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Report to the Chairman, Subcommittee on Health, Committee on Ways and Means, House of Representatives

June 2007

MEDICARE

Geographic Areas Used to Adjust Physician Payments for Variation in Practice Costs Should Be Revised

GAO-07-466

June 2007

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Highlights

Highlights of GAO-07-466, a report to the Chairman, Subcommittee on Health, Committee on Ways and Means, House of Representatives

MEDICARE

Geographic Areas Used to Adjust Physician Payments for Variation in Practice Costs Should Be Revised

Why GAO Did This Study

The Centers for Medicare & Medicaid Services (CMS) adjusts Medicare physician fees for geographic differences in the costs of operating a medical practice. CMS uses 89 physician payment localities among which fees are adjusted. Concerns have been raised that the boundaries of some payment localities do not accurately address variations in physicians' costs. GAO was asked to examine how CMS has revised the localities; the extent to which they accurately reflect variations in physicians' costs; and alternative approaches to constructing the localities. To do so, GAO reviewed selected Federal Register documents; compared data on the costs physicians incur in different areas with the Medicare geographic adjustment; and used the physician cost data to construct and evaluate alternative approaches.

What GAO Recommends

GAO recommends that CMS (1) examine and revise the payment localities using an approach that is uniformly applied to all states and based on the most current data and (2) update the payment localities on a periodic basis. CMS stated it will consider GAO's first recommendation, but continue its approach of updating the localities when interested parties raise concerns and on its own initiative. GAO notes that updating the localities in this manner may result in updating only select localities, rather than all localities using a uniform approach.

www.gao.gov/cgi-bin/getrpt?GAO-07-466.

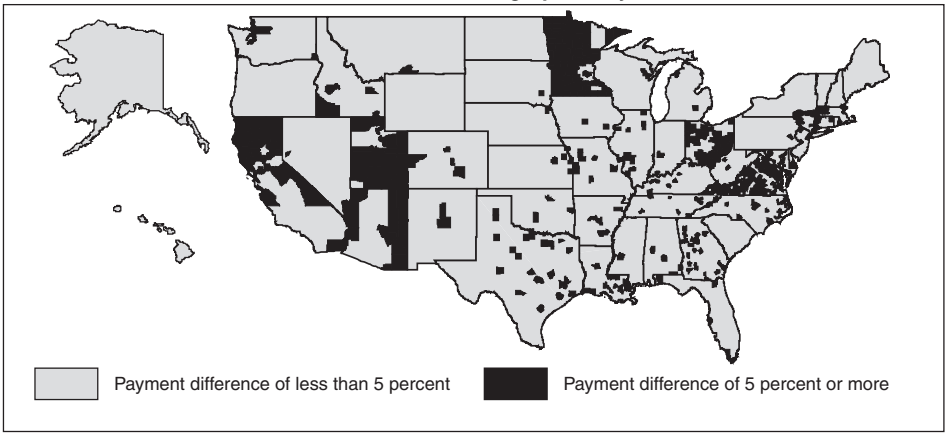
To view the full product, including the scope and methodology, click on the link above. For more information, contact A. Bruce Steinwald at (202) 512-7114 or steinwalda@gao.gov.

What GAO Found

The current 89 physician payment localities are primarily consolidations of the 240 localities that Medicare carriers—CMS contractors responsible for processing physician claims—established in 1966. Since then, CMS has revised the payment localities using three different approaches that were not uniformly applied. From 1992 through 1995, CMS permitted state medical associations to petition to consolidate into a statewide locality if the state's physicians demonstrated "overwhelming support" for the change. In 1997, CMS revised the 28 states with multiple payment localities using two approaches: CMS consolidated carrier-defined localities in 25 states and created entirely new localities in 3 states.

More than half of the current physician payment localities had counties within them with a large payment difference—that is, a payment difference of 5 percent or more between GAO's measure of physicians' costs and Medicare's geographic adjustment for an area. These 447 counties—representing 14 percent of all counties—were located across the United States, but a disproportionate number were located in California, Georgia, Minnesota, Ohio, and Virginia. Large payment differences occur because certain localities combine counties with different costs, which may be due to several factors. For example, although substantial population growth has occurred in certain areas, potentially leading to increased costs, CMS has not revised the payment localities in accordance with these changes.

Counties in Which Physicians Had a Payment Difference of Less than 5 Percent, or 5 Percent or More, between Their Costs and Medicare's Geographic Adjustment



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 Department of Housing and Urban Development data.

Many alternative approaches could be used to revise the geographic boundaries of the current payment localities. GAO identified three possible approaches that would improve payment accuracy while generally imposing a minimal amount of additional administrative burden on CMS, Medicare carriers, and physicians. One approach, for example, would improve payment accuracy, the extent to which each approach accurately measures variations in physicians' costs, by 52 percent over the current localities.

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Abbreviations

CMS	Centers for Medicare & Medicaid Services
CPT	current procedural terminology
GAF	geographic adjustment factor
GPCI	geographic practice cost index
HUD	Department of Housing and Urban Development
MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003
MSA	metropolitan statistical area
OBRA	Omnibus Budget Reconciliation Act of 1989
RVU	relative value unit

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Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

June 29, 2007

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

Dear Mr. Chairman:

In 2005, Medicare spending for physician services totaled about $59 billion and in April 2005, just over 467,000 physicians billed Medicare for services provided to Medicare beneficiaries. Since 1966, Medicare has adjusted physicians' fees for the costs of operating a private medical practice in different geographic areas. The purpose of this adjustment is to help ensure that Medicare's payment is appropriate and adequate in all areas. Medicare has set 89 distinct geographic areas, referred to as physician payment localities, among which payments are adjusted. Thirty-four of these payment localities are statewide, meaning that all physician fees in the state are adjusted by a uniform amount. The remaining payment localities are composed of one or more counties within a state and differ in size, population density, and the extent to which they are urban or rural. For example, large metropolitan areas such as Manhattan, New York; smaller metropolitan areas such as Galveston, Texas; and less populated areas such as rural Missouri, are each considered payment localities. As part of its responsibility to set and adjust Medicare payments, the Centers for Medicare & Medicaid Services (CMS) sets the boundaries of the payment localities and has expressed a goal of balancing the extent to which the localities accurately address variations in physicians' costs with the administrative burden associated with making geographic adjustments to physician payments in a large number of localities.[1] The agency has stated that it generally prefers statewide payment localities to states with multiple localities because they simplify program administration by reducing the number of payment localities and encourage physicians to

[1]See 61 *Fed. Reg.* 34,616-17 (1996).

practice in rural areas by reducing payment differences between urban and rural areas.[2]

Medicare's geographic adjustment for a particular physician payment locality is determined using three geographic practice cost indices (GPCI) that correspond to the three components of a Medicare fee—physician work, practice expense, and malpractice expense. These GPCIs adjust physician fees for variations in physicians' costs of providing care in different payment localities. Specifically, they raise or lower Medicare fees depending on whether a payment locality's average cost of operating a physician practice is above or below the national average. CMS is required to review the GPCIs at least every 3 years and, at that time, may update them using more recent data. The major data source used in calculating the GPCIs, the decennial census, provides new data once every 10 years. The GPCIs were last updated in 2005 and CMS is scheduled to review and, if necessary, update them again in 2008.

Concerns have been raised in Congress and among stakeholders, including state medical associations, that the geographic boundaries of some payment localities do not accurately address variations in the costs of operating a private medical practice. If they do not, beneficiaries could potentially experience problems accessing physician services. You asked us to evaluate the Medicare physician payment localities. In this report, we (1) determine how CMS has revised the physician payment localities since they were established in 1966 and the approaches the agency used, (2) determine the extent to which the current payment localities accurately reflect variations in physicians' costs of providing care in different geographic areas, and (3) evaluate whether alternative approaches to the physician payment localities could improve payment accuracy without imposing a substantial amount of additional administrative burden.

To determine how CMS has revised the physician payment localities since they were established and the approaches the agency used, we reviewed selected documents published in the Federal Register to examine when and how the boundaries of the payment localities have changed and a CMS-contracted report on the payment localities that was used as the

[2]See 61 *Fed. Reg.* 34,616 (1996).

basis for the agency's 1997 modifications.[3] We also interviewed officials at CMS; five Medicare Part B[4] carriers, the CMS contractors responsible for processing physician claims; four county medical associations; 11 state medical associations; and one national medical association. In addition, we interviewed physicians referred to us by the state medical associations.

To determine the extent to which the current physician payment localities accurately reflect variations in physicians' costs of providing care, we compared data on the costs physicians incur for providing services in different areas with the geographic adjustment that Medicare applies to those areas. We calculated a proxy measure of physicians' costs of operating a practice in a particular geographic area using a summary measure of the three GPCIs—physician work, practice expense, and malpractice expense. This geographic adjustment factor (GAF) broadly measures differences in costs across geographic areas. To the extent that county-specific data were available, we calculated a "county-specific GAF" as a proxy for physicians' costs in a county. We compared this measure to a "locality GAF," which represents Medicare's 2005 geographic adjustment to the payment locality to which that county is assigned and is a proxy for physicians' costs in a locality. To compare the two measures, we calculated the difference between them, which we refer to as the "payment difference."[5] For purposes of this report, we defined counties with a payment difference of 5 percent or more as having a large payment difference. These large payment differences consisted of both underpayments (the locality GAF was lower than the county-specific GAF) and overpayments (the locality GAF was higher than the county-specific GAF).

We used 2000 Census Bureau data, fiscal year 2006 Department of Housing and Urban Development (HUD) data, and 2005 CMS data to calculate county-specific GAFs using the same methodology CMS used for its most recent update to the GPCIs, in 2005. These data were the most recent available at the time of our analysis. Although we refer to these GAFs as "county-specific," we were not able to compute unique county GAFs for

[3]Health Economics Research, Inc., *Assessment and Redesign of Medicare Fee Schedule Areas (Localities)* (Waltham, Mass., 1995).

[4]Medicare Part B provides coverage for certain physician, outpatient hospital, laboratory, and other services to beneficiaries who pay monthly premiums.

[5]Specifically, we calculated payment difference as the absolute value of the county's locality GAF minus its county-specific GAF, divided by its county-specific GAF.

each county in the United States because Census Bureau data are not available at that level. Instead, we obtained data that allowed us to calculate unique county GAFs for those counties that belong to a metropolitan statistical area (MSA) and one composite GAF for each non-MSA area per state. We assessed the reliability of these data and found them suitable for our purposes. In addition, we limited our analysis to the 87 payment localities within the 50 states and the District of Columbia.[6]

To evaluate whether alternative approaches to the Medicare physician payment localities could improve payment accuracy without imposing a substantial amount of additional administrative burden, we used the county-specific GAFs to illustrate five possible alternative approaches to constructing payment localities. We evaluated the payment accuracy of each approach, the extent to which each approach accurately measures variations in physicians' costs of providing care, based on its payment difference; we evaluated the administrative burden of each approach based on the number of payment localities that it would generate, as well as interviews with CMS officials, Medicare carrier representatives, and physicians. Three of our approaches are designed to balance payment accuracy with administrative burden. The two additional approaches are useful for comparison purposes because they illustrate the tradeoffs between payment accuracy and administrative burden. Appendix I contains a more complete description of our methodology. We conducted our work from June 2006 through May 2007 in accordance with generally accepted government auditing standards.

Results in Brief

The current 89 physician payment localities are primarily consolidations of the localities that Medicare carriers established in 1966. CMS has since revised them using three different approaches that were not uniformly applied. Specifically, in 1966, Medicare carriers set 240 payment localities, 16 of which were statewide, using their knowledge of local medical practice and economic patterns at the time. According to CMS, their boundaries remained relatively stable for the next 26 years. From 1992 through 1995, CMS continued to use the 240 carrier-defined payment localities, but permitted state medical associations in multiple-locality

[6]Of the 2 additional payment localities, one encompasses Puerto Rico and one encompasses the U.S. Virgin Islands. The District of Columbia payment locality currently consists of the District, five Virginia counties, and two Maryland counties. These Virginia and Maryland counties are excluded from the Virginia and Rest-of-Maryland payment localities.

states to petition to consolidate into a statewide payment locality by demonstrating that the change had the "overwhelming support" of the state's physicians. Six states successfully demonstrated overwhelming support for a statewide payment locality; their consolidation reduced the number of localities to 210, including 22 statewide localities and 28 multiple-locality states. In 1997, CMS revised the 28 multiple-locality states using two different approaches. In 25 of these states, CMS used a methodology designed to consolidate the carrier-defined payment localities. In the remaining 3 multiple-locality states, CMS stated that this consolidation methodology would have yielded inaccurate payment localities and therefore created entirely new payment localities. These revisions yielded the current 89 payment localities, including 34 statewide payment localities.

More than half of the current physician payment localities had at least one county within them with a large payment difference—that is, there was a payment difference of 5 percent or more between physicians' costs and Medicare's geographic adjustment for an area. Overall, there were 447 counties with large payment differences—representing 14 percent of all counties. These counties were located across the United States, but a disproportionate number were located in five states. Specifically, 60 percent of counties with large payment differences were located in California, Georgia, Minnesota, Ohio, and Virginia. Large payment differences occur because many payment localities combine counties with very different costs, which may be attributed to several factors. For example, although substantial population growth has occurred in certain geographic areas, potentially leading to increased costs, CMS has not revised the payment localities to reflect these changes.

Many alternative approaches could be used to revise the geographic boundaries of the current payment localities. We examined five possible approaches and found that three would improve payment accuracy while generally imposing a minimal amount of additional administrative burden on CMS, Medicare carriers, and physicians. Compared to the current payment localities, four of the five approaches we examined would improve payment accuracy, the extent to which each approach accurately measures variations in physicians' costs of providing care. For example, one approach improved payment accuracy by 52 percent. In addition, while all approaches would impose upfront administrative costs on CMS and Medicare carriers regardless of the number of payment localities generated, four of the approaches we examined would impose a minimal amount of additional ongoing administrative burden on CMS, Medicare carriers, and physicians. The ongoing costs would be minimal largely

because these four approaches would generally create three or fewer additional payment localities in each state. One approach, however, would create a substantial number of additional payment localities—1,054 more than currently exist.

To help ensure that Medicare's payments to physicians more accurately represent geographic differences in physicians' costs of operating a private medical practice, we recommend that the Administrator of CMS examine and revise the physician payment localities using an approach that is uniformly applied to all states and based on the most current data. We also recommend that the Administrator examine and, if necessary, update the physician payment localities on a periodic basis, with no more than 10 years between updates.

In comments on a draft of this report, CMS stated that it would consider our first recommendation—to examine and revise the physician payment localities using an approach that is uniformly applied to all states and based on the most current data. The agency also stated that, in doing so, it would give full consideration to the redistributive effects and administrative burdens of any change to the payment locality structure. We agree that redistributive effects and administrative burden should be considered when making the necessary changes to the physician payment localities. Regarding our second recommendation—that CMS examine and, if necessary, update the payment localities on a periodic basis—the agency stated that it considers payment locality issues when concerns are raised by interested parties and based on its own initiative, an approach that it believes is more flexible and efficient than examining the payment localities every 10 years. Reviewing payment localities in response to concerns raised by interested parties, however, could result in CMS examining only selected physician payment localities, rather than examining all payment localities using a uniform approach. Updating the payment localities at least every 10 years when new decennial census data become available would ensure that Medicare appropriately accounts for changes in the geographic distribution of physicians' costs of operating a private medical practice. In addition, CMS raised concerns about our use of the word "inaccurate" in the draft report to describe counties with a payment difference of 5 percent or more between physicians' costs and Medicare's geographic adjustment. The agency stated that our characterization of payments as inaccurate could be construed to mean that there has been an overpayment for which recoupment of the overpayment, as well as other actions, should be pursued. As a result, we have deleted the term and instead define counties with a payment difference of 5 percent or more as having a "large payment difference." As

we did in the draft report, however, we use the term "payment accuracy" to refer to the extent to which the payment localities reflect variations in physicians' costs of providing care in different geographic areas.

Background

From 1966 through 1991, Medicare paid physicians based on what they charged for services. The Omnibus Budget Reconciliation Act of 1989 (OBRA) required the establishment of a national Medicare physician fee schedule,[7] which was implemented in 1992, replacing the charge-based system. Currently, the Medicare physician fee schedule includes more than 7,000 services together with their corresponding payment rates.[8] In addition, each service on the fee schedule has three relative value units (RVU) that correspond to the three components of physician payment:

- Physician work—the financial value of physicians' time, skill, and effort that are associated with providing the service.
- Practice expense—the costs incurred by physicians in employing office staff, renting office space, and buying supplies and equipment.
- Malpractice expense—the premiums paid by physicians for professional liability insurance.

Each RVU measures the relative costliness of providing a particular service. For example, in 2007, for a mid-level office visit for an established patient, the three RVUs sum to 1.66.[9] In contrast, total RVUs for a chemotherapy infusion procedure are 4.73, indicating that this procedure is almost three times as costly as a mid-level office visit.[10]

[7]See Pub. L. No. 101-239, § 6102(a), 103 Stat. 2106, 2169-84 (adding section 1848 of the Social Security Act) (codified at 42 U.S.C. § 1395w-4 (2000)).

[8]By law, these payment rates were updated by 1.5 percent in 2004 and 2005, and by 0 percent in 2006 and 2007. See Pub. L. No. 108-173, § 601(a)(1), 117 Stat. 2066, 2300-01, Pub. L. No. 109-171, § 5104, 120 Stat. 4, 40-41, Pub. L. No. 109-432, Div. B, Tit. I, § 101, 120 Stat. 2922, 2975.

[9]A more complete description is "office or other outpatient visit for the evaluation and management of an established patient." In the American Medical Association coding system, the current procedural terminology (CPT) code for this service is 99213.

[10]The full description for this procedure, CPT code 96425, is "infusion technique, initiation of prolonged infusion (more than 8 hours) requiring the use of a portable or implantable pump."

Medicare's geographic adjustment for a particular physician payment locality is determined using three GPCIs that also correspond to the three components of a Medicare payment—physician work, practice expense, and malpractice expense. These GPCIs adjust physician fees for variations in physicians' costs of providing care in different geographic areas.[11] Other Medicare adjustments to physician fees address issues other than geographic variation in costs. For example, physicians practicing in designated health professional shortage areas receive a 10 percent bonus payment for Medicare services they provide, and physicians practicing in designated physician scarcity areas receive a 5 percent bonus payment for Medicare services they provide.

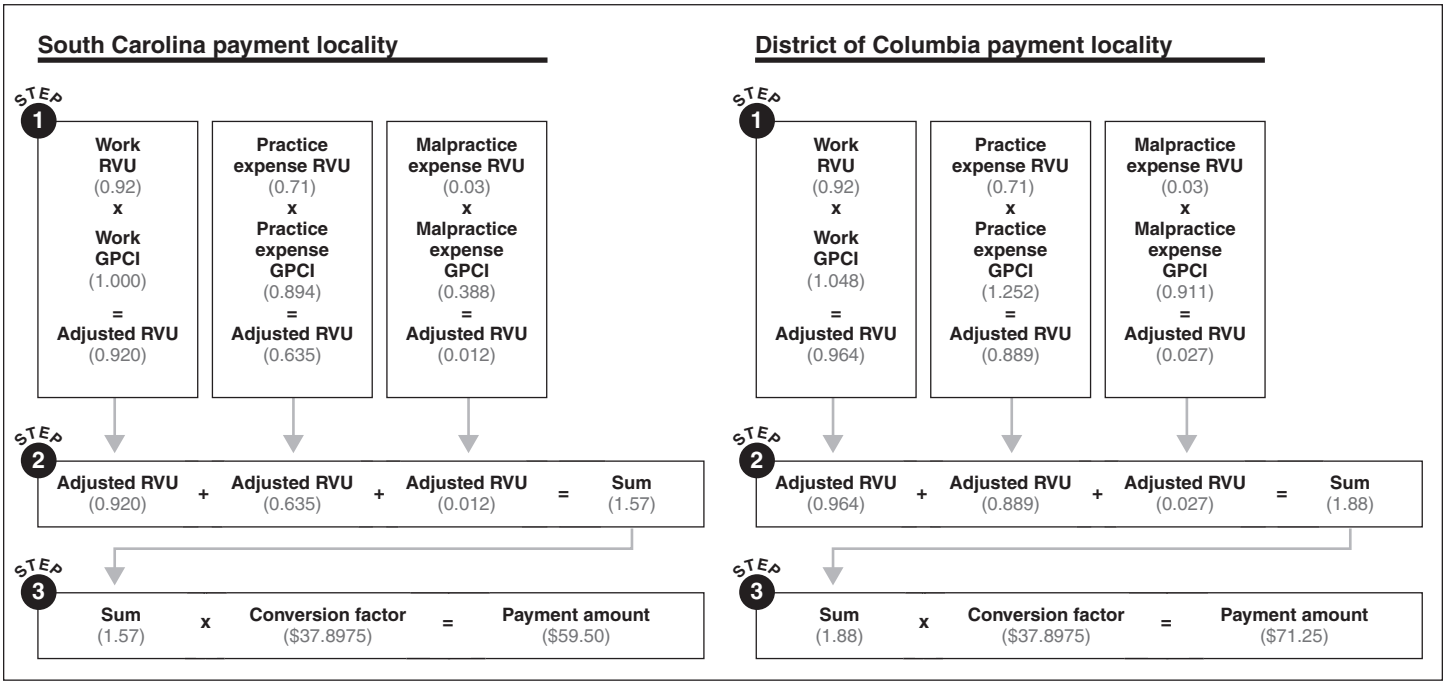
The GPCIs are numerical factors expressed as the ratio of an area's cost to the national average cost. For example, in 2007, the practice expense GPCI for Orlando, Florida, is 0.936, which means that the practice expense component of the fee for a service is 6.4 percent below the national average. Because the GPCIs measure physician costs relative to the national average costs, an increase in the GPCIs of one area will result in a decrease in the GPCIs of other areas. In general, GPCIs are higher in urban areas than in rural areas.

To calculate the Medicare payment amount for a service in a particular payment locality, each of the three RVUs for a service is adjusted for geographic differences in resource costs and converted into dollars. This process has several steps. First, to adjust for differences in costs, each of the three RVUs is multiplied by the appropriate GPCI. Second, these adjusted RVUs are added together. Third, that sum is converted into dollars using a conversion factor—a dollar amount CMS calculates that translates each service's RVUs into a payment amount. The result equals the Medicare payment for that service in that payment locality. For example, to determine the Medicare payment for a mid-level office visit in South Carolina in 2007, first, the three RVUs—work, practice expense, and malpractice expense—are multiplied by the appropriate GPCI (see fig. 1). Second, these adjusted RVUs are summed together to total 1.57. Third, this sum is multiplied by the conversion factor ($37.8975), resulting in a

[11]In 2005, we found that because Medicare revenue constitutes only one-quarter of physicians' income, on average, the effect of the GPCIs on physicians' income is limited. Income is also only one of several factors that affect physicians' location decisions and employers' efforts to recruit and retain physicians. See GAO, *Medicare Physician Fees: Geographic Adjustment Indices Are Valid in Design, but Data and Methods Need Refinement*, GAO-05-119 (Washington, D.C.: Mar. 11, 2005).

Medicare payment of $59.50 for this service. In the District of Columbia, total adjusted RVUs for a mid-level office visit sum to 1.88, which the conversion factor translates into a payment of $71.25. Physicians practicing in the District of Columbia payment locality receive a higher overall payment for the same service because of the higher costs of operating a private medical practice compared with physicians practicing in the South Carolina payment locality. Since the work, practice expense, and malpractice expense RVUs for a single service are the same in every payment locality, the geographic variation in the Medicare payment for a service mirrors the variation in the GPCIs across payment localities.

Figure 1: Calculation of the Medicare Payment for a Mid-level Office Visit in the South Carolina and District of Columbia Medicare Physician Payment Localities, 2007



Source: GAO analysis of CMS data.

Note: The South Carolina payment locality is statewide. The District of Columbia payment locality consists of the District, five Virginia counties, and two Maryland counties. These Virginia and Maryland counties are excluded from the Virginia and Rest-of-Maryland payment localities.

CMS is required to review the GPCIs at least every 3 years and, based on that review, may revise them using the most recent data available.[12] The agency last updated the GPCIs in 2005 and is scheduled to review and, if necessary, update them again in 2008. The data used for the different GPCIs are updated on different intervals. Specifically, the decennial census, which is the major data source used in calculating the GPCIs, provides new data once every 10 years. These data are used in calculating the work[13] and practice expense GPCI. HUD data, which are also used in calculating the practice expense GPCI, are updated annually. CMS collects state insurance department and private insurer data, which are used in calculating the malpractice expense GPCI, when the GPCIs are reviewed every 3 years.[14] In addition, CMS is required to review the RVUs at least every 5 years and last updated them in 2007.

GPCIs can be summarized by the GAF, which broadly illustrates differences in costs across physician payment localities.[15] The GAF is an average of the GPCIs, with each of the three GPCIs weighted by the percentage of costs accounted for by its corresponding RVU. Specifically, on average, across all services, work represents 52.5 percent of costs, practice expense represents 43.7 percent, and malpractice expense represents 3.9 percent.[16] For example, to calculate the GAF for the statewide South Carolina payment locality in 2007, the work, practice expense, and malpractice expense GPCIs for South Carolina are weighted

[12]In 2005, we reported on CMS's methods for calculating the GPCIs. See GAO-05-119.

[13]By law, the work GPCI incorporates only one-quarter of the relative cost of physicians' work, compared to the national average, meaning that a 20 percent difference in costs results in a 5 percent difference in the work GPCI. In addition, from 2004 through 2006, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) established a floor of 1.0 for any locality where the work GPCI would otherwise fall below 1.0. Pub. L. No. 108-173, § 412, 117 Stat. at 2274 (codified at 42 U.S.C. § 1395w-4(e) (1)(E)). This provision was extended through 2007 by the Tax Relief and Health Care Act of 2006, Pub. L. No. 109-432, Div. B, Tit. I, § 102, 120 Stat. 2922, 2981.

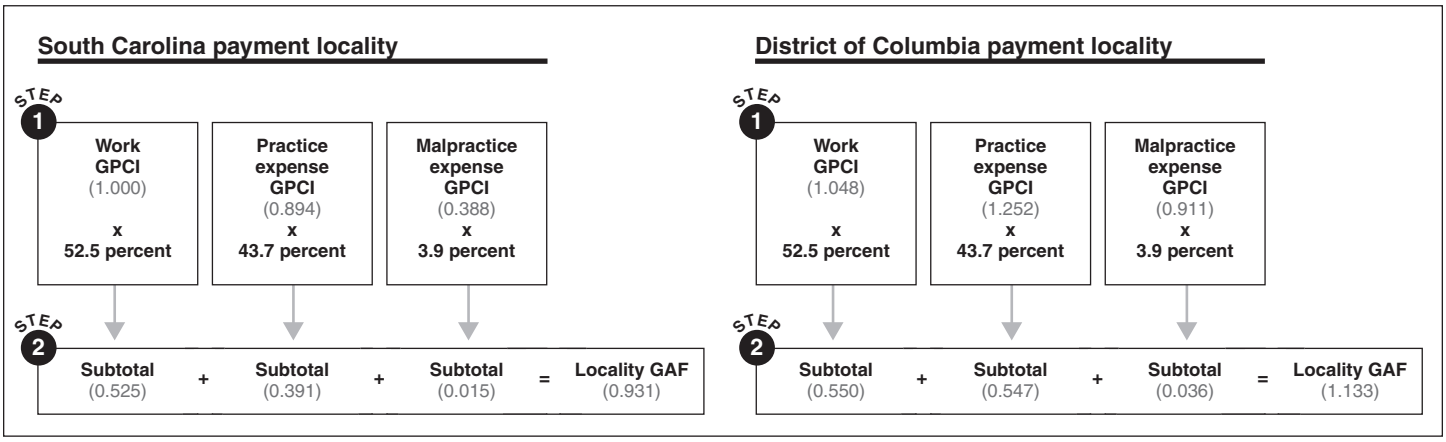
[14]From 2004 through 2005, MMA set the work, practice expense, and malpractice expense GPCIs for the state of Alaska at 1.67 if any GPCI would otherwise be less than 1.67. Pub. L. No. 108-173, § 602, 117 Stat. at 2301 (codified at 42 U.S.C. § 1395w-4(e)(1)(G)).

[15]Across the United States, Medicare's 2007 locality GAFs vary, ranging from a minimum of 0.905 for the Arkansas payment locality, to a maximum of 1.265 for the Santa Clara, California, payment locality. The GAF is not used to compute fees for specific physician services.

[16]These percentages do not total to 100 percent due to rounding. The percentages correspond to shares of the average cost of running a physician practice.

and then summed to equal a GAF of 0.931 (see fig. 2). For the District of Columbia payment locality in 2007, the GPCIs are weighted and summed to equal a GAF of 1.133.

Figure 2: Calculation of the GAF for the South Carolina and District of Columbia Medicare Physician Payment Localities, 2007



Source: GAO analysis of CMS data.

Note: The South Carolina payment locality is statewide. The District of Columbia payment locality consists of the District, five Virginia counties, and two Maryland counties. These Virginia and Maryland counties are excluded from the Virginia and Rest-of-Maryland payment localities.

Physician Payment Localities Are Primarily Consolidations of the Carrier-Defined Localities That Were Established in 1966, Which CMS Has Since Revised Using Three Approaches That Were Not Uniformly Applied

The current 89 physician payment localities are primarily consolidations of the payment localities that Medicare carriers first defined in 1966. CMS has since revised them over two different time periods using three approaches that were not uniformly applied (see fig. 3). In 1966, Medicare carriers established 240 payment localities, including 16 statewide localities, using their knowledge of local medical practice and economic patterns at the time. These payment localities varied in size, ranging from a single zip code to statewide. For example, California had 28 payment localities, including 8 zip-code-based localities within the county of Los Angeles, whereas New Mexico was a statewide payment locality. According to CMS, the payment locality boundaries were relatively stable for the next 26 years.

Figure 3: Approaches Used to Establish and Revise Geographic Boundaries of Medicare Physician Payment Localities as of May 2007

Source: GAO analysis of Federal Register notices.

Note: Includes the 87 payment localities within the 50 states and District of Columbia. Where no other payment localities are present within a state, the state is a statewide locality.

In 1989, OBRA required the establishment of a national Medicare physician fee schedule, replacing the charge-based payment system.[17] Under the law, the new fee schedule was phased in over a 4-year period, from 1992 through 1995. To facilitate this transition, CMS continued to use the 240 carrier-defined payment localities, but permitted state medical associations to petition to consolidate their state into one statewide payment locality. Under this approach, from 1992 through 1995, CMS consolidated six states into statewide localities,[18] reducing the number of payment localities to 210, including 22 statewide localities and 28 multiple-locality states.

Consolidation into a statewide payment locality would have generally resulted in urban physicians experiencing a decrease in payment and rural physicians experiencing an increase in payment. Citing this fact, CMS stated it would consider a petition for consolidation from a state medical association that could demonstrate that it had the "overwhelming support" of both groups of physicians. The agency declined to set a numerical level of support that it would consider "overwhelming," but did enumerate several elements it would require, at a minimum, for state medical associations to demonstrate overwhelming support.[19] CMS assessed the level of physician support by reviewing both the petition from the state medical association and the comments regarding the change that the agency received directly from physicians. For example, in 1995, CMS consolidated Iowa to a statewide payment locality when the state medical association, which represented 75 percent of Iowa physicians, submitted a resolution in favor of consolidation, and 98 percent of the comments CMS received, including 94 percent of comments from physicians who would experience a payment decrease, also supported the transition. CMS has

[17]See Pub. L. No. 101-239, § 6102(a), 103 Stat. 2106, 2169-84 (adding section 1848 of the Social Security Act) (codified at 42 U.S.C. § 1395w-4 (2000)).

[18]These six states were: Iowa (1995), Minnesota (1992), Nebraska (1992), North Carolina (1994), Ohio (1994), and Oklahoma (1992).

[19]CMS stated that it did not set an absolute numerical level of support because of the uniqueness of the locality structure in each state; it said that setting a numerical level of support would limit the discretion required for it to properly evaluate each request. It did, however, identify four elements that it would require, at a minimum, for overwhelming support to be demonstrated: (1) a formal request for the change from the state medical association, including a copy of a recently adopted resolution requesting the change; (2) the number of licensed actively practicing physicians in the state and the number that were society members; (3) the number of society members in each local (county) society; and (4) letters from the local societies representing physicians in areas experiencing a payment decrease indicating the level of support for the change. 59 *Fed. Reg.* 63,416 (1994).

not required medical associations in the states that it consolidated to continue to demonstrate that there is overwhelming support from the physician community for a statewide payment locality.

In 1996, CMS cited a lack of consistency among the carrier-defined payment localities[20] and, in 1997, revised the 28 multiple-locality states. As a result of these revisions, the total number of payment localities was reduced from 210 to the current total of 89. Thirty-four states have statewide payment localities and 16 states have multiple payment localities.[21]

In revising the payment localities in 1997, CMS used two different approaches. Specifically, in 25 of the multiple-locality states, CMS revised the carrier-defined payment localities using a methodology designed to consolidate them. As a result, the agency converted 12 states to statewide payment localities, while it retained multiple payment localities in 13 states. In the remaining 3 multiple-locality states, CMS concluded that its consolidation methodology would have yielded inaccurate localities and therefore created entirely new payment localities. When making these revisions, the agency did not examine any of the 22 then-existing statewide payment localities that had been set using carrier definitions and the overwhelming support policy; therefore, these payment localities have not been examined since they were created, which in most cases was over 40 years ago.

In 25 of the 28 multiple-locality states, CMS applied a methodology that was designed to consolidate the carrier-defined payment localities: new localities could not be created. The agency did not examine the geographic boundaries of the carrier-defined payment localities before consolidating them, even though in 1993, it had stated that the existing payment localities had not been established on "any consistent basis."[22] Specifically, within the 25 states, CMS ranked the carrier-defined payment localities from highest to lowest cost, as measured by the locality GAF. The agency

[20]Specifically, CMS stated that payment localities had not been established on a consistent geographic basis. 61 *Fed. Reg*. 34,615 (1996). Some were based on zip codes or MSAs, while others were based on political boundaries, such as cities, counties, or states. 56 *Fed. Reg*. 25,832 (1991).

[21]In addition, the District of Columbia locality currently consists of the District, five Virginia counties, and two Maryland counties.

[22]See 58 *Fed. Reg*. 38,003 (1993).

compared the GAF of the highest-cost payment locality to the weighted average GAF of all lower-cost payment localities in the state.[23] If the percentage difference between the two GAFs exceeded 5 percent, CMS retained the highest-cost payment locality as distinct. It then repeated (or iterated) the process with the second highest-cost payment locality, the third highest-cost payment locality, and so on, until a locality's GAF no longer exceeded the weighted average GAF of lower-cost payment localities by more than 5 percent. At this point, CMS did not make further comparisons and grouped the remaining payment localities into one Rest-of-State locality. Where the highest-cost payment locality in a state did not exceed the weighted average GAF of all lower-cost payment localities by more than 5 percent, CMS converted the state to a statewide locality.

To illustrate, before the 1997 consolidation, Illinois had 16 carrier-defined payment localities. When CMS applied the consolidation methodology, it found that the GAFs of the 3 highest-cost payment localities (Chicago, Suburban Chicago, and East St. Louis) each exceeded the weighted average GAF of all lower-cost payment localities in Illinois by more than 5 percent, and therefore retained each as a distinct locality. The agency found that the fourth highest-cost payment locality, Springfield, did not exceed the weighted average GAF of all lower-cost payment localities by more than 5 percent; therefore, it consolidated Springfield and the remaining 12 localities into a single Rest-of-Illinois payment locality. In Alabama, CMS found that the GAF of Birmingham, the highest-cost payment locality, did not exceed the weighted average GAF of all lower-cost payment localities by more than 5 percent; therefore, it converted Alabama to a statewide locality.

As part of the 1997 revision, CMS also eliminated all subcounty payment localities, such as those based on zip codes and city boundaries. The agency stated that, in most cases, the 1997 consolidation methodology appropriately consolidated any subcounty payment localities; for example, all payment localities in Arizona, including each of the city-based localities of Flagstaff, Phoenix, Prescott, Tucson, and Yuma, were consolidated into a statewide payment locality. However, in three states—Massachusetts, Missouri, and Pennsylvania—CMS concluded that consolidation of the subcounty payment localities under its methodology would have yielded

[23]The average GAF was weighted by locality RVUs.

significant payment inaccuracies.[24] Therefore, in these states, the agency did not apply the consolidation methodology and instead, discarded the carrier-defined payment localities, creating entirely new payment localities based on groupings of counties.[25]

Although CMS cited the payment inaccuracy that would have resulted from the consolidation methodology as the reason for creating new payment localities in these three states, other states had comparably high payment inaccuracy when the methodology was applied. Specifically, CMS determined that the methodology would have yielded the average payment inaccuracies of 3.16, 3.86, and 3.90 percent in Massachusetts, Missouri, and Pennsylvania, respectively. However, it yielded comparable payment inaccuracies when CMS applied it to Kansas and Virginia (3.85 and 3.06 percent, respectively). Despite these comparable payment inaccuracies, CMS did not create entirely new payment localities in Kansas and Virginia because their carrier-defined localities had been county-based and not subcounty-based.

CMS has not revised the geographic boundaries of the physician payment localities since the 1997 revision. Also since that year, CMS has indicated that the only mechanism the agency has set forth to modify the payment localities is for state medical associations to petition for a change by demonstrating that the change has the overwhelming support of the physician community.[26]

[24]CMS's contractor calculated "payment inaccuracy" in a different manner than we calculate "payment difference" in this report. CMS's contractor calculated payment inaccuracy as the absolute value of the county's locality GAF minus its county-specific GAF. See Health Economics Research, Inc., *Assessment and Redesign of Medicare Fee Schedule Areas (Localities)*. We calculated payment difference as the absolute value of the county's locality GAF minus its county-specific GAF, divided by its county-specific GAF. CMS stated that in Missouri, the methodology would have resulted in significant payment inaccuracies because it failed to separate the Kansas City and St. Louis areas from the rest of the state. In Massachusetts, the agency stated that the methodology would have failed to separate the high-cost Boston area from lower-cost central and western Massachusetts. In Pennsylvania, it stated the methodology would have continued to inappropriately group Pittsburgh with more expensive Philadelphia. 61 *Fed. Reg.* 34,620 (1996).

[25]CMS generally created separate localities for the central counties of the highest-cost metropolitan areas in each state and grouped all other counties into a Rest-of-State locality.

[26]Since 1997, CMS has indicated that only one state medical association has petitioned for a change to the payment localities. In 2004, California's state medical association petitioned for a change. CMS denied its petition, stating that CMS did not have the statutory authority to make the specific change the association had requested.

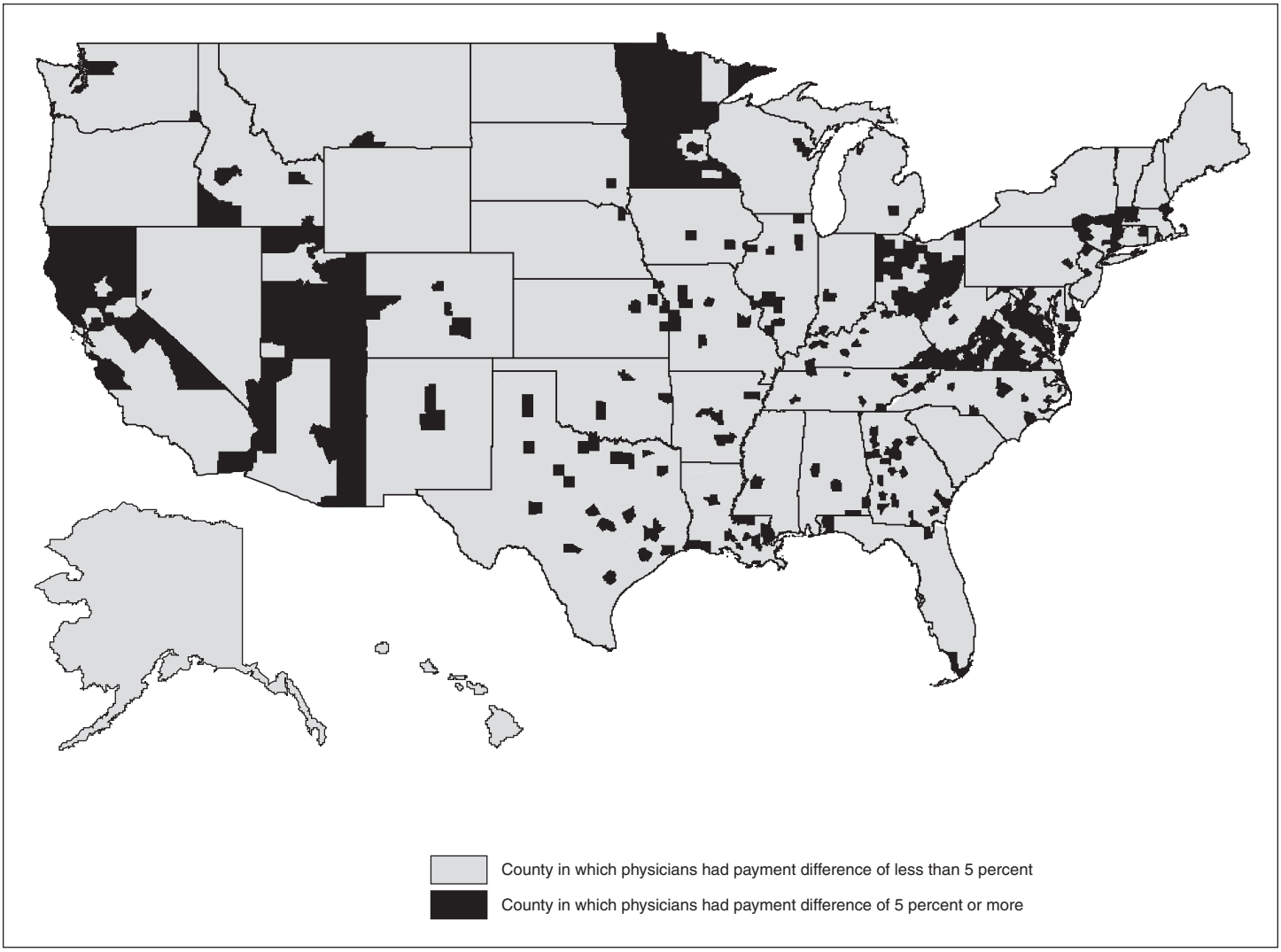
More Than Half of the Physician Payment Localities Had Counties within Them with Large Payment Differences

More than half of the physician payment localities we analyzed—47 of 87—had at least one county within them with a large payment difference—that is, there was a payment difference of 5 percent or more between physicians' costs and Medicare's geographic adjustment for an area.[27] In total, there were 447 counties with large payment differences, representing 14 percent of all counties. We determined counties with large payment differences by calculating the payment difference between the costs that physicians incur for providing services in a particular county that we calculated (the "county-specific" GAF) compared with Medicare's geographic adjustment for the locality in which that county is assigned (the "locality" GAF).

Counties with large payment differences were located across the United States and varied in size, whether they were urban or rural, and whether they made up a large or small portion of their locality (see fig. 4). However, a disproportionate number were located in five states. Specifically, 60 percent of counties with large payment differences were located in California, Georgia, Minnesota, Ohio, and Virginia. Of these five states, Minnesota, Ohio, and Virginia are statewide localities for Medicare physician payments.

[27]Our analysis excluded 2 of the 89 physician payment localities: Puerto Rico and the U.S. Virgin Islands.

Figure 4: Counties in Which Physicians Had a Payment Difference of Less Than 5 Percent, or 5 Percent or More, between Medicare's Locality GAF and Their County-Specific GAF



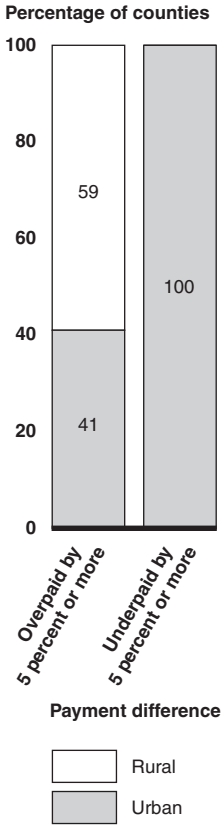
Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: We calculated county-specific GAFs as a measure of the costs physicians incur for providing services in a particular county. For purposes of this report, we defined counties with a payment difference of 5 percent or more as counties with large payment differences. Payment difference is the absolute value of the locality GAF minus the county-specific GAF, divided by the county-specific GAF.

Large payment differences consisted of both overpayments and underpayments, relative to the county-specific GAFs we calculated. Physicians in 12 percent of counties were overpaid by 5 percent or more, relative to the county-specific GAF. These physicians accounted for 3 percent of Medicare payments to physicians in 2005. In contrast, physicians in 2 percent of counties were underpaid by 5 percent or more, relative to their county-specific GAF, and these physicians accounted for almost 5 percent of Medicare payments to physicians in 2005. This occurs because the volume and costliness of Medicare services delivered by physicians in relatively underpaid counties is much higher than the volume and costliness of services delivered by physicians in relatively overpaid counties. Relative underpayments to physicians may have important consequences for beneficiary access. Officials from several state medical associations told us that geographic areas that are relatively underpaid have difficulty attracting and retaining physicians, which may lead to beneficiary access problems.

Physicians in urban counties, and specifically urban counties within the largest MSAs, had the highest relative underpayment differences, whereas physicians in rural counties generally had the highest relative overpayment differences. Specifically, all counties in which physicians were underpaid by 5 percent or more, relative to their county-specific GAF, were urban (see fig. 5). About three-quarters of these urban counties were part of MSAs with populations of at least 1 million. In contrast, about 60 percent of counties in which physicians were overpaid by 5 percent or more, relative to their county-specific GAF, were rural. More than half of these rural counties had populations of less than 25,000.

Figure 5: Percentage of Counties in Which Physicians Were Overpaid or Underpaid by 5 Percent or More, Relative to Their County-Specific GAF, by Urban and Rural



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: We calculated county-specific GAFs as a measure of the costs physicians incur for providing services in a particular county. There were 390 counties in which physicians were overpaid by 5 percent or more and 57 counties in which physicians were underpaid by 5 percent or more, relative to their county-specific GAF.

Large payment differences occur because many payment localities combine counties with very different costs. Specifically, within 39 of the 87 payment localities we analyzed, county-specific GAFs varied by at least 10 percent. For example, county-specific GAFs in the Poughkeepsie/Northern New York City Suburbs locality ranged from 0.948 to 1.105—a variation of 17 percent.

The fact that many payment localities combine counties with different costs may be due to several factors. First, the current payment localities are primarily consolidations of the localities Medicare carriers established

in 1966, and the carriers may have established locality boundaries in 1966 that combined counties with different costs. However, we could not assess the accuracy of the payment localities at the time the carriers established them because no data are available that would allow us to do such an analysis.

Second, a majority of states are statewide payment localities; because such localities contain many counties, they are more likely than nonstatewide localities to combine counties with very different costs. Of the 39 payment localities with county-specific GAFs that varied by at least 10 percent, 23 were statewide. However, several state medical associations we spoke with favor having a statewide payment locality. For example, in Iowa's statewide payment locality, the highest and lowest county-specific GAFs varied by 11 percent; as a result, 19 percent of payments to physicians in Iowa had a large payment difference. However, an official from Iowa's state medical association told us that it supports maintaining Iowa's current statewide payment locality because many physicians in the state maintain urban and rural offices and are not reimbursed for their travel between these offices; having a uniform reimbursement across the state helps mitigate these travel costs.

Large payment differences may also be due to the fact that although large demographic changes have occurred in certain geographic areas, CMS has not revised the payment localities in accordance with these changes. Certain payment localities contain counties that have experienced large population growth relative to the rest of their locality, which may be associated with increasing costs relative to the rest of their locality. For example, physicians in Loudoun County, Virginia, which is part of the Virginia statewide payment locality, were underpaid by 12 percent relative to their county-specific GAF. From 1980 through 2000, the population of Loudoun County increased by 195 percent, while the population of the rest of the Virginia payment locality increased by only 27 percent. Officials from Virginia's state medical association reported that, because Loudoun County has experienced higher population growth relative to the rest of the state, the area has also become more costly relative to the rest of the state. Accordingly, they stated that physicians from Loudoun County have expressed discontent with Virginia's statewide payment locality and wish to be reimbursed by Medicare at a rate more representative of their local costs.

Several Alternative Approaches to the Physician Payment Localities Could Improve Payment Accuracy While Generally Imposing Minimal Additional Administrative Burden

Many alternative approaches could be used to revise the geographic boundaries of the current payment localities. We examined five possible approaches and found that three would improve payment accuracy while generally imposing a minimal amount of additional administrative burden on CMS, Medicare carriers, and physicians. Compared to the current payment localities, four of the five alternative approaches would improve payment accuracy, the extent to which each approach accurately measures variations in physicians' costs of providing care. In addition, while all approaches would impose upfront administrative costs on CMS and Medicare carriers, four of the approaches we examined would impose a minimal amount of additional ongoing administrative burden on CMS, Medicare carriers, and physicians.

Alternative Approaches Could Be Used to Modify the Current Payment Localities

Although many alternative approaches could be used to modify the current physician payment localities, in this report, we present five possible approaches. The approaches and methodologies that we examined are detailed in table 1. Three of our approaches are designed to balance payment accuracy, the extent to which each approach accurately measures variations in physicians' costs of providing care, with administrative burden. The first of these, the county-based iterative approach, creates a single-county payment locality for each of the highest-cost counties in a state. It then groups that state's moderate- and low-cost counties together into one "Rest-of-State" locality. In contrast, the second approach, the county-based GAF ranges approach, groups high-, moderate-, and low-cost counties in each state into separate, multiple-county localities. The third approach, the MSA-based iterative approach, creates a single-MSA payment locality for each of the highest-cost MSAs in the nation. It then groups all other counties into a single "Rest-of-Nation" locality. Appendix II contains detailed information on the configuration of the payment localities under each of these approaches, as well as under the current payment localities.

Table 1: Selected Alternative Approaches to Current Medicare Physician Payment Localities

Alternative approach	Methodology used to construct localities
County-based iterative	Using counties as a starting point, this methodology creates a single-county payment locality for any county whose GAF exceeds the weighted average GAF of all counties in the state with lower GAFs by 5 percent or more. This comparison begins with the highest-cost county and continues until a county's GAF does not exceed the weighted average GAF of all lower-cost counties by 5 percent or more. At this point, that county and all lower-cost counties are grouped into a Rest-of-State payment locality.[a]
County-based GAF ranges	Using counties as a starting point, this methodology groups counties with similar GAFs into one locality. County-specific GAFs within a state are ranked from lowest to highest. The lowest county-specific GAF in each state becomes the lower boundary of the first GAF range. This lower boundary is increased by 5 percent to create the upper boundary of the first range. All counties with a GAF in that GAF range are grouped into locality 1. The first GAF that exceeds the upper boundary of the first GAF range becomes the lower boundary of a second GAF range and is increased by 5 percent to create the upper boundary of this range for each state. The process is repeated until all counties in the state are assigned to a locality.[b] If a county in an MSA has a GAF lower than that of the non-MSA counties in the state, the MSA county is grouped into the first GAF range containing non-MSA counties.[c]
MSA-based iterative	Using MSAs as a starting point, this methodology creates a single-MSA payment locality for any MSA whose GAF exceeds the weighted average GAF of all counties in the nation with lower GAFs by 5 percent or more. This comparison begins with the highest-cost MSA and continues until an MSA's weighted average GAF does not exceed the weighted average GAF of all lower-cost counties by 5 percent or more. At this point, that MSA and all lower-cost counties are grouped into a Rest-of-Nation payment locality.
Statewide	All states have one statewide payment locality.
County-based unique GAF	Each group of counties in a state with a unique GAF is a distinct payment locality.

Source: GAO.

Notes: In our calculations, we weighted average GAFs by county RVUs—a measure of the volume and costliness of Medicare services in a county. We used 5-percent thresholds because that is what CMS used for its 1997 consolidation methodology. For each new payment locality, we calculated the locality's GAF as the average county-specific GAF of all counties in the payment locality, weighted by county RVUs.

[a]For example, King County, Washington's, county-specific GAF is 1.045. The weighted average county-specific GAF of all counties in the state with lower GAFs is 0.982. Therefore, because 1.045 exceeds 0.982 by 5 percent or more, King County becomes a single-county payment locality.

[b]For example, the lowest county-specific GAF in Arizona is 0.943, and this becomes the lower boundary of the first GAF range. This boundary is increased by 5 percent to yield 0.990, which becomes the upper boundary of the first GAF range. All Arizona counties that fall into the first range of 0.943 to 0.990 are grouped into locality 1. The first GAF that exceeds this upper boundary is 1.003; therefore, 1.003 becomes the lower boundary of a second GAF range for Arizona, and the process is repeated.

[c]For example, the non-MSA counties in North Carolina have county-specific GAFs of 0.911. However, Greene County, North Carolina, which is in the Greenville MSA, has a county-specific GAF of 0.838, and is in a lower range than the non-MSA counties. Under this methodology, Greene County is grouped with the non-MSA range.

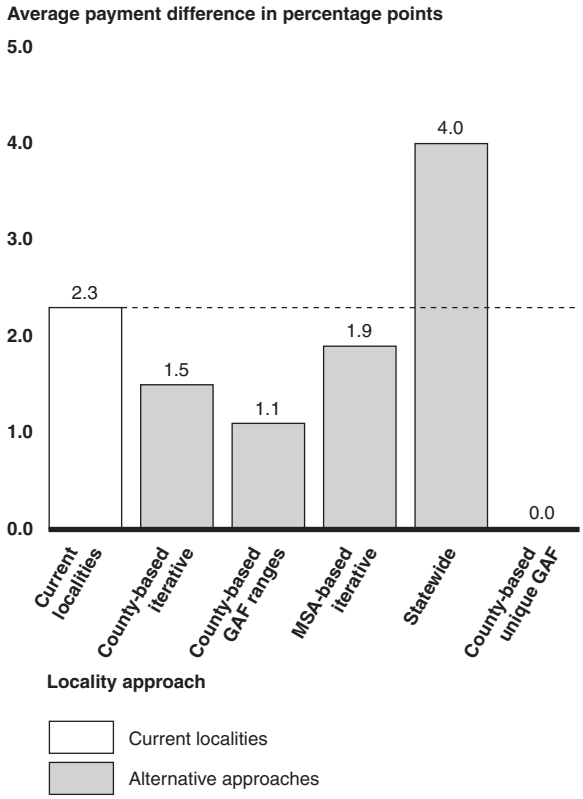
We also present two approaches that are useful for comparison because they illustrate the tradeoffs between payment accuracy and administrative burden. Under the statewide approach, each state has one statewide payment locality. This approach minimizes administrative burden, but maximizes large payment differences. In contrast, under the county-based unique GAF approach, each group of counties in a state with a unique county-specific GAF is a distinct payment locality. This approach minimizes large payment differences, but maximizes administrative burden.

While we limited our analysis to five possible approaches, CMS could examine additional approaches by modifying the ones we selected. For example, three of our approaches use a 5-percent threshold to determine new payment locality boundaries. We used a 5-percent threshold because that is what CMS used for its 1997 consolidation methodology; however, a different percentage threshold may also be feasible. In general, lower thresholds generate more payment localities and further improve payment accuracy. The first time an approach is applied, it is likely to have a large redistributive effect on the payment localities, especially given that many of the localities, particularly the statewide localities, have not been reexamined recently, and in some cases since they were created in 1966. Subsequent changes to the payment localities, if made periodically, would likely be smaller.

Several Alternative Approaches to the Payment Localities Would Improve Payment Accuracy

Compared to the current Medicare physician payment localities, we found that four of our five alternative approaches would improve payment accuracy by reducing the average payment difference between the county-specific GAF and the locality GAF (see fig. 6). For example, compared to the current localities, the county-based GAF ranges approach would reduce the national average payment difference by 52 percent—from 2.3 to 1.1 percent. The statewide approach, however, would increase the average payment difference by 74 percent—from 2.3 to 4.0 percent.

Figure 6: Average Payment Difference for the Current Medicare Physician Payment Localities and Selected Alternative Approaches

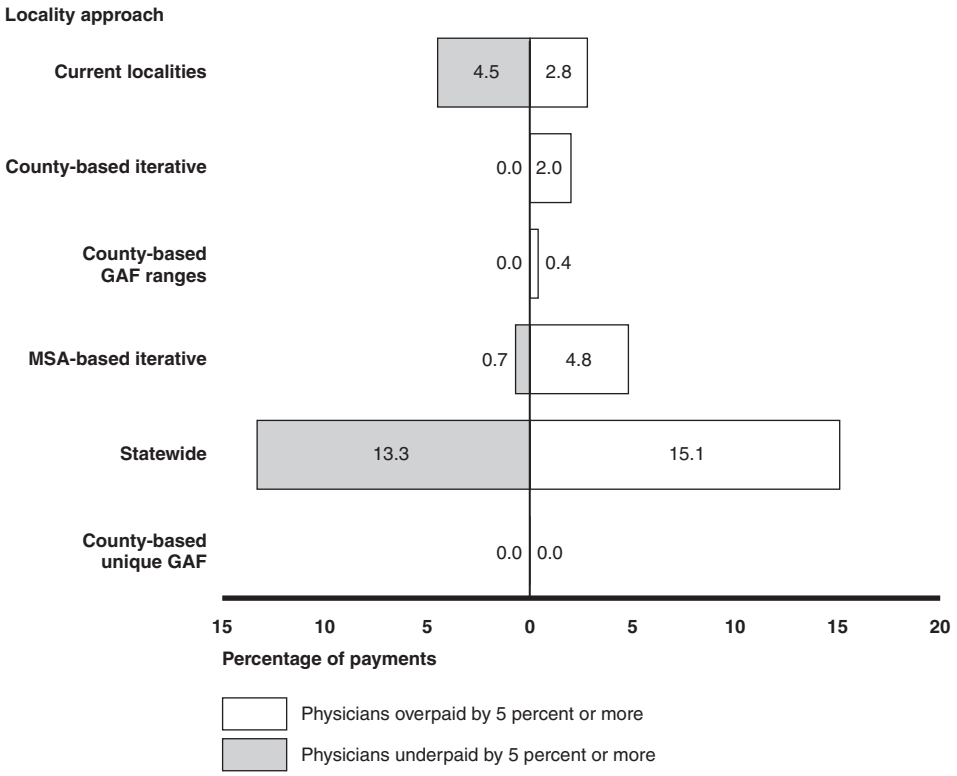


Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: The dotted line represents the national average payment difference for the current localities. Payment difference is the absolute value of the locality GAF minus the county-specific GAF, divided by the county-specific GAF. In calculating the average payment difference, each county's payment difference was weighted by county RVUs. The county-based unique GAF approach has an average payment difference of 0 percent because, according to the methodology for this approach, locality GAFs always equal county-specific GAFs.

In addition, four of our five approaches would substantially reduce or eliminate relative underpayments to physicians (see fig. 7). For example, under the three county-based approaches, 0 percent of physicians would be underpaid by 5 percent or more, relative to their county-specific GAF. Thus, the number of counties that could potentially experience difficulty attracting and retaining physicians as a result of relative underpayments would also decrease.

Figure 7: Percentage of Medicare Payments to Physicians Who Were Overpaid or Underpaid by 5 Percent or More Relative to Their County-Specific GAF, for the Current Medicare Physician Payment Localities and Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

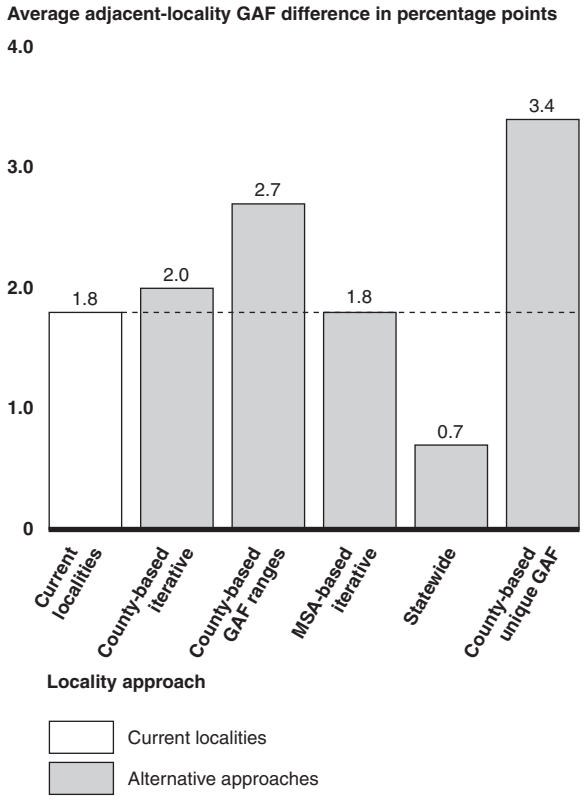
Note: We calculated county-specific GAFs as a measure of the costs physicians incur for providing services in a particular county. Under the county-based unique GAF approach, 0 percent of payments would be to physicians who were overpaid or underpaid by 5 percent or more relative to their county-specific GAF because, according to the methodology for this approach, locality GAFs always equal county-specific GAFs.

Compared to the current localities, the three county-based approaches would also reduce the percentage of payments to physicians who were overpaid by 5 percent or more, relative to their county-specific GAF. However, the statewide and MSA-based iterative approaches would substantially increase relative overpayments. The statewide approach would increase relative overpayments because statewide localities frequently group together counties with very different costs. The MSA-based iterative approach does so because MSAs, which are based on commuting patterns, also frequently group together counties with dissimilar costs. For example, the Atlanta MSA contains 28 counties. The

county-specific GAF of the lowest-cost county was 0.821, while the county-specific GAF of the highest-cost county was 1.028. Under the MSA-based approach, however, all counties in the Atlanta MSA would belong to the same payment locality and have the same locality GAF, leading to large payment differences for physicians in certain counties.

Improvements in payment accuracy often lead to increased differences in the GAFs of adjacent payment localities. For example, the county-based unique GAF approach, which minimizes large payment differences, generates the highest average adjacent-locality GAF difference among our alternative approaches (see fig. 8). In general, large differences in adjacent-locality GAFs may be problematic. According to officials from several state medical associations we spoke with, such differences create incentives for physicians to relocate to the higher-GAF payment locality, potentially creating beneficiary access problems in the lower-GAF payment locality. However, the specific instances of high adjacent-locality GAF differences that these officials cited result from payment localities that have large differences between Medicare's geographic adjustment and physicians' practice costs. Therefore, in these cases, improvements in payment accuracy actually reduce problematic boundary differences.

Figure 8: Average Adjacent-Locality GAF Difference, for the Current Medicare Physician Payment Localities and Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: The dotted line represents the average adjacent-locality GAF difference for the current localities. We calculated adjacent-locality GAF differences as the absolute value of the difference in locality GAFs between all unique, contiguous, county pairs. We weighted the average adjacent-locality GAF difference by the sum of the RVUs of the contiguous counties.

For instance, officials from California's state medical association cited Santa Cruz County, California, as an example, stating that the county is having difficulty recruiting and retaining physicians. This county had a county-specific GAF of 1.119, but is currently part of the Rest-of-California payment locality, which had a GAF of 1.012. Therefore, physicians in Santa Cruz County had a relative underpayment of 10 percent. The adjacent county of Santa Clara has its own, single-county, payment locality, with a GAF of 1.224. Because physicians in Santa Cruz County had such a high relative underpayment, the difference in the locality GAFs between these two counties was very large—21 percent. If physicians in both counties

were paid their county-specific GAF, however, the difference between the two county-specific GAFs would be only 5 percent.

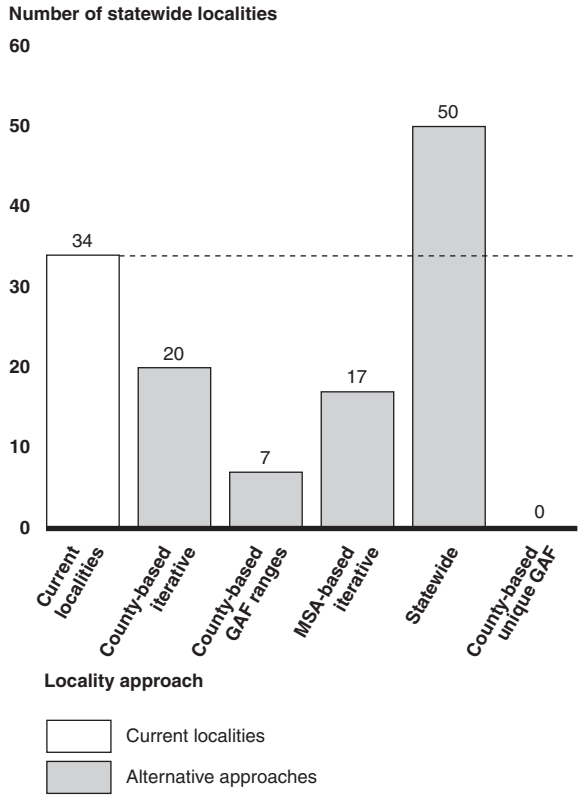
We previously reported that income, and therefore GAFs, is only one of several factors that drive physicians' location decisions.[28] Nonfinancial factors, such as the quality of local schools or a spouse's employment opportunities, and other financial factors, such as a community's average income level, are also major influences in physicians' decisions to locate and remain in certain geographic areas. Accordingly, small increases in the average adjacent-locality GAF difference may not create substantial relocation incentives.

Several Alternative Approaches to the Payment Localities Would Substantially Reduce the Number of Statewide Localities

Four of our five approaches would substantially reduce the number of statewide payment localities (see fig. 9). Statewide payment localities tend to have higher payment differences than nonstatewide payment localities because most states have substantial cost variation among their counties.

[28] GAO-05-119.

Figure 9: Number of Statewide Physician Payment Localities for the Current Medicare Physician Payment Localities and Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: The dotted line represents the number of statewide localities for the current localities. For the current localities, the District of Columbia payment locality consists of the District, two Maryland counties, and five Virginia counties; for the MSA-based iterative approach, it would consist of the Washington, D.C., MSA; and for all other approaches it would consist of only the District of Columbia. However, we do not consider it a statewide locality for any of these approaches.

Of the 34 current statewide payment localities, all would remain so under the statewide approach. In contrast, all of the current statewide payment localities would become multiple-locality states under the county-based unique GAF approach.

Under the remaining three approaches, the number of states that would remain statewide localities varies. Four current statewide payment localities would remain statewide under all three approaches, 9 would become multiple-locality states under all three approaches, and 21 would remain statewide under some approaches, but not others. The 16 states

that currently have multiple localities would generally also have multiple payment localities under the three approaches.

Statewide Payment Localities That Would Remain Statewide under All Three Approaches

The four current statewide payment localities that would remain statewide under each of the county-based iterative, county-based GAF ranges, and MSA-based iterative approaches had relatively low cost variation among their counties.[29] For example, county-specific GAFs in Rhode Island ranged from 1.043 to 1.057, a variation of only 1 percent.

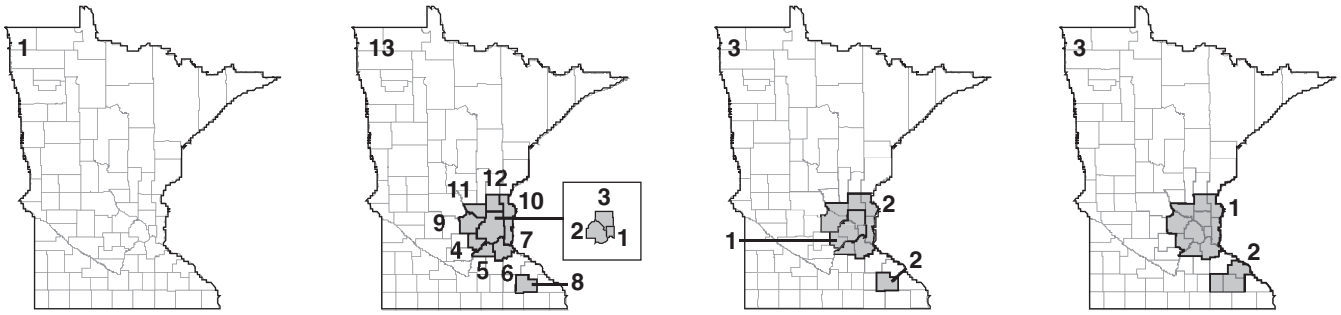
Statewide Payment Localities That Would Become Multiple-Locality States under All Three Approaches

The nine current statewide payment localities that would become multiple-locality states under each of these three approaches had substantial cost variation among their counties.[30] For example, county-specific GAFs in Minnesota ranged from 0.870 to 1.024, a variation of 18 percent. Accordingly, under the county-based iterative approach, Minnesota would have thirteen payment localities; under the county-based GAF ranges approach, it would have three payment localities; and under the MSA-based approach, it would have three payment localities (see fig. 10).

[29]These four states are: Montana, Rhode Island, South Carolina, and Wyoming.

[30]These nine states are: Colorado, Connecticut, Delaware, Minnesota, New Hampshire, New Mexico, North Carolina, Vermont, and Virginia.

Figure 10: Configuration of Minnesota's Physician Payment Localities under the Current Medicare Physician Payment Localities and Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

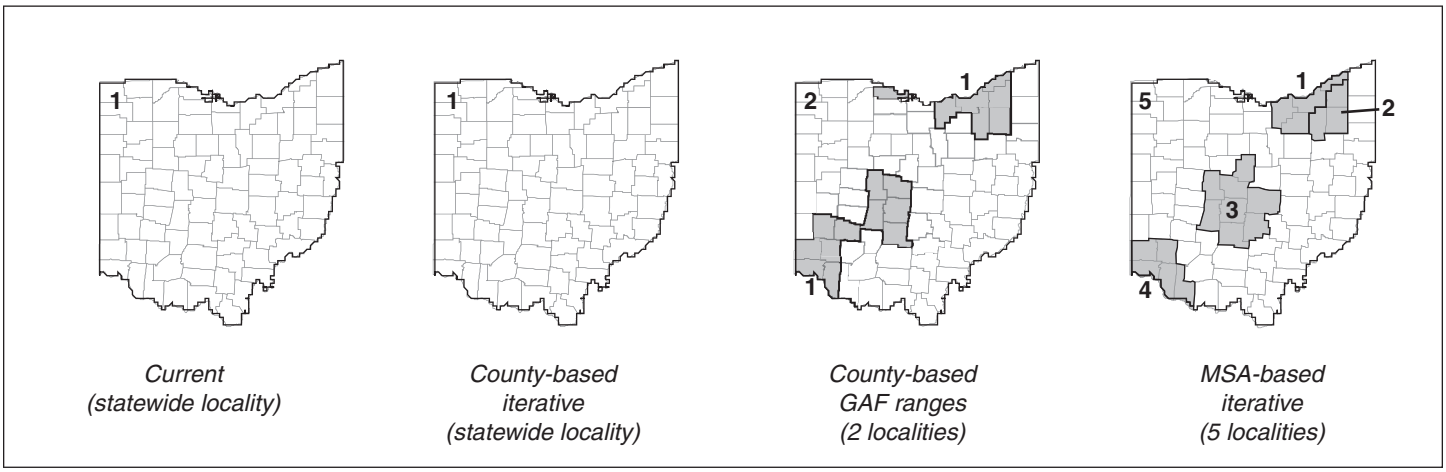
Note: Under each approach, each distinct number represents a payment locality. Under the county-based GAF ranges approach, each area labeled as locality 2 belongs to the same payment locality.

Statewide Payment Localities That Would Become Multiple-Locality States under Some Approaches, but Not Others

There were 21 current statewide payment localities that would become multiple-locality states under some approaches, but not others. These states generally had more cost variation than states that remained statewide in all three approaches, but less than those that were converted to multiple-locality states in all three approaches.[31] For example, county-specific GAFs in Ohio range from 0.888 to 1.003, a variation of 13 percent. Under the county-based iterative approach, Ohio would remain a statewide payment locality; under the county-based GAF ranges approach, Ohio would have two payment localities; and under the MSA-based iterative approach, it would have five payment localities (see fig. 11).

[31]These 21 states are: Alabama, Alaska, Arkansas, Arizona, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Mississippi, Nebraska, Nevada, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Utah, West Virginia, and Wisconsin.

Figure 11: Configuration of Ohio's Physician Payment Localities under the Current Medicare Physician Payment Localities and Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

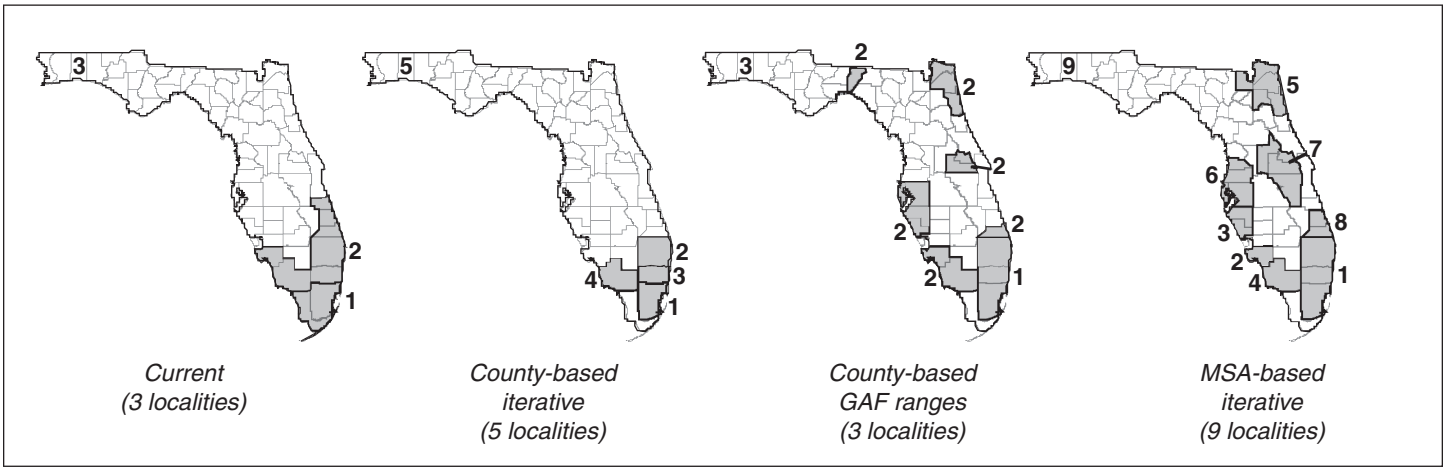
Note: Under each approach, each distinct number represents a payment locality. Under the county-based GAF ranges approach, each area labeled as locality 1 belongs to the same payment locality.

States That Currently Have, and Would Generally Retain, Multiple Payment Localities

The 16 states that currently have multiple payment localities would generally also have multiple payment localities under each of the county-based iterative, county-based GAF ranges, and MSA-based iterative approaches.[32] However, depending on the specific state, and approach, the number of payment localities may increase, decrease, or stay the same. This occurs because almost all multiple-locality states had substantial cost variation among their counties. For example, county-specific GAFs in Florida ranged from 0.910 to 1.073, a variation of 18 percent. Florida currently has three payment localities. Under the county-based iterative approach, the state would have five payment localities; under the county-based GAF ranges approach, it would have three payment localities; and under the MSA-based iterative approach, it would have nine payment localities (see fig. 12).

[32]These 16 states are: California, Florida, Georgia, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Oregon, Pennsylvania, Texas, and Washington. Although most of these states retain multiple localities under each of these three approaches, there are several exceptions: New Jersey and Oregon become statewide localities under the county-based iterative approach, and Missouri becomes a statewide locality under the MSA-based iterative approach.

Figure 12: Configuration of Florida's Physician Payment Localities under the Current Medicare Physician Payment Localities and Selected Alternative Approaches



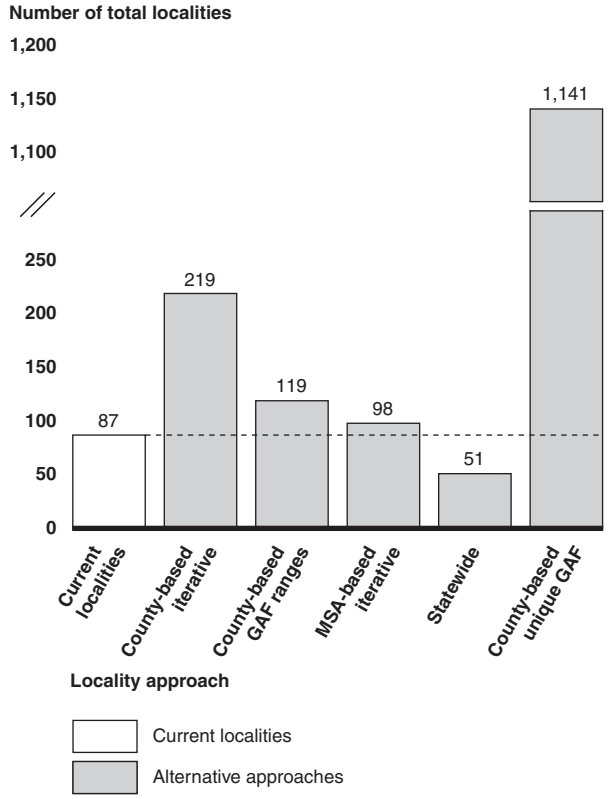
Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: Under each approach, each distinct number represents a payment locality. Under the county-based GAF ranges approach, each area labeled as locality 2 belongs to the same payment locality.

Several Alternative Approaches to the Payment Localities Would Generally Impose a Minimal Amount of Additional Administrative Burden on CMS, Medicare Carriers, and Physicians

Four of our approaches would generally impose a minimal amount of additional administrative burden on CMS, Medicare carriers, and physicians. This occurs because these four approaches would generally create three or fewer additional localities in each state. In total, these four approaches create from 36 fewer to 132 more payment localities than currently exist (see fig. 13). For example, the county-based iterative approach would generate 132 additional localities, for a total of 219. The statewide approach would generate 36 fewer localities, for a total of 51. The county-based unique GAF approach, however, would generate 1,054 additional localities, for a total of 1,141—over 13 times the current number.

Figure 13: Number of Physician Payment Localities for the Current Medicare Physician Payment Localities and Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Note: The dotted line represents the current number of payment localities. Our analysis excluded 2 of the 89 payment localities: Puerto Rico and the U.S. Virgin Islands.

The number of localities generated by the county- and MSA-based iterative approaches, however, could be reduced with very little loss in payment accuracy by regrouping single-county and single-MSA payment localities with similar GAFs, respectively, into larger payment localities. For example, by combining localities with county-specific GAFs that vary by 1 percent or less, the total number of payment localities under the county-based iterative approach could be reduced from 219 to 139, while only

increasing the average payment difference from 1.5 to 1.6 percent.[33] For example, in Kansas, under the county-based iterative approach, Wyandotte County, which has a county-specific GAF of 0.972, and Johnson County, which has a county-specific GAF of 0.975, would both become distinct single-county payment localities. However, under a regrouping methodology, these counties could be regrouped into a two-county payment locality while increasing the average payment differences of these counties from 0 percent to about one-tenth of 1 percent.

CMS officials we spoke with stated they would experience onetime upfront costs if the current payment localities were modified, regardless of the number of localities generated by the approach chosen. Specifically, CMS creates a distinct physician fee schedule for each payment locality and would have to perform data reliability checks on the localities' physician fee schedules to ensure their accuracy. Agency officials stated that they would have to reprogram CMS systems, update its files that assign carriers and physicians to a payment locality, and provide physicians with extensive education on the payment locality modifications. However, CMS officials stated that they did not anticipate that significant modifications to the payment localities would require a substantial amount of additional ongoing administrative burden.

In addition, CMS officials stated that any change to the payment localities would cause Medicare carriers to incur upfront costs. Representatives from the five Medicare carriers that we spoke with each stated that a moderate increase in the number of payment localities would not require a substantial amount of additional resources. They each indicated that modifying the payment localities would cause onetime transitional costs. Specifically, they would be required to create new data files that assigned each physician to a new payment locality. Carrier representatives also indicated that an increase in the number of payment localities would increase their ongoing operational costs. Specifically, the carriers must

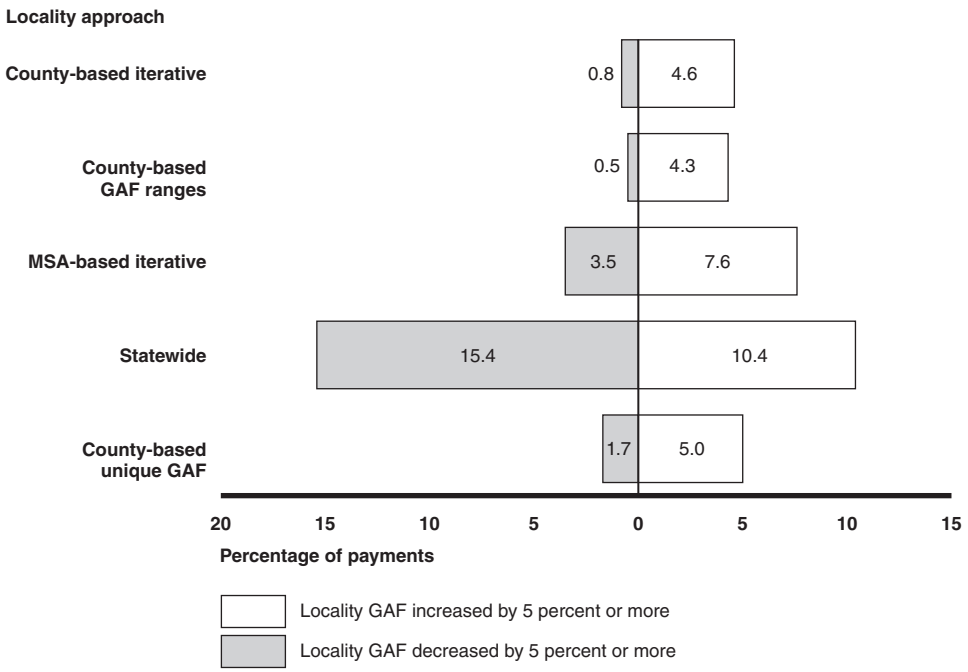
[33]The method we used regrouped payment localities into GAF ranges using a 1-percent threshold. Under this method, the lowest county-specific GAF that qualified to become a single-county payment locality becomes the lower boundary for the first regrouped GAF range. This lower boundary is increased by 1 percent to create the upper boundary of the first regrouped GAF range. All single-county payment localities with a GAF in that GAF range are grouped into the same locality. The first GAF that exceeds the upper boundary of the first regrouped GAF range becomes the lower boundary of a second regrouped GAF range and is increased by 1 percent to create the upper boundary of this range. The process is repeated until all single-county payment localities in the state are assigned to new regrouped payment localities.

load each of the distinct physician fee schedules CMS sends them into their data systems and then perform data reliability checks on them to ensure they are accurate.

Physicians would not incur additional administrative burden if their payment locality changed. In addition, physicians in California we spoke with stated that if the current localities were modified, they would not experience an increase in administrative burden and would complete the same paperwork as they do currently. CMS officials we spoke with agreed that physicians' paperwork requirements would remain the same. In addition, representatives from the Medicare carriers we spoke with stated that they do not anticipate having to provide physicians with significant additional training about payment locality modifications, since most carriers already routinely send each physician a complete fee schedule specific to their payment locality.

Modifying the payment localities will cause physicians' locality GAFs to change, and accordingly, physicians will have to transition to new reimbursement rates. Representatives from the American Medical Association we spoke with expressed concern that transitioning to new reimbursement rates could be burdensome to physicians. However, we found that under four of our five approaches, locality GAFs would neither increase nor decrease substantially, relative to current locality GAFs (see fig. 14). For example, under the county-based GAF ranges approach, locality GAFs for one-half of 1 percent of Medicare physician payments would experience a decrease of 5 percent or more, while locality GAFs for about 4 percent of payments would experience an increase of 5 percent or more. Under the statewide approach, however, locality GAFs for about 15 percent of Medicare physician payments would experience a decrease of 5 percent or more, while locality GAFs for about 10 percent of payments would experience an increase of 5 percent or more. Rural counties would generally account for most of the counties with a decrease of 5 percent or more in Medicare's geographic adjustment.

Figure 14: Percentage of Medicare Physician Payments for Which the Locality GAF Would Change by 5 Percent or More, Relative to the Current Locality GAF, under the Selected Alternative Approaches



Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Conclusions

Adjusting Medicare payments for the costs physicians incur in operating a private medical practice in different parts of the country is important to ensure that Medicare accurately accounts for variations in physicians' costs of providing care, and that beneficiaries have sufficient access to physician care. However, more than half of the current physician payment localities had counties within them with large payment differences—that is, there was a payment difference of 5 percent or more between physicians' costs and Medicare's geographic adjustment for an area. In addition, CMS's lack of a uniform approach to revising payment localities has resulted in localities where there is substantial cost variation, a particular problem among the 34 statewide localities. We have identified three alternative approaches to the current payment localities that, if uniformly applied to all states, could be used to improve payment accuracy while generally imposing a minimal amount of additional administrative burden. This is consistent with the goal that CMS has stated in setting the geographic boundaries of payment localities.

While, under four of our five alterative approaches, payments to physicians would not change substantially overall, rural counties would generally account for most of the counties with a large decrease in Medicare's geographic adjustment. However, CMS has other payment policies specifically designed to ensure that physicians practicing in rural areas, such as those designated as physician scarcity areas, are able to recruit and retain physicians, helping ensure beneficiary access. Other approaches are possible as well and CMS could phase in implementation over several years, for example, to lessen the effect on physician payments in areas negatively affected by changes to the current physician payment localities. Using an approach that would be uniformly applied to all states would likely have a large redistributive effect on the payment localities the first time the approach was applied, especially given that many of the localities, particularly the statewide localities, have not been reexamined recently, and in some cases since they were created in 1966. Subsequent changes to the payment localities, if made periodically, would likely be smaller.

Currently, CMS has no mechanism in place to periodically update the physician payment localities to ensure that the geographic boundaries of the payment localities accurately address variations in the costs of operating a private medical practice. Other components of the physician fee schedule are routinely reviewed—the RVUs every 5 years, and the GPCIs every 3 years. Updating the geographic boundaries of physician payment localities at least every 10 years when new decennial census data become available—the major data source used in the calculation of the GPCIs—would ensure that Medicare appropriately accounted for changes in the geographic distribution of physicians' costs of operating a private medical practice.

Recommendations for Executive Action

To help ensure that Medicare's payments to physicians more accurately reflect geographic differences in physicians' costs of operating a private medical practice, we recommend the following two actions. First, we recommend that the Administrator of CMS examine and revise the physician payment localities using an approach that is uniformly applied to all states and based on the most current data. Second, the Administrator should examine and, if necessary, update the physician payment localities on a periodic basis with no more than 10 years between updates.

Agency Comments and Our Evaluation

CMS reviewed a draft of this report and provided comments, which appear in appendix III. CMS stated that it appreciated the work we had done in examining this issue and that our analysis would serve as a helpful resource as it continues to examine payment locality alternatives.

CMS stated it would consider our first recommendation—to examine and revise the physician payment localities using an approach that is uniformly applied to all states and based on the most current data. The agency also stated that, in doing so, it would give full consideration to the redistributive effects and administrative burdens of any change to the payment locality structure. We agree that redistributive effects and administrative burden should be considered when making the necessary changes to the physician payment localities.

Regarding our second recommendation—that CMS examine and, if necessary, update the payment localities on a periodic basis—the agency stated that it considers payment locality issues when concerns are raised by interested parties and based on its own initiative, an approach that it believes is more flexible and efficient than examining the payment localities every 10 years. Reviewing payment localities in response to concerns raised by interested parties, however, could result in CMS examining only selected physician payment localities, rather than examining all payment localities using a uniform approach. Updating the payment localities at least every 10 years when new decennial census data become available would ensure that Medicare appropriately accounts for changes in the geographic distribution of physicians' costs of operating a private medical practice.

CMS also stated several concerns about specific points in the report. The agency asserted that our use of counties as the basis for comparing physician costs and Medicare's geographic adjustment implies that county-level data are measured with absolute precision but the data we used to calculate county-specific physician costs are proxies for actual costs. We recognize that the data we used to calculate county-specific physician costs are proxy measures. As noted in the draft report, we calculated our measure of physician costs using the same data sources and methodology CMS uses to calculate the GPCIs, which are the agency's proxy measures of physicians' costs. In 1991, the year before the GPCI's implementation, CMS noted that the cost would be prohibitive to collect the detailed locality-level data needed to measure every area's staff costs and other expenses compared to the national average. The agency therefore limited data sources to those that existed and were readily available, selecting data proxies for each GPCI. As the agency uses the GPCIs to adjust

physician fees for variations in physicians' costs of providing care in different geographic areas, we determined that this measure was sufficient for our purposes. CMS also asserted that the data we used to calculate county-specific physician costs are proxies because, for more than 90 percent of counties, the Census Bureau data we obtained were based on data for larger geographic areas. As noted in the draft report, although Census Bureau data were not available at the county level for all counties, we were able to obtain county-specific data for 1,091 of the 3,142 counties in the United States—about 35 percent. Also as noted in the draft report, these 1,091 counties represented 83 percent of the U.S. population in 2000, and 88 percent of Medicare's payments to physicians in 2005. We have, however, clarified in our report that the data we used to calculate physician costs are proxy measures.

CMS commented that the draft report's characterization of payments to 14 percent of counties as "inaccurate" was highly inappropriate and potentially problematic. The agency stated that it was concerned that a finding that payments were inaccurate could be construed to mean that there has been an overpayment for which recoupment of the overpayment, as well as other actions, should be pursued. As a result, we have deleted the term and instead define counties with a payment difference of 5 percent or more as having a "large payment difference." As we did in the draft report, however, we use the term "payment accuracy" to refer to the extent to which the payment localities accurately measure variations in physicians' costs of providing care in different geographic areas.

CMS expressed a concern that our report did not sufficiently account for the effect our recommended changes would have on physicians. Specifically, the agency stated that increasing payments to physicians in some counties in a state would reduce payments to physicians in other counties in a state, and that our report did not sufficiently convey the extent to which our alternative approaches would reduce physician payments in certain areas. As noted throughout the draft report, because GPCIs measure physician costs relative to the national average costs, an increase in the GPCIs of one area will result in a decrease in the GPCIs of other areas. With the exception of the MSA-based iterative approach, each of our alternative approaches examines physicians' costs within a state and was therefore in accordance with the principal of within-state "budget neutrality," which provides that adjusting Medicare payments should neither increase nor decrease the total amount of Medicare payments to physicians. We recognize that the potential for large payment reductions is an important issue and have added information to the report to address it.

CMS commented on our finding that several alternative approaches to the payment localities would generally impose a minimal amount of additional administrative burden. Specifically, the agency stated that it believes the level of administrative burden would be more significant than what we presented in our draft report. We believe that our report accurately portrays the level of administrative burden that CMS would incur if the payment localities were modified. In the draft report, we stated that the agency would experience onetime upfront costs if the current payment localities were modified, regardless of the number of localities generated, but that they did not anticipate that significant modifications to the payment localities would require a substantial amount of additional ongoing administrative burden. In addition, using an approach that is uniformly applied to all states would likely have a large redistributive effect on the payment localities the first time the approach was applied, especially given that many of the localities have not been reexamined recently, but if subsequent changes were made periodically, they would likely be smaller. However, we have modified the report to include additional information on the types of upfront costs CMS would incur if the payment localities were changed.

CMS also stated that our draft report did not point out the potential implications an increased number of payment localities would have on physicians' administrative burden. Specifically, the agency stated that increasing the number of payment localities also increases the likelihood that physicians will practice in multiple localities and therefore have to file claims based on multiple localities. However, physicians are already required to include the address of the facility where services were rendered on the claim. As noted in the draft report, physicians we spoke with stated they would not incur additional administrative burden and would complete the same paperwork as they currently do if the payment localities were modified; CMS officials we spoke with concurred with this statement.

CMS commented on our description of the agency's denial of California's state medical association's 2004 proposal for a change to the payment localities. Specifically, CMS stated that it does not believe that its denial of the California proposal demonstrates reluctance on the part of the agency to consider and adopt changes to the payment localities. We did not state in the draft report that the agency's denial of the California proposal demonstrated a reluctance to consider and adopt changes to the payment localities. Rather, we stated that, since 1997, CMS has indicated that only one state medical association has petitioned for a change to the payment localities—California's state medical association. CMS denied its petition,

stating that the agency did not have the statutory authority to make the specific change the association had requested.

As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of this letter. We will then send copies to the Administrator of CMS, appropriate congressional committees, and other interested parties. We will also make copies available to others upon request. This report is also available at no charge on GAO's Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-7114 or steinwalda@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made contributions to this report are listed in appendix IV.

Sincerely yours,

A. Bruce Steinwald
Director, Health Care

Appendix I: Scope and Methodology

In conducting this study, we analyzed data obtained from the Census Bureau, the Department of Housing and Urban Development (HUD), and the Centers for Medicare & Medicaid Services (CMS). We interviewed officials from CMS and representatives from five Medicare Part B carriers that process physician claims in 27 states. We also interviewed representatives from the American Medical Association and the state medical associations from California, Colorado, Florida, Iowa, Minnesota, New York, North Carolina, Ohio, Texas, Virginia, and Washington. These states represent geographically diverse areas, as well as Medicare physician payment localities that were established in 1966 using carrier definitions, localities that were revised from 1992 through 1995 using a physician overwhelming support approach for a statewide locality, and localities that were revised in 1997 using a CMS approach designed to consolidate carrier-defined localities. In addition, we interviewed county medical associations and 11 physicians from San Diego, Santa Cruz, and Sonoma Counties in California, and Albany County, New York, which were referred to us by representatives from the state medical associations we spoke with.

To determine how CMS has revised the physician payment localities since they were established and the approaches the agency used, we reviewed relevant documents published in the Federal Register to determine when and how the boundaries of the localities have changed, and a CMS-contracted report on the payment localities that was used as the basis for the agency's 1997 modifications.[1] To determine the extent to which the current payment localities reflect the costs of providing care in different geographic areas, we used the geographic adjustment factor (GAF). The GAF is a weighted average of the three geographic practice cost indices (GPCI)—work, practice expense, and malpractice expense.[2] We constructed a proxy measure of the costs physicians incur for providing services in a particular county (the county-specific GAF) and compared this measure with Medicare's geographic adjustment for the locality to which that county is assigned and is a proxy for physicians' costs in a locality (the locality GAF). We compared the two by calculating the

[1]See Health Economics Research, Inc., *Assessment and Redesign of Medicare Fee Schedule Areas (Localities)* (Waltham, Mass., 1995).

[2]In calculating the GAF, each of the GPCIs is weighted by the percentage of costs accounted for by its corresponding relative value unit—a measure of the relative costliness of providing a particular service. On average, across all services, work represents 52.5 percent of costs, practice expense represents 43.7 percent, and malpractice expense represents 3.9 percent. These percentages do not total to 100 percent due to rounding.

"payment difference," the absolute value of the county's 2005 locality GAF[3] minus its county-specific GAF, divided by its county-specific GAF.

To calculate county-specific GAFs, we calculated GPCIs using the same methodology CMS used for the most recent GPCI update, in 2005. Specifically, we computed county-level work and practice expense GPCIs using 2000 Census Bureau data on the median earnings of six categories of nonphysician professional occupations,[4] fiscal year 2006 HUD data on fair market rents, and 2005 CMS data on county-level relative value units (RVU)—a measure of the relative costliness of providing a particular service. These data were the most recent data available at the time of our analysis.[5] Although we refer to these data and GPCIs as "county-specific," we were not able to compute unique county GAFs for each of the 3,142 counties in the United States because Census Bureau data are not available at this level. Specifically, it is Census Bureau protocol to suppress statistics for which less than three people report values and, in certain cases, nonmetropolitan counties had less than three persons reporting earnings for a profession. Therefore, we were able to obtain data that allowed us to calculate individual work and practice expense GPCIs for the 1,091 counties that were part of a metropolitan statistical area (MSA) and one composite work and one composite practice expense GPCI for each non-MSA area per state. In 2000, counties in MSAs represented 83 percent of the population, and in 2005, they represented 88 percent of Medicare's payments to physicians. We used the Office of Management and Budget's MSA definitions as of December 2005.

[3]From 2004 through 2006, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) established a floor of 1.0 for any locality where the work GPCI would otherwise fall below 1.0. Pub. L. No. 108-173, § 412, 117 Stat. at 2274 (codified at 42 U.S.C. § 1395w-4(e)(1)(E)). This provision was extended through 2007 by the Tax Relief and Health Care Act of 2006, Pub. L. No. 109-432, Div. B, Tit. I, § 102, 120 Stat. 2922, 2981. From 2004 through 2005, MMA set the work, practice expense, and malpractice expense GPCIs for the state of Alaska at 1.67 if any GPCI would otherwise be less than 1.67. Pub. L. No. 108-173, § 602, 117 Stat. at 2301 (codified at 42 U.S.C. §1395w-4(e)(1)(G)). We used the 2005 locality GAF before the work GPCI floor and Alaska adjustments were put into place because the work GPCI floor is set to expire at the end of 2007 and the Alaska adjustments expired in 2005.

[4]These six categories are: architecture and engineering; computer, mathematical, and natural sciences; social scientists, social workers, and lawyers; education, training, and library; registered nurses and pharmacists; and writers, artists, and editors.

[5]The CMS and HUD data we obtained are more recent than the data CMS used to calculate the 2005 GPCIs.

The data CMS uses to calculate the malpractice expense GPCIs are not available at the county level. However, the malpractice expense GPCI is weighted by only 3.9 percent when calculating the GAF. Thus, to calculate the county-specific GAFs, we computed the weighted average of the county-level work and practice expense GPCIs and the locality-level malpractice expense GPCI. In addition, we defined a county as urban if it was part of an MSA and as rural if it was not part of an MSA. Our analysis was limited to the 87 payment localities within the 50 states and the District of Columbia.[6]

We assessed the reliability of the CMS, Census Bureau, and HUD data in several ways. First, we performed tests of data elements. For example, we examined the Census Bureau data on the median earnings of certain professions to determine whether these data were complete. Second, we reviewed existing information about the data elements. For example, we compared the county-level work and practice expense GPCIs we calculated to less-recent county-level work and practice expense GPCIs provided by CMS. Third, we interviewed a CMS official and a Census Bureau official knowledgeable about the data and reviewed documentation related to the data. We determined that the data used in our analyses were sufficiently reliable for our purposes.

To evaluate whether alternative approaches to the Medicare payment localities could improve payment accuracy without imposing a substantial amount of additional administrative burden, we used the county-specific GAFs to construct five different payment locality configurations. We evaluated the payment accuracy of each approach, the extent to which each approach accurately measures variations in physicians' costs of providing care, based on its payment difference, that is, the absolute value of the county's 2005 locality GAF minus its county-specific GAF, divided by its county-specific GAF. Because improvements in payment accuracy may increase the differences in the GAFs of adjacent payment localities, which could potentially create beneficiary access problems, we examined the differences between the GAFs of adjacent payment localities. We calculated adjacent-locality GAF differences as the absolute value of the difference in locality GAFs between all unique, contiguous, county pairs. We weighted the average adjacent-locality GAF difference by the sum of the RVUs of the contiguous counties. We evaluated the administrative

[6]Our analysis excluded 2 of the 89 physician payment localities: Puerto Rico and the U.S. Virgin Islands.

burden of each approach based on the number of payment localities that it generated as well as interviews with CMS officials, Medicare carrier representatives, and physicians.

Although many alternatives exist, in this report we present five possible approaches for constructing the payment localities. Three of our approaches are designed to balance payment accuracy with administrative burden. We also present two approaches that are useful for comparison because they illustrate the tradeoffs between payment accuracy and administrative burden.

Of the three approaches that balance payment accuracy with administrative burden, two are based on counties, the smallest geographic unit for which GAFs can be constructed from the data sources available, and one is based on MSAs. There are two important general distinctions between our two county-based approaches and our MSA-based approach. First, under the county-based approaches, it is possible for adjacent counties in an MSA to belong to different payment localities. In addition, as CMS has done in the past, our county-based approaches create payment localities within a state: no payment locality crosses state lines.[7] In contrast, under our MSA-based approach, in order to keep MSAs intact, all the counties in an MSA belong to the same payment locality and wherever an MSA crosses state lines, its payment locality crosses state lines as well.[8]

Our three approaches that balance payment accuracy with administrative burden use two distinct methodologies: the iterative methodology and the range methodology. The iterative methodology creates single-county or single-MSA payment localities for the highest-cost areas and "Rest-of" localities for the remaining areas. Specifically, the county-based approach creates one payment locality for the moderate- and low-cost counties in each state, which we refer to as the "Rest-of-State" payment localities. The MSA-based approach creates a single payment locality that combines moderate-cost MSAs, low-cost MSAs, and non-MSA areas from many different states, which we refer to as the "Rest-of-Nation" payment locality. The range methodology creates a payment locality for each group of similar-cost counties within a state. Generally, under this methodology,

[7]Although our county-based approaches generate localities that do not cross state lines, it would also be possible to create county-based localities that do cross state lines.

[8]Although our MSA-based approach generates payment localities that do cross state lines, it would also be possible to create MSA-based payment localities that do not cross state lines.

moderate- and low-cost counties within a state are assigned to different payment localities.[9] For each of these approaches, we used a 5-percent threshold because that is what CMS used for its 1997 consolidation methodology. However, a different percentage threshold may also be feasible.[10]

Of the two approaches that illustrate the tradeoffs between payment accuracy and administrative burden, under the statewide approach, each state has one statewide payment locality. This approach minimizes administrative burden, but maximizes large payment differences. In contrast, under the county-based unique GAF approach, each group of counties in a state with a unique county-specific GAF is a distinct payment locality. This approach minimizes large payment differences, but maximizes administrative burden.

We conducted our work from June 2006 through May 2007 in accordance with generally accepted government auditing standards.

[9]Although our range methodology did not require that all counties in a payment locality be contiguous, it would be possible to make geographic contiguity a priority.

[10]In general, lower thresholds generate more payment localities and further improve payment accuracy. Although the specific results would differ if an alternate threshold were used, the general advantages and disadvantages of each approach would remain the same.

Appendix II: Information on Configuration of the Current Medicare Physician Payment Localities and the Alternative Approaches

Table 2: Medicare Physician Payment Localities, by State

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality geographic adjustment factor (GAF)[b]	Average payment difference in percentage points[c]
Alabama	1	Statewide	67	0.918	2.38
Alaska	1	Statewide	27	1.081	1.34
Arizona	1	Statewide	15	0.991	1.99
Arkansas	1	Statewide	75	0.885	2.73
California	1	San Francisco	1	1.239	2.03
	2	San Mateo	1	1.230	1.03
	3	Santa Clara	1	1.224	4.21
	4	Alameda, Contra Costa	2	1.144	0.24
	5	Marin, Napa, Solano	3	1.128	4.44
	6	Orange	1	1.109	3.23
	7	Los Angeles	1	1.088	2.39
	8	Ventura	1	1.072	4.28
	9	Rest of California	47	1.012	3.73
Colorado	1	Statewide	64	0.986	3.54
Connecticut	1	Statewide	8	1.091	2.19
Delaware	1	Statewide	3	1.016	4.25
District of Columbia	1	District of Columbia; Alexandria City, Arlington, Fairfax, Fairfax City, Falls Church City in Virginia; Montgomery, Prince George's in Maryland	8	1.114	1.54
Florida	1	Miami-Dade, Monroe	2	1.075	0.43
	2	Broward, Collier, Indian River, Lee, Martin, Palm Beach, St. Lucie	7	1.024	2.94
	3	Rest of Florida	58	0.971	2.24
Georgia	1	Butts, Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Rockdale, Walton	15	1.036	2.10
	2	Rest of Georgia	144	0.934	2.17
Hawaii	1	Statewide	5	1.045	3.60
Idaho	1	Statewide	44	0.905	2.26

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality geographic adjustment factor (GAF)[b]	Average payment difference in percentage points[c]
Illinois	1	Cook	1	1.096	0.11
	2	DuPage, Kane, Lake, Will	4	1.072	1.38
	3	Bond, Calhoun, Clinton, Jersey, Macoupin, Madison, Monroe, Montgomery, Randolph, St. Clair, Washington	11	0.993	1.63
	4	Rest of Illinois	86	0.939	2.86
Indiana	1	Statewide	92	0.932	2.57
Iowa	1	Statewide	99	0.909	2.92
Kansas	1	Statewide	105	0.922	3.42
Kentucky	1	Statewide	120	0.918	2.72
Louisiana	1	Jefferson, Orleans, Plaquemines, St. Bernard	4	0.979	3.85
	2	Rest of Louisiana	60	0.924	2.61
Maine	1	Cumberland, York	2	0.978	2.07
	2	Rest of Maine	14	0.921	0.68
Maryland	1	Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard	6	1.033	1.61
	2	Rest of Maryland, except Montgomery and Prince George's counties	16	0.974	4.63
Massachusetts	1	Middlesex, Norfolk, Suffolk	3	1.136	0.84
	2	Rest of Massachusetts	11	1.049	3.28
Michigan	1	Macomb, Oakland, Washtenaw, Wayne	4	1.109	0.22
	2	Rest of Michigan	79	0.987	2.00
Minnesota	1	Statewide	87	0.968	5.13
Mississippi	1	Statewide	82	0.897	2.53
Missouri	1	Clay, Jackson, Platte	3	0.979	1.16
	2	Jefferson, St. Charles, St. Louis, St. Louis City	4	0.971	0.78
	3	Rest of Missouri	108	0.887	2.03
Montana	1	Statewide	56	0.909	0.83
Nebraska	1	Statewide	93	0.900	3.65
Nevada	1	Statewide	17	1.023	0.93
New Hampshire	1	Statewide	10	1.002	3.06

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality geographic adjustment factor (GAF)[b]	Average payment difference in percentage points[c]
New Jersey	1	Bergen, Essex, Hudson, Hunterdon, Middlesex, Morris, Passaic, Somerset, Sussex, Union, Warren	11	1.120	0.93
	2	Rest of New Jersey	10	1.068	2.54
New Mexico	1	Statewide	33	0.935	3.09
New York	1	New York	1	1.203	1.68
	2	Bronx, Kings, Nassau, Richmond, Rockland, Suffolk, Westchester	7	1.178	1.91
	3	Queens	1	1.151	0.26
	4	Columbia, Delaware, Dutchess, Greene, Orange, Putnam, Sullivan, Ulster	8	1.046	4.29
	5	Rest of New York	45	0.956	1.89
North Carolina	1	Statewide	100	0.938	2.91
North Dakota	1	Statewide	53	0.901	1.68
Ohio	1	Statewide	88	0.967	2.81
Oklahoma	1	Statewide	77	0.899	2.47
Oregon	1	Clackamas, Multnomah, Washington	3	1.001	0.66
	2	Rest of Oregon	33	0.929	1.27
Pennsylvania	1	Bucks, Chester, Delaware, Montgomery, Philadelphia	5	1.069	0.43
	2	Rest of Pennsylvania	62	0.951	2.63
Rhode Island	1	Statewide	5	1.025	2.63
South Carolina	1	Statewide	46	0.919	1.61
South Dakota	1	Statewide	66	0.890	2.81
Tennessee	1	Statewide	95	0.925	2.73
Texas	1	Dallas	1	1.035	2.11
	2	Harris	1	1.026	0.04
	3	Travis	1	1.003	0.17
	4	Brazoria	1	1.002	0.96
	5	Tarrant	1	0.992	0.07
	6	Galveston	1	0.989	1.12
	7	Jefferson	1	0.951	0.36
	8	Rest of Texas	247	0.932	2.36
Utah	1	Statewide	29	0.948	2.69

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality geographic adjustment factor (GAF)[b]	Average payment difference in percentage points[c]
Vermont	1	Statewide	14	0.956	3.26
Virginia	1	Statewide, except Alexandria City, Arlington, Fairfax, Fairfax City, Falls Church City	130	0.948	3.72
Washington	1	King	1	1.049	0.34
	2	Rest of Washington	38	0.974	2.72
West Virginia	1	Statewide	55	0.932	1.99
Wisconsin	1	Statewide	72	0.950	2.89
Wyoming	1	Statewide	23	0.922	1.79
Nation	**87**				**2.28**

Source: GAO analysis of 2005 Centers for Medicare & Medicaid (CMS), 2000 Census Bureau, and fiscal year 2006 Department of Housing and Urban Development (HUD) data.

Notes: Our analysis includes the 87 payment localities within the 50 states and District of Columbia and excludes the Puerto Rico and the U.S. Virgin Islands payment localities. We consider independent cities, such as Alexandria City in Virginia, as county equivalents, because this is how the Census Bureau considers them. The District of Columbia locality consists of the District, five Virginia counties, and two Maryland counties. These Virginia and Maryland counties are excluded from the Virginia and Rest-of-Maryland localities.

[a]The locality number is relative on a state basis. That is, locality 1 has the highest GAF in the state, locality 2 has the second-highest GAF, and so on.

[b]The locality GAF is Medicare's 2005 locality GAF without the work GPCI floor or Alaska adjustments.

[c]Payment difference compares the costs physicians incur for providing services in different geographic areas (the county-specific GAF) with the geographic adjustment that Medicare applies to those areas (the locality GAF). We calculated payment difference as the absolute value of the locality GAF minus the county-specific GAF, divided by the county-specific GAF. In calculating the average payment difference, each county's payment difference was weighted by county relative value units (RVU).

Table 3: Physician Payment Localities Created Using the County-Based Iterative Alternative Approach, by State

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Alabama	1	Statewide	67	0.921	2.38
Alaska	1	Statewide	27	1.082	1.31
Arizona	1	Statewide	15	0.986	2.09
Arkansas	1	Pulaski	1	0.932	0.00
	2	Rest of Arkansas	74	0.879	1.56
California	1	San Mateo	1	1.217	0.00
	2	San Francisco	1	1.214	0.00
	3	Marin	1	1.183	0.00
	4	Santa Clara	1	1.175	0.00
	5	Contra Costa	1	1.151	0.00
	6	Orange	1	1.146	0.00
	7	Alameda	1	1.144	0.00
	8	Ventura	1	1.120	0.00
	9	Santa Cruz	1	1.119	0.00
	10	Los Angeles	1	1.115	0.00
	11	Napa	1	1.097	0.00
	12	Sonoma	1	1.097	0.00
	13	Monterey	1	1.094	0.00
	14	San Benito	1	1.081	0.00
	15	Rest of California	44	1.018	3.23
Colorado	1	Boulder	1	1.038	0.00
	2	Denver	1	1.033	0.00
	3	Arapahoe	1	1.028	0.00
	4	Jefferson	1	1.015	0.00
	5	Adams	1	1.008	0.00
	6	Broomfield	1	1.007	0.00
	7	Douglas	1	1.006	0.00
	8	Rest of Colorado	57	0.957	1.72
Connecticut	1	Fairfield	1	1.149	0.00
	2	Rest of Connecticut	7	1.083	1.03

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Delaware	1	New Castle	1	1.054	0.00
	2	Rest of Delaware	2	0.962	0.63
District of Columbia	1	District of Columbia	1	1.162	0.00
Florida	1	Miami-Dade	1	1.073	0.00
	2	Palm Beach	1	1.056	0.00
	3	Broward	1	1.051	0.00
	4	Collier	1	1.025	0.00
	5	Rest of Florida	63	0.974	2.04
Georgia	1	Fulton	1	1.028	0.00
	2	DeKalb	1	1.018	0.00
	3	Cobb	1	1.012	0.00
	4	Gwinnett	1	1.010	0.00
	5	Fayette	1	1.000	0.00
	6	Clayton	1	0.997	0.00
	7	Cherokee	1	0.996	0.00
	8	Rockdale	1	0.996	0.00
	9	Forsyth	1	0.995	0.00
	10	Bartow	1	0.994	0.00
	11	Coweta	1	0.986	0.00
	12	Henry	1	0.985	0.00
	13	Rest of Georgia	147	0.937	2.14
Hawaii	1	Statewide	5	1.084	1.40
Idaho	1	Ada	1	0.949	0.00
	2	Rest of Idaho	43	0.902	1.27
Illinois	1	Cook	1	1.095	0.00
	2	DuPage	1	1.087	0.00
	3	Lake	1	1.085	0.00
	4	Kane	1	1.065	0.00
	5	Will	1	1.049	0.00
	6	McHenry	1	1.037	0.00
	7	Grundy	1	1.022	0.00
	8	Kendall	1	0.999	0.00
	9	St. Clair	1	0.997	0.00
	10	Rest of Illinois	93	0.945	2.51

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Indiana	1	Statewide	92	0.939	2.47
Iowa	1	Polk	1	0.959	0.00
	2	Rest of Iowa	98	0.904	2.33
Kansas	1	Linn	1	1.021	0.00
	2	Johnson	1	0.975	0.00
	3	Wyandotte	1	0.972	0.00
	4	Leavenworth	1	0.970	0.00
	5	Miami	1	0.961	0.00
	6	Sedgwick	1	0.944	0.00
	7	Rest of Kansas	99	0.898	2.00
Kentucky	1	Statewide	120	0.923	2.72
Louisiana	1	St. Charles	1	1.058	0.00
	2	Orleans	1	1.031	0.00
	3	Plaquemines	1	1.026	0.00
	4	West Feliciana	1	1.025	0.00
	5	Jefferson	1	1.012	0.00
	6	St. John the Baptist	1	1.010	0.00
	7	St. Tammany	1	1.007	0.00
	8	St. Bernard	1	1.004	0.00
	9	Ascension	1	0.991	0.00
	10	Rest of Louisiana	55	0.930	2.09
Maine	1	Cumberland	1	1.002	0.00
	2	York	1	0.968	0.00
	3	Rest of Maine	14	0.919	0.66
Maryland	1	Montgomery	1	1.122	0.00
	2	Prince George's	1	1.113	0.00
	3	Calvert	1	1.088	0.00
	4	Rest of Maryland	21	1.029	3.47
Massachusetts	1	Suffolk	1	1.150	0.00
	2	Middlesex	1	1.130	0.00
	3	Norfolk	1	1.128	0.00
	4	Essex	1	1.105	0.00
	5	Plymouth	1	1.092	0.00
	6	Dukes, Nantucket	2	1.088	0.00
	7	Rest of Massachusetts	7	1.022	1.77

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Michigan	1	Wayne	1	1.112	0.00
	2	Washtenaw	1	1.110	0.00
	3	Oakland	1	1.109	0.00
	4	Macomb	1	1.103	0.00
	5	Livingston	1	1.041	0.00
	6	Rest of Michigan	78	0.990	1.90
Minnesota	1	Ramsey	1	1.024	0.00
	2	Hennepin	1	1.021	0.00
	3	Anoka	1	1.019	0.00
	4	Carver	1	1.008	0.00
	5	Scott	1	1.007	0.00
	6	Dakota	1	1.006	0.00
	7	Washington	1	1.002	0.00
	8	Olmsted	1	0.987	0.00
	9	Wright	1	0.972	0.00
	10	Chisago	1	0.966	0.00
	11	Sherburne	1	0.964	0.00
	12	Isanti	1	0.960	0.00
	13	Rest of Minnesota	75	0.906	1.31
Mississippi	1	Hinds	1	0.953	0.00
	2	DeSoto	1	0.944	0.00
	3	Hancock	1	0.943	0.00
	4	Madison	1	0.941	0.00
	5	Rest of Mississippi	78	0.895	1.46
Missouri	1	Jackson	1	0.991	0.00
	2	St. Louis City	1	0.981	0.00
	3	St. Louis	1	0.975	0.00
	4	Clay	1	0.968	0.00
	5	Platte	1	0.967	0.00
	6	Cass	1	0.959	0.00
	7	St. Charles	1	0.953	0.00
	8	Lafayette	1	0.948	0.00
	9	Rest of Missouri	107	0.895	2.12
Montana	1	Statewide	56	0.909	0.84

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Nebraska	1	Douglas	1	0.947	0.00
	2	Sarpy	1	0.938	0.00
	3	Rest of Nebraska	91	0.893	2.69
Nevada	1	Statewide	17	1.031	0.34
New Hampshire	1	Hillsborough	1	1.047	0.00
	2	Rockingham	1	1.030	0.00
	3	Rest of New Hampshire	8	0.979	0.90
New Jersey	1	Statewide	21	1.109	2.35
New Mexico	1	Santa Fe	1	0.994	0.00
	2	Rest of New Mexico	32	0.940	2.94
New York	1	Westchester	1	1.218	0.00
	2	Nassau	1	1.204	0.00
	3	New York	1	1.183	0.00
	4	Suffolk	1	1.182	0.00
	5	Richmond	1	1.156	0.00
	6	Bronx	1	1.156	0.00
	7	Kings	1	1.155	0.00
	8	Rockland	1	1.152	0.00
	9	Queens	1	1.148	0.00
	10	Putnam	1	1.105	0.00
	11	Dutchess	1	1.079	0.00
	12	Orange	1	1.076	0.00
	13	Ulster	1	1.003	0.00
	14	Rest of New York	49	0.954	1.83
North Carolina	1	Durham	1	1.006	0.00
	2	Wake	1	1.000	0.00
	3	Rest of North Carolina	98	0.935	2.43
North Dakota	1	Statewide	53	0.894	1.70
Ohio	1	Statewide	88	0.968	2.80
Oklahoma	1	Statewide	77	0.897	2.51
Oregon	1	Statewide	36	0.954	2.83
Pennsylvania	1	Philadelphia	1	1.073	0.00
	2	Montgomery	1	1.071	0.00
	3	Delaware	1	1.070	0.00
	4	Chester	1	1.069	0.00
	5	Bucks	1	1.050	0.00

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
	6	Lehigh	1	1.010	0.00
	7	Rest of Pennsylvania	61	0.955	2.39
Rhode Island	1	Statewide	5	1.053	0.38
South Carolina	1	Statewide	46	0.925	1.53
South Dakota	1	Statewide	66	0.889	2.82
Tennessee	1	Statewide	95	0.930	2.71
Texas	1	Harris	1	1.026	0.00
	2	Collin	1	1.015	0.00
	3	Dallas	1	1.014	0.00
	4	Chambers	1	1.009	0.00
	5	Travis	1	1.005	0.00
	6	Rockwall	1	1.004	0.00
	7	Fort Bend	1	1.004	0.00
	8	Galveston	1	1.000	0.00
	9	Tarrant	1	0.993	0.00
	10	Brazoria	1	0.992	0.00
	11	Williamson	1	0.991	0.00
	12	Denton	1	0.985	0.00
	13	Montgomery	1	0.983	0.00
	14	Rest of Texas	241	0.935	2.01
Utah	1	Summit	1	0.985	0.00
	2	Salt Lake	1	0.965	0.00
	3	Rest of Utah	27	0.917	1.67
Vermont	1	Chittenden	1	0.997	0.00
	2	Franklin	1	0.984	0.00
	3	Addison, Bennington, Caledonia, Essex, LaMoille, Orleans, Orange, Rutland, Washington, Windham, Windsor	11	0.932	0.00
	4	Rest of Vermont	1	0.826	0.00
Virginia	1	Arlington	1	1.142	0.00
	2	Fairfax	1	1.130	0.00
	3	Alexandria City	1	1.126	0.00
	4	Fairfax City	1	1.121	0.00
	5	Falls Church City	1	1.113	0.00
	6	Manassas City	1	1.085	0.00
	7	Prince William	1	1.082	0.00

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
	8	Loudoun	1	1.079	0.00
	9	Fauquier	1	1.052	0.00
	10	Fredericksburg City	1	1.046	0.00
	11	Clarke	1	1.038	0.00
	12	Stafford	1	1.037	0.00
	13	Spotsylvania	1	1.012	0.00
	14	New Kent	1	0.997	0.00
	15	Richmond City	1	0.995	0.00
	16	Henrico	1	0.992	0.00
	17	Hopewell City	1	0.992	0.00
	18	Rest of Virginia	118	0.941	2.98
Washington	1	King	1	1.045	0.00
	2	Rest of Washington	38	0.982	2.75
West Virginia	1	Statewide	55	0.937	1.95
Wisconsin	1	Statewide	72	0.959	2.91
Wyoming	1	Statewide	23	0.912	1.23
Nation	**219**				**1.51**

Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Notes: Our analysis includes the 50 states and District of Columbia and excludes Puerto Rico and the U.S. Virgin Islands. We consider independent cities, such as Alexandria City in Virginia, as county equivalents, because this is how the Census Bureau considers them. The county-based iterative approach creates a single-county payment locality for any county whose GAF exceeds the weighted average GAF of all counties in the state with lower GAFs by 5 percent or more. The remaining counties in each state are grouped into a "Rest-of-State" locality.

[a]The locality number is relative on a state basis. That is, locality 1 has the highest GAF in the state, locality 2 has the second-highest GAF, and so on.

[b]We calculated the locality GAF as the average county-specific GAF of counties in the locality, weighted by county RVUs. Our formula for calculating the locality GAF is the same as that used by CMS.

[c]Payment difference compares the costs physicians incur for providing services in different geographic areas (the county-specific GAF) with the geographic adjustment that Medicare applies to those areas (the locality GAF). We calculated payment difference as the absolute value of the locality GAF minus the county-specific GAF, divided by the county-specific GAF. In calculating the average payment difference, each county's payment difference was weighted by county RVUs.

Table 4: Physician Payment Localities Created Using the County-Based GAF Ranges Alternative Approach, by State

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Alabama	1	Autauga, Jefferson, Limestone, Madison, Shelby	5	0.948	0.33
	2	Rest of Alabama	62	0.908	1.71
Alaska	1	Statewide	27	1.082	1.31
Arizona	1	Coconino, Maricopa	2	1.003	0.01
	2	Rest of Arizona	13	0.960	1.24
Arkansas	1	Crittenden, Jefferson, Miller, Pulaski	4	0.930	0.41
	2	Rest of Arkansas	71	0.876	1.32
California	1	Marin, San Francisco, San Mateo	3	1.211	0.67
	2	Alameda, Contra Costa, Orange, Santa Clara, Santa Cruz, Ventura	6	1.147	0.89
	3	Los Angeles, Monterey, Napa, Sacramento, San Benito, Solano, Sonoma	7	1.109	0.85
	4	El Dorado, Placer, Riverside, San Bernardino, San Diego, San Joaquin, San Luis Obispo, Santa Barbara, Yolo	9	1.040	1.35
	5	Rest of California	33	0.973	1.19
Colorado	1	Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson	7	1.027	0.73
	2	Rest of Colorado	57	0.957	1.72
Connecticut	1	Fairfield	1	1.149	0.00
	2	Hartford, Middlesex	2	1.095	0.03
	3	Rest of Connecticut	5	1.073	1.32
Delaware	1	New Castle	1	1.054	0.00
	2	Rest of Delaware	2	0.962	0.63
District of Columbia	1	District of Columbia	1	1.162	0.00
Florida	1	Broward, Miami-Dade, Palm Beach	3	1.061	0.85
	2	Collier, Duval, Hillsborough, Jefferson, Lee, Manatee, Martin, Nassau, Orange, Pinellas, St. Johns, Sarasota, Seminole	13	0.995	0.69
	3	Rest of Florida	51	0.954	1.61

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Georgia	1	Cobb, DeKalb, Fulton, Gwinnett	4	1.020	0.65
	2	Barrow, Bartow, Burke, Carroll, Chatham, Cherokee, Clayton, Coweta, Douglas, Fayette, Forsyth, Hall, Henry, Houston, Newton, Paulding, Pickens, Rockdale, Spalding, Walton	20	0.978	1.17
	3	Rest of Georgia	135	0.927	1.66
Hawaii	1	Statewide	5	1.084	1.40
Idaho	1	Ada	1	0.949	0.00
	2	Rest of Idaho	43	0.902	1.27
Illinois	1	Cook, DuPage, Lake	3	1.093	0.28
	2	Grundy, Kane, McHenry, Will	4	1.051	0.90
	3	DeKalb, Kankakee, Kendall, Madison, McLean, Peoria, Rock Island, St. Clair, Sangamon, Winnebago	10	0.972	0.95
	4	Rest of Illinois	85	0.922	1.43
Indiana	1	Hamilton, Hancock, Hendricks, Lake, Marion, Porter	6	0.968	0.67
	2	Rest of Indiana	86	0.921	1.72
Iowa	1	Johnson, Linn, Polk, Pottawattamie	4	0.950	0.95
	2	Rest of Iowa	95	0.894	1.51
Kansas	1	Linn	1	1.021	0.00
	2	Butler, Johnson, Leavenworth, Miami, Sedgwick, Wyandotte	6	0.958	1.58
	3	Rest of Kansas	98	0.897	1.93
Kentucky	1	Boone, Campbell, Fayette, Jefferson, Jessamine, Kenton, Meade	7	0.950	0.22
	2	Rest of Kentucky	113	0.901	1.32
Louisiana	1	St. Charles	1	1.058	0.00
	2	Jefferson, Orleans, Plaquemines, St. Bernard, St. John the Baptist, St. Tammany, West Feliciana	7	1.015	0.81
	3	Ascension, Caddo, East Feliciana, East Baton Rouge, Iberville, Livingston, West Baton Rouge	7	0.956	1.21
	4	Rest of Louisiana	49	0.916	1.42
Maine	1	Cumberland, Sagadahoc, York	3	0.993	1.26
	2	Rest of Maine	13	0.918	0.61

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Maryland	1	Calvert, Montgomery, Prince George's	3	1.118	0.49
	2	Anne Arundel, Baltimore, Baltimore City, Carroll, Cecil, Charles, Frederick, Harford, Howard	9	1.050	0.67
	3	Rest of Maryland	12	0.947	1.80
Massachusetts	1	Suffolk	1	1.150	0.00
	2	Rest of Massachusetts	13	1.076	4.45
Michigan	1	Macomb, Oakland, Washtenaw, Wayne	4	1.109	0.22
	2	Genesee, Ingham, Livingston, Monroe	4	1.014	0.35
	3	Rest of Michigan	75	0.984	1.81
Minnesota	1	Anoka, Carver, Hennepin, Ramsey	4	1.021	0.12
	2	Chisago, Dakota, Isanti, Olmsted, Scott, Sherburne, Washington, Wright	8	0.989	0.39
	3	Rest of Minnesota	75	0.906	1.31
Mississippi	1	DeSoto, Hancock, Hinds, Madison, Rankin	5	0.949	0.59
	2	Rest of Mississippi	77	0.893	1.27
Missouri	1	Clay, Jackson, St. Louis, St. Louis City	4	0.980	0.67
	2	Boone, Cass, Clinton, Cole, Franklin, Jefferson, Lafayette, Lincoln, Moniteau, Platte, Ray, St. Charles	12	0.934	1.29
	3	Rest of Missouri	99	0.886	1.38
Montana	1	Statewide	56	0.909	0.84
Nebraska	1	Cass, Douglas, Lancaster, Sarpy, Washington	5	0.936	1.27
	2	Rest of Nebraska	88	0.872	0.04
Nevada	1	Statewide	17	1.031	0.34
New Hampshire	1	Hillsborough, Rockingham	2	1.041	0.79
	2	Rest of New Hampshire	8	0.979	0.90
New Jersey	1	Bergen, Middlesex, Somerset	3	1.137	0.56
	2	Essex, Hudson, Hunterdon, Mercer, Monmouth, Morris, Ocean, Passaic, Salem, Union	10	1.115	0.86
	3	Rest of New Jersey	8	1.056	0.77

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
New Mexico	1	Bernalillo, Sandoval, Santa Fe	3	0.974	0.59
	2	Rest of New Mexico	30	0.915	0.35
New York	1	Westchester	1	1.218	0.00
	2	Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk	8	1.176	1.50
	3	Dutchess, Orange, Putnam	3	1.081	0.48
	4	Albany, Schenectady, Ulster	3	0.994	0.35
	5	Rest of New York	47	0.948	1.53
North Carolina	1	Durham, Franklin, Forsyth, Guilford, Johnston, Mecklenburg, Orange, Wake	8	0.979	1.44
	2	Rest of North Carolina	92	0.922	1.40
North Dakota	1	Cass	1	0.910	0.00
	2	Rest of North Dakota	52	0.884	1.83
Ohio	1	Butler, Clermont, Cuyahoga, Delaware, Franklin, Geauga, Greene, Hamilton, Lake, Lorain, Madison, Montgomery, Ottawa, Pickaway, Portage, Summit, Union, Warren	18	0.990	0.88
	2	Rest of Ohio	70	0.935	1.54
Oklahoma	1	Oklahoma, Osage, Rogers, Tulsa, Wagoner	5	0.915	0.53
	2	Rest of Oklahoma	72	0.869	1.14
Oregon	1	Clackamas, Multnomah, Washington	3	0.994	0.18
	2	Rest of Oregon	33	0.934	1.14
Pennsylvania	1	Bucks, Chester, Delaware, Montgomery, Philadelphia	5	1.069	0.44
	2	Allegheny, Beaver, Cumberland, Dauphin, Lehigh, Northampton, Washington	7	0.988	1.03
	3	Rest of Pennsylvania	55	0.941	1.70
Rhode Island	1	Statewide	5	1.053	0.38
South Carolina	1	Statewide	46	0.925	1.53
South Dakota	1	Minnehaha, Pennington, Union	3	0.912	0.54
	2	Rest of South Dakota	63	0.862	0.92

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Tennessee	1	Anderson, Davidson, Hamilton, Rutherford, Shelby, Williamson, Wilson	7	0.956	0.81
	2	Rest of Tennessee	88	0.906	1.71
Texas	1	Chambers, Collin, Dallas, Harris	4	1.020	0.57
	2	Bastrop, Bexar, Brazoria, Caldwell, Denton, Ellis, Fort Bend, Galveston, Hays, Hunt, Kendall, Montgomery, Rockwall, Tarrant, Travis, Waller, Williamson	17	0.986	1.26
	3	Rest of Texas	233	0.927	1.45
Utah	1	Salt Lake, Summit, Tooele	3	0.965	0.04
	2	Rest of Utah	26	0.916	1.64
Vermont	1	Chittenden, Franklin	2	0.996	0.22
	2	Rest of Vermont	12	0.932	0.00
Virginia	1	Alexandria City, Arlington, Fairfax, Fairfax City, Falls Church City	5	1.131	0.28
	2	Fauquier, Fredericksburg City, Loudoun, Manassas City, Prince William	5	1.065	1.61
	3	Clarke, New Kent, Richmond City, Spotsylvania, Stafford	5	0.999	0.69
	4	Albemarle, Charlottesville City, Chesapeake City, Chesterfield, Colonial Heights City, Dinwiddie, Goochland, Hampton City, Hanover, Henrico, Hopewell City, Isle of Wight, James City, Louisa, Newport News City, Norfolk City, Petersburg City, Portsmouth City, Salem City, Suffolk City, Virginia Beach City, Warren, Williamsburg City, Winchester City, York	25	0.969	1.13
	5	Rest of Virginia	95	0.907	1.24
Washington	1	King	1	1.045	0.00
	2	Benton, Clark, Kitsap, Pierce, Snohomish, Thurston	6	1.010	0.84
	3	Rest of Washington	32	0.957	1.01
West Virginia	1	Berkeley, Jefferson, Morgan, Putnam	4	0.968	0.18
	2	Rest of West Virginia	51	0.935	1.89

State	Locality number[a]	Counties in locality	Number of counties in locality	Locality GAF[b]	Average payment difference in percentage points[c]
Wisconsin	1	Dane, Kenosha, Milwaukee, Ozaukee, Pierce, Racine, St. Croix, Washington, Waukesha	9	0.987	0.38
	2	Rest of Wisconsin	63	0.931	1.17
Wyoming	1	Statewide	23	0.912	1.23
Nation	**119**				**1.09**

Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Notes: Our analysis includes the 50 states and District of Columbia and excludes Puerto Rico and the U.S. Virgin Islands. We consider independent cities, such as Alexandria City in Virginia, as county equivalents, because this is how the Census Bureau considers them. The county-based GAF ranges approach groups counties with similar GAFs into one locality.

[a]The locality number is relative on a state basis. That is, locality 1 has the highest GAF in the state, locality 2 has the second-highest GAF, and so on.

[b]We calculated the locality GAF as the average county-specific GAF of counties in the locality, weighted by county RVUs. Our formula for calculating the locality GAF is the same as that used by CMS.

[c]Payment difference compares the costs physicians incur for providing services in different geographic areas (the county-specific GAF) with the geographic adjustment that Medicare applies to those areas (the locality GAF). We calculated payment difference as the absolute value of the locality GAF minus the county-specific GAF, divided by the county-specific GAF. In calculating the average payment difference, each county's payment difference was weighted by county RVUs.

Table 5: Physician Payment Localities Created Using the Metropolitan Statistical Area (MSA)-Based Iterative Alternative Approach, by State

State	Locality number[a]	MSA in locality[b]	Number of state's counties in locality	Locality GAF[c]	Average payment difference in percentage points[d]
Alabama	98	Rest of Nation	67	0.934	2.63
Alaska	18	Anchorage, AK	2	1.085	1.20
	28	Fairbanks, AK	1	1.056	0.00
	98	Rest of Nation	24	0.934	2.63
Arizona	60	Flagstaff, AZ	1	1.004	0.00
	63	Phoenix-Mesa-Scottsdale, AZ	2	1.002	0.13
	98	Rest of Nation	12	0.934	2.63
Arkansas	98	Rest of Nation	75	0.934	2.63
California	1	San Francisco–Oakland–Fremont, CA	5	1.179	2.71
	2	San Jose–Sunnyvale–Santa Clara, CA	2	1.173	0.25
	7	Los Angeles–Long Beach–Santa Ana, CA	2	1.121	0.91
	8	Oxnard–Thousand Oaks–Ventura, CA	1	1.120	0.00
	9	Santa Cruz–Watsonville, CA	1	1.119	0.00
	13	Napa, CA	1	1.097	0.00
	14	Santa Rosa–Petaluma, CA	1	1.097	0.00
	16	Salinas, CA	1	1.094	0.00
	23	Vallejo-Fairfield, CA	1	1.066	0.00
	27	Sacramento–Arden-Arcade–Roseville, CA	4	1.057	1.11
	29	Santa Barbara–Santa Maria, CA	1	1.056	0.00
	30	San Diego–Carlsbad–San Marcos, CA	1	1.055	0.00
	40	San Luis Obispo–Paso Robles, CA	1	1.030	0.00
	42	Riverside–San Bernardino–Ontario, CA	2	1.026	0.32
	45	Stockton, CA	1	1.025	0.00
	69	Modesto, CA	1	0.996	0.00
	93	Fresno, CA	1	0.984	0.00
	94	Bakersfield, CA	1	0.984	0.00
	98	Rest of Nation	30	0.934	2.63
Colorado	36	Boulder, CO	1	1.038	0.00
	43	Denver–Aurora, CO	10	1.025	0.78
	98	Rest of Nation	53	0.934	2.63

State	Locality number[a]	MSA in locality[b]	Number of state's counties in locality	Locality GAF[c]	Average payment difference in percentage points[d]
Connecticut	4	Bridgeport-Stamford-Norwalk, CT	1	1.149	0.00
	17	Hartford–West Hartford–East Hartford, CT	3	1.093	0.34
	19	New Haven–Milford, CT	1	1.084	0.00
	22	Norwich–New London, CT	1	1.067	0.00
	98	Rest of Nation	2	0.934	2.63
Delaware	24	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1	1.064	0.75
	98	Rest of Nation	2	0.934	2.63
District of Columbia	10	Washington-Arlington-Alexandria, DC-VA-MD-WV	1	1.116	2.22
Florida	25	Miami–Fort Lauderdale–Miami Beach, FL	3	1.061	0.85
	44	Naples–Marco Island, FL	1	1.025	0.00
	67	Sarasota-Bradenton-Venice, FL	2	0.997	0.42
	80	Cape Coral–Fort Myers, FL	1	0.988	0.00
	84	Jacksonville, FL	5	0.988	0.37
	85	Tampa–St. Petersburg–Clearwater, FL	4	0.987	1.10
	86	Orlando-Kissimmee, FL	4	0.987	0.93
	92	Port St. Lucie–Fort Pierce, FL	2	0.985	0.84
	98	Rest of Nation	45	0.934	2.63
Georgia	54	Atlanta–Sandy Springs–Marietta, GA	28	1.011	1.43
	98	Rest of Nation	131	0.934	2.63
Hawaii	15	Honolulu, HI	1	1.094	0.00
	98	Rest of Nation	4	0.934	2.63
Idaho	98	Rest of Nation	44	0.934	2.63
Illinois	21	Chicago-Naperville-Joliet, IL-IN-WI	9	1.072	3.10
	98	Rest of Nation	93	0.934	2.63
Indiana	21	Chicago-Naperville-Joliet, IL-IN-WI	4	1.072	3.10
	96	Cincinnati-Middletown, OH-KY-IN	3	0.982	1.49
	98	Rest of Nation	85	0.934	2.63
Iowa	98	Rest of Nation	99	0.934	2.63
Kansas	98	Rest of Nation	105	0.934	2.63
Kentucky	96	Cincinnati-Middletown, OH-KY-IN	7	0.982	1.49
	98	Rest of Nation	113	0.934	2.63
Louisiana	51	New Orleans–Metairie–Kenner, LA	7	1.016	0.87
	98	Rest of Nation	57	0.934	2.63

State	Locality number[a]	MSA in locality[b]	Number of state's counties in locality	Locality GAF[c]	Average payment difference in percentage points[d]
Maine	74	Portland–South Portland–Biddeford, ME	3	0.993	1.26
	98	Rest of Nation	13	0.934	2.63
Maryland	10	Washington-Arlington-Alexandria, DC-VA-MD-WV	5	1.116	2.22
	24	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1	1.064	0.75
	31	Baltimore-Towson, MD	7	1.050	0.58
	98	Rest of Nation	11	0.934	2.63
Massachusetts	6	Boston-Cambridge-Quincy, MA-NH	5	1.121	2.15
	33	Providence–New Bedford–Fall River, RI–MA	1	1.046	0.90
	34	Worcester, MA	1	1.040	0.00
	35	Barnstable Town, MA	1	1.039	0.00
	59	Springfield, MA	3	1.005	1.00
	97	Pittsfield, MA	1	0.981	0.00
	98	Rest of Nation	2	0.934	2.63
Michigan	11	Ann Arbor, MI	1	1.110	0.00
	12	Detroit-Warren-Livonia, MI	6	1.104	0.95
	48	Monroe, MI	1	1.022	0.00
	53	Flint, MI	1	1.011	0.00
	55	Lansing–East Lansing, MI	3	1.010	0.30
	56	Grand Rapids–Wyoming, MI	4	1.007	0.47
	64	Holland–Grand Haven, MI	1	1.000	0.00
	66	Battle Creak, MI	1	1.000	0.00
	73	Jackson, MI	1	0.994	0.00
	75	Kalamazoo-Portage, MI	2	0.993	0.15
	76	Saginaw–Saginaw Township North, MI	1	0.993	0.00
	98	Rest of Nation	61	0.934	2.63
Minnesota	50	Minneapolis–St. Paul–Bloomington, MN–WI	11	1.019	0.47
	88	Rochester, MN	3	0.986	0.24
	98	Rest of Nation	73	0.934	2.63
Mississippi	98	Rest of Nation	82	0.934	2.63
Missouri	98	Rest of Nation	115	0.934	2.63
Montana	98	Rest of Nation	56	0.934	2.63
Nebraska	98	Rest of Nation	93	0.934	2.63

State	Locality number[a]	MSA in locality[b]	Number of state's counties in locality	Locality GAF[c]	Average payment difference in percentage points[d]
Nevada	38	Reno-Sparks, NV	2	1.033	0.00
	39	Las Vegas–Paradise, NV	1	1.033	0.00
	46	Carson City, NV	1	1.024	0.00
	98	Rest of Nation	13	0.934	2.63
New Hampshire	6	Boston-Cambridge-Quincy, MA-NH	2	1.121	2.15
	32	Manchester-Nashua, NH	1	1.047	0.00
	98	Rest of Nation	7	0.934	2.63
New Jersey	3	New York–Northern NJ–Long Island, NY–NJ–PA	12	1.158	2.58
	5	Trenton-Ewing, NJ	1	1.127	0.00
	24	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4	1.064	0.75
	26	Atlantic City, NJ	1	1.059	0.00
	41	Vineland-Millville-Bridgeton, NJ	1	1.028	0.00
	47	Ocean City, NJ	1	1.022	0.00
	57	Allentown-Bethlehem-Easton, PA-NJ	1	1.007	1.56
New Mexico	72	Santa Fe, NM	1	0.994	0.00
	98	Rest of Nation	32	0.934	2.63
New York	3	New York–Northern NJ–Long Island, NY–NJ–PA	10	1.158	2.58
	20	Poughkeepsie-Newburgh-Middletown, NY	2	1.078	0.15
	61	Kingston, NY	1	1.003	0.00
	83	Albany-Schenectady-Troy, NY	5	0.988	0.72
	98	Rest of Nation	44	0.934	2.63
North Carolina	71	Raleigh-Cary, NC	3	0.995	0.86
	77	Durham, NC	4	0.992	1.84
	98	Rest of Nation	93	0.934	2.63
North Dakota	98	Rest of Nation	53	0.934	2.63
Ohio	68	Cleveland-Elyria-Mentor, OH	5	0.997	0.97
	87	Akron, OH	2	0.987	0.30
	89	Columbus, OH	8	0.986	0.95
	96	Cincinnati-Middletown, OH-KY-IN	5	0.982	1.49
	98	Rest of Nation	68	0.934	2.63
Oklahoma	98	Rest of Nation	77	0.934	2.63

State	Locality number[a]	MSA in locality[b]	Number of state's counties in locality	Locality GAF[c]	Average payment difference in percentage points[d]
Oregon	78	Portland-Vancouver-Beaverton, OR-WA	5	0.991	0.50
	98	Rest of Nation	31	0.934	2.63
Pennsylvania	3	New York–Northern NJ–Long Island, NY–NJ–PA	1	1.158	2.58
	24	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5	1.064	0.75
	57	Allentown-Bethlehem-Easton, PA-NJ	3	1.007	1.56
	81	Harrisburg-Carlisle, PA	3	0.988	1.06
	98	Rest of Nation	55	0.934	2.63
Rhode Island	33	Providence–New Bedford–Fall River, RI–MA	5	1.046	0.90
South Carolina	98	Rest of Nation	46	0.934	2.63
South Dakota	98	Rest of Nation	66	0.934	2.63
Tennessee	98	Rest of Nation	95	0.934	2.63
Texas	49	Houston–Sugar Land–Baytown, TX	10	1.019	1.11
	62	Dallas–Fort Worth–Arlington, TX	12	1.002	1.34
	65	Austin–Round Rock, TX	5	1.000	0.77
	98	Rest of Nation	227	0.934	2.63
Utah	98	Rest of Nation	29	0.934	2.63
Vermont	70	Burlington–South Burlington, VT	3	0.996	0.22
	98	Rest of Nation	11	0.934	2.63
Virginia	10	Washington-Arlington-Alexandria, DC-VA-MD-WV	15	1.116	2.22
	91	Richmond, VA	20	0.986	1.08
	98	Rest of Nation	100	0.934	2.63
Washington	37	Seattle-Tacoma-Bellevue, WA	3	1.034	1.30
	52	Olympia, WA	1	1.015	0.00
	58	Bremerton-Silverdale, WA	1	1.006	0.00
	78	Portland-Vancouver-Beaverton, OR-WA	2	0.991	0.50
	79	Kennewick-Richland-Pasco, WA	2	0.991	1.19
	90	Mount Vernon–Anacortes, WA	1	0.986	0.00
	98	Rest of Nation	29	0.934	2.63
West Virginia	10	Washington-Arlington-Alexandria, DC-VA-MD-WV	1	1.116	2.22
	98	Rest of Nation	54	0.934	2.63

State	Locality number[a]	MSA in locality[b]	Number of state's counties in locality	Locality GAF[c]	Average payment difference in percentage points[d]
Wisconsin	21	Chicago-Naperville-Joliet, IL-IN-WI	1	1.072	3.10
	50	Minneapolis–St. Paul–Bloomington, MN–WI	2	1.019	0.47
	82	Milwaukee–Waukesha–West Allis, WI	4	0.988	0.27
	95	Madison, WI	3	0.983	0.95
	98	Rest of Nation	62	0.934	2.63
Wyoming	98	Rest of Nation	23	0.934	2.63
Nation	**98**				**1.89**

Source: GAO analysis of 2005 CMS, 2000 Census Bureau, and fiscal year 2006 HUD data.

Notes: Our analysis includes the 50 states and District of Columbia and excludes Puerto Rico and the U.S. Virgin Islands. The MSA-based iterative approach creates a single-MSA payment locality for any MSA whose GAF exceeds the weighted average GAF of all counties in the nation with lower GAFs by 5 percent or more. All remaining counties are grouped into the "Rest-of-Nation" locality. If a state does not have any MSAs whose GAF exceeds the weighted average GAF of all counties in the nation with lower GAFs by 5 percent or more, the entire state is grouped into the "Rest-of-Nation" locality.

[a]The locality number is relative on a national basis. That is, locality 1 has the highest GAF in the United States, locality 2 has the second-highest GAF, and so on. Locality 98 represents counties that were grouped into the "Rest-of-Nation" locality.

[b]In the case that an MSA crosses state lines, it is listed under each state that it is part of. MSA names are those published by the Office of Management and Budget as of December 2005.

[c]We calculated the locality GAF as the average county-specific GAF of counties in the locality, weighted by county RVUs. Our formula for calculating the locality GAF is the same as that used by CMS.

[d]Payment difference compares the costs physicians incur for providing services in different geographic areas (the county-specific GAF) with the geographic adjustment that Medicare applies to those areas (the locality GAF). We calculated payment difference as the absolute value of the locality GAF minus the county-specific GAF, divided by the county-specific GAF. In calculating the average payment difference, each county's payment difference was weighted by county RVUs.

Appendix III: Comments from the Centers for Medicare & Medicaid Services

DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

Administrator
Washington, DC 20201

DATE: MAY - 4 2007

TO: A. Bruce Steinwald
Director, Health Care
Government Accountability Office

FROM: Leslie V. Norwalk, Esq.
Acting Administrator

SUBJECT: Government Accountability Office (GAO) Draft Report: "Medicare: Geographic Areas Used to Adjust Physician Payments for Variation in Practice Costs Should Be Revised." (GAO-07-466)

Thank you for the opportunity to review and comment on the subject GAO draft report.

The Medicare statute requires that physician fee schedule payments be adjusted for certain differences in the relative costs among areas. Specifically, the statute requires an adjustment which reflects differences among areas for the relative costs of the mix of goods and services comprising practice expenses (other than malpractice expenses) compared to the national average. The statute also requires adjustment for the relative costs of malpractice expenses among areas compared to the national average. The statute also requires adjustment for one-quarter of the difference between the relative value of physicians' work effort among areas and the national average of such work effort.

The physician work component represents 52.466 percent of the national average fee schedule payment amount. Thus, the statutory requirement for geographic adjustment of only one-quarter to the physician work component means that, on average, only 13.117 percentage points of physician work are geographically adjusted, and 39.349 percentage points are not adjusted and represent a national fee schedule.

In addition, the practice expense component represents 43.669 percent of the national average fee schedule payment amount. Practice expenses are comprised of nonphysician employee compensation, office expenses (including rent), medical equipment, drugs and supplies, and other expenses. Only the categories of nonphysician employee compensation and rents are geographically adjusted. Such categories represent, on average, 30.862 percentage points of the total practice expense, and 12.807 percent of practice expenses are not geographically adjusted.

In total, more than half (52.156 percent) of the average physician fee schedule amount is a national payment and not geographically adjusted. This is an important note to place into context any discussion of physician payment localities.

Currently there are 89 Medicare physician payment localities to which geographic practice cost indices (GPCIs) are applied. The structure of the payment localities has been in place since 1998. Over time, changing demographics and local economic conditions may have lead to variations in practice costs within payment locality boundaries. The Centers for Medicare & Medicaid Services (CMS) is concerned about the potential impact of these variations and has been studying this issue and potential alternatives for a number of years. However, because changes to the GPCIs must be applied in a budget neutral manner (and under the current locality system, budget neutrality results in aggregate payments within each State remaining the same), there are significant redistributive effects to any change. Therefore, because of this redistributive impact, we have looked for support from an impacted state, such as from a State medical association, before proposing to make changes to payment localities in a state. The GAO report considers these issues and offers recommendations to CMS. We have some concerns about the recommendations and specific points made in the report.

Analytic Basis

The report uses county level data as the "gold standard" for comparison. The report compares a GPCI for each county to the GPCI of the locality in which the county in located. The standard of "accurate" payment is the degree of congruence between these two figures. Use of the county as the gold standard implies that county level data are measured with absolute precision. Several caveats are important. First, the data used are only "proxies" for physician work, employee compensation and rents. That is, wage data for various categories of employees are used to proxy the wages of physician employees. Second, even the data used for such proxies are based on actual Census data only for a limited number of counties. Data for more than 90 percent of counties are based on proxies based on larger geographic areas (e.g., data for all rural areas in a state combined are used to proxy the values for each rural county in a state). We are concerned that the report purports to present such definitive conclusions about payment "accuracy" without any caveats to indicate that the underlying data are necessarily proxies for actual costs.

Impact of the GAO proposals

The report finds that 14 percent of counties are affected by what are characterized as "inaccurate" payments, and makes recommendations about possible changes to the payment localities. The GAO's characterization of these payments as "inaccurate" is highly inappropriate and potentially problematic. We are concerned that a finding by the GAO that certain payments are "inaccurate" could be construed to mean that there has been an overpayment for which recoupment and other possible remedies and sanctions should be pursued. The GAO study did not review or consider whether claims submitted by physicians in these counties are paid properly. Rather, there is every indication that such claims were paid in accordance with current Medicare policy, including policies in effect regarding the use of geographic areas in the

calculation of GPCIs. We believe it would be more appropriate and technically accurate for the report to indicate that the proxies for costs in these counties are above or below the proxies for average costs for the area analyzed.

We are also concerned that the report does not sufficiently account for the impact the recommended changes would have on physicians. "Budget neutrality" using the existing data sources is applied at the State level.

Thus, if we make changes that increase payments to physicians in some counties in a State, those same changes will reduce payments to physicians in other counties in the State. This report does not sufficiently convey the extent to which physician payments in certain areas would be reduced under the various options. We are concerned that neither the summary of "What GAO Found" nor the "Conclusion" makes clear that any change to increase payments in some areas would result in significant reductions in payments in others. We believe that the report should be transparent about the nature and extent of the payment reductions that would occur, particularly at the county level, under the options analyzed. We believe it would be particularly important to point out the impact of reductions in rural areas, i.e., the urban-rural payment differences that would result in rural states that are currently statewide localities. Since GAO uses the county as the basis for analysis, GAO should have the data to determine and discuss the changes that would occur at the county level for both the counties that would receive higher and lower payments. The report should present both state and county level impacts of the options analyzed.

Administrative Burden

In the report, the GAO references telephone conversations that GAO staff had with carrier and CMS staff regarding the administrative burden its recommendations would have on the agency. GAO concluded that there would be a one time, minimal administrative burden. CMS believes that the burden would be more significant than what is presented in this draft report. Changing localities requires reprogramming systems and extensive provider education, both of which are expensive and burdensome administrative activities that can last for a significant period of time. Because we receive claims for payment that cross calendar years, carriers must maintain payment files for the two different years. Locality changes present administrative challenges to ensure that the pricing file for the correct locality for a physician in each year is used to make payment.

In addition, the GAO report does not point out the potential implications of an increased number of localities. In contrast to an institutional provider that furnishes services in a fixed location, physicians (and other health care professionals paid under the physician fee schedule) often practice in multiple locations. Thus, there are different considerations when evaluating the effect of locality changes for physicians than for institutional providers. The more localities that exist, the more borders exist. Physicians often practice in multiple office settings which often cross localities. The more localities, the more opportunities exist to inappropriately submit bills with the place of service being the higher paid locality. Consider an ophthalmologist who works in three different offices on different days of the week. If the different offices are located in three

different payment localities, each claim should be filed based on the specific location where the service is furnished. Thus, a physician with an office in each of three different localities should be filing claims based on three different localities. An increase in the number of localities will increase the likelihood of this scenario, thereby increasing administrative costs for physicians, especially if they have a single billing function for their practice. Even if a physician tried to bill properly, locality changes and an increased number of localities could increase administrative costs and lead to more incorrect billings. It would be difficult for carriers to monitor and audit the accuracy of payment based on the specific branch of a physician's office in which each service is furnished. Thus, creation of a larger number of localities creates more opportunities for erroneous billing, unintended or intended. We believe it is important for the report to point out these potential on-going administrative expenses.

California Medical Association Proposal

In discussing that there have been no recent changes to the payment locality structure, the report refers to a proposal made to CMS by the California Medical Association (CMA) to change certain aspects of the payment locality structure in California, and indicates that the CMA proposal was rejected by CMS. Specifically, this proposal by the CMA suggested that CMS remove ten high cost counties from the "Rest of California" payment locality. We believe there are a number of significant problems with the CMA proposal as we outlined in the November 21, 2005 physician fee schedule final rule (70 FR 70151) that prevented us from implementing these suggested changes-- most notably that the proposal is inconsistent with our statutory authority. Thus, we do not believe the CMS rejection of the CMA proposal demonstrates a reluctance on the part of the agency to consider and adopt changes in payment localities.

GAO Recommendation

The GAO recommends that CMS examine and revise the physician payment localities using an approach that is uniformly applied to all states and based on the most current data.

CMS Response

The CMS considers payment locality issues as concerns are raised to us by interested parties and based on our own initiative. Because locality changes are redistributive, we have looked to State Medical Associations for leadership and support, but we also seek input from a broad range of stakeholders, including urban and rural physicians in a State. In the future, we will evaluate and consider applying changes uniformly to the locality structure across all the states; however, we note that we will also give full consideration to the redistributive impacts and administrative burdens of such an approach.

GAO Recommendation

The GAO recommends that CMS review the payment locality structure every ten years and make changes accordingly.

CMS Response

The CMS considers the payment locality issue as concerns are raised to us by interested parties and based on our own initiative. We believe this is a more flexible and efficient approach than doing a review every ten years.

We appreciate the work that GAO has done in examining this issue. The analysis will serve as a helpful resource as we continue to examine payment locality alternatives.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

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Acknowledgments

In addition to the contact named above, Thomas A. Walke, Assistant Director; Margaret S. Colby; Jennifer DeYoung; and Joanna L. Hiatt made major contributions to this report.

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