##
Non-dually Eligible Beneficiaries	4.55	4.82**	5.9	82.4	83.2**	1.0	5.52	5.79**	4.9

Table 2 (continued)

Utilization of Outpatient Physician Visits

	Number of Visits Per Beneficiary			Percent of Beneficiaries with at Least One Visit			Number of Visits (users only)		
	1996	1998	% change	1996	1998	% change	1996	1998	% change
BBA Change States									
Alabama									
Dually Eligible Beneficiaries	4.93	5.17**	4.9##	73.9	74.6**	0.9##	6.66	6.93**	4.1
Non-dually Eligible Beneficiaries	5.51	5.88**	6.7	83.2	84.7**	1.4	6.62	6.94**	4.8
Michigan									
Dually Eligible Beneficiaries	5.20	5.10**	-1.9##	74.2	73.2**	-1.3##	7.01	6.97	-0.6##
Non-dually Eligible Beneficiaries	5.56	5.83**	4.9	83.8	84.4**	0.7	6.64	6.91**	4.1

##Percent change significantly different from non-duals at 0.01 level.

#Percent change significantly different from non-duals at 0.05 level.

** Significantly different from 1996 at the .01 level.

*Significantly different from 1996 at the .05 level.

SOURCE: Medicare Part B claims for nine states, 1996 and 1998.

Table 3

Utilization of Physician Outpatient Visits

	Number of Visits Per Beneficiary			Percent of Beneficiaries with at Least One Visit			Number of Visits (users only)		
	1996	1998	% change	1996	1998	% change	1996	1998	% change
All Medicare Beneficiaries	5.85	6.07*	3.8	81.2	81.9	0.9	7.19	7.41*	3.1
By Type of Supplemental Coverage:									
Medicaid buyin[1]	5.44	5.40	0.7	71.8	72.6	1.1	7.58	7.43	-2.0
Private supplement	6.42	6.76**	5.3	87.9	88.5	0.7	7.30	7.65**	4.8
Other insurance	5.03	5.05	0.4	64.6	68.9	6.7	7.78	7.33	-5.8
Medicare only	3.30	3.36	1.8	59.3	61.0	2.9	5.57	5.51	-1.1

[1]Includes QMBs, but not SLMBs.

** Significantly different from 1996 at the .01 level.

*Significantly different from 1996 at the .05 level.

SOURCE: MCBS Cost & Use Files

Table 4

Impact of Medicaid Cost-sharing Payment Changes on Utilization of Outpatient Physician Visits

	Change in Probability of Outpatient Physician Visit**	Change in Number of Visits (users only)	Change in Probability of Specialist Visit (users only)
States Paying Full Medicare Cost Sharing			
Arkansas	0.2%	0.0%	-0.0%
Indiana	-0.5	0.0	-0.1
States Paying up to Medicaid Rates			
California	-3.3	-0.1	-0.8
Colorado	0.0	0.0	0.0
Kansas	4.8	0.2	1.1
New Jersey	-2.2	-0.1	-0.5
Wisconsin	-0.5	0.0	-0.1
BBA Change States			
Alabama	-3.1	-0.1	-0.8
Michigan	-4.9	-0.2	-1.2

**Results of multivariate analyses show that a change in Medicaid cost-sharing payments had a statistically significant impact on the probability that a dual eligible would have an outpatient physician visit ($p<.01$).

NOTE: Percent change is calculated using actual cost-sharing payment change between 1996 and 1998 in each state.

SOURCE: Medicare Part B claims for nine states, 1996-1998.

Table 5

Reduction in Medicaid Cost-Sharing Revenues as Percent of Physicians' Total Medicare Allowed Charges

	Size of Dually Eligible Practice				
	<10	10 to 49	50 to 99	100+	**All**
Alabama					
1996	2.7	1.4	1.7	2.7	2.1
1998	2.9	2.0**	2.6**	4.6**	3.3**
Colorado					
1996	1.8	2.1	3.8	6.5	3.0
1998	1.5**	2.1	3.7	6.3	2.7**
Michigan					
1996	0.9	1.2	2.0	2.9	1.6
1998	1.0**	1.6**	2.5**	4.1**	2.0**

** Significantly different from 1996 at the .01 level.

SOURCE: Medicare Part B and SMRF OT claims for three states, 1996 and 1998.

Table 6

Utilization of Outpatient Mental Health Treatment

	Number of Outpatient Mental Health Visits Per Beneficiary			Percent of Beneficiaries with at Least One Visit			Number of Visits (users only)		
	1996	1998	% Change	1996	1998	% Change	1996	1998	% Change
States Paying Full Medicare Amounts									
Arkansas									
Dually Eligible Beneficiaries	0.34	0.51**	50.0##	4.0	4.1	2.5#	8.40	12.34**	46.9##
Non-dually Eligible Beneficiaries	0.10	0.11*	13.9	1.6	1.5**	-6.9	6.28	7.64**	21.7
Indiana									
Dually Eligible Beneficiaries	1.45	1.63**	12.4##	11.5	13.0**	13.0##	12.56	12.51	-0.4
Non-dually Eligible Beneficiaries	0.16	0.15*	-6.3	1.9	1.9	0.0	8.62	7.99*	-7.3
States Historically Paying Lower Rates									
California									
Dually Eligible Beneficiaries	1.47	0.99**	-32.7##	10.2	8.9**	-12.7##	14.40	11.10**	-22.9##
Non-dually Eligible Beneficiaries	0.31	0.26**	-15.9	2.7	2.6**	-3.7	11.41	9.84**	-13.7
Colorado									
Dually Eligible Beneficiaries	1.96	2.34**	19.4##	12.3	12.2	-0.8	15.98	19.02**	19.0
Non-dually Eligible Beneficiaries	0.25	0.32*	28.0	2.4	2.6**	8.3	10.29	12.45	20.9
Kansas									
Dually Eligible Beneficiaries	1.58	1.53	-3.2	13.6	12.3**	-9.6##	11.67	12.47 *	6.9##
Non-dually Eligible Beneficiaries	0.22	0.18**	-15.7	2.3	2.0**	-13.0	9.54	9.10	-0.5
New Jersey									
Dually Eligible Beneficiaries	1.10	1.12	1.8	9.3	9.5	2.2	11.84	11.76	-0.7
Non-dually Eligible Beneficiaries	0.28	0.29*	3.6	2.6	2.9**	11.5	10.67	10.08 **	-5.5
Wisconsin									
Dually Eligible Beneficiaries	0.91	0.72**	-20.9##	8.5	8.3	-2.4	10.78	8.69**	-19.4
Non-dually Eligible Beneficiaries	0.15	0.12**	-19.0	1.9	1.9*	-2.1	7.55	6.28**	-16.8

Table 6 (continued)

Utilization of Outpatient Mental Health Treatment

	Number of Outpatient Mental Health Visits Per Beneficiary			Percent of Beneficiaries with at Least One Visit			Number of Visits (users only)		
	1996	1998	% Change	1996	1998	% Change	1996	1998	% Change
BBA Change States									
Alabama									
Dually Eligible Beneficiaries	0.31	0.35**	12.9##	4.6	5.3**	15.2##	6.73	6.58	-2.2
Non-dually Eligible Beneficiaries	0.13	0.12	-4.2	2.0	2.0	0.0	6.53	6.09*	-6.7
Michigan									
Dually Eligible Beneficiaries	0.97	0.77**	-20.6##	9.4	7.9**	-16.0##	10.31	9.78*	-5.1
Non-dually Eligible Beneficiaries	0.24	0.22**	-8.3	2.7	2.6**	-3.7	8.96	8.58**	-4.2

##Percent change significantly different from non-duals at 0.01 level.

#Percent change significantly different from non-duals at 0.05 level.

** Significantly different from 1996 at the .01 level.

*Significantly different from 1996 at the .05 level.

SOURCE: Medicare Part B claims for nine states, 1996 and 1998.

Table 7

Changes in Outpatient Mental Health Visits by Provider Type
(for those beneficiaries with at least one mental health visit)

	Psychiatrist Visits			Psychologist Visits			Social Worker Visits		
	1996	1998	% Change	1996	1998	% Change	1996	1998	% Change
States Paying Full Medicare Rate									
Arkansas									
Dually Eligible Beneficiaries	2.96	2.22**	-25.0	1.51	1.73	14.6	2.96	2.73	-7.8##
Non-dually Eligible Beneficiaries	2.94	2.56**	-12.9	1.64	1.96**	19.5	1.53	3.02**	97.4
Indiana									
Dually Eligible Beneficiaries	5.08	3.70**	-27.2	1.72	2.29**	33.1##	3.28	3.29	0.3
Non-dually Eligible Beneficiaries	5.53	4.43**	-19.9	1.09	1.36**	24.7	1.85	2.09**	13.0
States Historically Paying Lower Rate									
California									
Dually Eligible Beneficiaries	4.57	4.49	-1.8#	6.59	4.38**	-33.5##	1.34	0.50**	-62.7##
Non-dually Eligible Beneficiaries	4.96	4.70**	-5.2	4.61	3.69**	-20.0	1.32	1.07**	-18.9
Colorado									
Dually Eligible Beneficiaries	4.75	5.17	8.8	9.03	8.92	-1.2	1.37	1.47	7.3
Non-dually Eligible Beneficiaries	5.20	5.49**	5.6	3.58	5.37**	50.0	1.34	1.48**	10.4
Kansas									
Dually Eligible Beneficiaries	3.85	2.16**	-43.9##	3.12	3.70**	18.6#	3.22	4.85**	50.6##
Non-dually Eligible Beneficiaries	3.94	2.82**	-28.4	2.34	2.38	1.7	2.85	3.52**	23.5
New Jersey									
Dually Eligible Beneficiaries	4.11	3.53**	-14.1	5.47	4.82**	-11.9##	1.13	1.97**	74.3##
Non-dually Eligible Beneficiaries	5.83	5.02**	-13.9	2.61	2.71**	3.8	1.88	2.18**	16.0
Wisconsin									
Dually Eligible Beneficiaries	3.32	2.71**	-18.4	1.91	2.15	12.6##	3.19	3.02	-5.3
Non-dually Eligible Beneficiaries	3.38	2.68**	-20.7	2.26	1.90*	-15.9	1.82	1.63*	-10.4

Table 7 (continued)

Changes in Outpatient Mental Health Visits by Provider Type
(for those beneficiaries with at least one mental health visit)

	Psychiatrist Visits			Psychologist Visits			Social Worker Visits		
	1996	1998	% Change	1996	1998	% Change	1996	1998	% Change
BBA Change States									
Alabama									
Dually Eligible Beneficiaries	2.51	2.67*	6.4#	1.08	0.95	-12.0##	2.32	1.58**	-31.9##
Non-dually Eligible Beneficiaries	3.09	3.02**	-2.3	2.35	1.58	-29.8	0.94	1.47**	56.4
Michigan									
Dually Eligible Beneficiaries	5.45	4.05**	-25.7##	0.69	1.06**	53.6	4.85	2.91**	-40.0##
Non-dually Eligible Beneficiaries	4.72	4.28**	-9.3	1.45	1.80**	24.1	2.38	2.21**	-7.1

##Percent change significantly different from non-duals at 0.01 level.
#Percent change significantly different from non-duals at 0.05 level.
** Significantly different from 1996 at the .01 level.
*Significantly different from 1996 at the .05 level.

SOURCE: Medicare Part B claims for nine states, 1996 and 1998.

Table 8

Impact of Medicaid Cost-sharing Payment Changes on Utilization of Outpatient Mental Health Treatment

	Change in Probability of Outpatient Mental Health Visit**	Change in Number of Outpatient Mental Health Visits (users only)	Change in Probability of Psychiatrist Visit (users only)**	Change in Number of Psychiatrist Visits (for those with at least one psychiatrist visit)**
Alabama	-3.4%	-0.3%	-5.6%	-3.2%
Colorado	-16.4	-1.7	-25.8	-16.5
Michigan	-21.3	-2.2	-32.8	-22.0

	Change in Probability of Psychologist Visit (users only)	Change in Number of Psychologist Visits (for those with at least one psychologist visit)	Change in Probability of Social Worker Visit (users only)**	Change in Number of Social Worker Visits (for those with at least one social worker visit)**
Alabama	1.5%	-1.5%	11.1%	5.8%
Colorado	8.1	-8.1	73.2	30.0
Michigan	11.0	-10.8	108.2	40.1

** Results of multivariate analyses show that a change in Medicaid cost-sharing payments had a statistically significant on the probability that a dual eligible would have an outpatient mental health visit, a psychiatrist visit, and a social worker visit ($p<.01$ for all three). The impact on number of psychiatrist and social worker visits was also significant ($p<.01$).

NOTE:
Percent change is calculated using actual cost-sharing payment change between 1996 and 1998 in each state..

SOURCE: Medicare Part B claims for three states, 1996-1998.

Table 9

Reduction in Medicaid Cost-Sharing Revenues for Mental Health Providers as a Percent of Total Medicare Allowed Charges Assuming 12.5 Percent Cost-Sharing Liability

	Size of Dually Eligible Practice			
	<5	5 to 49	50+	**All**
Alabama				
1996	5.2	5.4	6.1	5.9
1998	4.7	6.1	9.5**	8.3**
Colorado				
1996	3.1	3.4	6.3	4.5
1998	3.2	4.0	5.3	4.3
Michigan				
1996	3.4	3.7	6.4	4.9
1998	3.2	4.3**	7.1	5.3**

** Significantly different from 1996 at the .01 level.

SOURCE: Medicare Part B and SMRF OT claims for three states, 1996 and 1998.

Table 10

Reduction in Medicaid Cost-Sharing Revenues for Mental Health Providers as a Percent of Total Medicare Allowed Charges Assuming 50 percent Cost-Sharing Liability

	Size of Dually Eligible Practice			
	<5	5 to 49	50+	**All**
Alabama				
1996	10.4	10.2	9.7	9.9
1998	9.0	11.6	13.0**	12.4**
Colorado				
1996	9.6	10.3	16.5	12.7
1998	10.4	14.8**	21.9**	16.4**
Michigan				
1996	10.0	8.3	11.7	10.1
1998	9.2	8.1	10.6	9.3**

** Significantly different from 1996 at the .01 level.

SOURCE: Medicare Part B and SMRF OT claims for three states, 1996 and 1998.