INAPPROPRIATE PAYMENTS
AND QUESTIONABLE BILLING
FOR MEDICARE PART B
AMBULANCE TRANSPORTS

Suzanne Murrin
Deputy Inspector General
for Evaluation and Inspections

September 2015
OEI-09-12-00351
EXECUTIVE SUMMARY: INAPPROPRIATE PAYMENTS AND QUESTIONABLE BILLING FOR MEDICARE PART B AMBULANCE TRANSPORTS
OEI-09-12-00351

WHY WE DID THIS STUDY

In 2012, Medicare Part B paid $5.8 billion for ambulance transports, almost double the amount it paid in 2003. Historically, Medicare has been vulnerable to fraud involving ambulance transports. In 2013 and 2014, the Centers for Medicare & Medicaid Services (CMS) imposed temporary moratoria on the enrollment of new ambulance suppliers in two metropolitan areas. Medicare billing for ambulance transports warrants scrutiny, given its rapid growth and its vulnerability to fraud and abuse.

HOW WE DID THIS STUDY

To identify inappropriate payments and questionable billing, we analyzed claims data for 7.3 million ambulance transports during the first half of 2012. We examined aspects of the transports including, but not limited to, transport destinations, transport levels, distance of urban transports, other Medicare services that beneficiaries received, and the geographic locations where the beneficiaries who received transports resided.

WHAT WE FOUND

We identified both improper payments for ambulance transports and questionable billing by ambulance suppliers. We found that Medicare paid $24 million in the first half of 2012 for ambulance transports that did not meet certain program requirements to justify payment. For example, Medicare paid $17 million for transports that were to or from noncovered destinations such as physicians’ offices. In addition, Medicare paid $30 million for transports for which the beneficiaries did not receive Medicare services at the pick-up or drop-off locations, or anywhere else. These claims may have been inappropriate. We also found that about one in five suppliers had questionable billing. For example, a supplier may have had an unusually high average mileage for the transports that it provided to beneficiaries residing in urban areas. Questionable billing is geographically concentrated; more than half of all questionable transports were provided to beneficiaries residing in four metropolitan areas.

WHAT WE RECOMMEND

Our findings indicate that inappropriate and questionable billing for ambulance transports pose vulnerabilities to Medicare program integrity. In response, CMS should enhance existing fraud and abuse safeguards. Our report made five recommendations. CMS concurred with our recommendations for it to (1) determine whether a temporary moratorium on ambulance supplier enrollment in additional geographic areas is warranted, (2) require ambulance suppliers to include the National Provider Identifier of the certifying physician on transport claims that require certification, (3) increase its monitoring of ambulance billing, and (4) determine the appropriateness of claims billed by ambulance suppliers identified in the report and take appropriate action. CMS partially concurred with our recommendation for it to implement new claims processing edits or improve existing edits to prevent inappropriate payments for ambulance transports. CMS indicated that it will review data on claims identified in this report; CMS should use the results of its review to implement new, or modify existing, claims processing edits needed to prevent inappropriate payments.
# Table of Contents

Objectives ............................................................................................................. 1

Background ........................................................................................................ 1

Methodology ....................................................................................................... 6

Findings ............................................................................................................... 12

- Medicare paid $24 million for ambulance transports that did not meet certain Medicare requirements justifying payment.
- Medicare paid $30 million for potentially inappropriate ambulance transports for which the beneficiary did not receive Medicare services at any origin or destination.
- About one in five ambulance suppliers had questionable billing.
- More than half of questionable ambulance transports were provided to beneficiaries who resided in four metropolitan areas.

Conclusion and Recommendations .................................................................. 23

Agency Comments and OIG Response ......................................................... 25

Appendixes ....................................................................................................... 26

- Appendix A: Ambulance Transport Levels and Medicare Payments in 2012 by Level
- Appendix B: Detailed Description of Measures of Questionable Billing for Ambulance Transports
- Appendix C: Questionable and All Ambulance Transports That Occurred in Fourteen Additional Areas, First Half of 2012
- Appendix D: Agency Comments

Acknowledgments .............................................................................................. 35
OBJECTIVES
To determine the extent to which:

1. Medicare paid for ambulance transports that did not meet certain Medicare requirements,
2. Medicare paid for ambulance transports for beneficiaries who did not receive Medicare services at any origin or destination,
3. ambulance suppliers had questionable billing, and
4. questionable billing for ambulance transports is geographically concentrated.

BACKGROUND
In 2012, Medicare payments for ground ambulance transports covered under Part B totaled $5.8 billion, up from $2.9 billion in 2003. Medicare beneficiaries received a total of 14.9 million transports in 2012.

Investigators have uncovered a variety of fraud schemes involving ambulance suppliers. For example, in May 2015, a Florida supplier paid $1.25 million to settle allegations that it knowingly upcoded transport claims from basic to advanced life support, unnecessarily transported patients, and transported patients unnecessarily to their homes at a level of care meant for emergencies. In June 2014, employees of a supplier operating in Philadelphia and other areas of Pennsylvania received prison sentences for fraudulently billing Medicare $3.6 million for transports that did not meet coverage requirements. The supplier recruited patients who could walk and did not require transport by ambulance, and was also convicted of falsifying documents to support the transports and paying the patients illegal kickbacks. In January 2014, owners of a supplier in Tennessee received prison sentences for fraudulently billing Medicare and

---

1 Medicare also covers ambulance transports by airplane and helicopter. All references in this report to ambulance transports apply only to ground transports.
2 Centers for Medicare & Medicaid Services (CMS), 2003 and 2012 Part B National Summary Data Files. Throughout this report, references to Medicare payments represent the total amounts allowed by Medicare, which consist of payments made by Medicare plus beneficiary cost-sharing payments. Medicare payments we report include the amounts paid for the transports’ mileage.
Medicaid $1.2 million for transports to and from dialysis facilities. During these transports patients were seated—sometimes in the front of the ambulance—rather than being transported on stretchers. Other fraudulent claims reported that the supplier transported patients individually when the supplier actually transported the patients together in one ambulance. The supplier also used the names and Medicare numbers of patients without lawful authority when submitting the claims and falsified documents to support the transports.5

**Medicare Coverage of Ambulance Transports**

Medicare covers ambulance transports when a beneficiary’s medical condition at the time of transport is such that other means of transportation would endanger the beneficiary’s health.6 In addition, the transport must be to receive a medically necessary Medicare service or to return from such a service.7 For example, Medicare would not cover a transport to a hospital if the beneficiary was not treated at the hospital. Transports that occur during a beneficiary’s Part A stay at an inpatient hospital, skilled nursing facility (SNF), or hospice are generally covered as part of the stay. Medicare Part B generally does not make separate payments for transports that occur during Part A stays.8 Medicare does not cover other means of transport such as wheelchair vans or taxicabs. If the transport meets coverage requirements, Medicare also reimburses suppliers for miles traveled with the beneficiary on board.9

Medicare covers seven different levels of ambulance transport.10 Transport levels vary in terms of the qualifications of the ambulance crew and the level of medical care provided.11 The transport level also depends on whether the transport is provided in an emergency or nonemergency...
situation. Medicare beneficiaries most commonly receive basic life support transports provided in a nonemergency setting. The next most common transport level is advanced life support transports provided during an emergency. See Appendix A for a list of the transport levels and information about Medicare payments for each level.

Medicare covers ambulance transports to the nearest appropriate facility to obtain necessary diagnostic and/or therapeutic services, as well as the return transport. "Appropriate facility" means that the institution is generally equipped to provide the needed hospital care or skilled nursing care for the illness or injury. Medicare covers transports to only the following destinations:

- hospitals,
- SNFs,
- dialysis facilities for end-stage renal disease (ESRD) patients who require dialysis, and
- beneficiaries’ residences.

For emergency transports, destinations other than hospitals are presumed to be inappropriate. For specialty care transports, hospitals and SNFs are the only appropriate origins and destinations.

Although dialysis facilities are a covered destination, most beneficiaries who have ESRD do not need to be transported by ambulance to receive dialysis. One Medicare Administrative Contractor (MAC) estimated that only 10 percent of beneficiaries with ESRD who receive hemodialysis—one of the two main types of dialysis—require ambulance transports to

---

12 CMS, Medicare Benefit Policy Manual, ch. 10 § 10.3.
13 CMS, Medicare Benefit Policy Manual, ch. 10 § 10.3.6.
14 Ibid., ch. 10 § 10.3. Critical access hospitals are included as a type of covered hospital destination. The site of a transfer between ground and air ambulance transports is also a covered destination. Ibid., ch. 10 § 10.5.
15 ESRD occurs from the destruction of normal kidney tissues over a long period of time. Dialysis removes waste products from the body by diffusion from one fluid compartment to another across a semipermeable membrane. People with ESRD typically receive dialysis three times per week.
16 One Medicare contractor expressly states that hospitals are the only appropriate facilities to receive emergency ambulance transports. Novitas Solutions, Inc., Ambulance (Ground) Services L32252. Several appropriate destinations are allowed per 42 CFR § 410.40(e)(1) and CMS, Medicare Benefit Policy Manual, ch. 10, §§ 10.3 and 10.3.6. However, by definition emergency services are provided by hospitals. 42 CFR § 424.101.
18 Palmetto GBA, Nonemergency Services.
and from hemodialysis treatment.\textsuperscript{19, 20, 21} To receive Medicare payment for an ambulance transport, the ambulance supplier submits a claim and indicates on it the transport level, the origin, the destination, and the total miles for the one-way transport. The supplier indicates the transport level using a Health Care Procedure Coding System code (procedure code). Suppliers must indicate the transport’s origin and destination,\textsuperscript{22} and do so by using modifier codes. The supplier bills for the mileage on the same claim, using a different procedure code.

**Program Integrity Safeguards for Ambulance Transports**

CMS uses a variety of safeguards to prevent and detect fraud, waste, and abuse of ambulance transports in the Medicare program.

**Provider Screening.** CMS and its contractors screen all providers seeking to enroll or reenroll in the Medicare program according to the risk of fraud, waste, and abuse that is posed by each provider category.\textsuperscript{23} CMS created three levels of risk: limited, moderate, and high.\textsuperscript{24} Ambulance suppliers are categorized as moderate risk.

**Enrollment Moratoria.** CMS has temporarily suspended the enrollment of new ambulance suppliers into Medicare, Medicaid, and the Children’s Health Insurance Program in two areas of the country.\textsuperscript{25} The enrollment moratoria became effective in the Houston, Texas, area in July 2013 and in the Philadelphia, Pennsylvania, area in January 2014.\textsuperscript{26} The enrollment moratoria have been extended three times—most recently, in July 2015.\textsuperscript{27}

**Physician Certification Statements.** For those ambulance transports that are scheduled ahead of time and for some unscheduled transports, the beneficiary’s attending physician, nurse, or discharge planner must prepare a written statement (physician certification statement) certifying

\begin{itemize}
\item \textsuperscript{19} MACs process claims and pay for services provided to beneficiaries in the Medicare fee-for-service program.
\item \textsuperscript{20} Novitas Solutions, Inc., *Ambulance (Ground) Services L32252*.
\item \textsuperscript{21} The other main type of dialysis, peritoneal dialysis, is usually performed at home.
\item \textsuperscript{22} CMS, *Medicare Claims Processing Manual*, ch. 15 § 30.
\item \textsuperscript{23} 42 CFR § 424.518.
\item \textsuperscript{24} Screening for providers categorized as limited risk consists of basic verifications, such as verifying that the provider has a valid medical license. Screening for providers categorized as moderate risk consists of the same verifications as for limited-risk providers, as well as unscheduled or unannounced site visits. Screening for providers categorized as high risk consists of the same procedures as for limited-risk and moderate-risk providers, plus an additional fingerprint and criminal background check.
\item \textsuperscript{25} CMS may suspend the enrollment of certain types of Medicare providers and suppliers if there is a significant potential for fraud, waste, or abuse. 42 CFR § 424.570.
\item \textsuperscript{26} 78 Fed. Reg. 46339 (July 31, 2013); 79 Fed. Reg. 6475 (Feb. 4, 2014).
\item \textsuperscript{27} 80 Fed. Reg. 44967 (July 28, 2015).
\end{itemize}
that the transport is medically necessary. Transports to and from dialysis facilities (dialysis-related transports) are one type of transport that is typically scheduled ahead of time. Physician certification statements are not required for unscheduled transports provided to beneficiaries who live at home or in facilities where they are not under a physician’s direct care.

**Prior-Authorization Demonstration.** In December 2014, CMS began a prior-authorization demonstration for repetitive, scheduled nonemergency ambulance transports in New Jersey, Pennsylvania, and South Carolina. Before providing these transports, ambulance suppliers must submit the necessary information to CMS to ensure that the transports meet all relevant clinical or medical documentation requirements. The demonstration focuses on these transports because nonemergency transports, particularly those that are dialysis-related, have increased noticeably in recent years. The demonstration is meant to test whether prior authorization can help to reduce expenditures while maintaining or improving quality of care.

**Claims Processing Edits.** Claims processing edits prevent inappropriate payments for ambulance transports and other services. These electronic edits automatically pay, deny, or suspend for manual review all or part of a claim, as necessary. MACs may choose to use local edits to enforce their local coverage decisions and reduce payment error. For example, one MAC uses an edit to deny payment for transport claims with origin and destination codes that are unlikely to meet coverage requirements. CMS can also direct MACs to implement shared system edits to enforce Medicare coverage requirements.

**Monitoring of Suppliers’ Billing.** CMS conducts data mining to identify potentially fraudulent ambulance suppliers and other providers. CMS contracts with Zone Program Integrity Contractors to investigate potential fraud, waste, and abuse; identify improper payments; and refer cases to law enforcement. CMS also uses its Fraud Prevention System to run predictive analytics against all Medicare fee-for-service claims data.

---

28 42 CFR § 410.40(d).
30 CMS, Medicare Program Integrity Manual, Pub. No. 100-08, ch. 3, § 3.4.1.5(A).
32 CMS, Medicare Program Integrity Manual, Pub. 100-08, ch. 1 § 1.7.B.
33 CMS, Center for Program Integrity: New Strategic Direction and Key Antifraud Activities.
Related Work
In September 2013, the Office of the Inspector General (OIG) published a report that provides a detailed analysis of the changes in utilization of Medicare Part B ambulance transports from 2002 through 2011. During that time, the number of beneficiaries who received transports increased 34 percent, compared to an increase of 7 percent in the number of beneficiaries enrolled in the Medicare fee-for-service program. In particular, the number of transports for beneficiaries with ESRD grew during this time period, increasing 269 percent from 2002 to 2011. OIG also found that not all transports were to covered destinations. The type of noncovered destination to which transports increased the most was community mental health centers.

In June 2013, the Medicare Payment Advisory Commission (MedPAC) reported on Medicare’s ambulance fee schedule. MedPAC recommended that medical necessity requirements for transports be more precisely defined, that a set of national edits based on those requirements be developed, and that geographic areas and suppliers that display unusual patterns be identified. To support these recommendations, MedPAC cited the rapid growth in the enrollment of for-profit suppliers and program integrity issues within the Medicare ambulance benefit.

METHODOLOGY
Scope
This study is based on our analysis of Medicare Part B claims for ambulance transports provided by ambulance suppliers from January 1 to June 30, 2012. Our population includes claims for 7.3 million transports and their associated mileage, totaling $2.9 billion in Medicare payments. These claims were submitted by 15,614 unique ambulance suppliers and represent transports for 2.9 million Medicare beneficiaries. We also

34 OIG, Utilization of Medicare Ambulance Transports, 2002—2011, September 2013 (OEI-09-12-00350).
36 We did not analyze claims from institutional ambulance providers. In 2012, 4 percent of ambulance providers were based at institutions, such as hospitals.
37 We combined Medicare payments for the transports themselves and the transports’ mileage. One percent of transports were billed without corresponding mileage claims. We did not analyze such transports, with the exception of paramedic intercepts. Paramedic intercepts occur when a paramedic meets a basic life support transport and provides advanced life support services.
38 We identified suppliers by using the provider identification number combined with the MAC number.
analyzed claims for Medicare services that beneficiaries received at the facilities they were transported to and from.

**Data Collection**

Our data sources were the 2012 National Claims History Physician/Supplier Part B claims file; the 2012 Inpatient, Outpatient, SNF, and Hospice Standard Analytical Files; the 2012 Denominator File from the Medicare Enrollment Database; and the Compromised Numbers Contractor database. The Physician/Supplier Part B claims file contains claims submitted by independent ambulance suppliers and other noninstitutional providers. These claims detail information such as the transport level and the transport origin and destination. The Standard Analytical Files contain claims submitted by institutions, such as hospitals. The Medicare Enrollment Database contains Medicare beneficiaries’ enrollment information, such as date of birth. The Compromised Numbers Contractor database contains provider and beneficiary identification numbers that have been involved in or are vulnerable to medical identity theft.

**Identification of Ambulance Transports That Did Not Meet Certain Medicare Requirements**

*Noncovered Destinations.* We identified transports that were to destinations to which Medicare does not cover ambulance transports, and the return transports from those destinations. We identified transports that suppliers billed using a modifier on the ambulance claim to indicate that the beneficiary was transported to a physician’s office or to a diagnostic or therapeutic site. We also identified transports that—according to our analysis of other Medicare claims for the same beneficiaries—were to noncovered destinations or were the return transports from noncovered destinations. For these transports, the beneficiaries received Medicare services only at noncovered destinations within 1 day of their transports. These included transports that (for example) the suppliers indicated were to hospitals but for which the beneficiaries instead received services at community mental health centers. We calculated the total Medicare payments for transports to or from noncovered destinations. We also

---

39 We also analyzed claims for services provided on December 31, 2011, for beneficiaries who received transports on January 1, 2012.

40 For 99.98 percent of transports in our population, transports’ origins and destinations were reported in the first modifier field. For less than one-tenth of 1 percent of transports, origins and destinations were reported in two modifier fields on the same claim line. For those transports, we analyzed the first modifier field.

41 Medicare beneficiaries’ identification numbers are also known as Health Insurance Claim numbers. In this report, we refer to Medicare beneficiary identification numbers as “beneficiary numbers.”
calculated the Medicare payments associated with transports to each type of noncovered destination.  

**Inappropriate Combinations of Destinations and Transport Levels.** We identified two types of transports billed with inappropriate combinations of destinations and transport levels. First, we identified emergency transports that suppliers indicated were to a destination other than a hospital or the site of a transfer between ground and air transports. We also identified specialty care transports that suppliers indicated were to or from destinations other than hospitals, SNFs, or transfer sites. We calculated the total Medicare payments for transports with inappropriate combinations of destinations and transport levels.

**Identification of Ambulance Transports for Beneficiaries Who Did Not Receive Medicare Services at Any Origin or Destination**

We identified ambulance transports for which the beneficiaries did not receive Medicare services at any origin or destination. We excluded any transport claims for which the beneficiary died within 1 day of the transport. We determined whether the beneficiary received services within 1 day of the transport at the origin or destination indicated by the supplier on the claim. We checked for Medicare services that occurred 1 day before or after the transports in case the transports occurred close to midnight. For example, a beneficiary may have been discharged from a hospital just before midnight and transported home. We limited our review of the Inpatient, SNF, and Hospice files to services that occurred within 1 day of the beneficiary’s admission or discharge. Medicare Part B does not pay for transports that occur during stays at these facilities. We excluded services that were provided in beneficiaries’ residences, such as in-home hospice services.

We verified that no claims for related services were submitted during the year after the transport occurred. We calculated the total Medicare payments associated with transports to each type of noncovered destination.

---

42 We counted each transport only once when calculating the same totals across destination types. However, some beneficiaries received services at more than one type of noncovered destination within 1 day of their transports. In these cases, we could not determine the destination to which the beneficiary was transported, so we included the transport in each type of noncovered destination—for example, counting it as one transport to a physician’s office and one transport to a community mental health center—when calculating the volume of transports and Medicare payments by destination type.

43 We checked for Medicare services that occurred 1 day before or after the transports in case the transports occurred close to midnight. For example, a beneficiary may have been discharged from a hospital just before midnight and transported home.

44 We limited our review of the Inpatient, SNF, and Hospice files to services that occurred within 1 day of the beneficiary’s admission or discharge. Medicare Part B does not pay for transports that occur during stays at these facilities. We excluded services that were provided in beneficiaries’ residences, such as in-home hospice services.

45 Medicare Part A and Part B claims must be submitted no later than 1 year after the date the service was provided. CMS, *Medicare Claims Processing Manual*, ch. 1 § 70.

46 For this analysis, we used claims files that include claims processed up to 1 year after the first half of 2012.
payments for transports for which the beneficiaries did not receive Medicare services at any origin or destination.

**Identification of Ambulance Suppliers That Had Questionable Billing**

We developed seven measures of questionable billing for ambulance services. The measures are based on Medicare coverage and billing requirements for ambulance services; the results of past OIG analyses and fraud investigations related to ambulance suppliers; and consultations with fraud investigators within and outside of OIG. Table 1 describes the seven measures.

**Table 1: Measures of Questionable Billing for Ambulance Transports**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>No Medicare Service at the Origin or Destination:</strong> High percentage of a supplier’s transports for which the beneficiaries did not receive Medicare services at the origin or destination indicated on the transport claim. Such transports may indicate billing for transports to noncovered destinations or transports that were not provided.</td>
<td></td>
</tr>
<tr>
<td>2. <strong>Excessive Mileage for Urban Transports:</strong> High average mileage for transports for beneficiaries in urban areas. Such transports may indicate billing for more miles than suppliers actually drove or transports to facilities other than the nearest appropriate facilities.</td>
<td></td>
</tr>
<tr>
<td>3. <strong>High Number of Transports per Beneficiary:</strong> Among suppliers that provided dialysis-related transports, high average per-beneficiary number of transports. Such transports may indicate billing for transports that were medically unnecessary.</td>
<td></td>
</tr>
<tr>
<td>4. <strong>Compromised Beneficiary Number:</strong> High percentage of a supplier’s transports with compromised beneficiary numbers. Such transports may indicate billing for transports that were medically unnecessary or were not provided.</td>
<td></td>
</tr>
<tr>
<td>5. <strong>Inappropriate or Unlikely Transport Level:</strong> High percentage of a supplier’s transports with inappropriate or unlikely transport levels given the destinations. Such transports may indicate upcoding or transport levels that were medically unnecessary.</td>
<td></td>
</tr>
<tr>
<td>6. <strong>Beneficiary Sharing:</strong> High average number of suppliers providing dialysis-related transports to the beneficiaries transported by a supplier. Such transports may indicate misuse of beneficiaries’ numbers or “shopping” by beneficiaries among suppliers to receive higher kickbacks.</td>
<td></td>
</tr>
<tr>
<td>7. <strong>Transports To or From Partial Hospitalization Programs (PHPs)</strong>: The supplier provided transports that were to or from PHPs. Such transports are likely to be medically unnecessary because beneficiaries who meet Medicare coverage requirements for PHPs generally do not meet the requirements for transports.</td>
<td></td>
</tr>
</tbody>
</table>

---

 PHPs provide intensive psychiatric care and resemble structured, short-term hospital inpatient programs. They are provided in two settings: community mental health centers and hospital outpatient departments. Beneficiaries admitted to a PHP do not require 24-hour supervision as provided in an inpatient setting. These beneficiaries must have a support system outside the PHP, and must not be an imminent danger to themselves or others.
We calculated suppliers’ levels of each measure. We then identified suppliers that had unusually high levels on at least one measure relative to other suppliers (i.e., had questionable billing). We considered a supplier’s level to be unusually high if it was greater than the threshold for questionable billing (i.e., greater than the 75th percentile plus 1.5 times the interquartile range for the measure).\footnote{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, \textit{Exploratory Data Analysis}. Addison-Wesley, 1977.} We identified suppliers that exceeded the thresholds in comparison to other suppliers to which the measures applied. We also calculated the median level of each measure among those suppliers to which the measures applied.\footnote{For purposes of this report, we use the phrase “typical supplier” to describe suppliers that billed the median levels of the measures. Half of the suppliers to which the measure applies had levels that fell below the level of the typical supplier.} Appendix B provides a detailed description of how we calculated each measure.

We calculated Medicare payments for ambulance transports associated with suppliers’ questionable billing (i.e., questionable transports). For four of the measures, we identified transports that exhibited the characteristic described in the measure (for example, a compromised beneficiary number) and were billed for by suppliers that had unusually high levels of the measure. Because the other three measures of questionable billing were calculated as averages across transports, we could not identify individual transports with the characteristics described in these measures. Therefore, we considered all urban transports billed by suppliers that had questionable billing for the measure “excessive mileage for urban transports” to be questionable. Similarly, we considered all dialysis-related transports billed by suppliers with questionable billing for the measures “high number of transports per beneficiary” and “beneficiary sharing” to be questionable.

Geographical Analysis of Questionable Ambulance Transports

We analyzed the geographic locations of questionable ambulance transports. We assigned each transport claim to a Core Based Statistical Area (area) using the location of the beneficiary’s residence.\footnote{Core Based Statistical Areas are associated with at least one core urban area with a population of at least 10,000. Core Based Statistical Areas with populations of at least 50,000 are metropolitan areas. In the first half of 2012, there were 955 Core Based Statistical Areas in the United States and Puerto Rico, including 373 metropolitan areas.} We identified the areas (on the basis of where beneficiaries resided) that accounted for the most questionable transports. We compared the top areas, which were metropolitan areas, with other metropolitan areas with
regard to the average Medicare payments per supplier and the average number of beneficiaries per supplier.

**Limitations**

We relied on claims data to identify ambulance transports for which the beneficiaries received services only at noncovered destinations. We also relied on claims data to identify transports for which the beneficiaries did not receive Medicare services at any origin or destination. We did not review medical or other records from facilities to verify whether the beneficiaries received Medicare services at the facilities. When beneficiaries received Medicare services associated with their transports, we did not determine whether the services were provided at the nearest appropriate facilities. These limitations could result in either overestimating or underestimating inappropriate or potentially inappropriate billing.

The seven measures of questionable billing used in this study do not provide conclusive evidence of fraudulent billing. Rather, the measures are intended to identify scenarios that, on the basis of claims data, are questionable. We identify ambulance suppliers that, relative to other ambulance suppliers, had unusually high levels of questionable billing during the first half of 2012. Further investigation would be required to determine whether these suppliers have, in fact, submitted fraudulent or inappropriate Medicare claims for ambulance transports. We did not review beneficiaries’ medical records or the physician certification statements to determine whether the transports met coverage requirements.

We identified urban ambulance transports and analyzed the location of questionable transports on the basis of beneficiaries’ primary residences, as recorded in their enrollment data. Not all transports may have occurred in the same area as the beneficiary’s primary residence. This limitation may result in either overestimating or underestimating inappropriate or potentially inappropriate billing.

**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

Medicare paid $24 million for ambulance transports that did not meet certain Medicare requirements justifying payment

In the first half of 2012, Medicare paid $24.2 million for ambulance transports that did not meet Medicare requirements regarding the transport’s destination. These transports were either to a destination not covered by Medicare or to a destination that was inappropriate given the transport level.\(^{51}\)

**Medicare paid $17 million for transports to noncovered destinations and return transports**

Medicare inappropriately paid $17.4 million for ambulance transports to destinations to which Medicare does not cover transports and for the return transports. For these transports, the beneficiaries did not receive Medicare services at covered destinations (that is, at a hospital, dialysis facility, or SNF). Rather, the beneficiaries received services at noncovered destinations. Transports to or from noncovered destinations represented 0.6 percent of total Medicare ambulance payments in the first half of 2012.

Physicians’ offices were the most common type of noncovered destination where beneficiaries received services. In the first half of 2012, Medicare paid $8.7 million for transports provided to beneficiaries who received services at physicians’ offices but not at covered destinations. Medicare also paid $5.8 million for transports provided to beneficiaries who received services at community mental health centers or psychiatric facilities but not at covered destinations. Table 2 presents the numbers of transports and Medicare payments, by the type of noncovered destination, for transports provided to beneficiaries who received services at noncovered destinations instead of at covered destinations.

---

\(^{51}\) Transports that met neither requirement accounted for $266,963 of this total.
Table 2: Ambulance Transports Provided to Beneficiaries Who Received Services at Noncovered Destinations, First Half of 2012

<table>
<thead>
<tr>
<th>Noncovered Destination</th>
<th>Number of Transports for Which the Beneficiary Received a Service at the Noncovered Destination</th>
<th>Medicare Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician’s office</td>
<td>25,829</td>
<td>$8,724,161</td>
</tr>
<tr>
<td>Community mental health center or psychiatric facility</td>
<td>18,097</td>
<td>$5,816,778</td>
</tr>
<tr>
<td>Independent laboratory or other diagnostic or therapeutic site</td>
<td>12,019</td>
<td>$4,090,113</td>
</tr>
<tr>
<td>Nursing facility (non-SNF) or long-term-care facility</td>
<td>6,220</td>
<td>$1,971,327</td>
</tr>
<tr>
<td>Other noncovered destination*</td>
<td>1,779</td>
<td>$641,293</td>
</tr>
<tr>
<td>Hospice facility</td>
<td>1,203</td>
<td>$391,012</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52,421</strong></td>
<td><strong>$17,440,431</strong></td>
</tr>
</tbody>
</table>

* Other noncovered destinations include, for example, rural health centers and federally qualified health centers.

** Column sums exceed totals because some beneficiaries received services at more than one noncovered destination within 1 day of their transport. In these cases, we included the transport in each type of noncovered destination.


Medicare paid $7 million for transports with inappropriate combinations of destinations and transport levels

Medicare paid $7.1 million for ambulance transports for which suppliers used destination modifiers that were inappropriate for the transport levels billed. These included specialty care transports that suppliers indicated were between origins and destinations other than hospitals or SNFs, and emergency transports that suppliers indicated were to nonhospital destinations. If suppliers indicated the correct origins and destinations on these transport claims, they either billed Medicare for more expensive transports levels than they actually provided, or provided transport levels that did not meet Medicare coverage requirements. Transports with inappropriate combinations of destinations and transport levels represented 0.2 percent of total Medicare ambulance payments in the first half of 2012.

Specialty care transports. During the first half of 2012, Medicare paid $4.3 million for specialty care transports that ambulance suppliers indicated were between origins and destinations other than hospitals or SNFs. The most common inappropriate destination for these specialty care transports was independent (i.e., nonhospital) dialysis facilities. Medicare paid $2.6 million for specialty care transports between SNFs and

---

52 Emergency transports to nonhospital destinations are presumed to be inappropriate.
independent dialysis facilities and $0.9 million for specialty care transports between independent dialysis facilities and beneficiary residences. Medicare paid an additional $0.4 million for specialty care transports between beneficiary residences and hospitals.

**Emergency transports.** During the first half of 2012, Medicare paid $2.7 million for emergency transports that ambulance suppliers indicated were to nonhospital destinations. The most common inappropriate destination for these emergency transports was SNFs. Medicare paid $1.6 million for emergency transports to SNFs. Medicare paid an additional $0.7 million for emergency transports to beneficiary residences.

Medicare paid $30 million for potentially inappropriate ambulance transports for which the beneficiary did not receive Medicare services at any origin or destination

To be covered by Medicare, ambulance transports must be for the purpose of receiving or returning from a Medicare-covered service.\(^{53}\) In the first half of 2012, Medicare paid $30.2 million for transports for which the beneficiaries did not receive Medicare services at any origin or destination. These beneficiaries did not receive Medicare services within 1 day of their transports at the origin or destination indicated by suppliers. In addition to not receiving services at the origin or destination indicated by suppliers, these beneficiaries did not receive Medicare services at other facility types within 1 day of their transports.\(^{54}\) These transports represented 1.1 percent of total Medicare payments in the first half of 2012.

In these instances, Medicare likely inappropriately paid for the ambulance transports. The transports may not have occurred or, if they occurred, the beneficiaries may not have received Medicare-covered services that would justify the need for the transports. It is also possible that the transports occurred during an inpatient hospital or SNF stay and should have been billed for as part of the stay.


\(^{54}\) To account for the possibility that the supplier incorrectly indicated the origin or destination on the claim, we also determined whether the beneficiary received Medicare services at another type of facility. Other facility types we checked included covered destinations (such as SNFs) and noncovered destinations (such as physicians’ offices).
About one in five ambulance suppliers had questionable billing

In the first half of 2012, 21 percent of ambulance suppliers had questionable billing for at least one of the seven measures of questionable billing that we examined. These suppliers received $207 million for transports associated with questionable billing during the first half of 2012.

Seventeen percent of ambulance suppliers had questionable billing for one of the seven measures. Four percent of suppliers had questionable billing for two, three, or four measures. No suppliers had questionable billing for more than four measures. Table 3 presents the number of measures for which suppliers had questionable billing.

Table 3: Number of Measures for Which Ambulance Suppliers Had Questionable Billing, First Half of 2012

<table>
<thead>
<tr>
<th>Number of Measures of Questionable Billing</th>
<th>Percentage of Suppliers (N=15,614)</th>
<th>Number of Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17.1%</td>
<td>2,668</td>
</tr>
<tr>
<td>2</td>
<td>3.2%</td>
<td>501</td>
</tr>
<tr>
<td>3</td>
<td>0.9%</td>
<td>140</td>
</tr>
<tr>
<td>4</td>
<td>0.1%</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>21.3%</td>
<td>3,320</td>
</tr>
</tbody>
</table>


The measure of questionable billing associated with the largest percentage of suppliers is based on transports for which the beneficiaries did not receive Medicare services at the origins or destinations indicated on the transport claims. Over three times as many ambulance suppliers had questionable billing for this measure as the number of suppliers that had questionable billing for the next most common measure. Table 4 presents the levels of the measures of questionable billing among all suppliers, the thresholds above which suppliers had questionable billing for each measure, and the numbers of suppliers that had questionable billing.

Inappropriate Payments and Questionable Billing for Medicare Part B Ambulance Transports (OEI-09-12-00351)
Table 4: Questionable Billing Among Ambulance Suppliers, First Half of 2012

<table>
<thead>
<tr>
<th>Measure of Questionable Billing</th>
<th>Median Among All Suppliers</th>
<th>Suppliers That Had Questionable Billing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Threshold</td>
</tr>
<tr>
<td>No Medicare Service at the Origin or Destination</td>
<td>0 transports</td>
<td>3%</td>
</tr>
<tr>
<td>Excessive Mileage for Urban Transports</td>
<td>10 miles</td>
<td>34 miles</td>
</tr>
<tr>
<td>High Number of Transports per Beneficiary(^1)</td>
<td>4 transports</td>
<td>21 transports</td>
</tr>
<tr>
<td>Compromised Beneficiary Number</td>
<td>1%</td>
<td>7%</td>
</tr>
<tr>
<td>Inappropriate or Unlikely Transport Level</td>
<td>&lt;1%</td>
<td>3%</td>
</tr>
<tr>
<td>Beneficiary Sharing(^1, 2)</td>
<td>1.2 suppliers</td>
<td>2.3 suppliers</td>
</tr>
<tr>
<td>Transports to or From PHPs</td>
<td>0 transports</td>
<td>&lt;&lt;1%(^3)</td>
</tr>
</tbody>
</table>

Note: We identified suppliers that had questionable billing and calculated median levels for each measure among all suppliers to which the measures applied. For example, the measure “excessive mileage for urban transports” applies to suppliers with urban transports. Appendix B provides a detailed description of how each measure was calculated.

\(^1\) Among suppliers that provide dialysis-related transports.

\(^2\) As represented by the number of suppliers per beneficiary.

\(^3\) "<<1%" means that the number would round to 0, but is above 0.


**No Medicare Service at the Origin or Destination.** Thirteen percent of ambulance suppliers (2,038 out of 15,614) had questionable billing in terms of their percentages of transports for which the beneficiaries did not receive Medicare services at the origins or destinations indicated on the transport claims. Suppliers with questionable billing for this measure may have transported the beneficiaries to different destinations than those indicated on the transport claims. If so, these suppliers may be billing for transports to noncovered destinations. Alternatively, the transports may not have occurred and these suppliers may have billed for transports that were not provided. Medicare payments for these questionable transports totaled $41.2 million in the first half of 2012.

For a typical supplier, beneficiaries always received Medicare services at the indicated origins or destinations. For the 2,038 suppliers that had questionable billing for this measure, beneficiaries did not receive Medicare services at the indicated origins or destinations for at least 3 percent of the suppliers’ transports. For 46 of these suppliers, beneficiaries did not receive Medicare services at the indicated origins or destinations for at least 95 percent of the transports they billed.

**Excessive Mileage for Urban Transports.** Four percent of ambulance suppliers (642 out of 15,614) had questionable billing in terms of their average distances for transports for beneficiaries residing in urban areas.
Suppliers with questionable billing for this measure may not have transported beneficiaries to the nearest appropriate facility, as required, or may have billed for more miles than they actually drove. Medicare payments for these questionable transports totaled $7.3 million in the first half of 2012.

For a typical supplier providing urban transports, the average urban transport distance was 10 miles. For the 642 suppliers that had questionable billing for this measure, the average urban transport distance was at least 34 miles. The average urban transport distance for 48 of these suppliers was over 100 miles.

**High Number of Transports per Beneficiary.** Three percent of ambulance suppliers (533 out of 15,614) provided dialysis-related transports and had questionable billing in terms of the average number of transports per beneficiary. These suppliers may have billed for dialysis-related transports that were medically unnecessary or were not provided. Medicare payments for these questionable transports totaled $132.5 million in the first half of 2012.

Beneficiaries transported by a typical supplier of dialysis-related transports received an average of four transports from all suppliers during the first half of 2012. Beneficiaries transported by the 533 suppliers that had questionable billing for this measure received an average of at least 21 transports.

**Compromised Beneficiary Number.** Two percent of ambulance suppliers (358 out of 15,614) had questionable billing in terms of their percentages of transports associated with compromised beneficiary numbers. Compromised beneficiary numbers are those that have been involved in or are vulnerable to medical identity theft. Suppliers with questionable billing for this measure may have billed for transports that were medically unnecessary or were not provided. Past OIG investigations have uncovered schemes in which providers have used stolen beneficiary numbers to submit false claims to Medicare. Medicare payments for these questionable transports totaled $28.8 million in the first half of 2012.

For a typical supplier that billed for any transports with compromised beneficiary numbers, 1 percent of the supplier’s claims for transports had compromised beneficiary numbers. For the 358 suppliers that had questionable billing for this measure, at least 7 percent of their claims for transports had compromised beneficiary numbers. Transports with

---

compromised beneficiary numbers accounted for at least 95 percent of the transports billed by 31 of these suppliers.

**Inappropriate or Unlikely Transport Level.** Two percent of ambulance suppliers (268 out of 15,614) had questionable billing in terms of their percentages of transports with inappropriate or unlikely combinations of destinations and transport levels. Suppliers with questionable billing for this measure may have billed for more expensive transport levels than they actually provided or for transports that were medically unnecessary. Emergency transports to destinations other than hospitals that were billed by these suppliers were inappropriate, as were specialty care transports between origins and destinations other than hospitals and SNFs.\(^{56}\) Advanced life support transports between origins and destinations other than hospitals and SNFs were unlikely to be medically necessary, according to fraud investigators. Medicare payments for these questionable transports totaled $5.6 million in the first half of 2012.

For a typical supplier that billed any transports with an inappropriate or unlikely combination of destination and transport level, less than 1 percent of its transports were billed with inappropriate or unlikely combinations. For the 268 suppliers that had questionable billing for this measure, at least 3 percent of their transports were billed with inappropriate or unlikely combinations. For 19 of these suppliers, transports billed with inappropriate or unlikely combinations accounted for at least 25 percent of their transports.

**Beneficiary Sharing.** One percent of ambulance suppliers (168 out of 15,614) were associated with beneficiaries who, on average, received dialysis-related transports from an unusually high number of suppliers. When multiple suppliers bill for dialysis-related transports for the same beneficiary, the suppliers may have fraudulently shared beneficiaries or beneficiaries’ identification numbers with other suppliers. Alternatively, beneficiaries transported by these suppliers may have “shopped” among suppliers to receive kickbacks. Medicare payments for these questionable transports totaled $4.5 million in the first half of 2012.

For a typical supplier of dialysis-related transports, on average, beneficiaries each received these transports from a single supplier during the first half of 2012. For the 168 suppliers with questionable billing for

this measure, beneficiaries received dialysis-related transports from an average of at least two suppliers.

**PHP Transports.** One percent of ambulance suppliers (127 out of 15,614) had questionable billing for PHP transports. Suppliers with questionable billing for this measure may have billed for transports to or from PHPs for beneficiaries who do not qualify to receive the transports. Beneficiaries who meet Medicare coverage requirements for PHPs generally do not meet the requirements for transports. For example, a beneficiary who is being transported because he is a danger to himself would not qualify to receive PHP services. Medicare payments for these questionable transports totaled $10.7 million in the first half of 2012.

For a typical supplier, no transports were to or from PHPs. For the 127 suppliers that had questionable billing for this measure, at least one transport was to or from a PHP. For 59 of these suppliers, transports to or from PHPs accounted for at least 75 percent of their transports.

**Suppliers that had questionable billing provided nonemergency basic life support transports more often than other suppliers**

Ambulance suppliers that had questionable billing differed from other ambulance suppliers in terms of transport levels they commonly billed. Sixty-five percent of the transports billed by suppliers that had questionable billing were basic life support transports provided in nonemergency settings. In comparison, basic life support transports provided in nonemergency settings accounted for only 36 percent of the transports billed by all other suppliers. This difference between suppliers that had questionable billing and those that did not—a higher proportion of nonemergency basic life support transports—could assist efforts to monitor questionable billing.

---

57 Trailblazer Health Enterprises, LLC, *Ambulance*, June 2012, pp. 61–62. (Trailblazer’s MAC contract ended later in 2012, and its *Ambulance* publication was retired.)
More than half of questionable ambulance transports were provided to beneficiaries who resided in four metropolitan areas

Questionable billing for ambulance transports was concentrated in the metropolitan areas that include the cities of Philadelphia, Los Angeles, New York, and Houston. These four areas accounted for 52 percent of questionable transports but only 18 percent of all transports during the first half of 2012. Table 5 presents the percentages of national totals and the Medicare payments for questionable transports and all transports provided to beneficiaries who resided in the four metropolitan areas during the first half of 2012.

Table 5: Questionable Ambulance Transports and All Ambulance Transports That Were Provided to Beneficiaries Who Resided in Four Metropolitan Areas, First Half of 2012

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage of National Total</th>
<th>Medicare Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Questionable Transports</td>
<td>All Transports</td>
</tr>
<tr>
<td>Philadelphia, Pennsylvania</td>
<td>15.2%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Los Angeles, California</td>
<td>15.2%</td>
<td>4.7%</td>
</tr>
<tr>
<td>New York, New York</td>
<td>13.4%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Houston, Texas</td>
<td>8.3%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Total in All Four Areas</td>
<td>52.0%</td>
<td>18.0%</td>
</tr>
<tr>
<td>All Other Areas</td>
<td>48.0%</td>
<td>82.0%</td>
</tr>
</tbody>
</table>

Notes: Columns may not sum to totals because of rounding. Of the 951 other areas, 133 did not have any questionable transports. Source: OIG analysis of Part B data for Medicare ambulance services, 2013.

Together, the four metropolitan areas with the most questionable transports accounted for $104 million of the $207 million in Medicare payments for questionable transports provided during the first half of 2012. The following examples illustrate the extent to which questionable billing for ambulance transports is concentrated in these four areas:

---


59 An additional 22 percent of questionable transports—but only 12 percent of all transports—were provided to beneficiaries who resided in 14 other metropolitan areas. See Appendix C for a list of these 14 areas and information about the concentration of questionable billing in each area.
Although 4 percent of all transports were for beneficiaries who resided in the Philadelphia area, 21 percent of questionable dialysis-related transports associated with high numbers of transports per beneficiary were for beneficiaries who resided in that area. The Philadelphia area accounted for $25.6 million of the $132.5 million in Medicare payments for these questionable transports.

Although 5 percent of all transports were for beneficiaries who resided in the Los Angeles area, 45 percent of questionable transports billed with compromised beneficiary numbers were for beneficiaries who resided in that area. The Los Angeles area accounted for $12.7 million of the $28.8 million in Medicare payments for these questionable transports.

Although 8 percent of all transports were for beneficiaries who resided in the New York area, 17 percent of questionable transports for which the beneficiary did not receive a Medicare service at the origin or destination indicated on the transport claim were for beneficiaries who resided in that area. The New York area accounted for $6.5 million of the $41.2 million in Medicare payments for these questionable transports.

Although 2 percent of all transports were for beneficiaries who resided in the Houston area, 97 percent of questionable transports to or from PHPs and 39 percent of questionable transports billed with compromised beneficiary numbers were for beneficiaries who resided in that area. The Houston area accounted for $10.4 million of the $10.7 million and $11.0 million of the $28.8 million, respectively, in Medicare payments for these types of questionable transports.

**Suppliers that provided transports to beneficiaries who resided in the four metropolitan areas received more Medicare payments on average than suppliers that provided transports to beneficiaries who resided in other metropolitan areas**

On average, ambulance suppliers that provided transports to beneficiaries who resided in each of the four metropolitan areas received more Medicare payments for the transports than suppliers that provided transports to beneficiaries in other metropolitan areas. For transports provided to beneficiaries who resided in the four metropolitan areas, suppliers transported an average of 24 to 69 beneficiaries and beneficiaries each accounted for an average of $1,264 to $1,525 during the first half of...

---

60 Among the 955 CBSAs in the Nation, the 373 with the largest populations are classified as metropolitan areas.
2012. In all other metropolitan areas, suppliers transported an average of 18 beneficiaries and beneficiaries each accounted for an average of $880.61. Suppliers each received Medicare payments of $105,696, on average, for transporting Los Angeles beneficiaries during the first half of 2012—more than six times the average supplier payment of $16,137 for transporting beneficiaries who resided in metropolitan areas other than the four areas. Table 6 compares the four metropolitan areas with all other metropolitan areas in terms of the average number of beneficiaries per supplier, Medicare payments per beneficiary, and Medicare payments per supplier.

Table 6: Medicare Payments for Transports Provided to Beneficiaries Who Resided in Metropolitan Areas, First Half of 2012

<table>
<thead>
<tr>
<th>Metropolitan Area</th>
<th>Average Number of Beneficiaries per Supplier</th>
<th>Average Medicare Payments per Beneficiary</th>
<th>Average Medicare Payments per Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles, California</td>
<td>69</td>
<td>$1,525</td>
<td>$105,696</td>
</tr>
<tr>
<td>New York, New York</td>
<td>68</td>
<td>$1,264</td>
<td>$85,606</td>
</tr>
<tr>
<td>Philadelphia, Pennsylvania</td>
<td>38</td>
<td>$1,507</td>
<td>$56,667</td>
</tr>
<tr>
<td>Houston, Texas</td>
<td>24</td>
<td>$1,432</td>
<td>$34,951</td>
</tr>
<tr>
<td>All Other Metropolitan Areas*</td>
<td>18</td>
<td>$880</td>
<td>$16,137</td>
</tr>
</tbody>
</table>

* Suppliers’ averages are based on the transports that they provided to the beneficiaries who resided in each metropolitan area.


---

61 The average number of transports per beneficiary was also higher in the four metropolitan areas than in other metropolitan areas. Beneficiaries who resided in the four metropolitan areas each received between 3.7 and 4.8 transports on average during the first half of 2012. Beneficiaries who resided in other metropolitan areas each received an average of 2.3 transports.
CONCLUSION AND RECOMMENDATIONS

Medicare payments for ambulance transports have increased in recent years, and investigators have uncovered a variety of fraud schemes involving ambulance suppliers. Our findings suggest that inappropriate and questionable billing for ambulance transports continues to pose vulnerabilities to Medicare program integrity.

Medicare paid for ambulance transports that did not meet certain Medicare requirements to justify payment. Medicare also paid for transports that may have been billed inappropriately, because our analysis of claims data indicates that the beneficiaries did not receive Medicare services at the pick up or drop off locations, or anywhere else. Further, about one in five ambulance suppliers had questionable billing, which was geographically concentrated among beneficiaries who resided in four metropolitan areas.

Given the growth of ambulance payments and the findings of this report, CMS should enhance existing fraud and abuse safeguards. Therefore, we recommend that CMS:

**Determine whether a temporary moratorium on ambulance supplier enrollment in additional geographic areas is warranted**

CMS should determine whether to place a temporary moratorium on ambulance supplier enrollment in areas where questionable transports are concentrated. CMS imposed moratoria in the Houston area in July 2013 and in the Philadelphia area in January 2014. However, questionable transports were also concentrated in two other metropolitan areas. The Los Angeles area accounted for 15 percent of questionable transports and only 5 percent of all transports during the first half of 2012. The New York area accounted for 13 percent of questionable transports and only 8 percent of all transports.

**Require ambulance suppliers to include the National Provider Identifier of the certifying physician on transport claims that require certification**

For ambulance transports that require physician certification, CMS should require that the supplier include the National Provider Identifier of the physician or other certifying provider on the transport claim.\(^\text{62}\) Suppliers that had questionable billing provided nonemergency basic life support

---

\(^\text{62}\) CMS requires that the National Provider Identifier of the ordering provider be included on claims for covered imaging and clinical laboratory services and items of durable medical equipment, prosthetics, orthotics, and supplies, and that the National Provider Identifier of the ordering/certifying provider be included on claims for home health services. 42 CFR § 424.507.
transports, which typically require certification, more often than other suppliers. The physicians who certified the medical necessity of questionable transports cannot be identified in the claims data. Without this identifying information, CMS and other oversight entities are unable to conduct certain program integrity activities to ensure that these transports meet Medicare coverage requirements. If necessary, CMS should seek legislative authority to make this regulatory change. The National Provider Identifier should also be included on the physician certification statement.

**Implement new claims processing edits or improve existing edits to prevent inappropriate payments for ambulance transports**

CMS should implement claims processing edits in its shared system to prevent inappropriate payments for ambulance transports that did not meet the requirements that we examined. These edits should identify claims and reject payments for transports that are to or from noncovered destinations and transports with inappropriate combinations of destinations and transport levels.

**Increase its monitoring of ambulance billing**

CMS should monitor the billing of ambulance transports by using measures of questionable billing similar to those that we examined. Zone Program Integrity Contractors should identify suppliers that bill at unusually high levels for transports with the characteristics described in these measures. CMS’s Fraud Prevention System should also be used to identify suppliers that have questionable billing for these measures. As appropriate, CMS and its contractors should refer these suppliers to law enforcement for investigation. It may be prudent for CMS to focus its monitoring of suppliers’ billing patterns in geographic areas where questionable billing is concentrated.

**Determine the appropriateness of claims billed by ambulance suppliers identified in the report and take appropriate action**

In a separate memorandum, we will refer to CMS the claims that did not meet certain Medicare requirements and the ambulance suppliers that had questionable billing in the first half of 2012. CMS or its contractors should further assess these suppliers’ claims—for example, by reviewing medical records or performing unannounced site visits. CMS should then determine what appropriate actions, if any, are needed. Appropriate actions could include recouping any inappropriate payments; suspending payments to the supplier; educating the supplier on how to properly bill for transports; revoking the supplier’s Medicare billing privileges; or referring the supplier to law enforcement for criminal investigation.
CMS concurred with our recommendation to determine whether a temporary moratorium on ambulance supplier enrollment in additional geographic areas is warranted. CMS stated that it will continue to monitor geographic areas for a significant potential for fraud, waste, or abuse, and will impose additional temporary moratoria if warranted.

CMS concurred with our recommendation to require ambulance suppliers to include the National Provider Identifier of the certifying physician on transport claims that require certification. CMS stated that it will explore the best way to implement our recommendation to require ambulance suppliers to include the National Provider Identifier of the certifying physician on transport claims that require certification.

CMS concurred with our recommendation to determine the appropriateness of claims billed by ambulance suppliers identified in the report and take appropriate action. CMS stated that it will conduct an analysis of the claims identified in this report and determine the appropriate number of claims to review.

Although CMS concurred with our recommendation to increase its monitoring of ambulance billing, the actions that it described do not appear to fully address the recommendation. CMS stated that it would continue its current monitoring of ambulance billing, whereas we recommended that it increase monitoring by using measures similar to those outlined in this report to identify ambulance suppliers with patterns of questionable billing. In its final management decision, CMS should indicate whether and how it plans to increase monitoring.

CMS partially concurred with our recommendation to implement new claims processing edits or improve existing edits to prevent inappropriate payments for ambulance transports. CMS indicated that it will review data on claims identified in this report and will consider whether to enhance current claims processing edits. CMS should use the results of its review to implement new, or modify existing, claims processing edits needed to prevent inappropriate payments.

We withdrew two recommendations from our draft report.

For the full text of CMS’s comments, see Appendix D.63

63 In August 2015, we offered CMS the opportunity to update its comments on the draft report. CMS provided updated technical comments, which we incorporated into the final report as appropriate. CMS did not update its formal comments.
## Ambulance Transport Levels and Medicare Payments in 2012 by Level

<table>
<thead>
<tr>
<th>Transport Level</th>
<th>Procedure Code</th>
<th>Total Medicare Payments</th>
<th>Number of Transports</th>
<th>Average Payment Amount per Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced life support—nonemergency</td>
<td>A0426</td>
<td>$82,036,627</td>
<td>315,322</td>
<td>$260</td>
</tr>
<tr>
<td>Advanced life support—emergency</td>
<td>A0427</td>
<td>$2,061,259,816</td>
<td>4,984,105</td>
<td>$414</td>
</tr>
<tr>
<td>Basic life support—nonemergency</td>
<td>A0428</td>
<td>$1,481,128,407</td>
<td>6,685,824</td>
<td>$222</td>
</tr>
<tr>
<td>Basic life support—emergency</td>
<td>A0429</td>
<td>$953,912,406</td>
<td>2,687,644</td>
<td>$355</td>
</tr>
<tr>
<td>Paramedic intercept*</td>
<td>A0432</td>
<td>$1,145,651</td>
<td>3,067</td>
<td>$374</td>
</tr>
<tr>
<td>Advanced life support (level 2)**</td>
<td>A0433</td>
<td>$66,828,516</td>
<td>111,723</td>
<td>$598</td>
</tr>
<tr>
<td>Specialty care transport</td>
<td>A0434</td>
<td>$75,733,041</td>
<td>103,315</td>
<td>$733</td>
</tr>
</tbody>
</table>

* Paramedic intercept transports are provided when a basic life support ambulance is dispatched but the beneficiary needs advanced life support. For these transports, a paramedic emergency medical technician meets the basic life support ambulance at the scene or once the ambulance is on the way to the hospital. The paramedic intercept benefit is limited to certain rural areas, a list of which is published periodically in the Federal Register.

** Advanced life support (level 2) transports include the provision of at least three separate administrations of one or more medications or the provision of at least one level 2 procedure (e.g., central venous line, chest decompression).

Notes: Medicare pays for mileage under procedure code A0425. Medicare payments for mileage in 2012 totaled $1,079,084,350. Dollar amounts have been rounded to the nearest whole number.

APPENDIX B

Detailed Description of Measures of Questionable Billing for Ambulance Transports

We calculated the seven measures of questionable billing as follows:

1. *No Medicare Service at the Origin or Destination.* This measure represents the percentage of a supplier’s transports to destinations and from origins where the beneficiary did not receive Medicare services. We identified transports for which the beneficiaries did not receive Medicare services within 1 day of their transports at the facilities where we expected, on the basis of the origins and destinations indicated on the transport claims, that the beneficiaries received services. For transports that the supplier indicated were to a covered facility (i.e., hospital, dialysis facility, or SNF), we determined whether the beneficiaries received services at the destinations.⁶⁴ For transports that the supplier indicated were from a covered facility to a residence, we determined whether the beneficiaries received services at the origin.⁶⁵ We did not determine whether beneficiaries received services at noncovered facilities. We identified suppliers with unusually high levels of this measure among all 15,614 suppliers. At a minimum, these suppliers incorrectly indicated on their claims the transport’s origin or destination. Alternatively, suppliers that had questionable billing for this measure may have billed for transports that were to or from a noncovered destination; transports for which the beneficiary did not receive a Medicare service; or transports that were not provided.

Our identification of transports for the first measure of questionable billing resembles our identification of (1) ambulance transports for which beneficiaries received services only at noncovered destinations (see page 7) and (2) transports for which the beneficiaries did not receive Medicare services at any origin or destination (see page 7). The first measure includes both sets of transports as well as transports for which the beneficiaries received services at different covered origins or destinations than those indicated on the transport

---

⁶⁴ For transports that the supplier indicated were between a hospital and dialysis facility, we determined whether the beneficiary received a service at either a hospital or dialysis facility.

⁶⁵ For transports that the supplier indicated were between a hospital or dialysis facility and a SNF, we treated the SNF as though it were the beneficiary’s residence and determined whether the beneficiary received a service at either a hospital or dialysis facility.
claims. For example, this measure would include a transport that the
supplier indicated was to a hospital, but for which the beneficiary did
not receive a hospital service.

2. *Excessive Mileage for Urban Transports.* This measure represents a
supplier’s average mileage for transports for beneficiaries in urban
areas. We used census data and beneficiary addresses to identify
beneficiaries residing in urban areas. We identified suppliers with
unusually high levels of this measure among the 13,352 suppliers with
urban transports. Suppliers that had questionable billing for this
measure may have billed for more miles than they actually drove or
may not have transported beneficiaries to the nearest appropriate
facility.

3. *High Number of Transports per Beneficiary.* This measure represents
the extent to which a supplier that provides dialysis-related transports
is associated with beneficiaries who receive unusually high numbers of
transports. We determined the total number of transports that each
beneficiary received from any supplier. For each supplier of
dialysis-related transports, we calculated the average number of
transports per beneficiary. We identified suppliers with unusually high
levels of this measure among the 3,265 suppliers with dialysis-related
transports. Suppliers that had questionable billing for this measure
may have billed for dialysis-related transports that are medically
unnecessary or were not provided.

4. *Compromised Beneficiary Number.* This measure represents
the percentage of a supplier’s transports that were billed using
compromised beneficiary numbers. Using the Compromised Numbers
Contractor database, we identified transports that were billed with
beneficiary numbers that were compromised at any time before
June 30, 2012. Because a supplier may have mistakenly billed for
transports with compromised beneficiary numbers, we identified
suppliers with unusually high levels of this measure among the
2,218 suppliers with at least one of these transports. This allowed us
to identify suppliers that were outliers compared to other suppliers
exhibiting the behavior. Suppliers that had questionable billing for
this measure may have billed for transports that are medically
unnecessary or were not provided.

5. *Inappropriate or Unlikely Transport Level.* This measure represents
the percentage of a supplier’s transports with inappropriate or unlikely

---

66 We used census data from 2010. We defined “urban” as a metropolitan area, that is, an
area with a population of at least 50,000.
combinations of destinations and transport levels. We identified emergency transports to nonhospital destinations and specialty care transports between facilities other than hospitals or SNFs, which are inappropriate combinations. We also identified advanced life support transports between destinations other than hospitals or SNFs which, according to fraud investigators, are unlikely to be medically necessary. We identified the origins and destinations using the modifiers reported by suppliers on their claims. Because a supplier may have mistakenly billed for transports with an unlikely combination of destination and transport level, we identified suppliers with unusually high levels of this measure among the 2,036 suppliers with at least one transport with an inappropriate or unlikely combination. This allowed us to identify suppliers that were outliers compared to other suppliers exhibiting the behavior. Suppliers that had questionable billing for this measure may have billed for more expensive transport levels than they actually provided or for transports that were medically unnecessary.

Our identification of transports for the fifth measure of questionable billing resembles our identification of transports with inappropriate combinations of destinations and transport levels (see page 7). The fifth measure includes an additional combination—advanced life support transports between destinations other than hospitals or SNFs—that is unlikely to be medically necessary but is not necessarily inappropriate.

6. Beneficiary Sharing. This measure represents the number of suppliers providing dialysis-related transports to the beneficiaries transported by a given supplier. We determined the total number of suppliers from which each beneficiary received at least one dialysis-related transport. For each supplier, we calculated the average number of suppliers per beneficiary. For example, if the beneficiaries transported by a supplier did not receive transports from any other suppliers, this supplier’s average number of suppliers per beneficiary would be 1. If the supplier’s beneficiaries also received transports from other suppliers, the supplier’s average number of suppliers per beneficiary would be greater than 1. We identified suppliers with unusually high levels of this measure among the 3,265 suppliers with dialysis-related transports. Suppliers that had questionable billing for this measure may have fraudulently shared beneficiaries, or beneficiaries’ identification numbers, with other suppliers. Alternatively, these

---

suppliers may have been involved with beneficiaries who were “shopping” among suppliers to receive kickbacks.

7. **Transports To or From PHPs.** This measure represents the percentage of a supplier’s transports that were to or from PHPs. We identified transports for beneficiaries who received PHP services within 1 day of their transports. These beneficiaries received PHP services and did not receive services at a covered destination. We identified suppliers with unusually high levels of this measure among all 15,614 suppliers. Beneficiaries who meet Medicare coverage requirements for PHPs generally do not meet the requirements for transports.68 Suppliers that had questionable billing for this measure may have billed for transports to or from PHPs for beneficiaries who do not qualify for the transports.

---

68 Trailblazer Health Enterprises, LLC, *Ambulance*, June 2012, pp. 61–62. (Trailblazer’s MAC contract ended later in 2012, and its *Ambulance* publication was retired.)
### Questionable and All Ambulance Transports That Occurred in 14 Additional Areas, First Half of 2012

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage of National Total</th>
<th>Total Medicare Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Questionable Transports</td>
<td>All Transports</td>
</tr>
<tr>
<td></td>
<td>Questionable Transports</td>
<td>All Transports</td>
</tr>
<tr>
<td>Atlanta–Sandy Springs–Marietta, Georgia</td>
<td>6.7%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Chicago–Naperville–Joliet, Illinois–Indiana–Wisconsin</td>
<td>2.6%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Memphis, Tennessee–Mississippi–Arkansas</td>
<td>1.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Virginia Beach–Norfolk–Newport News, Virginia–North Carolina</td>
<td>1.5%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Greenville– Mauldin–Easley, South Carolina</td>
<td>1.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Columbia, South Carolina</td>
<td>1.2%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Macon, Georgia</td>
<td>1.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Miami–Fort Lauderdale–Pompano Beach, Florida</td>
<td>1.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>San Juan–Caguas–Guaynabo, Puerto Rico</td>
<td>0.9%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Florence, South Carolina</td>
<td>0.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Indianapolis–Carmel, Indiana</td>
<td>0.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Cincinnati–Middletown, Ohio–Kentucky–Indiana</td>
<td>0.8%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Gainesville, Georgia</td>
<td>0.8%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Flint, Michigan</td>
<td>0.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Subtotal in the 14 Additional Areas</strong></td>
<td><strong>22.2%</strong></td>
<td><strong>12.3%</strong></td>
</tr>
<tr>
<td><strong>Subtotal in the 4 Areas With the Most Questionable Transports</strong></td>
<td><strong>52.0%</strong></td>
<td><strong>18.0%</strong></td>
</tr>
<tr>
<td><strong>Subtotal in Other Areas With Questionable Transports</strong>*</td>
<td><strong>25.8%</strong></td>
<td><strong>67.8%</strong></td>
</tr>
<tr>
<td><strong>Subtotal in Areas Without Questionable Transports</strong></td>
<td>--</td>
<td>1.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

* Includes transports that did not occur in a Core Based Statistical Area, i.e., transports that occurred in areas with populations of less than 10,000.

Note: Columns may not sum to totals because of rounding.

APPENDIX D

Agency Comments

DATE: OCT 22, 2014

TO: Daniel R. Levinson
    Inspector General

FROM: Marilyn Tavenner
      Administrator


The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to review and comment on this draft report. CMS is strongly committed to eliminating fraud, waste, and abuse in ambulance transports.

To combat ambulance transport fraud and abuse, CMS is pursuing a comprehensive strategy comprised of several initiatives. CMS has used authority granted by the Affordable Care Act to establish temporary moratoria on ambulance provider and supplier enrollment in the Houston and Philadelphia metropolitan areas. The goals of the temporary moratoria are to fight fraud and safeguard taxpayer dollars while ensuring patient access to care. The temporary moratoria have allowed CMS to focus on removing bad actors from the program in these areas.

In addition, 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 ambulance transport claims, prior to payment. CMS uses the FPS to target investigative resources to suspicious claims and providers and swiftly impose administrative action if warranted. Currently, CMS has four ambulance transport models that analyze claims to detect fraud, waste and abuse.

CMS also plans to implement a prior authorization demonstration program for repetitive scheduled non-emergent ambulance transport in New Jersey, Pennsylvania, and South Carolina. CMS will test whether prior authorization helps reduce expenditures while maintaining or improving quality of care. CMS believes using a prior authorization process will help ensure services are provided in compliance with applicable Medicare coverage, coding, and payment rules before services are rendered and claims are paid.

The OIG’s recommendations and CMS’ responses to those recommendations are discussed below.
OIG Recommendation
Reassess enrollment screening standards for ambulance suppliers.

CMS Response
CMS does not concur with this recommendation. In 42 CFR 424.518, ambulance providers and suppliers are designated to the moderate level of screening. CMS may adjust the categorical risk levels of providers to "high" if any of the following "triggering" events occur with respect to the provider or supplier:

- Payment suspension imposed by CMS within the previous 10 years; Medicare exclusion by the Office of Inspector General;
- Medicare billing privileges revoked within the previous 10 years;
- Medicaid terminated or billing privileges revoked;
- Exclusion from any federal health care program;
- Subject to any final adverse action in the past 10 years; or
- Enrollment in an area where a moratorium had been lifted in past 6 months.

When CMS lifts the current provider enrollment moratoria on ambulance providers in the metropolitan areas of Houston and Philadelphia, CMS will consider requiring newly-enrolling ambulance providers to be designated to the high level of screening for a period of six months.

OIG Recommendation
Determine whether a temporary moratorium on ambulance supplier enrollment in additional geographic areas is warranted.

CMS Response
CMS concurs with this recommendation. CMS will continue to monitor geographic areas for a significant potential for fraud, waste, or abuse in ambulance transports. Where CMS finds that further action is warranted, we will issue additional temporary moratoria on ambulance provider and supplier enrollment.

OIG Recommendation
Require that ambulance suppliers include the National Provider Identifier of the certifying physician on transport claims that require certification.

CMS Response
CMS concurs with this recommendation. CMS will explore the best way to implement this recommendation.

OIG Recommendation
Educate physicians who certify dialysis-related ambulance transports on Medicare’s coverage requirements.

CMS Response
CMS concurs with this recommendation. In summer 2014, we released two Medicare Learning Network articles on the Medicare ambulance transport benefit. These articles discuss coverage
and billing requirements for ambulance transports, including dialysis-related ambulance transports. In addition, CMS is considering issuing a technical direction letter to reiterate that the only appropriate origins and destinations for specialty care transport (SCT) are between hospitals and SNFs in response to OIG’s findings regarding SCT transport in this report.

**OIG Recommendation**
Implement claims processing edits or improve existing edits to prevent inappropriate payments for ambulance transports.

**CMS Response**
CMS partially concurs with this recommendation. We look forward to analyzing the claims data reviewed by OIG, once received from OIG. CMS will consider whether enhancements to the current claims processing edits are needed to prevent inappropriate payments for ambulance transports.

**OIG Recommendation**
Increase monitoring of ambulance billing.

**CMS Response**
CMS concurs with this response. CMS will continue its efforts to monitor ambulance billing, including the moratoria on ambulance providers and suppliers in certain areas, conducting announced and unannounced site visits, and ongoing revalidation. In addition, we will implement further temporary moratoria on ambulance provider and supplier enrollment when warranted; require that ambulance providers and suppliers include the National Provider Identifier of the certifying physician on transport claims that require certification; and consider claims processing edits to prevent inappropriate payments.

**OIG Recommendation**
Determine the appropriateness of claims billed by ambulance suppliers identified in the report and take appropriate action.

**CMS Response**
CMS concurs with this recommendation. CMS requests that OIG furnish the necessary data (e.g. Medicare contractor number, provider number, claims information including the paid data, claim number, Health Insurance Claim Number, overpaid amount, etc.) to follow-up on the claims. In addition, CMS requests that current Medicare contractor-specific data be sent through a secure portal to better facilitate the transfer of information to the appropriate contractor. Upon receipt of the files from OIG, CMS will conduct an analysis to determine return on investment. Based on analysis and contractor resources, CMS will determine an appropriate number of claims to review.

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 Blaine Collins, Regional Inspector General for Evaluation and Inspections in the San Francisco regional office, and Michael Henry, Deputy Regional Inspector General.

Sarah Ambrose served as the team leader for this study, and Veronica Gonzalez served as the lead analyst. Other Office of Evaluation and Inspections staff from the San Francisco regional office who conducted the study include Timothy Brady, Joyce Greenleaf, and Bi Nguyen. Central office staff who provided support include Berivan Demir Neubert, Evan Godfrey, Althea Hosein, Scott Manley, and Christine Moritz.
Office of Inspector General
http://oig.hhs.gov

The mission of the Office of Inspector General (OIG), as mandated by Public Law 95-452, as amended, is to protect the integrity of the Department of Health and Human Services (HHS) programs, as well as the health and welfare of individuals served by those programs. This statutory mission is carried out through a nationwide network of audits, investigations, and inspections conducted by the following operating components:

Office of Audit Services

The Office of Audit Services (OAS) provides auditing services for HHS, either by conducting audits with its own audit resources or by overseeing audit work done by others. Audits examine the performance of HHS programs and/or its grantees and contractors in carrying out their respective responsibilities and are intended to provide independent assessments of HHS programs and operations. These assessments help reduce waste, abuse, and mismanagement and promote economy and efficiency throughout HHS.

Office of Evaluation and Inspections

The Office of Evaluation and Inspections (OEI) conducts national evaluations to provide HHS, Congress, and the public with timely, useful, and reliable information on significant issues. These evaluations focus on preventing fraud, waste, or abuse and promoting economy, efficiency, and effectiveness of departmental programs. To promote impact, OEI reports also present practical recommendations for improving program operations.

Office of Investigations

The Office of Investigations (OI) conducts criminal, civil, and administrative investigations of fraud and misconduct related to HHS programs, operations, and individuals. With investigators working in all 50 States and the District of Columbia, OI utilizes its resources by actively coordinating with the Department of Justice and other Federal, State, and local law enforcement authorities. The investigative efforts of OI often lead to criminal convictions, administrative sanctions, and/or civil monetary penalties.

Office of Counsel to the Inspector General

The Office of Counsel to the Inspector General (OCIG) provides general legal services to OIG, rendering advice and opinions on HHS programs and operations and providing all legal support for OIG’s internal operations. OCIG represents OIG in all civil and administrative fraud and abuse cases involving HHS programs, including False Claims Act, program exclusion, and civil monetary penalty cases. In connection with these cases, OCIG also negotiates and monitors corporate integrity agreements. OCIG renders advisory opinions, issues compliance program guidance, publishes fraud alerts, and provides other guidance to the health care industry concerning the anti-kickback statute and other OIG enforcement authorities.