

CHAPTER

7

**Mandated report:
Medicare payment for
ambulance services**

R E C O M M E N D A T I O N S

7-1 The Congress should:

- allow the three temporary ambulance add-on policies to expire;
- direct the Secretary to rebalance the relative values for ambulance services by lowering the relative value of basic life support nonemergency services and increasing the relative values of other ground transports. Rebalancing should be budget neutral relative to current law and maintain payments for other ground transports at their level prior to expiration of the temporary ground ambulance add-on; and
- direct the Secretary to replace the permanent rural short-mileage add-on for ground ambulance transports with a new budget-neutral adjustment directing increased payments to ground transports originating in geographically isolated, low-volume areas to protect access in those areas.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

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7-2 The Congress should direct the Secretary to:

- promulgate national guidelines to more precisely define medical necessity requirements for both emergency and nonemergency (recurring and nonrecurring) ground ambulance transport services;
- develop a set of national edits based on those guidelines to be used by all claims processors; and
- identify geographic areas and/or ambulance suppliers and providers that display aberrant patterns of use, and use statutory authority to address clinically inappropriate use of basic life support nonemergency ground ambulance transports.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Mandated report: Medicare payment for ambulance services

Chapter summary

Section 3007(e) of the Middle Class Tax Relief and Job Creation Act of 2012 directed the Commission to report to the Congress by June 15, 2013, on the Medicare ambulance fee schedule. Specifically, the Commission was directed to examine the impacts of three temporary add-on payments made under the ambulance fee schedule on ambulance providers' Medicare margins. These three payment policies:

- increase payments for ground ambulance transports provided to beneficiaries in urban areas by 2 percent and in rural areas by 3 percent,
- increase payments for ground ambulance transports in “super-rural” areas by 22.6 percent, and
- designate certain counties as rural for purposes of applying a 50 percent increase in payments for air ambulance services provided in rural areas.

In addition to the temporary add-on payments, two permanent add-on payment policies apply if the ZIP code from which a patient is transported is rural: One increases the standard mileage rate by 50 percent for the first 17 miles for ground ambulance transports, and the other pays 50 percent more for air ambulance transports.

At the time the Commission was mandated to conduct this study, the three temporary payment provisions were expected to expire at the end of

In this chapter

- Introduction
- Framework to evaluate policy issues
- Background
- Growth in use of Medicare ambulance services suggests no access problems, but more rapid growth in nonemergency services raises concerns
- Dialysis-related ambulance transports raise fraud and abuse concerns
- Costs of providing ambulance services are difficult to isolate and policies to help cover costs where needed are not efficiently targeted
- Summary and recommendations

calendar year 2012. To best advise the Congress on expiration of the temporary provisions, the Commission conducted most of the analytic work underlying this chapter from March through October 2012, and the Commissioners voted on the recommendations in November 2012. The information presented here informed the Commission's decisions made at that time.

Medicare pays for ambulance services using a fee schedule that is similar in structure to the physician fee schedule. The fee schedule pays ambulance suppliers (those that are freestanding, non-institution based) and ambulance providers (those that are based at an institution, such as a hospital) a fixed payment that reflects the intensity of the ambulance service provided and a mileage rate that depends on the distance a patient is transported.

To conduct this study, we examined Medicare claims and cost data, analyzed reports from the Government Accountability Office (GAO) and Department of Health and Human Services Office of Inspector General, and held extensive discussions with representatives of ground and air ambulance suppliers and providers. We found:

- Of the approximately \$5.3 billion in Medicare payments for ambulance services in 2011, the three temporary add-on payment policies accounted for about \$192 million and the two permanent add-on payment policies accounted for approximately \$220 million more, for total add-on payments of about \$412 million, or about 8 percent of total Medicare payments for ambulance services.
- There was no evidence of Medicare beneficiaries having difficulty accessing ambulance services. We observed consistent growth in ambulance service use per beneficiary and spending for these services. The number of ambulance suppliers participating in Medicare grew steadily from 2007 to 2011.
- Medicare ambulance volume grew by roughly 10 percent from 2007 to 2011, and basic life support (BLS) nonemergency services grew more rapidly than more complex types of services. Much of the growth in BLS nonemergency transports was concentrated among a small share of ambulance suppliers and providers. Many of the newest suppliers entering the marketplace focus on providing nonemergency BLS services. Further, even more pronounced growth has occurred in nonemergency ambulance transports to and from dialysis facilities, and there is tremendous variation across states and territories in per capita spending for those types of transports.
- Medicare currently does not collect supplier cost data to set or update ambulance payment rates. GAO surveyed a sample of ambulance suppliers in

2012 and found that the 2010 median Medicare margin for the survey sample was 2 percent with the temporary add-ons and estimated that the margin would be –1 percent without the add-ons (Government Accountability Office 2012). GAO found that higher costs were associated with lower volume, more emergency versus nonemergency transports, and higher levels of government subsidies. The recent entry of for-profit suppliers and private equity firms into the ambulance industry indicates the availability of profit opportunities in the industry.

- Air ambulance transports made up less than 1 percent of total ambulance claims but, because of their high cost, represented 8 percent of total Medicare spending on ambulance services in 2011. The number of air ambulance suppliers has increased rapidly over the past 10 years, which coincides with implementation of the ambulance fee schedule in 2002 and its add-on payments for air ambulance services to rural areas.
- The current ground ambulance add-ons are not well targeted.

On the basis of these findings, the Commission made two recommendations to the Congress. These recommendations were transmitted to the Congress in November 2012, and therefore the budget impacts assumed adoption of the recommendations by January 1, 2013.

The first recommendation would allow the temporary add-ons to expire. Because their expiration might raise concerns about access, the recommendation includes two steps to maintain access. One step is to direct the Secretary to rebalance the relative values for ambulance services by lowering the relative value of BLS nonemergency services and increasing the relative values of other ground transports. Rebalancing should be budget neutral relative to current law and maintain payments (and thus access) for other ground transports at their level before expiration of the temporary ground ambulance add-on. The second step directs the Secretary to replace the permanent rural short-mileage add-on for ground ambulance transports with a new budget-neutral adjustment directing increased payments to ground transports originating in geographically isolated, low-volume areas to protect access in those areas. Adoption of this recommendation by January 1, 2013, would have resulted in a very small level of savings below the estimated spending under current law in 2013. The relative value unit rebalancing policy and the new permanent isolated low-volume policy are both budget neutral by design. The American Taxpayer Relief Act of 2012 in large part extended the add-ons by one year until January 1, 2014.

Because of evidence of inappropriate use of certain BLS nonemergency transports, we also recommend that the Congress direct the Secretary to: more precisely define medical necessity requirements for both emergency and nonemergency (recurring and nonrecurring) ground ambulance transport services, develop a set of national edits based on those guidelines to be used by all claims processors, identify geographic areas and ambulance suppliers and providers that display aberrant patterns of use, and use statutory authority to address clinically inappropriate use of BLS nonemergency ground ambulance transports. Reducing clinically inappropriate use of BLS nonemergency services should result in program savings. ■

Section 3007(e) of the Middle Class Tax Relief and Job Creation Act of 2012

(e) MEDPAC REPORT.—The Medicare Payment Advisory Commission shall conduct a study of—

(1) the appropriateness of the add-on payments for ambulance providers under paragraphs (12)(A) and (13)(A) of section 1834(l) of the Social Security Act (42 U.S.C. 1395m(l)) and the treatment of air ambulance providers under section 146(b)(1) of the Medicare Improvements for Patients and Providers Act of 2008 (Public Law 110–275);

(2) the effect these add-on payments and such treatment have on the Medicare margins of ambulance providers; and

(3) whether there is a need to reform the Medicare ambulance fee schedule under such section and, if so, what should such reforms be, including whether the add-on payments should be included in the base payment.

Not later than June 15, 2013, the Commission shall submit to the Committees on Ways and Means and Energy and Commerce of the House of Representatives and the Committee on Finance of the Senate a report on such study and shall include in the report such recommendations as the Commission deems appropriate. ■

Introduction

In section 3007(e) of the Middle Class Tax Relief and Job Creation Act of 2012, the Congress mandated that the Commission conduct a study of the Medicare ambulance fee schedule and submit a report by June 15, 2013 (see text box for the statutory provision). The mandate specifically directed the Commission to examine the temporary add-on payments for ambulance providers, which at the time this work was mandated were scheduled to expire at the end of 2012. Extending some or all of the add-ons would increase overall Medicare spending relative to the current-law baseline, unless the cost of extending those provisions was offset by other spending reductions. To respond promptly, we conducted this work from March through October 2012 and made recommendations to the Congress in November 2012.

Medicare spent \$5.3 billion for ambulance services in 2011, about 1 percent of total program spending.¹ Ambulance services are covered under Medicare Part B, and beneficiaries pay 20 percent coinsurance for the covered ambulance services they receive after their Part B deductible is met. In 2011, about 5.2 million Medicare beneficiaries (16 percent of Part B beneficiaries in traditional fee-for-service (FFS) Medicare) used an ambulance service for which Medicare made a payment. Medicare beneficiaries use ambulance services for a variety of reasons, such as unscheduled emergency

transport to a hospital emergency department for treatment of an acute illness or injuries from an accident; scheduled nonemergency transport upon discharge from an inpatient hospital to a skilled nursing facility (SNF) or to the person's home; and scheduled, repeated, and nonemergency transports to and from dialysis treatments.

The entities that bill Medicare for providing ambulance services are defined as suppliers, which are non-institutionally based (such as a local fire department, public emergency medical services agency, or private for-profit company), or providers, which are those based at a health care institution (such as a community hospital or nursing facility). All types of ambulance suppliers and providers are reimbursed under the Medicare ambulance fee schedule. The ambulance fee schedule was phased in beginning in 2002 and fully implemented in 2010. Before 2002, suppliers' payments were based on charges, and providers' payments were based on costs. A brief history of the development and implementation of the ambulance fee schedule is provided in online Appendix 7-A to this chapter, available at <http://www.medpac.gov>.

Framework to evaluate policy issues

The Commission approached the development of policy options for ambulance payment from the position that spending above the current-law baseline (which reflects

**TABLE
7-1**

Change in number of ambulance suppliers and providers billing Medicare, 2008–2011

Type of ambulance entity	2008		2011		Percent change in number of entities, 2008–2011
	Number	Percent of total	Number	Percent of total	
Suppliers	10,233	92.4%	10,630	93.6%	3.9%
Providers	840	7.6	725	6.4	-13.7
Total	11,073	100.0	11,355	100.0	2.5

Note: Suppliers are freestanding rather than institution-based entities. Providers are institution-based entities.

Source: MedPAC analysis of Medicare carrier and outpatient claims data.

the expiration of the statutory provisions we had been asked to review) would not be warranted unless there was strong evidence that doing so would improve access, or quality, or would advance reform of the health care delivery system. Therefore, we consider the evidence on:

- What effect would a possible action have on program spending relative to current law?
- Would the possible action improve beneficiaries’ access to care?
- What is the effect of a potential action on the quality of care?
- Does the action advance delivery system reform? Does it move Medicare payment policy away from FFS payment and encourage a more integrated delivery system?

For each recommendation, we discuss the implications for these points.

Background

In this section, we first look at the structure of the ambulance industry. We then describe Medicare’s ambulance payment system and specifically the add-on payments within it.

Industry structure

The ambulance industry is primarily made up of suppliers—that is, freestanding rather than institution-based entities (which Medicare terms providers)—and is becoming increasingly for profit. In 2011, 11,355 entities provided ambulance services to Medicare beneficiaries

(Table 7-1). Of this total, 93.6 percent were suppliers and 6.4 percent were providers (almost all of which were hospital based).

Suppliers have outnumbered providers for many years; from 2008 to 2011, the number of suppliers increased 3.9 percent and the number of providers decreased 13.7 percent. Collectively, the number of suppliers and providers increased 2.5 percent during this time.

Suppliers

From 2008 to 2011, the number of noninstitutional suppliers of ambulance services billing Medicare increased from 10,233 to 10,630 suppliers (Table 7-1); for-profit suppliers grew more rapidly than other provider types.² According to the most current data available from the Census Bureau County Business Patterns data set, in 2010, 3,289 for-profit suppliers and 1,690 nonprofit suppliers were operating in the ambulance marketplace (Table 7-2).³ For-profit suppliers may account for as much as 31 percent of suppliers billing Medicare in 2010, with nonprofit suppliers accounting for as much as 16 percent.⁴ From 2008 to 2010, the number of for-profit suppliers of ambulance services grew more than twice as fast (8.4 percent) as the number of nonprofit suppliers (3.2 percent). Among the for-profit suppliers, those categorized as corporations and S corporations accounted for the vast majority of suppliers and their numbers increased from 2008 to 2010 by 8 percent and 16 percent, respectively.

Institution-based providers

In 2011, 725 institution-based providers billed the Medicare program for ambulance services. From 2008 to 2011, the number of providers billing Medicare decreased almost 14 percent (Table 7-1). This finding is in line with other anecdotal evidence suggesting that in recent

**TABLE
7-2**

Growth in number of ambulance suppliers, 2008–2010

Type of supplier	Data source	Number of suppliers		Change		Percentage of suppliers
		2008	2010	Number	Percent	
Suppliers billing Medicare	Medicare claims	10,233	10,659	426	4.2%	100%
Nongovernment						
Nonprofit*	Census	1,637	1,690	53	3.2	16
For profit**	Census	3,033	3,289	256	8.4	31

Note: The Census Bureau does not provide a count of government ambulance suppliers.

*The Census Bureau’s count of nonprofit suppliers does not include ambulance suppliers that are staffed with entirely voluntary staff.

**The Census Bureau’s for-profit category for ambulance suppliers includes corporations, S corporations, sole proprietorships, and partnerships. Among this group, corporations and S corporations account for 87 percent of suppliers.

Source: MedPAC analysis of Medicare carrier and outpatient claims data and the Census Bureau’s County Business Patterns data, by legal form of organization.

years hospitals have been exiting this line of business and instead have chosen to rely on private ambulance suppliers to provide this service (McCallion 2011b). Data from the American Hospital Association’s annual survey identified a slight decline in the number of community hospitals reporting that they offered ambulance services during the 2008–2011 period. These data also indicate that large urban hospitals, small rural hospitals, critical access hospitals, and government hospitals were more likely than other types of hospitals to offer ambulance services.

Air ambulance suppliers and providers

In 2011, there were 420 air ambulance suppliers and providers that billed Medicare. From 2008 to 2011, the number of air ambulance suppliers and providers billing Medicare increased about 3 percent.

Revenue and payer mix

In 2011, ambulance industry revenues (including air and ground) amounted to approximately \$13.9 billion. About 35 percent of ambulance revenue was attributable to Medicare, 40 percent to private payers, 10 percent to Medicaid, 10 percent to fees and subsidies (community taxes, federal grants, charity, and other), and 5 percent to out-of-pocket payments. These proportions can vary greatly by supplier and provider (Snyder 2011).

Private equity

In 2011, private equity firms made significant acquisitions in the ambulance industry, acquiring the two largest private ambulance companies and two other large regional ambulance suppliers.

- Clayton Dubilier & Rice, LLC, a private equity firm, acquired Emergency Medical Services Corporation, which owns, among other entities, American Medical Response, Inc., the largest ambulance company in the United States, in a leveraged buyout valued at \$3.2 billion (De La Merced 2011).
- Warburg Pincus, LLC, a private equity firm, acquired Rural/Metro Corporation, the second largest ambulance company in the United States.
- Falck A/S, a private emergency medical and fire suppression services firm based in Denmark, and Europe’s largest ambulance company, acquired LifeStar and Care Ambulance Service, two large regional private ambulance companies on the East and West Coasts, respectively. These acquisitions made Falck the third largest ambulance company operating in the United States (Falck A/S 2011, McCallion 2011a, McCallion 2011b).

Overall, in 2011 four commercial suppliers accounted for 20 percent of all industry revenue and many large ambulance companies acquired smaller ambulance entities (Snyder 2011). Reasons for consolidation in the ambulance industry may include the forecasted expansion of health insurance coverage under the Patient Protection and Affordable Care Act of 2010, the aging of baby boomers into the Medicare program, and a recent trend in financially stressed municipalities seeking to outsource their emergency medical services to private ambulance companies (McCallion 2011b).

Ambulance payment basics

Coverage

Medicare Part B covers ambulance services including emergency and nonemergency transportation. In general, Medicare Part B covers ambulance services when other transportation could endanger the life of the beneficiary. Specifically, among other conditions, the transport must be medically necessary and to the nearest appropriate destination. See *Medicare payment basics: Ambulance services payment system* for a complete list of conditions (http://medpac.gov/documents/MedPAC_Payment_Basics_12_ambulance.pdf).

Ambulance transports that precede a Part A–covered stay are reimbursed under Part B and are not bundled into the payment for the Part A stay as a part of Medicare’s 72-hour rule.⁵ The cost of ambulance transports occurring during a Medicare Part A stay in an inpatient hospital or SNF is generally covered by the Part A payment, and Medicare does not make a separate payment under Part B. Once the beneficiary has been admitted for a Part A–covered inpatient stay, a separate Part B payment is allowed for an ambulance transport only under specific conditions.⁶

To determine the appropriateness of emergency and nonemergency transports, CMS relies on local protocols and physician certification procedures. For emergency transports, CMS guidance states that the determination to respond emergently with an advanced life support (ALS) or basic life support (BLS) ambulance must be in accord with the local 911 or equivalent service dispatch protocol but also that the beneficiary’s condition at the scene may determine the appropriate level of response (Centers for Medicare & Medicaid Services 2002).⁷

CMS’s written guidance for determining the appropriateness of nonemergency transports depends on the scheduled and recurring nature of the transport and relies on physician certification for validation in most cases.⁸ However, unscheduled and nonrecurring nonemergency transports originating from beneficiaries’ residences or facilities in which they reside, within which they are not under the care of a physician, do not require the supplier or provider to obtain physician certification.

Payment

Medicare’s national ambulance fee schedule pays suppliers and providers for transport of the beneficiary to the nearest appropriate facility and for all items and

services associated with the transport in a single payment. Medicare does not separately pay ambulance suppliers or providers for any services provided to a beneficiary during ambulance transport. Therefore, the single ambulance fee schedule payment includes items and services such as oxygen, drugs, extra attendants, and electrocardiogram testing when such services are medically necessary. In addition, Medicare does not reimburse for ambulance transport in the absence of an actual transport (i.e., if the ambulance crew responds to a call and finds the patient does not need transport).

Medicare Part B covers 80 percent of the Medicare-approved amount of a covered ambulance transport. Beneficiaries pay the remaining 20 percent of the Medicare-approved amount once they have reached the annual Part B deductible (\$140 in 2012).⁹ Beneficiaries’ actual out-of-pocket coinsurance payment may be less than 20 percent of the allowed amount if they have supplemental insurance (such as medigap) that covers Part B coinsurance liabilities or if they are dually eligible for Medicare and Medicaid (the state Medicaid program may cover all, some, or none of the beneficiary coinsurance liability, depending on the state, but in any case the dually eligible beneficiary is not liable).

Standard fee schedule formula for ground ambulance services The national ambulance fee schedule has two components—a base payment and a mileage payment—whose sum is the total Medicare payment for each ambulance transport. The base payment consists of three parts: the relative value unit (RVU), which reflects the relative severity or service level of the ambulance transport; a conversion factor (CF), which is used to convert the RVU into a payment expressed in monetary terms; and a geographic adjustment factor (GAF), which is used to account for geographic differences in the cost of providing ambulance services.¹⁰ These three parts are multiplied to generate the base Medicare payment for each ambulance transport. The payment for the mileage component is the product of miles traveled with the patient and a mileage rate determined by CMS.

Relative value units The ambulance fee schedule contains seven distinct levels of ambulance service, and each is assigned an RVU reflecting the resources required to serve a patient at each level of transport. Nonemergency BLS ambulance transports are assigned an RVU of 1.00. Higher RVU values are assigned to transports that require a higher intensity of service than the BLS nonemergency transport. The relative values were determined through a negotiated

**TABLE
7-3**

Medicare ambulance service levels and conversion factors, 2012

Ambulance service level	RVU	CF	Mileage rate
Ground transports			
BLS			
Nonemergency	1.00	\$214.47	\$6.74
Emergency	1.60	214.47	6.74
ALS			
Nonemergency	1.20	214.47	6.74
Emergency (level 1)	1.90	214.47	6.74
Emergency (level 2)	2.75	214.47	6.74
Specialty care transport	3.25	214.47	6.74
Paramedic ALS intercept	1.75	214.47	6.74
Air transports			
Fixed wing	1.00	2,910.50	8.74
Rotary wing (helicopter)	1.00	3,383.89	21.53

Note: RVU (relative value unit), CF (conversion factor), BLS (basic life support), ALS (advanced life support).

Source: CMS.

rulemaking process prior to the beginning of the fee schedule in 2002.

Conversion factor The CF used for the national ambulance fee schedule is a dollar amount used to convert the RVU of a given ambulance case into a payment expressed in monetary terms. By statute, the CF is updated annually by the ambulance inflation factor, an amount equal to the percentage increase in the consumer price index for all urban consumers reduced by the 10-year moving average of multifactor productivity. The update for 2012 was 2.4 percent.

Geographic adjustment factor The GAF is intended to address regional differences in the cost of furnishing ambulance services. The nonfacility practice expense component of the geographic practice cost index (GPCI) is the GAF that is used as a part of the national ambulance fee schedule.¹¹ The ZIP code from which a Medicare beneficiary was transported by an ambulance establishes which GPCI is applied to generate the base payment. The GPCI applies to 70 percent of the base payment for ground ambulance cases and to 50 percent of the base payment for air ambulance cases.

Mileage payment The payment for the mileage component of the ambulance fee schedule reflects costs attributable to the use of the ambulance vehicle (e.g., fuel, maintenance,

and depreciation) and is the product of mileage and a CMS-determined mileage rate. The term mileage is referred to by CMS as “loaded miles,” or the miles an ambulance travels with a beneficiary from the point of pickup to the location of the nearest appropriate facility. The mileage rate is updated annually using the same ambulance inflation factor as is used to update the CF.

Table 7-3 shows the RVUs, CFs, and mileage rates for ambulance payment in 2012.

Add-on payment policies

From its inception, the Medicare ambulance fee schedule has incorporated several add-on payment policies tied to either the mode of ambulance transportation or the geographic location from which a beneficiary is transported. These add-on payment policies are supplemental to the standard fee schedule payment formula. The add-on payment policies hinge on CMS’s geographic categorization of the ZIP code from which a beneficiary is transported as urban, rural, or a category unique to this payment system called “super-rural.” CMS defines these three categories as follows:

- Urban ZIP codes are those located inside a metropolitan statistical area (MSA) (or in the case of New England, a New England county metropolitan area (NECMA)). Among the nearly 43,000 United

**TABLE
7-4**

Estimated value of Medicare ambulance add-on payment policies, 2011

Add-on payment	Add-on	Status	Number of claims receiving add-on payment	Spending (in millions)	Add-on payment per claim	Add-on payment per claim as share of average payment per claim
Ground ambulance add-on		Temporary	15,158,353	\$134	\$9	2.8%
Urban	2% added to base payment and mileage rate		11,569,397	86	7	2
Rural	3% added to base payment and mileage rate		3,588,956	49	14	3
Ground super-rural add-on	22.6% added to base payment	Temporary	547,830	41	74	15
Air rural county grandfathering	50% added to base payment and mileage rate	Temporary	8,295	17	2,026	50
Ground rural short mileage	50% added to mileage rate for the first 17 miles of the transport	Permanent	3,275,474	94	28	7
Air rural add-on	50% added to base payment and mileage rate	Permanent	58,532	126	2,144	50
Total				412		

Note: Not all columns of the table are additive, because some ambulance claims are eligible for multiple ground add-on payments. Some claims contain multiple phases of the same transport and can have both an air add-on payment and a ground add-on payment. In 2011, 24,000 urban air ambulance transports occurred that do not receive an add-on payment. Figures may not sum due to rounding.

Source: MedPAC estimates based on Medicare outpatient and carrier claims data files and Medicare ambulance fee schedule payment policies.

States Postal Service (USPS) ZIP codes in 2012, 52 percent were urban (22,240 ZIP codes).

- Rural ZIP codes are those located, in whole or in part, outside of an MSA or NECMA, or they are in an area wholly within an MSA or NECMA that has been identified as rural under the Goldsmith modification, which is a listing of rural areas that are isolated despite the fact that they are located within large counties that contain one or more metropolitan areas.¹² In 2012, 30 percent of all USPS ZIP codes were rural (12,827 ZIP codes).
- Super-rural ZIP codes are those located in a rural county (rural–urban commuting area) that is among the lowest quartile of all rural counties by population density. For the purpose of some add-on payment policies, super-rural ZIP codes also qualify as rural. In 2012, 18 percent of all USPS ZIP codes were super-rural (7,826 ZIP codes).

The 2012 ambulance fee schedule contained five add-on payment policies that supplement standard fee schedule payments: three temporary add-on policies that were expected to expire at the end of 2012 and two permanent add-on payment policies.

Temporary add-on payment policies

- The ground ambulance add-on payment policy increases the standard base payment and mileage rate for ground transports by 3 percent for transports originating in rural ZIP codes and by 2 percent for transports originating in urban ZIP codes. The original rationale behind this add-on payment policy was to transition ambulance suppliers and providers from the pre-2002 cost- and charge-based reimbursement system to the post-2002 fee schedule. This add-on policy was originally set at 2 percent for rural and 1 percent for urban but was increased to its current levels by the Medicare Improvements for Patients and Providers Act of 2008.

- The super-rural add-on payment policy increases the base payment for ground ambulance transports by 22.6 percent when the point-of-pickup ZIP code is designated as super-rural. It is additive to the 3 percent ground ambulance policy for rural transports discussed previously (p. 176) and the permanent rural short mileage add-on discussed below. Mandated by the Medicare Modernization Act of 2003, this policy was implemented in July 2004. The original rationale for this policy was to address the higher costs of providing ambulance services in rural areas resulting from an overall lower volume of services.¹³
- In addition to a permanent add-on payment policy in place for rural air ambulance services, the air transport rural grandfathering add-on payment policy extends the benefits of the 50 percent add-on payment for air ambulance transports originating in urban areas that were formerly designated as rural. (In 2006, the Office of Management and Budget changed the designation of a number of areas from rural to urban based on census data.) The geographic areas affected by this exception include approximately 3,400 ZIP codes, or 8 percent of all ZIP codes, in 47 states. The original rationale for this policy was to ease the transition of providers serving urban communities formerly classified as rural communities and to promote access to air ambulance services.

Permanent add-on payment policies

- The rural short-mileage ground ambulance add-on payment policy has been a part of the Medicare ambulance payment system since 2002. This add-on payment policy increases the standard mileage rate by 50 percent for ground ambulance transports for the first 17 miles of transports that originate in rural ZIP codes. CMS’s stated rationale for this policy at the time of implementation was to supplement the standard payment “with consideration of the circumstances of isolated, essential ambulance suppliers (that is, when there is only one ambulance service in a given geographic area) which may not furnish many trips over the course of a typical month because of a small rural population.” CMS acknowledged in its 2002 ambulance payment system final rule that this policy might not be precise enough to limit the add-on payment to isolated low-volume ambulance providers and suppliers (Centers for Medicare & Medicaid Services 2002).

- The rural air transport add-on payment policy reimburses providers and suppliers 50 percent more than the urban air ambulance base payment and mileage rate, if a beneficiary is transported from a rural ZIP code. This policy was included in the Medicare ambulance fee schedule at its inception. In its 2002 ambulance payment system final rule, CMS stated that this policy was also intended to supplement the standard payment “with consideration of the circumstances of isolated, essential ambulance suppliers which may not furnish many trips over the course of a typical month because of a small rural population” (Centers for Medicare & Medicaid Services 2002).

Estimated value of the ambulance add-on payment policies

In 2011, the five ambulance add-on payment policies increased payments to ambulance suppliers and providers by approximately \$412 million (Table 7-4), or about 8 percent of total ambulance payments. Nearly all Medicare ambulance claims (15.2 million) received at least one of the five add-on payments.¹⁴ The three temporary add-ons accounted for \$192 million, or just under 4 percent of total payments.

Growth in use of Medicare ambulance services suggests no access problems, but more rapid growth in nonemergency services raises concerns

Growth in beneficiaries’ use of ambulance transports and in payments per claim suggests that beneficiaries’ access to ambulance services is not a problem. However, in the absence of clear national guidance on medical necessity, substantial growth in nonemergency dialysis transports, the concentration of these services among a subset of suppliers, and spending for these services in some states reaching three times the national average suggest excessive or inappropriate use of this benefit. Further, numerous criminal cases involving nonemergency dialysis transports have been investigated by the Department of Health and Human Services Office of Inspector General and prosecuted by the Department of Justice.

Growth in use of Medicare ambulance services suggests access is good

In 2011, ambulance suppliers and providers received approximately \$5.3 billion in Medicare FFS payments for ambulance services, or about 1 percent of all Medicare

**TABLE
7-5**

Growth in Medicare ambulance spending and claims volume, 2007-2011

Utilization measure	2007	2008	2009	2010	2011	Average annual percent change 2007-2011
Total Medicare payments (in billions)	\$4.4	\$4.7	\$5.0	\$5.2	\$5.3	5.3%
Payments per FFS beneficiary	\$126	\$136	\$148	\$152	\$152	5.2
Total Medicare claims (in millions)	13.8	14.1	14.4	15.0	15.2	2.5
Claims per 100 FFS beneficiaries	39.9	41.3	42.6	43.8	43.8	2.6
Ambulance users per 100 FFS beneficiaries	13.9	14.3	14.4	14.6	14.6	1.3
Claims per FFS user	2.87	2.90	2.97	3.00	3.01	1.2
Payments per FFS user	\$906	\$955	\$1,030	\$1,041	\$1,044	3.8
Payments per claim	\$316	\$329	\$347	\$347	\$347	2.5

Note: FFS (fee-for-service). Denied ambulance claims have been removed from this analysis. Average annual percent change numbers are calculated from original (unrounded) data.

Source: MedPAC analysis of Medicare carrier and outpatient claims files.

spending (Table 7-5). From 2007 to 2011, Medicare payments for ambulance services per FFS beneficiary increased at an average annual growth rate of 5.2 percent. About half of this amount is accounted for by claim volume growth and half by growth in payments per claim.¹⁵

BLS nonemergency transports grew faster than most other types of transports

From 2007 to 2011, ambulance transport volume per FFS beneficiary increased 9.9 percent (Table 7-6). Within this aggregate growth, we note:

- Over 94 percent of services were provided by suppliers, and the small share provided by institutional providers was decreasing.
- In 2011, ground ambulance claims accounted for nearly all of the ambulance transports, with air transports accounting for less than 1 percent of claims. (In contrast, air ambulance transports accounted for 8 percent of spending. See online Appendix 7-B, available at <http://www.medpac.gov>, for an analysis of 2011 Medicare ambulance claims and payments by type of service.) Due to more rapid growth in ground transports in recent years, the proportion of ground transports has increased, while the proportion of air transports has decreased.
- BLS transports grew faster relative to ALS transports (10.9 percent vs. 8.1 percent); more specifically, BLS nonemergency transports grew faster than BLS emergency transports (11.4 percent vs. 9.6 percent).

(Specialty care transport claims also increased rapidly, but they represent less than 1 percent of all ambulance claims.)

- Urban claims represented the largest share of claims and grew most rapidly (10.7 percent).

BLS nonemergency transports grew more rapidly in urban locations

The shares of service types differ by urban, rural, and super-rural location (Table 7-7, p. 180). For example, in 2011, air transports made up 5 percent of claims in super-rural areas compared with a negligible number in urban areas. BLS nonemergency transports were the most common service among those originating from urban ZIP codes (45 percent), while ALS emergency transports were more common when the transports originated in rural and super-rural ZIP codes (41 percent and 52 percent, respectively).

As shown in Table 7-8 (p. 180), from 2007 to 2011, urban BLS nonemergency transports grew faster than other transports at 12.5 percent. By contrast, ALS emergency transports were the fastest growing service in rural and super-rural ZIP codes. Although the volume of these transports was low, ALS nonemergency transports declined in all ZIP codes.

BLS nonemergency transports concentrated among small group of suppliers

BLS nonemergency transports, which have grown rapidly, have been a major source of revenue for some suppliers

**TABLE
7-6**

Medicare ambulance claim volume by service type, 2011

Type of ambulance service	Number of claims*	Percent of total number of claims	Total percent change in number of claims per FFS beneficiary from 2007 to 2011
All claims	15,245,169	100.0%	9.9%
Noninstitutional suppliers	14,373,237	94.3	11.0
Institutional providers	871,932	5.7	-5.8
Ground	15,128,166	99.2	10.0
Air	85,293	0.6	3.6
Ground			
Emergency	8,316,215	54.6	9.9
Nonemergency	6,722,609	44.1	9.6
Specialty care transport	115,613	0.8	35.5
Ground			
BLS	9,217,940	60.9	10.9
Nonemergency	6,350,557	42.0	11.4
Emergency	2,880,528	19.0	9.6
ALS	5,808,084	38.4	8.1
Nonemergency	372,978	2.5	-14.1
Emergency (level 1)	5,306,246	35.1	10.2
Emergency (level 2)	129,476	0.9	4.9
Paramedic intercept	3,111	0.0	-13.8
Specialty care transport	115,613	0.8	35.5
Urban	11,589,720	76.0	10.7
Rural	3,077,445	20.2	8.0
Super-rural	576,902	3.8	5.9

Note: BLS (basic life support), ALS (advanced life support). Super-rural ZIP codes are those located in a rural county (rural-urban commuting area) that is among the lowest quartile of all rural counties by population density.

*Totals for groups of service types may not sum to the "all claims" total due to multiple types of services appearing on a single ambulance claim.

Source: MedPAC analysis of Medicare carrier and outpatient claims files for 2007 and 2011.

and providers. Because of their nature of being potentially scheduled transports, it is reasonable to assume that BLS nonemergency transports may have lower standby costs than emergency transports. Some suppliers and providers appear to focus almost exclusively on BLS nonemergency transports. For example:

- In 2011, approximately 1,000 suppliers and providers (16 percent of the industry) focused 90 percent to 100 percent of their business on BLS nonemergency transports and accounted for 27 percent of all BLS nonemergency transports.
- From 2008 to 2011, 1,489 new ambulance suppliers and providers began billing Medicare

for ambulance transports, and these suppliers and providers have provided a disproportionate share of BLS nonemergency services since they entered the program. Comparing the 1,489 new entities with all other suppliers and providers, 65 percent of the transports completed by the new suppliers and providers were BLS nonemergency transports. By contrast, just 41 percent of the transports completed by more established suppliers and providers were BLS nonemergency transports.

Transports to dialysis facilities growing rapidly and vary greatly by state

Transports to and from dialysis facilities are a large share of all claims and have grown noticeably in recent years.

**TABLE
7-7****Service mix of ambulance claims by location, 2011**

Service type	Urban	Rural	Super-rural	All
Air	0%	1%	5%	1%
Ground				
BLS				
Nonemergency	45	34	14	42
Emergency	19	18	24	19
ALS				
Nonemergency	2	5	6	3
Emergency (levels 1 & 2)	33	41	52	36
Special care transport	1	1	1	1
Paramedic intercept	0	0	0	0
Ground total	100	100	100	100

Note: BLS (basic life support), ALS (advanced life support). Super-rural ZIP codes are those located in a rural county (rural–urban commuting area) that is among the lowest quartile of all rural counties by population density. Columns may not add to 100 percent due to rounding.

Source: MedPAC analysis of Medicare carrier and outpatient claims files.

In 2011, transport to or from a dialysis facility was the second most common transport route, accounting for 2.3 million transports or 15 percent of all transports. In the five-year period between 2007 and 2011, the volume of dialysis facility transports increased 20 percent—more than twice the rate of all other transports combined (Table 7-9). (The most common transport route was from beneficiaries’ residences to a hospital. This trip occurred 4.8 million times in 2011, accounting for 32 percent of all transports in 2011.)

In 2011, ambulance transports to and from dialysis facilities accounted for nearly \$700 million in Medicare spending, or approximately 13 percent of Medicare ambulance spending. Of dialysis facility transports in 2011:

- Ninety-seven percent were BLS nonemergency transports.
- Eighty percent originated in urban locations.

**TABLE
7-8****Growth in number of emergency and nonemergency ambulance claims per fee-for-service beneficiary by location, 2007–2011**

Service type	Urban	Rural	Super-rural	All
All claims	10.7%	8.0%	5.9%	9.9%
BLS	12.2	6.8	0.7	10.9
Nonemergency	12.5	7.2	–3.1	11.4
Emergency	11.1	5.6	3.0	9.6
ALS	7.7	9.1	9.8	8.1
Nonemergency	–17.4	–8.4	–18.1	–14.1
Emergency	9.4	11.7	13.8	10.2

Note: BLS (basic life support), ALS (advanced life support). Super-rural ZIP codes are those located in a rural county (rural–urban commuting area) that is among the lowest quartile of all rural counties by population density.

Source: MedPAC analysis of Medicare carrier and outpatient claims files.

**TABLE
7-9**

Frequency and growth rate of Medicare ambulance transports by origin and destination code, 2011

Transport origin and destination	Number of claims	Share of claims	Percent change, 2007-2011
Residence to hospital	4,816,083	32%	8%
Dialysis facility (to or from)	2,334,188	15	20
Hospital to SNF	1,931,063	13	7
SNF to hospital	1,618,718	11	0
Accident scene to hospital	1,216,374	8	12
Hospital to hospital	1,040,776	7	15
Multiple destinations	580,377	4	18
Residential facility to hospital	566,680	4	30
Hospital to residence	543,337	4	12
Hospital to residential facility	265,093	2	5
Other	174,341	1	8
Physician's office to hospital	158,139	1	15
Total	15,245,169	100	10
Total excluding dialysis transports	12,910,981	85	9

Note: SNF (skilled nursing facility). Percents do not sum to 100 due to rounding.

Source: MedPAC analysis of Medicare carrier and outpatient claims files.

- Nearly 50 percent traveled to or from a beneficiary's residence to a dialysis facility; from 2007 to 2011, the number of these transports increased roughly 15 percent.
- Forty-four percent traveled between a SNF and a non-hospital-based (freestanding) dialysis facility; from 2007 to 2011, the number of these transports increased over 50 percent.

Medicare dialysis beneficiaries are more likely than other Medicare beneficiaries to have an ambulance transport in a given year and total payments for ambulance transports for dialysis beneficiaries, particularly to and from dialysis facilities, have grown rapidly in recent years.¹⁶ In 2011, Medicare paid nearly \$1 billion to transport dialysis beneficiaries to or from any type of facility. Among the nearly 350,000 Medicare dialysis beneficiaries, approximately 53 percent had an ambulance claim submitted on their behalf for any type of transport, amounting to approximately 3.7 million total ambulance claims. Dialysis beneficiaries who were ambulance users in 2011 had an average of 20 ambulance transports per year. This use was concentrated, as 5 percent of ambulance users had over 130 dialysis-related transports per year. This amounted to approximately \$33,000 per user and

collectively accounted for 53 percent of ambulance spending on dialysis beneficiaries.

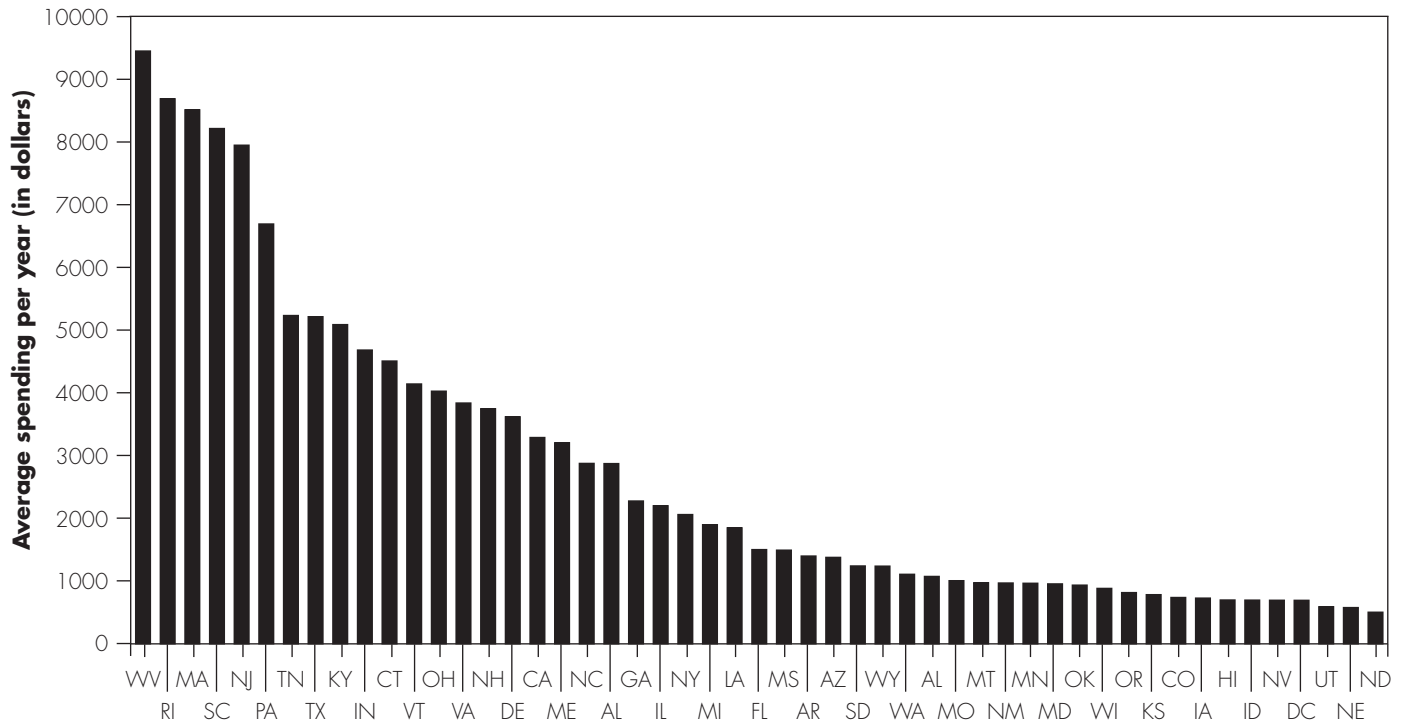
In addition, in 2011 Medicare's dialysis-facility transports were concentrated among a small group of ambulance suppliers and providers. Similar to the 16 percent of noninstitutional suppliers that focused exclusively on BLS transports and accounted for a disproportionately large share of the BLS market, about 800 suppliers and providers devoted more than half of their business to transporting dialysis beneficiaries to dialysis facilities. A subset of this group—about 200 ambulance suppliers and providers—devoted more than 90 percent of all their transports to conveying dialysis beneficiaries to and from dialysis facilities, accounting for approximately 7 percent of transports.

Ambulance spending per dialysis beneficiary varies significantly by state and territory

In recent years, national and state-level spending for ambulance transports per dialysis beneficiary increased dramatically. Using data from the United States Renal Data System (USRDS), we found that spending on ambulance services per dialysis beneficiary almost doubled from 2005 to 2009 (the latest year for which

**FIGURE
7-1**

Average annual spending on ambulance services per hemodialysis beneficiary, by state, 2009



Note: Puerto Rico (not shown on chart) had an average of \$25,000 in ambulance spending per beneficiary hemodialysis year in 2009 (spending is adjusted for the number of months beneficiaries are actively on dialysis).

Source: United States Renal Data System, 2011 Report.

data were available at the time of the analysis), growing from approximately \$1,600 per dialysis beneficiary to \$2,800 per dialysis beneficiary. This spending was much higher than average in West Virginia (\$9,500), Rhode Island (\$8,700), Massachusetts (\$8,500), South Carolina (\$8,200), New Jersey (\$8,000), and Pennsylvania (\$6,700) (Figure 7-1).¹⁷ A more dramatic outlier was Puerto Rico, with spending exceeding \$25,000 per dialysis beneficiary in 2009.

The six states identified as high ambulance spending states using 2009 USRDS data (West Virginia, Rhode Island, Massachusetts, South Carolina, New Jersey, and Pennsylvania) displayed significantly higher average ambulance spending per dialysis beneficiary using 2011 Medicare claims data. These six states were again among the highest spending states in 2011, and overall average ambulance spending per dialysis beneficiary was higher in 2011 than it was in 2009 for most states. The only exception was Puerto Rico, which had significantly lower average spending in 2011 (approximately \$7,600

per dialysis beneficiary) than was observed in 2009. We estimate that the Medicare program could save about \$150 million a year if spending per dialysis beneficiary in high-use states could be brought down to the level of spending in the state at the 75th percentile of spending, and \$460 million if spending per dialysis beneficiary in high-use states could be brought down to the level of spending in the state at the 50th percentile of spending.

Dialysis-related ambulance transports raise fraud and abuse concerns

Three entities responsible for Medicare program oversight are currently involved in anti-fraud and abuse work related to Medicare ambulance services. The Department of Health and Human Services Office of Inspector General (OIG) has been investigating fraud in the context of dialysis-related ambulance transports. Medicare

administrative contractors (MACs) increased the number of ambulance transport claim denials in 2010 and 2011. Medicare’s recovery audit contractors review ambulance transports occurring during a Part A inpatient or SNF stay and thus have a somewhat limited impact on the oversight of ambulance transports.

Office of Inspector General investigates ambulance fraud involving dialysis-related transports

OIG released three studies between 1994 and 2006 indicating that Medicare’s ambulance transport benefit was highly vulnerable to abuse. The OIG 2006 report concluded that ambulance transport error rates had fallen since the agency’s earlier reports but stated that “nonemergency transports and transports to or from dialysis facilities continue to be problematic” (Office of Inspector General 2006). OIG determined that 25 percent of ambulance transports in 2002 did not meet Medicare program requirements, resulting in an estimated \$402 million in improper payments that year. The report recommended that CMS and its claims-processing contractors increase efforts to prevent improper payment of ambulance claims, particularly for dialysis and nonemergency transports, which are at the greatest risk for error.

OIG has continued to investigate and find specific cases of ambulance-related fraud and abuse. OIG is currently analyzing trends in ambulance utilization from 2002 to 2011 and examining questionable billing for ambulance services, such as transports that may have never occurred or potentially medically unnecessary transports to dialysis facilities. In addition, OIG has reported the following criminal case summaries (Office of Inspector General 2011):

- In North Carolina, a physician-owned ambulance company was found to have, between 2002 and 2005, “routinely conducted unnecessary transportation of patients to and from dialysis centers by ambulance that should have been transported by other means.” The owner was sentenced to 28 months incarceration and ordered to pay over \$400,000 in restitution to Medicare.
- In East Texas, the co-owners of an ambulance company were sentenced to 9 years’ incarceration and ordered to pay \$1.7 million in restitution after being convicted for submitting false claims to Medicare and Medicaid between 2004 and 2007 “to obtain

reimbursements for transporting dialysis patients who did not meet the required criteria for ambulance transportation.”

CMS contractors’ involvement in ambulance transport oversight

Recent growth in the volume of denied Medicare ambulance claims for BLS nonemergency transports suggests that CMS’s MACs have increased their scrutiny of ambulance transport claims. In 2011, approximately 12 percent of submitted BLS nonemergency claims were denied (860,000 claims). From 2007 to 2011, BLS nonemergency claim denials increased by approximately 18 percent. By contrast, about 7 percent of ALS emergency claims were denied (390,000 claims) and these denials grew just 2 percent from 2007 to 2011.

MACs can take targeted action to rein in overutilization of ambulance services. For example, the MAC for the state of Texas before 2013, Trailblazer, successfully implemented a series of auditing actions aimed at controlling overutilization of ambulance transports to and from dialysis facilities.¹⁸ These actions included both broad data analysis and more targeted claims reviews and culminated in implementation of a “utilization guideline” within the ambulance local coverage determination guidance for transports to and from dialysis facilities. Beginning on January 1, 2010, Trailblazer limited beneficiaries to 12 transports of this type per year. The justification Trailblazer used for establishing a threshold of 12 transports is unclear. Medicare claims data show that from 2007 to 2011 ambulance transports of this type in Texas declined by 64 percent compared with an 18 percent increase from 2007 to 2011 in these transports nationally.

Costs of providing ambulance services are difficult to isolate and policies to help cover costs where needed are not efficiently targeted

To determine the appropriateness of the three temporary and two permanent add-on payments supplementing ambulance fees, typically we would identify the cost of ambulance services and examine the relationship between Medicare’s payments and suppliers’ and providers’ costs. This relationship is commonly quantified as the Medicare payment margin (Medicare payments less costs divided by payments). However, noninstitutional ambulance suppliers (about 94 percent of the industry) do not submit cost report

data to Medicare.¹⁹ Among the 6 percent of institutional providers that submit cost report data, ambulance costs are very difficult to disentangle from nonambulance costs, as these providers share costs across their different lines of business, such as ambulance and emergency department services. Further, it is impossible to separate air from ground transport costs. In addition, these cost report data proved to be inconsistent, varying greatly from one year to the next. Moreover, among other possible data sources, we found that complete and consistent cost data representing all types of ambulance entities were not available and that the cost structure of ambulance entities varies widely because of the different organizational structures that exist within the industry.

In a 2012 report on Medicare margins for ground ambulance suppliers, GAO found that the 2010 median Medicare margin for the sample of suppliers in the survey was 2.0 percent including the temporary add-ons; GAO estimated the margin would have been -1.0 percent excluding the add-ons (Government Accountability Office 2012). However, there was considerable variation in reported margins among those suppliers and providers that responded to GAO's survey. As a result, GAO's 95 percent confidence interval estimate indicated that the likely median Medicare margin for the entire sector ranged from -2.3 percent to 9.3 percent with the add-ons, and from -8.4 percent to 5.3 percent without the add-ons. In other words, based on the survey sample, there is a 95 percent probability that the median Medicare margin for the entire sector was within these ranges in 2010.²⁰ In addition, GAO found that higher costs were associated with lower volume, more emergency versus nonemergency transports, and higher levels of government subsidies.²¹

Low-volume providers have substantially higher costs per transport

GAO's 2012 report concluded that economies of scale are present in the ambulance industry; that is, suppliers and providers with a lower volume of transports in a given year had higher relative costs per transport (Government Accountability Office 2012). Because some ambulance costs are fixed, as the number of transports provided by a given supplier or provider increases, the average cost per transport decreases. GAO identified a threshold of 600 ambulance transports per year above which a supplier's or provider's costs per transport begin to flatten out. In other words, while per transport costs are relatively flat across suppliers and providers with more than 600 transports, the average cost per transport is higher for suppliers and providers with 600 or fewer transports per year because they have fewer

transports over which to spread their fixed costs. GAO's identification of such economies of scale is consistent with the findings of two previous GAO reports on ambulance costs and Medicare payments (Government Accountability Office 2007, Government Accountability Office 2003). The latest report's identification of the inflection point of 600 transports per year (or fewer than 2 transports per day) suggests that the very smallest ambulance suppliers and providers have higher costs per transport and provides a potentially useful marker for refining the payment adjustments Medicare makes to preserve access to ambulance services where it is most needed.

Medicare's add-on payments do not efficiently direct payments to isolated, low-volume rural areas

Consistent with GAO's general conclusion, we concur that a payment adjustment may be warranted for certain low-volume providers. However, our examination of payment-related geographic classifications finds that payment adjustments should be directed to providers and suppliers in isolated areas with a low volume of transports because of their location, not because of competition from neighboring providers or suppliers.

Medicare ambulance payments partly depend on the ZIP code from which a transport originates; thus, payments vary according to the GPCI associated with that ZIP code and classification of the ZIP code as urban, rural, or super-rural. Ambulance transports originating in ZIP codes classified as super-rural receive a 22.6 percent bonus payment. We find this policy assumes certain characteristics about super-rural areas that are not borne out in the data and that suggest the need for a policy adjustment:

- Ten percent of super-rural ZIP codes have populations of over 10,000 and account for more than half of super-rural transports.
- More than 7 percent of super-rural ZIP codes contain two or more hospitals or SNFs.
- In general, there is a mismatch between the geographic unit of analysis used to define areas as super-rural (counties) and the payment area (ZIP codes). Super-rural ZIP codes are those in a rural county that is in the lowest quartile of rural counties arrayed by population density. Thus, a ZIP code with a large population and multiple health care facilities can be designated as super-rural because it is in a sparsely populated county.

Similarly, the permanent add-on policy for rural ground transports is not well targeted. Although the cost of providing transports is higher in isolated, low-volume rural areas, most of the add-ons go to suppliers and providers in more populated, less isolated areas. In 2011, the permanent short mileage add-on policy for rural ground ambulance transports cost an estimated \$94 million. This policy increases the mileage rate for the first 17 miles by 50 percent for ground transports when a patient is transported from a rural ZIP code. Although the intent of this policy may be to increase payments for ambulance suppliers and providers that face circumstances that raise their costs when providing short-mileage transports for Medicare beneficiaries residing in rural areas, the policy is not well targeted because it increases payments for all ground transports in any rural ZIP code. This is problematic because the criteria of transports being rural and short mileage are not good indicators of low volume, isolation, or high costs. Under this policy, suppliers can have a volume of transports well beyond a reasonable low-volume standard and still receive the add-on. In fact, more than 80 percent of the short mileage payments go to the 25 percent of ZIP codes with the largest populations (the average population of those ZIP codes exceeds 12,000).

Summary and recommendations

Rethinking add-on payments for ambulance services

In summary, the Commission finds:

- There is no evidence of Medicare beneficiaries having difficulty accessing ambulance services. We observed consistent growth in ambulance service use per beneficiary and in spending for these services.
- Growth for BLS nonemergency transports is more rapid than for other types of transports, particularly transports to or from a dialysis facility. A small group of ambulance suppliers and providers have focused on BLS nonemergency and dialysis transports in recent years and new entrants have tended to also focus on these transports.
- For-profit suppliers and private equity firms are rapidly entering into the industry. For-profit suppliers grew by more than 8 percent between 2008 and 2010, while nonprofit suppliers grew by about 3 percent and government suppliers grew by about 2 percent.

- The current ground ambulance add-ons are not well targeted. Costs of providing transports are higher in isolated, low-volume rural areas, but most of the current add-ons go to suppliers and providers in more populated, less isolated areas.
- The temporary air add-on policy, intended as a transitional policy, has fulfilled its purpose and providers have had ample time to adjust to their new geographic classification as urban.
- There are likely program integrity issues within the Medicare ambulance benefit primarily focused on BLS nonemergency transports.

Therefore, the Commission makes two recommendations. These recommendations were transmitted to the Congress in November 2012, and therefore their budget impacts assume adoption of the recommendations by January 1, 2013. The first recommendation addresses the temporary add-ons and takes steps to ensure continued access, while the second recommendation focuses on program integrity.

RECOMMENDATION 7-1

The Congress should:

- **allow the three temporary ambulance add-on policies to expire;**
- **direct the Secretary to rebalance the relative values for ambulance services by lowering the relative value of basic life support nonemergency services and increasing the relative values of other ground transports. Rebalancing should be budget neutral relative to current law and maintain payments for other ground transports at their level prior to expiration of the temporary ground ambulance add-on; and**
- **direct the Secretary to replace the permanent rural short-mileage add-on for ground ambulance transports with a new budget-neutral adjustment directing increased payments to ground transports originating in geographically isolated, low-volume areas to protect access in those areas.**

RATIONALE 7-1

Allowing temporary add-ons to expire

Use of ground emergency and nonemergency ambulance transports increased steadily over the last five years, and there is no evidence of beneficiary access problems. Medicare margins appear to be adequate, and this conclusion is further confirmed by the entrance of for-

Illustrative policy for directing payments to isolated, low-volume rural areas

An alternative to the current permanent rural short-mileage add-on policy could better target increased payments to ambulance transports originating in geographically isolated, low-volume areas. The current policy assigns extra payments to any ground ambulance claim originating in a rural ZIP code even though some of those areas are not low volume or isolated. Ideally, additional payments would be directed only to low-volume suppliers providing access in isolated areas. However, it is problematic to identify isolated low-volume suppliers and providers because these entities are mobile and can serve multiple ZIP codes ranging from urban to the most isolated. Thus, rather than looking at the location of where an ambulance is based and determining how many other providers are nearby, geographic isolation could be determined by looking at the population within a ZIP code or a defined radius around the center of the ZIP code. An area would be considered low volume based on the likelihood of that area generating less than a defined number of transports in the course of a year.

In other words, the number of expected ambulance transports would be calculated as a function of a ZIP code's population. Payment for transports in those ZIP codes could be increased if the number of expected transports met a new criterion for low volume such as the threshold of 600 transports a year across all payers, suggested by the 2012 Government Accountability Office report (Government Accountability Office 2012). In practice, the total population density could be determined for those living in the ZIP code (if the area of the ZIP code is of sufficient size) or by the count of the population residing within some set distance (e.g., 5 or 10 miles) of the center of the ZIP code. The criterion for defining low volume could be set by estimating the annual volume of transports that would cover an efficient supplier's average costs per transport in those areas.

Any area with a population below the minimum number of residents needed to generate an average number of transports that would cover the average ambulance suppliers' or providers' fixed costs would

(continued next page)

profit suppliers and private equity firms into the industry. Increasing Medicare spending relative to the current-law baseline, as extending any of the temporary add-ons would do, does not seem to be justified.

RVU rebalancing to protect access to emergency services

The number of BLS nonemergency transports increased faster from 2007 to 2011 than the number of ALS emergency and BLS emergency transports. A relatively small group of about 1,000 ambulance suppliers and providers billed Medicare almost exclusively for BLS nonemergency transports and account for a disproportionately large share of Medicare's claims for these services. These facts suggest that RVU weights for BLS nonemergency transports may be higher than warranted by the actual cost of providing these services. CMS should rebalance the relative values for ambulance services by lowering the relative value for BLS nonemergency services and increasing the relative

values for all other ground transports. Rebalancing should be budget neutral relative to the current-law baseline and maintain payments for other ground transports at their level before expiration of the temporary ground ambulance add-on payment, which would protect access to emergency services in those areas.

To maintain payment rates for all types of transports other than BLS nonemergency at current levels, we estimate that the RVU for BLS nonemergency transports would need to be reduced by 5.7 percent and that the RVUs for all other types of ground ambulance services would need to increase by an average of 2.8 percent.

Protecting access in isolated, low-volume rural areas

The permanent add-on policy for rural ground transports cost an estimated \$94 million in 2011. An alternative to the permanent add-on policy for rural ground transports, which is not well targeted under the current geographic

Illustrative policy for directing payments to isolated, low-volume rural areas (cont.)

be designated as a low-volume and isolated area, and payments for transports serving a beneficiary in those areas would be increased by some percentage. This payment increase could be either a set percentage or a per unit payment adjustment that declines as the volume of transports increases.

After determining the areas eligible for an add-on payment, the percentage increase in payments for eligible transports (i.e., the add-on percentage) could be set to calibrate this policy so that it is budget neutral to the current rural short-mileage add-on policy.

As a first estimate, we modeled a policy by identifying ZIP codes in rural areas either with a population density of 20 people per square mile or less or with a total population of 4,000 or less (in both cases including all people, Medicare and non-Medicare).²² A population density of 20 people per square mile would generate about 600 transports per year in an area with an 8-mile radius, assuming an ambulance transport use rate of 0.15 per person per year.²³ A population of 4,000 would generate 600 transports a year under the same use rate assumption.

Under this illustrative policy, over 75 percent of rural ZIP codes would be identified as low-volume, isolated areas. (About 90 percent of the current super-rural ZIP codes would be included.) The average population for those ZIP codes included in this policy is less than 1,500. The average population for the rural ZIP codes not included is over 12,000. (A population of 10,000 would be expected to generate about 1,500 transports a year under our assumptions, more than double a low-volume threshold of 600 annual transports.)

If the approximately \$94 million now used for the rural short-mileage add-on were redirected to transports originating in the low-volume, isolated ZIP codes suggested by this alternative policy, an average add-on amount of \$150 to \$170 per transport would result.²⁴ Given what we know from the Government Accountability Office's recent analysis of Medicare margins of ambulance suppliers and providers, this would likely result in positive margins for the suppliers and providers serving truly isolated, rural, low-population areas.²⁵ ■

classifications, could target increased payments to ambulance transports originating in geographically isolated, low-volume areas and redistribute the current add-on. An area would be considered low volume based on the likelihood of that area generating less than a defined number of transports in the course of a year. As a first estimate, we have modeled a policy by identifying ZIP codes in rural areas with either low population density or a small population. It would include over 75 percent of rural ZIP codes, but they would be areas with an average population of less than 1,500. Transports from isolated, low-volume areas would receive an add-on sufficient to cover their higher costs, thus ensuring access in those areas (see text box).

IMPLICATIONS 7-1

Spending

- The original estimate was budget neutral. The expiration of add-ons is current law and thus will not increase or decrease spending. The RVU rebalancing

policy and the new permanent isolated, low-volume policy are both budget neutral by design. The American Taxpayer Relief Act of 2012 (ATRA) in large part extended the add-ons by one year until January 1, 2014.²⁶ Adoption of this recommendation by January 1, 2013, would have resulted in a very small level of savings below estimated spending under the ATRA extensions.

Beneficiary access

- Medicare beneficiaries' access to ALS and emergency transports is maintained, especially access to ambulance transports in isolated areas with low population density.

Quality

- No implications.

Delivery system reform

- No implications.

Program integrity

The Commission finds that BLS nonemergency dialysis-related transports appear to be excessive in some states and potentially fraudulent.

- The number of these transports has increased rapidly in recent years, about twice as fast as all other ambulance transports.
- There is tremendous variation across states in the use of, and in Medicare spending on, dialysis-related ambulance transports.
- There has been rapid entry into the program of for-profit suppliers concentrating on BLS nonemergency transports, particularly dialysis-related transports.
- OIG has prosecuted cases of fraudulent claims involving dialysis-related ambulance claims.

The problem of rapid growth and inappropriate use of BLS nonemergency transports is not confined to dialysis transports. OIG has also questioned the use of transports to community mental health centers for partial hospitalizations (Langford 2011).

RECOMMENDATION 7-2

The Congress should direct the Secretary to:

- **promulgate national guidelines to more precisely define medical necessity requirements for both emergency and nonemergency (recurring and nonrecurring) ground ambulance transport services;**
- **develop a set of national edits based on those guidelines to be used by all claims processors; and**
- **identify geographic areas and/or ambulance suppliers and providers that display aberrant patterns of use, and use statutory authority to address clinically inappropriate use of basic life support nonemergency ground ambulance transports.**

RATIONALE 7-2

The rapid growth and unwarranted variation in spending on BLS nonemergency transports such as those to dialysis facilities, and the OIG finding that many transports are not medically necessary, must be addressed. As a first step, the Secretary should more clearly define and articulate guidelines under which any nonemergency ambulance transport would be covered as well as precisely define the terms recurring and nonrecurring transports so that there is no ambiguity about medical necessity. Once clear

guidelines have been specified, the Secretary should require MACs to use uniform and complete prepayment edits to review claims and direct the recovery audit contractors to expand their audits to include the medical necessity of Medicare Part B BLS nonemergency ambulance transports.

The Secretary should also regularly and periodically review all nonemergency ambulance claims, search for unusual use patterns, rapidly implement administrative safeguards, and apply existing legal authorities to eliminate any identified excessive and fraudulent use. The Secretary could enhance physician certification requirements. If these steps are not enough to curb clinically inappropriate and fraudulent use of ambulance transports to dialysis facilities and other nonemergency treatment settings, the Secretary could request additional authority from the Congress as needed to implement techniques such as prior authorization.

If there are concerns about the availability of transport to dialysis treatment, an approach other than using ambulance transport is needed. One possibility would involve dialysis facilities providing local transportation services to their patients. Currently, the provision of complimentary local transportation can implicate the anti-kickback statute (42 U.S.C. Section 1320a-7b(b)) and the civil money penalty law prohibiting inducements to Medicare and Medicaid beneficiaries (42 U.S.C. Section 1320a-7a(a)(5)).²⁷ If exceptions to these laws were created, facilities might find more efficient and clinically appropriate ways to transport patients to dialysis facilities than ambulance transportation services. However, this policy would not require dialysis facilities to provide transportation services, nor would this policy increase the Medicare bundled payment for dialysis facilities. The costs of providing nonemergency medical transportation would not be allowable in calculating the bundled payment for end-stage renal disease. This policy instead would create certain legal exceptions that enable dialysis facilities to provide this service if beneficiaries were experiencing difficulty accessing transportation to or from their dialysis treatments. Dialysis facilities may have both a quality-of-care and a financial incentive to provide transportation to their dialyzing patients. For example, one incentive would be to ensure that patients do not experience declines in health status from missing dialysis sessions because of a lack of transportation to and from the dialysis facility. Another incentive would be to ensure that patients arrive on schedule for their dialysis treatments, allowing facilities to be used more efficiently.

Dialysis facilities might also seek a competitive advantage by offering free transportation services to patients.

We estimate that the Medicare program could save about \$150 million a year if ambulance spending per dialysis beneficiary in high-use states could be brought down to the level of spending in the state at the 75th percentile of spending and \$460 million if spending per dialysis beneficiary in high-use states could be brought down to the level of spending in the state at the 50th percentile of spending.

IMPLICATIONS 7-2

Spending

- Reducing clinically inappropriate use of BLS nonemergency services should result in program savings.

Beneficiary access

- Access to appropriate ambulance services would be maintained.

Quality

- No implications.

Delivery system reform

- No implications. ■

Endnotes

- 1 As part of Medicare Part B, ambulance services follow the Part B calendar year rather than the federal fiscal year. Throughout this chapter, we use the Part B calendar year when referring to claims volume or spending in a given year.
- 2 To gather descriptive information about noninstitutional ambulance providers, we used data from the Census Bureau's County Business Patterns data set because CMS does not maintain a comprehensive data set of noninstitutional suppliers that identifies the basic descriptive characteristics of suppliers, such as ownership status and location. The Census Bureau's County Business Patterns data set includes nonprofit suppliers and for-profit suppliers but not government-owned suppliers. We used data from the CMS Provider of Services file to gather descriptive information about institution-based providers.
- 3 The Census Bureau's for-profit category for ambulance suppliers includes corporations, S corporations, sole proprietorships, and partnerships. The remaining 5,680 suppliers billing Medicare in 2010, or 53 percent of suppliers, were likely government entities or other suppliers affiliated with government entities. This estimate was calculated by subtracting the number of nonprofit and for-profit suppliers, as determined by the Census Bureau, from the number of all suppliers billing Medicare, as determined by Medicare claims data. In addition to government suppliers, this group may include nonprofit suppliers staffed only by volunteers, because Census Bureau data track nongovernment suppliers with paid staff. However, this also could be an undercount of government-owned suppliers, because many government suppliers do not bill Medicare for services provided to Medicare beneficiaries.
- 4 The proportions estimated through the combination of Medicare claims data and supplier counts from the Census Bureau are largely consistent with ambulance industry analyses conducted by the Government Accountability Office (Government Accountability Office 2007) and for the *Journal of Emergency Medical Services* (Williams and Ragone 2010).
- 5 Medicare's 72-hour rule stipulates that all services provided to a Medicare beneficiary within the 72-hour window before the beneficiary's inpatient hospital admission are considered a part of that inpatient admission and should be incorporated in the inpatient hospital Medicare severity–diagnosis related group claim.
- 6 Those conditions include when a beneficiary is transported from a SNF to a hospital for the specific purpose of receiving emergency services or outpatient medical services not available at the SNF; from the SNF to a dialysis facility for SNF residents with end-stage renal disease; or between allowed destinations during a Part A–covered stay, such as to a SNF from an inpatient hospital, to the beneficiary's home from a SNF following a SNF stay, or to a hospital from a SNF for an admission to the hospital.
- 7 Calls for emergency ambulance services may come to the local emergency medical services 911 service or to the ambulance supplier or provider directly. In both cases, the appropriate level of response is determined by local emergency medical services protocols or by ambulance staff when they arrive at the beneficiary's location and assess the beneficiary's condition.
- 8 Throughout this chapter, we refer to nonemergency ambulance transports as being recurring or nonrecurring in nature. The United States Code of Federal Regulations (CFR), at 42 CFR CH. IV Section 410.40, refers to the same transports as being repetitive or nonrepetitive.
- 9 Medicare beneficiaries served by an ambulance entity owned or operated by a critical access hospital may be responsible for more than 20 percent of the Medicare-approved amount for that service because these providers are reimbursed on the basis of reasonable cost, rather than paid under the fee schedule. For a critical access hospital to be eligible for reasonable cost ambulance reimbursement, the entity must be the only supplier or provider of ambulance services within a 35-mile drive of that entity.
- 10 The GAF applies to 70 percent of the base payment for ground ambulance transports and 50 percent of the payment for air ambulance transports.
- 11 The GPCI is an index that reflects the relative costs of certain components of a physician's cost of doing business (e.g., employee salaries, rent, and miscellaneous expenses) in one area of the country compared with the national average.
- 12 The Goldsmith modification establishes an operational definition of rural areas within large counties that contain one or more metropolitan areas. The Goldsmith areas are so isolated by distance or physical features that they are more rural than urban in character and lack easy geographic access to health services.
- 13 To identify an appropriate add-on percentage for this policy, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 mandated that CMS estimate the average cost per trip in the lowest quartile (25th percentile) of a rural population arrayed by population density compared with the estimate of the average cost per trip in the highest quartile (75th percentile) of a rural population arrayed by population density. CMS used cost data reported by 421

- ambulance providers and suppliers from the 1999 National Survey of Ambulance Providers, conducted by the Project HOPE Center for Health Affairs under the sponsorship of the American Ambulance Association (Centers for Medicare & Medicaid Services 2004). These data represent fiscal year 1998 costs. CMS used these data to predict the average cost per transport controlling for provider transport volume per year and service mix (ALS vs. BLS). CMS compared the difference between the predicted average costs per transport for every transport in rural areas with the lowest quartile of rural population arrayed by population density to every transport in rural areas with the highest quartile of rural population arrayed by population density. The result was that the average cost per trip in the lowest quartile was 22.6 percent higher than the average cost per transport in the highest quartile.
- 14 With the exception of urban areas that were previously identified as rural and therefore qualify for the rural air grandfathered add-on policy, urban air ambulance transport is the only type of service that does not receive an add-on payment under the Medicare ambulance fee schedule. There were approximately 24,000 Medicare urban air transports in 2011.
 - 15 Some of the growth in Medicare claims for ambulance transports may reflect an increase in the number of municipalities billing Medicare for ambulance services that had not done so previously. A claim may include more than one transport.
 - 16 The term Medicare dialysis beneficiaries refers to those Medicare beneficiaries with end-stage renal disease who were actively receiving dialysis treatment in the year in question. Therefore, kidney transplant beneficiaries with end-stage renal disease are not included in our definition of Medicare dialysis beneficiaries.
 - 17 We chose to use data from the USRDS rather than Medicare claims data because the USRDS is weighted to account for the number of months beneficiaries were actively on dialysis, which USRDS refers to as spending per beneficiary hemodialysis year. This weighting mechanism accounts for partial years a beneficiary might be on dialysis due to circumstances such as death or mid-calendar year enrollment.
 - 18 As of August 2012, Trailblazer is no longer the MAC for the state of Texas. The current MAC for the state of Texas is Novitas Solutions (formerly Highmark Medical Services).
 - 19 It is possible that broadly collected and consistently reported cost report data from ambulance suppliers and providers could help address the issues raised in this report. The American Taxpayer Relief Act of 2012 mandated that the Secretary of Health and Human Services conduct a study that analyzes data on existing cost reports for ambulance services furnished by hospitals and critical access hospitals and conduct a study of the feasibility of obtaining cost data on a periodic basis from all ambulance suppliers and providers.
 - 20 The GAO sample was designed to be representative of the population of ground ambulance suppliers that billed Medicare in both 2003 and 2010, were still operational in 2012, and did not share costs with nonambulance services or air ambulance services (an estimated 2,900 suppliers or about 26 percent of the ambulance industry in 2010). The GAO sample included 153 suppliers and providers. Our research finds that the universe of suppliers and providers has changed since 2003 with the entry of more for-profit suppliers and the exit of institution-based providers. Hence, the GAO sample does not include any of the new for-profit suppliers focusing on BLS nonemergency transports.
 - 21 GAO identified several characteristics of ambulance suppliers as either contributing to statistically significant differences in total cost per transport or not. The characteristics of suppliers that GAO identified as contributing to differences in total costs per transport included the volume of transports provided by the supplier, the intensity of Medicare transports provided, and the level of government subsidies received. The characteristics of suppliers that GAO identified as not contributing to differences in total costs per transport included service area, the service mix of Medicare transports, the use of volunteer staff, and type of ownership.
 - 22 Because we needed the population of each area, we used ZIP code tabulation areas (ZCTAs) as the unit of analysis rather than ZIP codes. ZCTAs are areas defined by the Census Bureau. They are assigned the ZIP code of the predominant ZIP code in the area. Some ZIP codes are not the predominant ZIP code in any ZCTA and hence are not assigned. CMS uses ZIP codes in payments for ambulance services. The ZIP codes in rural areas not assigned to ZCTAs account for less than 2 percent of claims in rural areas.
 - 23 The Medicare population rate of transport is about 0.44 per person per year. We are assuming that the non-Medicare population generates a lower number as suggested by data from the Department of Transportation. Assuming 15 percent of the population is in Medicare, we estimate a transport rate of 0.15 per person per year for the total population.
 - 24 The lower bound assumes claims in all rural ZIP codes not identified as ZCTAs are included in the policy.
 - 25 GAO found that, in its sample, Medicare margins were 2.9 percent for providers serving predominantly rural areas and 0.3 percent with the temporary add-ons for those serving predominantly super-rural areas (Government Accountability Office 2012). Because the add-on under our new policy would be greater than the temporary add-ons, margins presumably would be positive, all else being equal.

- 26 The American Taxpayer Relief Act of 2012 (ATRA) extended both the temporary ground ambulance add-on payment policy and the temporary super-rural add-on payment policy until January 1, 2014, and extended the temporary air transport rural grandfathering add-on payment policy for half of 2013, until June 30, 2013. In addition, ATRA included a payment adjustment for nonemergency ambulance transports for beneficiaries with end-stage renal disease, which will reduce the fee schedule amount for these services by 10 percent, beginning October 1, 2013.
- 27 The anti-kickback statute prohibits the offer of payment (as well as the solicitation or receipt of payment) or remuneration “in cash or in kind” to any person to induce such person to purchase any service or item for which payment may be made in whole or in part under a federal health care program. The civil money penalty law provides for financial penalties for offering or transferring remuneration to Medicare or Medicaid beneficiaries, if the offeror or transferor knows or should know that the remuneration is likely to influence the beneficiary to order or receive items or services for which payment may be made by Medicare or Medicaid. Transportation services valued at no more than \$10 per trip and \$50 per patient in the aggregate on an annual basis is permissible under the civil money penalty law.

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