CMS SHOULD USE TARGETED TACTICS TO CURB QUESTIONABLE AND INAPPROPRIATE PAYMENTS FOR CHIROPRACTIC SERVICES
EXECUTIVE SUMMARY: CMS SHOULD USE TARGETED TACTICS TO CURB QUESTIONABLE AND INAPPROPRIATE PAYMENTS FOR CHIROPRACTIC SERVICES
OEI-01-14-00200

WHY WE DID THIS STUDY
Chiropractic services have the highest rate of improper payments among Part B services, according to the Centers for Medicare & Medicaid Services’ (CMS) Comprehensive Error Rate Testing program. Medicare covers chiropractic services to improve function, which it refers to as “active treatment,” but does not cover “maintenance therapy,” which is when further clinical improvement cannot be reasonably expected from ongoing treatment. Past OIG work has found that between 40 and 47 percent of all paid chiropractic claims were for maintenance therapy. In addition, Medicare fraud cases suggest that vulnerabilities exist relative to other Medicare services for beneficiaries receiving chiropractic services, such as physical therapy.

HOW WE DID THIS STUDY
We analyzed paid claims for chiropractic services from 2013 to identify chiropractors who exhibited questionable billing using four measures: (1) treatment suggestive of maintenance therapy, (2) potential sharing of beneficiaries, (3) potentially “upcoded” claims, and (4) unlikely number of services per day. We then identified chiropractors who received high amounts of questionable payments. For these chiropractors, we determined their locations, past questionable payments, and whether their beneficiaries received same-day physical and occupational therapy. We also identified inappropriate payments for claims not meeting certain Medicare requirements.

WHAT WE FOUND
In 2013, $76 million in Medicare payments for chiropractic services were questionable. Almost half of the questionable payments were for claims suggestive of maintenance therapy. In addition, just 2 percent of chiropractors were responsible for half of the questionable payments. These chiropractors provided more services to more beneficiaries compared to all other chiropractors and were located in high-fraud areas. Beneficiaries of these chiropractors were more likely to have had paid claims for physical and occupational therapy on the same day than were beneficiaries treated by other chiropractors, especially in high-fraud areas. Most of these chiropractors also had questionable payments in a prior year. Lastly, in 2013, Medicare inappropriately paid $21 million for chiropractic services that lacked a primary diagnosis covered by Medicare.

WHAT WE RECOMMEND
CMS should (1) establish a more reliable control for identifying active treatment, which would enable CMS to identify potential maintenance therapy; (2) develop and use measures to identify questionable payments for chiropractic services; (3) take appropriate action on the chiropractors with questionable payments; (4) collect overpayments based on inappropriately paid claims; and (5) ensure that claims are paid only for Medicare-covered diagnoses. CMS did not concur with our first recommendation, citing significant obstacles and stating that new medical review requirements would address our concerns; we disagree because the requirements target a narrow group of chiropractors who are not necessarily receiving payments for maintenance therapy. CMS concurred with our other recommendations.
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OBJECTIVES

1. To determine the extent to which Medicare made questionable payments for chiropractic services in 2013.

2. To identify and describe chiropractors with high questionable payments in 2013.

3. To determine the extent to which Medicare made inappropriate payments for chiropractic services that did not meet certain Medicare requirements in 2013.

BACKGROUND

Medicare Coverage of Chiropractic Services

In 2013, Medicare paid $502 million for chiropractic services provided by 45,490 chiropractors to almost 2 million beneficiaries. Chiropractors treat patients for problems of the musculoskeletal and nervous systems, such as headaches or pain in the back, neck, or joints. However, Medicare limits coverage of chiropractic services to manual manipulation treatments to treat subluxation of the spine, which is the dislocation of one or more spinal bones. Medicare covers chiropractic services to improve function, which it refers to as “active treatment.” Medicare does not cover “maintenance therapy,” which is when further clinical improvement cannot be reasonably expected from ongoing treatment.

Vulnerabilities Involving Chiropractic Services

The Office of Inspector General (OIG) has previously found vulnerabilities in Medicare payments for chiropractic services. OIG evaluations from 2005 and 2009 found that between 40 and 47 percent of all paid chiropractic claims were for maintenance therapy, which Medicare does not cover. Both reports found that when chiropractic care extends beyond 12 treatments in a year, it becomes increasingly likely that

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1 OIG analysis of 2013 Medicare Part B claims data. These totals are for the paid amount for chiropractic services.
4 Social Security Act, § 1862(a)(1)(A).
5 CMS, Medicare Benefit Policy Manual, ch. 15, § 240.1.3.
6 CMS, Medicare Benefit Policy Manual, ch. 15, §§ 30.5(B) and 240.1.3(A).
individual services are medically unnecessary and that chiropractors are often failing to comply with Medicare documentation requirements. In addition, an OIG audit from November 2013 found that Medicare inappropriately paid over $700,000 to a California chiropractor. These payments were for services that were medically unnecessary, incorrectly coded, undocumented, or insufficiently documented.\(^8\)

Medicare fraud cases involving chiropractors have involved services not rendered, medically unnecessary services, duplicate claims, and “upcoding,” as well as fraudulently billing for other health care services, such as physical therapy.\(^9\) For example, in 2012, a chiropractor was sentenced to 2 years in prison for billing over $8.5 million to Medicaid and Medicare over 3 years for both chiropractic and physical therapy services.\(^10\) In 2014, another chiropractor was sentenced to 5 years in prison for billing false claims to Medicare and private insurance by using the names of other providers whom he employed to bill for services that he was not qualified to perform.\(^11\)

Lastly, according to experts in chiropractic practice and fraud detection, other markers of potential chiropractic fraud exist. These include beneficiaries with claims from multiple chiropractors (indicating potential kickback arrangements or medical identity theft), chiropractic claims with same-day services for other types of therapy (indicating that services were potentially not rendered or were medically unnecessary), and chiropractors billing for more services per day than could have reasonably been provided.

**Improper Payment Rate for Chiropractic Services**

Chiropractic services have had the highest rate of improper payments among Part B services over the last several years, according to the Centers for Medicare & Medicaid Services’ (CMS) Comprehensive Error Rate Testing (CERT) program. In fact, from 2010 to 2014, the improper payment rate for chiropractic services increased from 43.9 to 54.1 percent.

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\(^8\) OIG, *Diep Chiropractic Wellness, Inc., Received Unallowable Medicare Payments for Chiropractic Services*, A-09-12-02072, November 2013.

\(^9\) Upcoding is the practice of billing for a service that is more expensive than the service that was actually provided.


while the overall improper payment rate for Part B services remained between 9.9 and 12.9 percent (see Table 1).

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount of Projected Improper Payments for Chiropractic Services</th>
<th>Rate of Improper Payments for Chiropractic Services</th>
<th>Rate of Improper Payments for All Part B Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$256,897,088</td>
<td>43.9%</td>
<td>12.9%</td>
</tr>
<tr>
<td>2011</td>
<td>$263,038,123</td>
<td>44.1%</td>
<td>10.5%</td>
</tr>
<tr>
<td>2012</td>
<td>$277,795,837</td>
<td>47.4%</td>
<td>9.9%</td>
</tr>
<tr>
<td>2013</td>
<td>$273,488,430</td>
<td>51.7%</td>
<td>10.5%</td>
</tr>
<tr>
<td>2014</td>
<td>$303,816,558</td>
<td>54.1%</td>
<td>12.1%</td>
</tr>
</tbody>
</table>

Source: CMS, Supplementary Appendices for the Medicare Fee-for-Service Improper Payments Reports for 2010–2014.

The CERT program estimates payments that did not meet Medicare coverage, coding, and billing rules. CMS determines the improper payment rate by reviewing a sample of medical records. The five major error categories are: no documentation, insufficient documentation, lack of medical necessity, incorrect coding, and other (i.e., errors that do not fit into the other categories). For chiropractic services, the improper payment rate has increasingly resulted from insufficient documentation.

**Medicare Coverage Requirements for Chiropractic Services**

*Diagnosis codes for chiropractic services.* Medicare requires that chiropractic claims have a primary diagnosis of “subluxation” for payment, but there is no diagnosis code that contains the word “subluxation.” CMS has instructed chiropractors to use the diagnosis codes that indicate nonallopathic lesions of the spine. Medicare Administrative Contractors (MACs) also issue local coverage determinations that define the appropriate diagnosis codes for chiropractic claims billed in their jurisdictions. Claims for chiropractic services must contain the required diagnosis codes.

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13 CMS, Supplementary Appendices for the Medicare Fee-for-Service Improper Payments Reports for 2010–2014. The improper payment rates attributed to insufficient documentation by year are as follows: 2010, 39.5%; 2011, 72.9%; 2012, 76.2%; 2013, 92.5%; 2014, 92.2%.
Procedure codes for chiropractic services. Chiropractors use Current Procedural Terminology (CPT) codes to bill Medicare Part B.¹⁵ Medicare pays only for the three CPT codes for chiropractic manipulative treatment of the spine.¹⁶ These codes indicate the number of spinal regions treated. (See Table 2 for CPT codes and Figure 1 for spinal regions.)

Table 2: CPT Codes for Chiropractic Services Covered by Medicare and Figure 1: Regions of the Spine for Chiropractic Treatment

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>98940</td>
<td>Treatment of one to two spinal regions</td>
</tr>
<tr>
<td>98941</td>
<td>Treatment of three to four spinal regions</td>
</tr>
<tr>
<td>98942</td>
<td>Treatment of five spinal regions</td>
</tr>
</tbody>
</table>

Source for Figure 1: Spinal Column with Vertebrae, accessed at http://nphonsskeletal4.wikispaces.com/Axial+Skeleton on February 17, 2015. This work is licensed under a Creative Commons Attribution-ShareAlike 3.0 Unported License. Modifications were made to the colors and labels from the original.

Active Treatment Modifier. CMS requires that chiropractors use the Active Treatment (AT) modifier on a claim when providing a chiropractic service that is active/corrective therapy and not maintenance therapy, which Medicare does not cover.¹⁷ However, CMS acknowledges that “the

¹⁵ The five character codes and descriptions included in this report are obtained from Current Procedural Terminology (CPT®), copyright 2012 by the American Medical Association (AMA). CPT is developed by the AMA as a listing of descriptive terms and five character identifying codes and modifiers for reporting medical services and procedures. Any use of CPT outside of this report should refer to the most current version of the Current Procedural Terminology available from AMA. Applicable FARS/DFARS apply.

¹⁶ CMS, Medicare Benefit Policy Manual Transmittal 23, Revised Requirements for Chiropractic Billing of Active/Corrective Treatment and Maintenance Therapy (Change Request 3449, Oct. 8, 2004); CMS, MLN Matters No. MM3449 (Oct. 8, 2004).

¹⁷ CMS, Medicare Benefit Policy Manual, ch. 15, § 240.1.3.
presence of the AT modifier may not in all instances indicate that the service is reasonable and necessary.”

**Limits on covered services.** CMS does not limit the number of chiropractic services that a beneficiary may receive over a given time period. However, some MACs have issued local coverage determinations that limit the number of chiropractic services per beneficiary per year or that require medical review for services that exceed a certain threshold.

**METHODOLOGY**

This study is national in scope and is based primarily on paid Medicare claims for chiropractic services provided in 2013. See Appendix A for a full discussion of our methodology.

**Questionable Chiropractic Payments**

We developed four measures to identify paid claims that were questionable. We based these measures on previous OIG reports and fraud investigations, interviews with experts in chiropractic practice and fraud detection, and our own analysis. These four measures are summarized below:

*Treatment Suggestive of Maintenance Therapy.* A high average number of claims per beneficiary per chiropractor suggests billing for services that were not active treatment. Previous OIG work has found that as more services are provided to a beneficiary, it becomes more likely that services are medically unnecessary or maintenance treatment.

*Potentially Upcoded Claims.* A high average “physician work relative value unit” for a chiropractor’s claims suggests billing for services at a higher level than warranted. Only about 10 percent of all paid chiropractic services are for the highest CPT code, 98942. Previous OIG work found that almost half of chiropractic services with CPT code 98942 were upcoded.

*Potential Sharing of Beneficiaries.* A high average percentage of a chiropractor’s beneficiaries who received services from other chiropractors suggests the misuse of beneficiary identification numbers. OIG investigations and interviews with experts informed us that

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19 Medicare assigns each CPT code a “physician relative value unit” to establish the level of time, skill, and training to provide the service. A higher relative value unit takes more time and/or skill to provide the service and results in a higher payment.
chiropractors with a high percentage of beneficiaries receiving treatments from other chiropractors may be involved with fraud schemes, such as medical identity theft or kickback arrangements.

**Unlikely Number of Services per Day.** A high number of hours of services provided by a chiropractor on 1 day suggests billing for services of diminished quality and/or for services that were not rendered.

We calculated these measures for each chiropractor and analyzed the distribution of chiropractors for each measure. For the first three measures, we used a statistical technique called the Tukey method to identify chiropractors who were outliers compared to other chiropractors. For these three measures, we considered a chiropractor’s payments to be unusually high, or questionable, if they were greater than the 75th percentile plus 1.5 times the interquartile range. For the fourth measure, we established a threshold of 16 hours per day based on our knowledge, experience, and discussions with experts.

**Inappropriate Chiropractic Payments**

We developed three measures to identify paid claims that did not meet Medicare requirements for payment. These three measures are summarized below:

- **Claims Lacking a Covered Primary Diagnosis.** These claims lacked a primary diagnosis code that was covered by Medicare based on CMS’s guidance and the local coverage determination where the chiropractic service was provided.

- **Claims for Duplicate Services.** These claims were for services provided on the same day for the same beneficiary with the same diagnosis and procedure codes and the same chiropractor.

- **Claims Lacking the AT Modifier.** These claims lacked the AT modifier, which indicates active treatment and is required for payment.

**Chiropractors with High Questionable Payments**

After calculating the total amount of questionable payments paid to each chiropractor, we identified chiropractors who received high amounts of questionable payments. For these chiropractors, we determined their locations, past questionable payments, and the extent to which their beneficiaries received physical and occupational therapy services on the

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21 This is a standard exploratory method for identifying members of a population with unusually high values on a given statistic compared to the rest of the population when no established benchmarks exist. See J.W. Tukey, *Exploratory Data Analysis*, Addison-Wesley, 1977. The interquartile range is the value at the 75th percentile minus the value at the 25th percentile.
same day. We identified their locations using the ZIP Codes on their claims. We identified past questionable payments by analyzing chiropractic claims data from 2009–2012 using our measures of questionable payment. Finally, we analyzed Part B claims data for physical and occupational therapy services to determine the extent to which the beneficiaries of chiropractors with high questionable payments received physical and occupational therapy services on the same day as chiropractic services.

Limitations
We did not conduct a medical record review to determine whether chiropractic services were medically necessary or had been coded correctly. The measures included in our analysis are not intended to be a comprehensive set of characteristics for identifying chiropractors with questionable and inappropriate payments. Moreover, the four measures that identify questionable payments used in this study do not provide conclusive evidence of improper or fraudulent payments. Rather, the measures are intended to identify Medicare payments to chiropractors that exceed those of other chiropractors in ways that raise program integrity concerns. Further investigation would be required to determine whether these chiropractors were paid for improper or fraudulent Medicare claims for chiropractic services.

Standards
This study was conducted in accordance with the Quality Standards for Inspection and Evaluation issued by the Council of the Inspectors General on Integrity and Efficiency.
FINDINGS

In 2013, $76 million of the Medicare payments for chiropractic services were questionable

Of the $502 million that Medicare paid in 2013 for chiropractic services, $76.1 million was for claims that were questionable based on our four measures of questionable payment. Payments for these claims represent 15 percent of the Medicare payments for chiropractic services in 2013.

**Treatment suggestive of maintenance therapy was the driver of questionable payments**

In total, 16 percent of chiropractors (7,191) paid by Medicare in 2013 received questionable payments for chiropractic services. Almost half of these payments were for claims suggestive of maintenance therapy, which we identified through high average numbers of claims per beneficiary per chiropractor. Medicare does not cover maintenance therapy. Table 3 provides detail on our measures that identified questionable payments.

<table>
<thead>
<tr>
<th>Measure of Questionable Payment</th>
<th>Paid Amount for Measure*</th>
<th>Percentage of Total Paid Amount</th>
<th>Number of Chiropractors*</th>
<th>Percentage of Chiropractors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Suggestive of Maintenance Therapy</td>
<td>$33,956,039</td>
<td>6.8%</td>
<td>1,787</td>
<td>3.9%</td>
</tr>
<tr>
<td>Potential Sharing of Beneficiaries</td>
<td>$25,724,446</td>
<td>5.1%</td>
<td>4,216</td>
<td>9.3%</td>
</tr>
<tr>
<td>Potentially Upcoded Claims</td>
<td>$21,291,936</td>
<td>4.2%</td>
<td>1,450</td>
<td>3.2%</td>
</tr>
<tr>
<td>Unlikely Number of Services per Day</td>
<td>$768,964</td>
<td>0.2%</td>
<td>16</td>
<td>0.04%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$76,104,699</strong></td>
<td><strong>15.1%</strong></td>
<td><strong>7,191</strong></td>
<td><strong>15.8%</strong></td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.

* Because some claims exceeded the threshold for more than one measure of questionable payment, the columns do not sum to the totals.

The 1,787 chiropractors (4 percent) who had questionable payments for claims suggestive of maintenance therapy provided an average of 25 services per beneficiary during 2013. In contrast, all other chiropractors provided an average of 8 services per beneficiary during 2013. Although we are unable to determine when a beneficiary’s course of treatment began, the volume of services that these chiropractors provided to their beneficiaries suggests that the treatment was maintenance.22 Table 4 shows noteworthy examples of chiropractors with questionable payments for treatment suggestive of maintenance therapy.

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22 According to the *Medicare Claims Processing Manual*, Pub. No. 100-04, ch.12, § 220(D), Medicare requires that chiropractors report the date of initiation of treatment on their claims. However, this information is not contained in CMS’s National Claims History file and was thus unavailable for our use.

Table 4: Examples of Chiropractors with Questionable Payments for Treatment Suggestive of Maintenance Therapy

<table>
<thead>
<tr>
<th>Location</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>Ninety-nine percent of a chiropractor’s payments were for claims suggestive of maintenance therapy. Several beneficiaries of this chiropractor each had more than 250 visits in 2013.</td>
</tr>
<tr>
<td>Missouri</td>
<td>All but one of the beneficiaries seen by a chiropractor in 2013 each had more than 20 visits. These beneficiaries had an average of 172 visits with this chiropractor.</td>
</tr>
<tr>
<td>New York</td>
<td>Medicare paid a chiropractor over $205,000 for about 200 beneficiaries who had treatments suggestive of maintenance therapy in 2013.</td>
</tr>
<tr>
<td>Michigan</td>
<td>Almost two-thirds of a chiropractor’s beneficiaries had treatment suggestive of maintenance therapy in 2013 (on average, around 50 visits per beneficiary).</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.

Lastly, the use of the AT modifier to ensure that payments are made only for active treatment is not effective. Every claim that we identified as being suggestive of maintenance therapy included the AT modifier, raising questions about its effectiveness as a control to ensure that Medicare pays only for active treatment. Prior OIG work found that CMS’s requirement to use the AT modifier to indicate active treatment merely resulted in an increase in the use of the AT modifier, rather than in reduced payments for maintenance therapy. Moreover, in 2013, 96 percent of all claims for chiropractic services that were submitted to Medicare included the AT modifier.

About $47 million in questionable payments was related to potential beneficiary sharing, upcoding, and unlikely number of services per day

Potential sharing of beneficiaries. In 2013, Medicare paid $25.7 million to chiropractors who shared 52.5 percent or more of the beneficiaries they treated with other chiropractors. These 4,216 chiropractors represent 9 percent of the chiropractors paid by Medicare in 2013. In contrast, chiropractors who did not have questionable payments for beneficiary sharing had an average of 14 percent of their beneficiaries who received services from other chiropractors. It is possible that beneficiaries chose to receive services from multiple chiropractors. However, when high percentages of beneficiaries receive services from multiple chiropractors,

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24 This percentage includes all claims for chiropractic services performed in 2013 that were submitted to Medicare for payment, including those that were denied.
this has implications for the continuity of the beneficiaries’ care. High percentages of beneficiaries who are shared among chiropractors also may be related to fraud schemes, such as medical identity theft or kickback arrangements.

**Potentially upcoded claims.** Medicare paid $21.3 million to chiropractors whose payments had high average physician work relative value units (RVUs), which reflect the relative time and skill associated with furnishing services under the Medicare Physician Fee Schedule. By analyzing the work RVUs, we identified 1,450 chiropractors, or 3 percent, as outliers who were paid for chiropractic services at higher-levels than other chiropractors were. Of these chiropractors, more than half had all of their Medicare payments for the highest level chiropractic CPT code—98942—which is an adjustment of all five regions of the spine. In contrast, only a fifth of chiropractors paid by Medicare in 2013 were paid for this CPT code, and just 10 percent of the Medicare payments for chiropractic services were for this code. Although some chiropractors may specialize in complex conditions, previous OIG work found that almost half of the claims for chiropractic services with CPT code 98942 were upcoded.

**Unlikely number of services per day.** Medicare paid $768,964 to 16 chiropractors for days on which their paid chiropractic services totaled 16 hours or more. However, 81 percent of the payments for this measure went to two chiropractors (see Table 5). This raises questions regarding the quality of patient care and, perhaps, whether these services were even rendered by the chiropractor.

### Table 5: Chiropractors Who Received 81 Percent of the Payments for Days With 16 Hours or More of Chiropractic Services

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>Medicare paid a chiropractor for claims totaling 16 hours or more on 140 days of 2013, during which this chiropractor billed for providing an average of 65 chiropractic services per day. Solely for these dates, Medicare paid this chiropractor $322,887.</td>
</tr>
<tr>
<td>Illinois</td>
<td>Medicare paid a chiropractor $302,729 for 115 days of providing 16 hours or more of chiropractic services. On these dates, this chiropractor was paid for an average of 88 chiropractic services per day.</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.

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Two percent of chiropractors were responsible for half of the questionable payments

In 2013, 962 of the 45,490 chiropractors paid by Medicare received $38 million of the $76 million in questionable payments (see Figure 2). These 962 chiropractors (hereinafter, chiropractors with high questionable payments) received 9 percent ($43.6 million) of all Medicare payments for chiropractic services in 2013. We identified 87 percent of their payments as questionable.

Chiropractors with high questionable payments provided more services to more beneficiaries compared to all other chiropractors

On average, chiropractors with high questionable payments provided chiropractic services to twice the number of beneficiaries compared to all other chiropractors (see Table 6). In addition, the chiropractors with high questionable payments had about 4 times the number of paid chiropractic claims compared to all other chiropractors. Accordingly, the Medicare payments to chiropractors with high questionable payments were also 4 times higher than payments to other chiropractors.
Table 6: Payments to Chiropractors with High Questionable Payments Compared to All Other Chiropractors

<table>
<thead>
<tr>
<th></th>
<th>Chiropractors with High Questionable Payments (N=962)</th>
<th>All Other Chiropractors (N=44,528)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average paid amount per chiropractor</td>
<td>$45,313</td>
<td>$10,303</td>
</tr>
<tr>
<td>Average number of paid claims per chiropractor</td>
<td>1,604</td>
<td>407</td>
</tr>
<tr>
<td>Average number of beneficiaries per chiropractor with paid services</td>
<td>101</td>
<td>47</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.

Half of these chiropractors’ questionable payments were for treatments suggestive of maintenance therapy

In addition to being high-volume providers, chiropractors with high questionable payments had more payments for claims suggestive of maintenance therapy. For the chiropractors with high questionable payments, 53 percent of their claims were suggestive of maintenance therapy. In contrast, just 3 percent of the claims for all other chiropractors paid by Medicare in 2013 were suggestive of maintenance therapy.

Over a quarter of these chiropractors’ claims were for the highest intensity chiropractic service

Medicare paid the chiropractors with high questionable payments substantially more for treatments to five regions of the spine, CPT code 98942. Twenty-eight percent of paid services provided by chiropractors with high questionable payments were for 98942. In contrast, only 5 percent of paid services provided by all other chiropractors were for this CPT code. Finally, 30 percent of the chiropractors with high questionable payments received 95 percent or more of their Medicare payments for CPT code 98942, yet just 3 percent of all other chiropractors received 95 percent or more of their Medicare payments for this code.

Many chiropractors with high questionable payments shared certain characteristics

Chiropractors with high questionable payments were located in certain States as well as in high-fraud areas

Fifty-nine percent of the chiropractors with high questionable payments were concentrated in seven States: California, Michigan, Illinois, New York, Kansas, Florida, and New Jersey. Each of these States had more than 50 chiropractors with high questionable payments. In total, these chiropractors received about a third ($23.8 million) of all
questionable payments in 2013. The remaining 41 percent of chiropractors with high questionable payments were located in 38 other States.

In addition, most of the counties that had 10 or more chiropractors with high questionable payments are located in Medicare Fraud Strike Force (Strike Force) areas (see Table 7). The Strike Force operates in locations considered to be “hot spots” for Medicare fraud and targets suspicious billing patterns as well as emerging schemes that migrate from one community to another.\(^{27,28}\) The chiropractors in the 11 Strike Force counties included in Table 7 represented nearly one quarter of the chiropractors with high questionable payments, and they collectively received $9.5 million in questionable payments.

### Table 7: Counties with 10 or more Chiropractors With High Questionable Payments, Ordered by Payment Total

<table>
<thead>
<tr>
<th>County and State</th>
<th>Number of Chiropractors with High Questionable Payments</th>
<th>Questionable Payments to Chiropractors with High Questionable Payments</th>
<th>Percent of Questionable Payments to Chiropractors with High Questionable Payments</th>
<th>Strike Force Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queens County, New York</td>
<td>20</td>
<td>$1,571,702</td>
<td>4.1%</td>
<td>✓</td>
</tr>
<tr>
<td>Los Angeles County, California</td>
<td>24</td>
<td>$1,380,929</td>
<td>3.6%</td>
<td>✓</td>
</tr>
<tr>
<td>Cook County, Illinois</td>
<td>29</td>
<td>$1,377,090</td>
<td>3.6%</td>
<td>✓</td>
</tr>
<tr>
<td>Kings County, New York</td>
<td>15</td>
<td>$992,092</td>
<td>2.6%</td>
<td>✓</td>
</tr>
<tr>
<td>Wayne County, Michigan</td>
<td>26</td>
<td>$892,619</td>
<td>2.3%</td>
<td>✓</td>
</tr>
<tr>
<td>Maricopa County, Arizona</td>
<td>21</td>
<td>$726,743</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>Orange County, California</td>
<td>18</td>
<td>$710,418</td>
<td>1.9%</td>
<td>✓</td>
</tr>
<tr>
<td>Oakland County, Michigan</td>
<td>20</td>
<td>$596,077</td>
<td>1.6%</td>
<td>✓</td>
</tr>
<tr>
<td>Macomb County, Michigan</td>
<td>19</td>
<td>$577,878</td>
<td>1.5%</td>
<td>✓</td>
</tr>
<tr>
<td>Suffolk County, New York</td>
<td>15</td>
<td>$566,548</td>
<td>1.5%</td>
<td>✓</td>
</tr>
<tr>
<td>San Diego County, California</td>
<td>10</td>
<td>$502,971</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>Sedgwick County, Kansas</td>
<td>12</td>
<td>$478,794</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>Du Page County, Illinois</td>
<td>11</td>
<td>$444,362</td>
<td>1.2%</td>
<td>✓</td>
</tr>
<tr>
<td>Nassau County, New York</td>
<td>14</td>
<td>$370,266</td>
<td>1.0%</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.

\(^{27}\) As of August 2015, the Medicare Fraud Strike Force was operating in Brooklyn, Chicago, Dallas, Detroit, Los Angeles, Miami, southern Louisiana, southern Texas, and Tampa. Also see [http://www.hhs.gov/news/press/2014pres/02/20140226a.html](http://www.hhs.gov/news/press/2014pres/02/20140226a.html).

\(^{28}\) Department of Health and Human Services and Department of Justice, *Health Care Fraud and Abuse Control Program Annual Report for Fiscal Year 2014*. 
Beneficiaries of chiropractors with high questionable payments were more likely to have paid claims for physical and occupational therapy on the same day, especially in high-fraud areas

Thirteen percent of beneficiaries who had a paid claim for a service from a chiropractor with high questionable payments also had one or more paid claims for physical/occupational therapy (hereinafter, therapy services) on the same day. In contrast, only 4 percent of beneficiaries who had services from other chiropractors had therapy services on the same day. Moreover, beneficiaries with paid claims from a chiropractor with high questionable payments had an average of three times the dollar amount of therapy services on the same day than the other beneficiaries (see Table 8).

Table 8: Physical and Occupational Therapy Services That Were Provided on the Same Day as Chiropractic Services

<table>
<thead>
<tr>
<th>Beneficiaries with Same-Day Chiropractic and Therapy Services</th>
<th>Total Paid Amount for Therapy Services</th>
<th>Average Payment per Beneficiary for Therapy Services</th>
<th>Average Number of Therapy Claims per Beneficiary</th>
<th>Average Payment per Therapist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficiaries with paid claims from chiropractors with high questionable payments</td>
<td>$10,618,801</td>
<td>$982</td>
<td>34</td>
<td>$4,680</td>
</tr>
<tr>
<td>Beneficiaries with no paid claims from chiropractors with high questionable payments</td>
<td>$22,177,479</td>
<td>$320</td>
<td>11</td>
<td>$930</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for physical and occupational services paid for by Medicare.

Although it is plausible that some beneficiaries had same-day therapy independent of the chiropractic services, the concentration of providers of both types of services—as well as their locations and amount of therapy services provided—suggests otherwise. Sixty percent of chiropractors with high questionable payments had two or more beneficiaries who received same-day therapy services. In contrast, just 24 percent of chiropractors without high questionable payments had two or more beneficiaries who received same-day therapy services. In addition, the payments to therapists appear to be concentrated in amount and location. The average payment to therapists for beneficiaries who received same-day services from chiropractors with high questionable payments was five times higher than the average payment to therapists for other beneficiaries. Moreover, 90 percent of the $10.6 million in payments for same-day therapy services was paid to therapists in Strike Force areas, and Medicare paid just over half of this amount to only 16 therapists.
Most chiropractors with high questionable payments in 2013 also had questionable payments in a prior year

The chiropractors with high questionable payments also received a total of nearly $100 million in questionable payments from 2009–2012 (see Figure 3). In addition, almost half of the chiropractors with high questionable payments in 2013 had at least one questionable payment in each year between 2009 and 2012, thus demonstrating that these chiropractors had a consistent pattern of questionable payments over a 5-year span.

FIGURE 3: Percentage of Chiropractors With High Questionable Payments in 2013 (N=962) Who Had Questionable Payments in 2009–2012

In 2013, Medicare inappropriately paid $21 million for chiropractic services lacking a covered primary diagnosis

Thirty-nine percent of chiropractors received a total of $20.7 million for claims that lacked a covered primary diagnosis code (see Table 9).²⁹ We used CMS’s guidance and MACs’ local coverage determinations to identify claims that lacked a primary diagnosis covered by Medicare. All

²⁹ Some of these inappropriate claims (126,873 claims totaling $3.6 million) were also identified as questionable payments for other reasons, based on our four measures. See Table B4 in Appendix B for a detailed breakdown of questionable and inappropriate chiropractic claims in 2013.
MACs but one have local coverage determinations that align with CMS’s guidance. That one MAC has a local coverage determination allowing coverage of chiropractic services for 209 primary diagnoses, but it does not include the diagnosis codes for nonallopathic lesions. As a result, we did not count the payments for claims with these 209 primary diagnoses in this MAC’s jurisdiction as inappropriate.30

The other two measures of inappropriate payment that we analyzed—claims for duplicate services and claims lacking the AT modifier—identified only about a thousand claims that totaled $27,259.

Table 9: Chiropractors and Paid Amount by Measure of Inappropriate Payment in 2013*

<table>
<thead>
<tr>
<th>Measure of Inappropriate Payment</th>
<th>Number of Chiropractors</th>
<th>Percentage of Chiropractors</th>
<th>Paid Amount</th>
<th>Percentage of Paid Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims lacking a covered primary diagnosis</td>
<td>17,640</td>
<td>38.8%</td>
<td>$20,709,516</td>
<td>4.1%</td>
</tr>
<tr>
<td>Claims for duplicate services</td>
<td>225</td>
<td>Less than 1%</td>
<td>$25,680</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Claims lacking the AT modifier</td>
<td>30</td>
<td>Less than 1%</td>
<td>$1,579</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Total</td>
<td>17,751</td>
<td>39.0%</td>
<td>$20,735,315</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.  
* Because some claims exceeded the threshold for more than one measure of inappropriate payment, the columns do not sum to the totals.

30 CMS, Local Coverage Determinations L29099 and L29114 for Chiropractic Services.
CONCLUSION AND RECOMMENDATIONS

Previous OIG work and the CERT identified questionable and inappropriate payments for chiropractic services as a longstanding concern. In this study, we used four measures to identify Medicare payments to chiropractors with billing characteristics that raise program integrity concerns, as well as payments for claims that did not meet certain Medicare rules for payment. We found that in 2013, nearly 20 percent of the payments for chiropractic services were questionable or inappropriate, based on these measures and selected requirements.

Especially concerning is that just 2 percent of chiropractors paid by Medicare in 2013 received half of the questionable payments. Many of these 962 chiropractors had a history of receiving questionable payments in prior years and/or were located in high-fraud areas. Although this study did not determine whether the questionable payments we identified for chiropractic services were fraudulent or improper, the concentration of payments to these 962 chiropractors suggests that further scrutiny of them and their payments is warranted.

In addition, over half of the questionable payments we identified were for treatment suggestive of maintenance therapy, and almost all of the inappropriate payments that we identified were for claims lacking a covered primary diagnosis. CMS instituted the AT modifier as a control to prevent Medicare from paying for maintenance therapy. However, the evidence in this study, as well as previous OIG work, shows that the AT modifier is not an effective safeguard. In addition, the payments for services with primary diagnoses other than subluxation indicate that Medicare paid for chiropractic services that did not meet coverage requirements.

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), which became law in April 2015, contains provisions for oversight of Medicare chiropractic services, including requiring preauthorization for services provided by chiropractors with aberrant billing or high rates of denial.31 Through targeted tactics that align with or complement these new provisions, CMS can address the vulnerabilities that we identify in this study.

We recommend that CMS:

**Establish a more reliable control for identifying active treatment**
Given that half of the questionable payments that we identified in 2013 were for treatment suggestive of maintenance therapy, CMS should devise a more reliable method for detecting it. As a first step, CMS could examine the date of initiation of treatment for a particular diagnosis reported on a chiropractic claim. Doing so would enable CMS to determine the length of a beneficiary’s chiropractic treatment and identify treatments likely to be maintenance therapy. CMS could also consider including this information in the National Claims History file so that it is available to Medicare contractors for pre- and post-payment review.

**Develop and use measures to identify questionable payments for chiropractic services**
CMS could use these measures in a variety of ways. For example, it could use measures as part of its Fraud Prevention System to identify chiropractors for investigatory followup. It also could use measures to help its contractors identify and review potentially upcoded claims. In addition, it could use measures to identify and examine same-day services (such as therapy services) provided to beneficiaries, especially in high-fraud areas. Lastly, it could use measures to identify chiropractors who warrant pre- or post-payment review of services as called for in MACRA.

**Take appropriate action on the chiropractors with questionable payments**
We identified 7,191 chiropractors with questionably paid claims, 962 of whom received half of the questionable payments. In a separate memorandum, we will provide CMS with information on chiropractors with high questionable payments, so that it may take action. CMS and/or its contractors should review their claims and take appropriate action. Such actions could include: (1) recouping inappropriate payments; (2) educating providers on proper billing; (3) making referrals to law enforcement; (4) imposing payment suspensions; (5) revoking billing privileges; or (6) taking no action, if the payment is determined to be appropriate.

**Collect overpayments based on inappropriately paid claims**
CMS should collect the $20.7 million in payments that resulted from the inappropriate claims we identified. In a separate memorandum, we will refer these claims to CMS for collection.
Ensure that claims are paid only for Medicare-covered diagnoses

Although Medicare requires a diagnosis of subluxation of the spine, no diagnosis code exists with that description. CMS should work with MACs to ensure that claims are paid for diagnosis codes that meet current and future Medicare coverage requirements. This would be a timely action to take, given that new diagnosis codes for subluxation will be used when ICD-10 is implemented in October 2015. In addition, CMS should assess whether the diagnosis codes that its MACs use in their local coverage determinations are consistent with national Medicare coverage policy.

32 The ICD (International Classification of Diseases) is an international diagnostic tool that provides a system of diagnostic codes.
CMS did not concur with our first recommendation and concurred with our other four recommendations.

CMS did not concur with our recommendation to establish a more reliable control for identifying active treatment, citing significant obstacles to doing so. CMS stated that it will implement prior authorization medical review required by MACRA, which it believes will help address the concerns we identified. However, we are uncertain that this adequately addresses our concerns with payments for maintenance therapy. The medical review under MACRA targets a narrow group of chiropractors with aberrant billing or high rates of claim denial, who are not necessarily chiropractors receiving payments for maintenance therapy.

CMS concurred with our recommendation to develop and use measures to identify questionable payments for chiropractic services. CMS stated that it will reexamine its models for identifying chiropractic fraud, waste, and abuse and that it will look for opportunities to improve or extend these models.

CMS concurred with our recommendation to take appropriate action on the chiropractors with questionable payments. CMS stated that it will consider chiropractors we identified when it develops postpayment review under MACRA. However, postpayment review will apply to chiropractic services provided on or after January 1, 2017. CMS’s approach may delay appropriate action on chiropractors we identified as having high questionable payments, many of whom were paid millions of dollars for questionable claims for several years. In the near term, we urge CMS to consider the approaches that we suggest in our recommendation and determine the appropriate course of action.

CMS concurred with our recommendation to collect overpayments for inappropriately paid claims. CMS stated that it will analyze the claims we provide, determine which to review more closely, and take appropriate action as needed. We are forwarding to CMS by separate memorandum the claims that we have already identified as not meeting Medicare’s coverage requirements to facilitate overpayment recovery.

CMS concurred with our recommendation to ensure that claims are paid only for Medicare-covered diagnoses. CMS stated it will work with the MACs to ensure that claims are paid only for the diagnosis codes that meet Medicare coverage requirements.
We ask that CMS provide details on its efforts to address our recommendations in its final management decision. For the full text of CMS’s comments, see Appendix C.
APPENDIX A

Detailed Methodology

Data Collection and Analysis

This study is primarily based on our analysis of national Medicare Part B claims for chiropractic services from 2013. To create our data set of chiropractic claims, we identified all claims from CMS’s National Claims History Carrier File for chiropractic services (CPT codes 98940, 98941, and 98942) rendered in 2013 with a paid amount greater than $0.33. This resulted in 19,671,262 claims for which 45,490 providers received payment. Although providers other than chiropractors are able to bill and be paid for chiropractic services, over 99 percent of paid claims in 2013 for chiropractic services were furnished by chiropractors. For this reason, we collectively refer to providers of chiropractic services as chiropractors in this report.

Identification of Inappropriately Paid Claims

We define inappropriately paid claims as those that did not meet the Medicare requirements for payment. We developed three measures of inappropriate payment and analyzed the data set of all paid claims to determine the extent to which Medicare inappropriately paid claims based on the following criteria.

The three measures of inappropriate payment are as follows:

1. **Claims lacking a covered primary diagnosis.** Medicare requires a primary diagnosis of subluxation on claims for chiropractic services. Although no diagnosis code exists that contains the word subluxation, CMS has instructed chiropractors to use ICD-9 codes in the 739 series, which indicate nonallopathic lesions of the spine. CMS, Medicare Learning Network, *Chiropractic Services*, ICN 906143 October 2013.

   All but one of the MACs’ local coverage determinations for chiropractic services require a diagnosis code in the 739 series as the primary diagnosis. The local coverage determination for the remaining MAC, which handles claims for services provided in Florida, Puerto Rico, and the Virgin Islands, lists 209 diagnosis codes that can be used for the primary diagnosis on chiropractic claims but does not list the diagnosis codes in the 739 series among these. CMS, Local Coverage Determinations L29099 and L29114 for chiropractic services.
Thus, for chiropractic services provided in all States, we counted any claim with a primary diagnosis code in the 739 series as appropriate because those claims were in accordance with CMS’s instructions to chiropractors. For chiropractic services provided in Florida, Puerto Rico, and the Virgin Islands, we also counted any claim with a primary diagnosis code listed in the local coverage determination as appropriate.

2. **Duplicate services.** These are paid claims for chiropractic treatments provided on the same day for the same beneficiary with the same diagnosis and procedure codes and the same chiropractor. In any instance where there were two or more claims with this same information, we counted all of the duplicate claims as inappropriate.

3. **Claims lacking the AT modifier.** CMS requires that chiropractic claims include the AT modifier, which indicates active treatment and is required for payment. We counted any paid claim that lacked this modifier as inappropriate.

### Identification of Questionably Paid Claims

**Population** – For our analysis of questionably paid claims, we used the aforementioned data set of claims for chiropractic services with some exclusions.

- Claims for services submitted by beneficiaries that lacked the provider’s National Provider Identifier (NPI) or contained an NPI that lacked the proper number of digits.
- Claims from chiropractors that had fewer than 10 paid claims or paid claims for just 1 beneficiary.

Based on these two criteria, we excluded 4.8 percent of chiropractors and 0.1 percent of both claims and the paid amount for our questionable payment analyses. Table A1 provides the totals before and after the exclusions.

| Table A1: Totals for Chiropractors, Claims, and Paid Amount Excluded from Questionable Payment Analysis |
|-------------------------------------------------|-------------------------------------------------|--------------------------|
| Data Set                                        | Chiropractor NPIs | Claims  | Paid Amount   |
| Before exclusions                               | 45,490            | 19,671,262 | $502,356,538 |
| Exclusions made                                 | 2,206             | 20,093    | $495,380     |
| Totals after exclusions                         | 43,284            | 19,651,169 | $501,861,158 |

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid for by Medicare.

**Measures of questionable payment** - We developed four measures of questionable payment based on previous OIG reports, fraud investigations of chiropractic services, interviews with experts in chiropractic practice and fraud detection, and our own analysis. For the first, second, and third measures we used a statistical technique called the Tukey method to identify chiropractors who were outliers on these measures compared to other chiropractors. For these measures, we considered a chiropractor’s payments to be unusually high, or questionable, if the payments were greater than the 75th percentile plus 1.5 times the interquartile range. For the fourth measure, we used our knowledge and experience to establish a threshold to identify chiropractors with questionable payments.

The four questionable payment measures are as follows:

1. **Treatment suggestive of maintenance therapy.** A high average number of claims per beneficiary per chiropractor suggests the services provided were for active treatment. To calculate this measure, for each chiropractor we determined the average number of paid claims per beneficiary. Using the Tukey method, we determined that 20 services per beneficiary was the threshold for this measure. We identified as an outlier any chiropractor whose average number of paid claims per beneficiary exceeded the threshold. For these chiropractors, we identified their beneficiaries who had treatments in excess of the threshold and considered all claims associated with these beneficiaries to be questionable. Although a beneficiary could legitimately receive a high number of chiropractic services in a year (e.g., because of different diagnoses), this measure identifies chiropractors who provide a high average number of services across all their beneficiaries.

2. **Potential sharing of beneficiaries.** A high percentage of a chiropractor’s beneficiaries who received services from another chiropractor suggests misuse of beneficiary identification numbers. To calculate this measure, for each chiropractor we determined the percentage of her/his beneficiaries who had paid services from two or more chiropractors. Using the Tukey method, we identified the threshold as 52.5 percent of a chiropractor’s beneficiaries who received services from another chiropractor.

36 This is a standard exploratory method for identifying members of a population with unusually high values on a given statistic compared to the rest of the population when no established benchmarks exist. See J.W. Tukey, *Exploratory Data Analysis*, Addison-Wesley, 1977. The interquartile range is the value at the 75th percentile minus the value at the 25th percentile.
chiropractor. For chiropractors whose percentage exceeded the threshold, we considered all of their payments for the beneficiaries seen by other chiropractors to be questionable.

3. **Potentially upcoded claims.** A high average level of services for a chiropractor’s claims suggests billing for services at a higher level than warranted. To calculate this measure, we first used CMS’s 2013 National Physician Fee Schedule Relative Value File to identify the work relative value units (RVUs) for each of the three chiropractic CPT codes covered by Medicare. Based on this file, we counted CPT code 98940 as 0.45 work RVUs, CPT code 98941 as 0.65 work RVUs, and CPT code 98942 as 0.87 work RVUs. We then calculated the average work RVUs for each chiropractor’s claims. Using the Tukey method, we determined that 0.85 was the threshold for this measure. For the chiropractors that had average work RVUs greater than the threshold, we considered all of their claims for CPT code 98942 to be questionable.

4. **Unlikely number of services per day.** A high number of hours of services provided on 1 day by a chiropractor suggests billing for services of diminished quality and for services that were not rendered. To calculate this measure, we first determined the length of time for chiropractic services based on the total time for each CPT code in CMS’s 2013 Time File from the Physician Fee Schedule. Based on this file, we counted CPT code 98940 as 12 minutes, CPT code 98941 as 17 minutes, and CPT code 98942 as 21 minutes. We then calculated the number of hours per day for each chiropractor’s paid services. We established 16 hours as the threshold for this measure. We considered all of a chiropractor’s claims on any day that met or exceeded the threshold as questionable.

See Tables B1 and B2 in Appendix B for threshold data and number of questionable claims for each questionable measure.

**Identification and Description of Chiropractors with High Questionable Billing**

After identifying the chiropractors who had questionable payments, we determined the number of them who received half of all questionable payments. We refer to these chiropractors as chiropractors with high questionable payments.

**Provider location/Strike Force area.** We used the ZIP Code for the chiropractor that was included in the National Claims History Carrier File.
to identify the State and county in which each chiropractor was located. We then consulted with our Office of Investigations to determine whether the counties were located in Medicare Fraud Strike Force areas.

**Questionable payments in prior years.** To determine the extent to which the chiropractors with high questionable payments received similar questionable payments in prior years, we analyzed data from 2009–2012. We used the same measures to identify questionable payments in 2013 to determine how many of the chiropractors with high questionable payments in 2013 had received questionable payments in the prior years and the amount of questionable payments that Medicare paid these chiropractors for the measures of questionable payment.

**Analysis of same-day physical and occupational therapy services.** For each beneficiary who received a Medicare-paid chiropractic service in 2013, we identified the date of that service and whether the beneficiary received the service from one of the chiropractors with high questionable payments. Next, from CMS’s National Claims History Carrier File, we obtained the paid claims with the CPT codes for 32 selected physical and occupational therapy services (hereinafter, therapy services) that occurred on the same day as the beneficiaries’ chiropractic services. We calculated the overall paid amount of therapy services and the average number of therapy services per beneficiary. We calculated these amounts separately for the beneficiaries who had same-day chiropractic services with the chiropractors with the high questionable payments and for beneficiaries who did not have same-day services with these chiropractors. We compared the Medicare payments for these beneficiaries’ therapy services to the Medicare payments for the therapy services received by all other beneficiaries who received chiropractic services in 2013.

**Limitations**

We did not conduct a medical record review to determine whether chiropractic services were medically necessary or had been coded correctly. The measures included in our analysis are not intended to be a comprehensive set of characteristics for identifying chiropractors with questionable and inappropriate payments. Moreover, the four measures that identify questionable payments used in this study do not provide conclusive evidence of improper or fraudulent payments. Rather, the measures are intended to identify Medicare payments to chiropractors that exceed those of other chiropractors in ways that raise program integrity concerns. Further investigation would be required to determine whether these chiropractors were paid for improper or fraudulent Medicare claims for chiropractic services.
Table B1: Threshold and Summary Data for Each Measure of Questionable Payment in 2013

<table>
<thead>
<tr>
<th>Measure of Questionable Payment</th>
<th>Threshold for Chiropractor To Be Considered an Outlier</th>
<th>Summary Statistics for All Chiropractors With Paid Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Suggestive of Maintenance Therapy</td>
<td>Was paid for an average of 20 services per beneficiary</td>
<td>Average of 8 services per beneficiary</td>
</tr>
<tr>
<td>Potential Sharing of Beneficiaries</td>
<td>52.5% of a chiropractor’s beneficiaries had paid claims from another chiropractor</td>
<td>13% of beneficiaries</td>
</tr>
<tr>
<td>Potentially Upcoded Claims</td>
<td>Was paid for an average of 0.85 work relative value units (RVU) per service</td>
<td>Average of 0.63 work RVU</td>
</tr>
<tr>
<td>Unlikely Number of Services per Day</td>
<td>Was paid for 16 or more hours in 1 day</td>
<td>0.57 hours in 1 day</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid by Medicare.

Table B2: Chiropractic Claims by Measure of Questionable Payment in 2013*

<table>
<thead>
<tr>
<th>Measure of Questionable Payment</th>
<th>Number of Claims</th>
<th>Percentage of Total Paid Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Suggestive of Maintenance Therapy</td>
<td>1,271,815</td>
<td>6.5%</td>
</tr>
<tr>
<td>Potential Sharing of Beneficiaries</td>
<td>988,926</td>
<td>5.0%</td>
</tr>
<tr>
<td>Potentially Upcoded Claims</td>
<td>603,655</td>
<td>3.1%</td>
</tr>
<tr>
<td>Unlikely Number of Services per Day</td>
<td>24,465</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,719,427</strong></td>
<td><strong>13.8%</strong></td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid by Medicare.

* Because some claims exceeded the threshold for more than one measure of questionable payment, the columns do not sum to the totals.
Table B3: Chiropractic Claims by Measure of Inappropriate Payment in 2013*

<table>
<thead>
<tr>
<th>Measure of Inappropriate Payment</th>
<th>Number of Claims</th>
<th>Percentage of Total Paid Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims lacking a covered primary diagnosis</td>
<td>808,971</td>
<td>4.1%</td>
</tr>
<tr>
<td>Claims for duplicate services (i.e., services provided on the same day for the same beneficiary with the same diagnosis and procedure codes and the same chiropractor)</td>
<td>970</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Claims lacking the AT modifier</td>
<td>61</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Total</td>
<td>809,945</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid by Medicare.

* Because some claims exceeded the threshold for more than one measure of questionable payment, the columns do not sum to the totals.

Table B4: Totals for Questionably and Inappropriately Paid Claims for Chiropractic Services in 2013

<table>
<thead>
<tr>
<th></th>
<th>Number of Claims</th>
<th>Paid Amount*</th>
<th>Percentage of Paid Amount*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionably paid</td>
<td>2,592,554</td>
<td>$72,507,606</td>
<td>14.4%</td>
</tr>
<tr>
<td>Inappropriately paid</td>
<td>683,072</td>
<td>$17,138,222</td>
<td>3.4%</td>
</tr>
<tr>
<td>Both questionably and inappropriately paid</td>
<td>126,873</td>
<td>$3,597,093</td>
<td>0.7%</td>
</tr>
<tr>
<td>Neither inappropriately nor questionably paid</td>
<td>16,268,763</td>
<td>$409,113,618</td>
<td>81.4%</td>
</tr>
<tr>
<td>Total</td>
<td>19,671,262</td>
<td>$502,356,538</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: OIG analysis of data from 2013 Part B claims for chiropractic services paid by Medicare.

* The amounts in these columns do not sum to the total because of rounding.
APPENDIX C

Agency Comments

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services

SEP - 3 2015

200 Independence Avenue SW
Washington, DC 20201

TO: Daniel R. Levinson
Inspector General

FROM: Andrew M. Slavitt
Acting Administrator


The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to review and comment on the Office of Inspector General’s (OIG) draft report. CMS is committed to protecting the Medicare Trust Funds by combatting fraud, waste, and abuse.

To combat fraud, waste, and abuse in Medicare, CMS is using a comprehensive program integrity strategy to educate providers, recoup improper payments, and protect taxpayer dollars. Specific to chiropractic claims, CMS released educational materials in October 2013 and March 2015 on chiropractic benefits to educate providers on the coverage and billing requirements for chiropractic services. The published materials discuss billing requirements for spinal manipulation and proper use of the Active Treatment (AT) modifier. These materials also make clear that Medicare does not provide payment for chiropractic maintenance therapy.

CMS has implemented the Fraud Prevention System (FPS), which applies predictive analytic technology to claims prior to payment to identify aberrant and suspicious billing patterns. The FPS runs predictive algorithms and other sophisticated analytics nationwide against all Medicare fee-for-service (FFS) claims, including chiropractic claims. CMS uses the FPS to target investigative resources to suspicious claims and providers and swiftly impose administrative action if warranted. Currently, CMS has several chiropractic models within the FPS that analyze claims to detect fraud, waste, and abuse. Since CMS implemented the technology in June 2011, the FPS has identified or prevented $820 million in inappropriate payments within the Medicare Fee-for-Service (FFS) program.

To address health care fraud “hot spots”—areas with high levels of fraudulent billing—CMS participates in the Medicare Fraud Strike Force (Strike Force) model. The Strike Force is comprised of interagency teams made up of investigators and prosecutors that focus on the worst fraudsters in Medicare.

offenders engaged in fraud in the highest intensity regions. Through the Strike Force and other efforts, in fiscal year 2014 alone, the Department of Justice opened 924 new criminal health care fraud investigations. Federal prosecutors filed criminal charges in 496 cases involving 805 defendants. A total of 724 defendants were convicted of health care fraud-related crimes during the year. As noted in the OIG report, most of the counties that had 10 or more chiropractors with high questionable payments are in areas currently being targeted by the Strike Force.

OIG's recommendations and CMS' responses are below.

**OIG Recommendation**
Establish a more reliable control for identifying active treatment.

**CMS Response**
CMS does not concur with this recommendation. CMS acknowledges the issue but notes that there are significant obstacles to developing a reliable control for active treatment. CMS will implement a program to prior authorization medical review of certain services provided by chiropractors as required by the Medicare Access and CHIP Reauthorization Act (MACRA). CMS believes this program will help to address the concerns OIG identifies in this recommendation.

**OIG Recommendation**
Develop and use measures to identify questionable payments for chiropractic services.

**CMS Response**
CMS concurs with this recommendation. CMS regularly develops measures to identify improper payments and takes appropriate action on the payments identified. Currently, CMS has several chiropractic models that analyze claims to detect fraud, waste, and abuse. CMS will reexamine its models to look for opportunities for improvement or extension.

**OIG Recommendation**
Take appropriate action on the chiropractors with questionable payments.

**CMS Response**
CMS concurs with this recommendation. MACRA authorizes CMS to conduct postpayment review of certain services provided by chiropractors. CMS will consider the referrals provided by OIG when developing plans to conduct postpayment review under MACRA.

**OIG Recommendation**
Collect overpayments based on inappropriately paid claims.

**CMS Response**
CMS concurs with this recommendation. CMS will conduct a preliminary analysis of the claims submitted by providers once we receive the list of providers from OIG. Based on the analysis, CMS will determine the appropriate claims to more closely review and take appropriate action as needed.

**OIG Recommendation**
Ensure that claims are paid only for Medicare-covered diagnoses.

**CMS Response**
CMS concurs with this recommendation. CMS will work with the Medicare Administrative Contractors (MACs) to make certain that chiropractic claims are paid only for diagnosis codes that meet Medicare coverage requirements.

CMS thanks OIG for their efforts on this issue and looks forward to working with OIG on this and other issues in the future.
ACKNOWLEDGMENTS

This report was prepared under the direction of Joyce Greenleaf, Regional Inspector General for Evaluation and Inspections in the Boston regional office, and Russell Hereford and Kenneth Price, Deputy Regional Inspectors General.

Maria Maddaloni served as the team leader for this study, and Kimberly Ruppert served as the lead analyst. Central office staff who provided support include Mandy Brooks, Berivan Demir Neubert, Evan Godfrey, Dave Graf, Althea Hosein, Scott Manley, and Christine Moritz.
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