



July 2018

MEDICARE FEE- FOR-SERVICE

Information on the First Year of Nationwide Reduced Payment Rates for Durable Medical Equipment

Accessible Version

GAO Highlights

Highlights of [GAO-18-534](#), a report to congressional requesters

Why GAO Did This Study

To achieve Medicare DME savings, Congress required CMS to implement a CBP in certain geographic areas for certain DME items. Beginning in 2011, CMS began implementing the CBP in several phases. The agency estimates that the CBP will save the Medicare program \$19.7 billion between 2013 and 2022. The Patient Protection and Affordable Care Act required CMS to use CBP information to adjust fee-for-service payment rates for certain DME items in non-bid areas. On January 1, 2016, adjusted rates for 393 items went into effect in non-bid areas. CMS estimated these adjustments will save the Medicare program about \$3.6 billion between fiscal years 2016 and 2020.

GAO was asked to review the potential effects of reduced payment rates for DME in non-bid areas. In this report, GAO examines (1) payment rate reductions and any changes in the number of suppliers; (2) any changes in the utilization of rate-adjusted items; and (3) available evidence related to potential changes in beneficiaries' access to rate-adjusted items.

GAO compared non-adjusted 2015 fee-for-service payment rates to adjusted 2016 and 2017 rates and reviewed Medicare claims data from 2010 through 2016. GAO also reviewed CMS's monitoring activities and interviewed CMS officials. In addition, GAO interviewed select beneficiary advocacy groups and DME industry trade organizations.

View [GAO-18-534](#). For more information, contact A. Nicole Clowers at (202) 512-7114 or clowersa@gao.gov.

July 2018

MEDICARE FEE-FOR-SERVICE

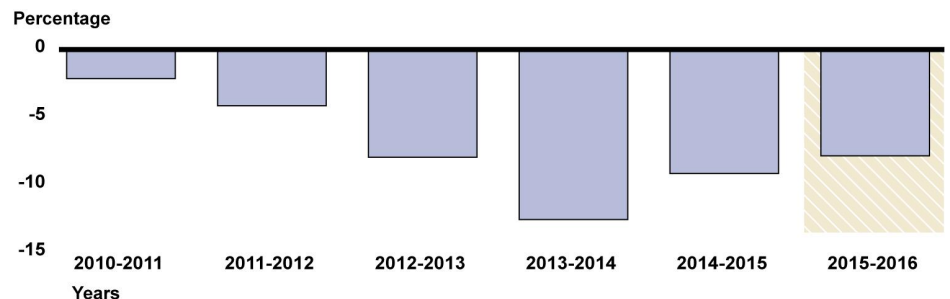
Information on the First Year of Nationwide Reduced Payment Rates for Durable Medical Equipment

What GAO Found

The Centers for Medicare & Medicaid Services (CMS) implemented a competitive bidding program (CBP) for certain durable medical equipment (DME), such as wheelchairs and oxygen, in 2011 that is currently operating in 130 designated U.S. areas. On January 1, 2016, CMS used information from the CBP to start adjusting Medicare fee-for-service payment rates for certain DME throughout the country in areas that had previously not been subject to the CBP (known as non-bid areas). For the first year adjusted rates were in effect in non-bid areas, GAO found:

- Reductions in payment rates were generally significant but varied by category of DME item. The unweighted average reduction in payment rates for the five rate-adjusted DME items with the highest expenditures in 2016 within each DME category was 46 percent.
- Changes in the number of suppliers furnishing rate-adjusted items were generally consistent with the years before adjusted rates went into effect. GAO found that the number of suppliers furnishing rate-adjusted items in non-bid areas in 2016 decreased 8 percent compared to 2015.
- GAO's review of Medicare claims data found that beneficiary utilization of rate-adjusted items in non-bid areas in 2016 showed little change compared to 2015. GAO also found that CMS's activities to monitor beneficiary access, including changes in health outcomes, showed little change between 2015 and 2016.

Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Durable Medical Equipment Items in Non-Bid Areas, 2010 to 2016



Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

GAO interviewed several stakeholder groups that reported anecdotal examples of specific beneficiary access concerns they attributed to the rate adjustments, but stakeholders could not provide evidence to substantiate that the access issues were widespread. GAO's findings are consistent with CMS's monitoring results, which indicate that there were no widespread effects on beneficiary access in the year after the adjusted rates went into effect. However, some effects may take longer to appear, underscoring the importance of CMS's continued monitoring activities.

The Department of Health and Human Services provided technical comments on a draft of this report, which GAO incorporated as appropriate.

Contents

Letter		1
	Background	8
	Payment Rate Reductions Were Generally Significant but Varied, and Number of Suppliers Continued a Trend of Annual Decreases	15
	Beneficiary Utilization of Rate-Adjusted Items Held Steady in 2016 Following Three Years of Decreases	24
	Available Evidence Indicates No Widespread Access Issues in the First Year of Reduced Durable Medical Equipment Payment Rates in Non-Bid Areas	29
	Agency Comments	35
<hr/>		
Appendix I: The Centers for Medicare & Medicaid Services' Phase-In of the Competitive Bidding Program and Other Antifraud Initiatives, 2008 through 2019		37
Appendix II: Medicare Fee-for-Service (FFS) Payment Rates for Top Expenditure Items in Each Durable Medical Equipment (DME) Product Category, 2015 to 2017		40
Appendix III: GAO Contact and Staff Acknowledgments		54
	GAO Contact	54
	Staff Acknowledgments	54
<hr/>		
Appendix IV: Accessible Data		55
	Data Tables	55
<hr/>		
Related GAO Products		60
<hr/>		
Tables		
	Table 1: Number of Medicare Fee-for-Service Rate-Adjusted Durable Medical Equipment Items, by Product Category	9
	Table 2: Average Percentage Reduction in Medicare Fee-for-Service (FFS) Payment Rates for the Five Rate-Adjusted Items in Each Product Category with the Largest Share of 2016 Total Expenditures in Non-Bid Areas, 2015 to 2017	16

Table 3: Medicare Fee-for-Service (FFS) Payment Rates for the Rate-Adjusted Item in Each Product Category with the Largest Share of 2016 Total Expenditures in Non-Bid Areas, 2015 to 2017	17
Table 4: Medicare Fee-for-Service (FFS) Payment Rates for the Five Rate-Adjusted Items in Each Product Category with the Largest Share of 2016 Total Expenditures in Non-Bid Areas, 2015 to 2017	40
Accessible Data for Figure 6b: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Rural versus Rural Non-Bid Areas, 2010 to 2016	57

Figures

Figure 1: Durable Medical Equipment (DME) Competitive Bidding Program (CBP) Areas and Non-bid Areas as of 2016	11
Figure 2: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted versus Non-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, 2010 to 2016	20
Figure 3: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Non-Rural versus Rural Areas, 2010 to 2016	21
Figure 4: Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016 ^a	23
Figure 5: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Bid Areas, 2010 to 2016	25
Figure 6: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Rural versus Rural Non-Bid Areas, 2010 to 2016	26
Figure 7: Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted Items in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016 ^a	28
Figure 8: CMS's Phase-In of the Durable Medical Equipment Competitive Bidding Program	37

Figure 9: The Centers for Medicare & Medicaid Services' (CMS) Antifraud Initiatives Related to Durable Medical Equipment (DME) Suppliers	39
Accessible Data for Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Durable Medical Equipment Items in Non-Bid Areas, 2010 to 2016	55
Accessible Data for Figure 2: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted versus Non-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, 2010 to 2016	55
Accessible Data for Figure 3: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Non-Rural versus Rural Areas, 2010 to 2016	55
Accessible Data for Figure 4a: Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016	56
Accessible Data for Figure 4b: Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016	56
Accessible Data for Figure 5: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Bid Areas, 2010 to 2016	57
Accessible Data for Figure 6a: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Rural versus Rural Non-Bid Areas, 2010 to 2016	57
Accessible Data for Figure 7a: Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted Items in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016	58
Accessible Data for Figure 7b: Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted Items in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016	58

Abbreviations

CBP	competitive bidding program
CMS	Centers for Medicare & Medicaid Services
CPAP/RAD	continuous positive airway pressure devices and respiratory assist devices
DME	durable medical equipment
FFS	fee-for-service
HCPCS	Healthcare Common Procedure Coding System
HHS	Department of Health and Human Services
NPWT	negative pressure wound therapy
TENS	transcutaneous electrical nerve stimulation

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



July 25, 2018

The Honorable Steve Womack
Chairman
Committee on the Budget
House of Representatives

The Honorable Greg Walden
Chairman
Committee on Energy and Commerce
House of Representatives

The Honorable Kevin Brady
Chairman
Committee on Ways and Means
House of Representatives

The Honorable Fred Upton
House of Representatives

Medicare, a federal health insurance program administered by the Centers for Medicare & Medicaid Services (CMS), within the Department of Health and Human Services (HHS), spent about \$6.4 billion in 2016 on fee-for-service (FFS) payments for durable medical equipment (DME).¹ According to the 2018 Medicare Trustees Report, in 2017, 33.6 million, or about 63 percent of the total 53.4 million Medicare enrollees, were enrolled in the Medicare FFS Part B program that helps pay for DME items, such as oxygen, wheelchairs, hospital beds, and walkers, if they

¹The amount Medicare paid for DME is for Medicare FFS Part B payments and does not include payments to Medicare Advantage plans, the additional 20 percent coinsurance beneficiaries are responsible for paying to suppliers, or any additional payments beneficiaries may have made to suppliers who do not accept assignment. Suppliers who accept assignment must accept the Medicare-approved payment amount and may not charge beneficiaries more than any unmet deductible and 20 percent coinsurance.

are medically necessary and prescribed by a physician.² Medicare beneficiaries typically obtain DME items from suppliers, who then submit claims for payment to Medicare on behalf of beneficiaries.

Historically, Medicare paid for DME items by using a fee schedule generally based on what suppliers charged for the items and services during the 1980s, and these amounts were updated annually. However, both we and the HHS Office of Inspector General have reported that Medicare and its beneficiaries sometimes paid higher than market rates for various DME items, and there were long-standing concerns about the high rates of improper payments related to DME.³ To achieve savings and address improper payment concerns, Congress—through the Medicare Prescription Drug, Improvement, and Modernization Act of 2003—directed that CMS change the way it pays for DME and other items in certain areas of the country by implementing a competitive bidding program (CBP).⁴

The CBP has been implemented through several rounds, each operating in specific CBP areas and for specific time frames. The first round began in 2011 in nine of the largest metropolitan statistical areas, and the CBP

²For this report, the term DME item refers to durable medical equipment, prosthetics, orthotics, and supplies. DME serves a medical purpose, can withstand repeated use, is generally not useful in the absence of an illness or injury, and is appropriate for use in the home, including, for example, wheelchairs and hospital beds. Prosthetic devices (other than dental) are defined as devices needed to replace body parts or functions. Orthotic devices are defined as providing rigid or semi-rigid support for weak or deformed body parts or restricting or eliminating motion in a diseased or injured part of the body.

³For example, in August 2009, the HHS Office of Inspector General reported Medicare and its beneficiaries paid almost four times the average suppliers' costs to acquire standard power wheelchairs and almost two times the average suppliers' costs to acquire complex rehabilitation power wheelchair packages during the first half of 2007. Office of Inspector General, Department of Health and Human Services, *Power Wheelchairs in the Medicare Program: Supplier Acquisition Costs and Services*, OEI-04-07-00400 (August 2009). GAO, *Medicare: Review of the First Year of CMS's Durable Medical Equipment Competitive Bidding Program's Round 1 Rebid*, [GAO-12-693](#) (Washington, D.C.: May 9, 2012). GAO, *Medicare: Competitive Bidding for Medical Equipment and Supplies Could Reduce Program Payments, but Adequate Oversight Is Critical*, [GAO-08-767T](#) (Washington, D.C.: May 6, 2008); GAO, *Medicare: Past Experience Can Guide Future Competitive Bidding for Medical Equipment and Supplies*, [GAO-04-765](#) (Washington, D.C.: Sept. 7, 2004).

⁴Pub. L. No. 108-173, § 302(b), 117 Stat. 2066, 2224-30 (2003) (codified, as amended, at 42 U.S.C. § 1395w-3). The CBP does not apply to beneficiaries enrolled in Medicare Advantage plans, which are operated by private organizations. These beneficiaries obtain DME items through their Medicare Advantage plans.

currently includes 130 areas.⁵ The CBP payment for a CBP-covered DME item is based on winning bids submitted by competing suppliers within each designated CBP area.⁶ As such, the same item can have a different payment rate in different areas.⁷ We have previously found that CMS's implementation of the CBP decreased expenditures for both Medicare and beneficiaries residing in designated CBP areas as a result of lower payment rates and decreased utilization. We also reported that CMS's monitoring activities indicated that beneficiary access and satisfaction had not been affected by the CBP.⁸

Beginning January 1, 2016, the Patient Protection and Affordable Care Act required CMS to use payment information from the CBP to adjust FFS payment rates (hereafter referred to as adjusted rates) in all non-rural and rural areas of the United States that are not included in the CBP (hereafter referred to as non-bid areas).⁹ These adjustments reduced payment rates for almost all affected DME items in non-bid areas. CMS

⁵On January 1, 2011, the round 1 rebid went into effect in nine areas. Round 2 began July 1, 2013, and expanded the CBP to an additional 100 areas. CMS also began the national mail-order program for diabetes testing supplies in 2013, which applies to all areas of the United States. The CBP is currently in effect through the round 1 2017 in 13 areas, the round 2 recompetes in 117 areas, and the national mail-order program recompetes. All CBP contracts expire on December 31, 2018.

⁶A CBP area is either a metropolitan statistical area or a part thereof. CMS selected these areas based on the volume of DME items furnished, the number of suppliers, the number of beneficiaries within the designated CBP areas, or as otherwise mandated by the Social Security Act. The mail-order diabetes testing supplies program is nationwide; the CBP area for this program includes the entire nation.

⁷For example, CBP round 2 (in effect from July 1, 2013 through June 30, 2016) payment rates for a new foam rubber mattress ranged between \$111.38 in the Palm Bay, Florida and Deltona, Florida, competitive bidding areas to \$178.62 in the Honolulu, Hawaii, competitive bidding area. For comparison, the non-adjusted January 2013 FFS payment rate for beneficiaries residing in non-bid areas in Florida was \$178.21 and the FFS payment rate for beneficiaries living in non-bid areas in Hawaii was \$211.82. The CBP round 2 payment rate in Palm Bay and Deltona, Florida, was about 38 percent less than the non-adjusted rate in Florida non-bid areas. In Honolulu, Hawaii, the CBP round 2 payment rate was about 16 percent less than the non-adjusted rate in Hawaii non-bid areas.

⁸For a full list of GAO products related to the CBP, see the Related GAO Products page at the end of this report.

⁹Pub. L. No. 111-148, § 6410, 124 Stat. 119, 773 (2010), as amended by the Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (2010). We defined non-bid areas as any zip codes in the 50 U.S. states and the District of Columbia that were not included in CMS's list of CBP area zip codes for CBP rounds in effect at the end of 2016.

estimates that about half of DME items furnished to Medicare FFS Part B program beneficiaries are furnished to beneficiaries residing in non-bid areas, and the reduced rates after adjustment in non-bid areas will save the Medicare program about \$3.6 billion between fiscal years 2016 through 2020.¹⁰ CMS officials told us adjusted rates in non-bid areas have also helped limit fraud by making DME a less lucrative target for fraud and abuse, and may also have curbed unnecessary utilization of certain DME.¹¹ However, some stakeholder groups have raised concerns that reduced payment rates in non-bid areas have disrupted beneficiary access to needed DME items and such issues may be exacerbated in rural areas because some suppliers have limited their service areas.¹²

You asked us to examine the potential effects of reduced payment rates for DME in non-bid areas. In this report, for non-bid areas, we examine:

1. DME payment rate reductions and any changes in the number of suppliers after the rate adjustments went into effect;
2. any changes in the utilization of rate-adjusted DME items after the rate adjustments went into effect; and
3. available evidence related to potential changes in Medicare beneficiaries' access to rate-adjusted items after the rate adjustments went into effect.

To examine the extent to which FFS payment rates changed after adjusted rates went into effect, we used FFS payment rate information on CMS's website to compare 2015 non-adjusted payment rates with 2016

¹⁰CMS also estimates the implementation of the CBP in CBP areas will save the Medicare program \$19.7 billion between 2013 and 2022.

¹¹CMS defines "unnecessary utilization" as the furnishing of items that do not comply with one or more of Medicare's coverage, coding, and payment rules, as applicable.

¹²According to HHS, the 21st Century Cures Act requires HHS to take into account several factors when using CBP information to adjust DME fee schedule rates for items furnished on or after January 1, 2019. These include the average volume of items and services furnished by suppliers in the non-bid area and the average travel distance for suppliers delivering items to beneficiaries in the non-bid area.

and 2017 adjusted rates.¹³ Specifically, we analyzed payment rates for the five items with the largest percentage of 2016 total expenditures for all rate-adjusted items furnished to beneficiaries in non-bid areas within each of the 11 general DME product categories established by CMS.¹⁴ Based on Medicare claims data, the resulting top 53 of the 393 rate-adjusted items accounted for 80 percent of 2016 total expenditures for all rate-adjusted items.¹⁵ We analyzed payment rates by product category and by individual item.

To examine any changes in the number of suppliers in non-bid areas, we used Medicare claims data and other CMS data to calculate percentage changes in the number of suppliers furnishing any of the 393 rate-adjusted DME items to Medicare beneficiaries from 2010 through 2016.¹⁶

¹³CMS uses a standardized coding system—the Healthcare Common Procedure Coding System (HCPCS)—to set payment rates for DME items. Each individual HCPCS code identifies a category of like DME items and although each HCPCS code has a set payment rate, it can include a broad range of items that serve the same general purpose but that vary in price and characteristics and do not identify an item’s manufacturer, or brand or trade name. For each HCPCS code, we calculated the average FFS payment rate for the contiguous United States since payment rates for each HCPCS code may vary depending on the area in which it was furnished. We limited our analysis to the contiguous United States because CMS calculates adjusted rates for non-contiguous states and territories differently. We also excluded rural rates because CMS may calculate a higher, national adjusted rate for certain DME items furnished to beneficiaries residing in rural non-bid areas.

¹⁴Ten of the 11 product categories include at least five items. The negative pressure wound therapy (NPWT) product category includes only three items; as such there are 53 top items across all product categories.

¹⁵We used CMS’s 100 Percent Standard Analytical Files for all analyses using Medicare claims data in this report. We defined rate-adjusted items as those subject to the adjusted rates that went into effect on January 1, 2016. We defined non-adjusted items as those that were not subject to the adjusted rates that went into effect on January 1, 2016. Claims with items that included a KU modifier (i.e., wheelchair accessories and seat and back cushions furnished in connection with group 3 complex rehabilitative power wheelchairs) were defined as non-adjusted items because payments for those items were not subject to the adjusted rates and are based on non-adjusted fee schedule amounts. We excluded from all of our analyses the eight Healthcare Common Procedure Coding System (HCPCS) codes, or items, included in the national mail-order program for diabetes testing supplies because since July 1, 2013, there has been a single national payment rate for each item.

¹⁶The year 2010 was the year before the CBP went into effect, and 2016 was the latest year with complete data available when GAO conducted this study. For purposes of this report, we identify rate-adjusted items as those subject to adjusted rates in non-bid areas in 2016; prior to 2016, these items were not yet subject to adjusted rates and payments were based on the non-adjusted FFS payment rates.

We also reviewed changes in the number of suppliers furnishing items not included in the CBP (non-adjusted items). We did this to evaluate the effect reduced payment rates may have had on the number of suppliers in the context of broader health industry developments and CMS antifraud efforts that were not limited to rate-adjusted items, such as the implementation of new safeguards to better screen Medicare suppliers.¹⁷ (See Appendix I for information about CMS's CBP and antifraud initiatives.) In addition, we compared changes in the number of suppliers in both non-rural and rural areas and by product category. We also spoke with several DME suppliers as part of our outreach to four large DME industry trade organizations whose members may provide rate-adjusted items, CMS officials, and officials from the Small Business Administration's National Ombudsman's Office for Regulatory Enforcement Fairness to discuss their views on how the implementation of adjusted rates may have affected the number of DME suppliers in non-bid areas.

To examine the extent to which adjusted rates for items included in the CBP may have affected utilization of those items, we used Medicare claims data and other CMS data to report percentage changes in the number of beneficiaries utilizing any of the 393 rate-adjusted items in non-bid areas. Specifically, we examined changes in beneficiary utilization of the 393 rate-adjusted items from 2010 through 2016 and compared changes in utilization in non-rural versus rural areas and by product category.¹⁸ We also examined changes in CBP areas and in beneficiary utilization of non-adjusted items to determine how these compared to non-bid areas and rate-adjusted items.

To examine available evidence regarding the extent to which adjusted rates for DME items potentially affected Medicare beneficiaries' access to those items in non-bid areas, we reviewed: (1) data from CMS's 1-800-

¹⁷In 2016, suppliers submitted claims for 1,578 non-adjusted DME-related HCPCS codes in non-bid and CBP areas, and these accounted for the majority of total DME Medicare expenditures that year. The non-adjusted HCPCS codes with the highest Medicare expenditures in 2016 include a home ventilator (HCPCS code E0466), an automatic external defibrillator (K0606), a lumbar spinal orthosis (L0650), and an intermittent urinary catheter (A4351). In addition, they also include several drugs that are included in CMS's DME Standard Analytical Files because they are administered through DME items such as nebulizers.

¹⁸We define "beneficiary utilization" as the number of beneficiaries associated with a paid claim for a rate-adjusted or non-adjusted item. However, review of claims data did not allow us to determine whether beneficiaries actually used these items.

MEDICARE beneficiary help line; (2) CMS data on DME suppliers' rates of assignment for rate-adjusted items—i.e., whether suppliers accepted the Medicare-approved amount in full or charged beneficiaries an additional amount—because CMS reported that a high rate of assignment indicates that adjusted rates are sufficient; and (3) results from CMS's health status monitoring tool that tracks real-time health outcomes for beneficiaries residing in both CBP areas and non-bid areas. We also conducted our own analysis for a particular set of beneficiaries using rate-adjusted oxygen items in both non-bid and CBP areas to determine if certain health outcomes for that set of beneficiaries changed pre-and post-implementation of adjusted rates. We selected rate-adjusted oxygen items because most of these items are billed on a monthly basis, which allowed us to more easily associate utilization with changes in health outcomes. In addition, according to CMS officials, oxygen items are generally used for the entirety of a beneficiary's life once prescribed. Specifically, we reviewed trends for two health outcomes—death and hospital admissions—by identifying a cohort of beneficiaries who began using oxygen items in the first half of 2014 and tracking their utilization of those items through the end of 2016.¹⁹

In addition, we interviewed CMS officials, CMS's competitive acquisition ombudsman, and representatives from the State Health Insurance Assistance Program.²⁰ We also interviewed representatives from the California Hospital Association, who monitor the effects of CBP and payment changes on beneficiary access, and three beneficiary advocacy groups representing Medicare beneficiaries who may have specific conditions requiring DME items.²¹ We asked about their members' experiences in obtaining rate-adjusted items in non-bid areas and the

¹⁹Our cohort included beneficiaries who resided in both CBP and non-bid areas and had claims for rate-adjusted oxygen items. We limited our analysis to beneficiaries who used oxygen in the first six months of 2014 but did not use oxygen in the last six months of 2013 in order to best capture the cohort of beneficiaries who began using rate-adjusted oxygen items and would not yet have reached the 36-month rental cap at the end point of this analysis (December 2016).

²⁰The State Health Insurance Assistance Program is administered under HHS's Administration for Community Living and offers Medicare beneficiaries free access to information and counseling on Medicare benefits and coverage rules. This grant-funded program has more than 3,300 local programs and 15,000 counselors and operates in all 50 states, the District of Columbia, and certain U.S. territories.

²¹We spoke with individuals representing the American Association of Diabetes Educators, the Center for Medicare Advocacy, and the Chronic Obstructive Pulmonary Disease Foundation.

extent to which they reported widespread issues related to access and choice of DME items. When we interviewed the four large DME industry trade organizations, we asked them if they were aware of any effects on beneficiaries such as access issues and whether such effects were widespread.²²

We assessed the reliability of the Medicare claims data we used for this report by reviewing existing information about the data and the systems that produced them, performing electronic data checks, and interviewing CMS officials. To assess the reliability of the data we received from CMS and its contractor, we reviewed relevant documentation, performed electronic data checks, and interviewed CMS officials. On the basis of these steps, we determined that these data were sufficiently reliable for the purposes of our reporting objectives.

We conducted this performance audit from April 2017 to July 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings based on our audit objectives.

Background

DME Items Subject to Adjusted FFS Payment Rates

CMS used payment information from the CBP to adjust payment rates for 393 Healthcare Common Procedure Coding System (HCPCS) codes (generally referred to as “items” in this report) in non-bid areas.²³ Most of these items were included in at least one CBP round; however, some are

²²We spoke with 34 individuals representing the American Association for Homecare and the Association’s Retail Work Group, the Advanced Medical Technology Association, the Big Sky Association of Medical Equipment Suppliers, and the Council for Quality Respiratory Care. These individuals included DME suppliers, a hospital case manager, and DME trade organization leaders, compliance officers, and lawyers. In addition, we contacted two other DME industry trade organizations that did not respond to our requests for information.

²³Medicare claims data include the HCPCS code but do not identify the specific item’s manufacturer, or brand or trade name.

no longer included in current CBP rounds. For example, 81 items with adjusted rates were not included in the CBP rounds that were in effect at the end of calendar year 2016.²⁴

CMS grouped the 393 items with adjusted rates into 11 general product categories. See table 1 for these categories and the number of items in each category.

Table 1: Number of Medicare Fee-for-Service Rate-Adjusted Durable Medical Equipment Items, by Product Category

Product category	Number of items ^a
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD)	23
Enteral nutrients	17
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts)	52
Infusion pumps	13
Nebulizers	19
Negative pressure wound therapy (NPWT) ^b	3
Oxygen	15
Support surfaces	17
Transcutaneous electrical nerve stimulation (TENS) ^c	5
Walkers	17
Wheelchairs (complex and standard) and related accessories and replacement parts	212
Total	393^d

Source: GAO analysis of Centers for Medicare & Medicaid Services Data | GAO-18-534

^aSuppliers use a standardized coding system to submit claims for Medicare payments—the Healthcare Common Procedure Coding System (HCPCS). Each HCPCS code identifies a category of like items, such as walkers and wheelchairs. Although each HCPCS code has a set payment rate, it can encompass a broad range of items that serve the same general purpose but vary in price and characteristics. We refer to each HCPCS code as an item.

²⁴CMS uses payment information from expired CBP rounds to adjust FFS payment rates in non-bid areas for DME items that are no longer included in a CBP round if the CBP rates did not negatively affect access to quality items and services while they were in effect. When adjusting FFS payment rates for items no longer included in a CBP round, CMS annually adjusts the adjusted rates to account for increased costs over time. CMS may remove an item from the CBP because it found that it is a low volume item and removing it reduces the burden and cost of suppliers submitting bids for a certain product category that already includes higher volume items.

^bNPWT pumps apply controlled negative or subatmospheric pressure to treat ulcers or wounds that have not responded to traditional wound treatment methods.

^cTENS devices reduce acute post-operative pain or intractable chronic pain.

^dA total of 393 items were adjusted based on competitive bidding program information in 2016. Although one item (HCPCS code E0776) is included in both the enteral nutrients and infusion pumps product categories, we included it in the enteral nutrients product category only.

CMS's Methodologies for Adjusting FFS Payment Rates in Non-Bid Areas Using CBP Information

CMS uses different methodologies to adjust FFS payment rates in non-bid areas. These adjustments are based on CBP payment information depending on the number of CBP areas in which a particular item has been competitively bid and the geographic area in which the adjusted rate is applied. For example, for an item that is competitively bid in more than 10 CBP areas and is furnished to beneficiaries residing in non-rural areas of the contiguous United States, CMS calculates a separate adjusted rate for each of eight geographic regions.²⁵ In each region, the item's average regional adjusted rate reflects the unweighted average competitively bid rate for all CBP areas located fully or partially within the region.²⁶ To address concerns regarding the possible effect of adjusted rates on beneficiaries residing in rural areas, CMS may apply an additional premium to the adjusted rates for items furnished to beneficiaries residing in rural areas of the contiguous United States.²⁷ Similarly, CMS may also apply a premium in non-contiguous areas of the United States—Alaska, Hawaii, and the U.S. territories—that applies to non-rural and rural areas alike.²⁸ See figure 1 for a map of CBP and non-bid areas as of 2016.

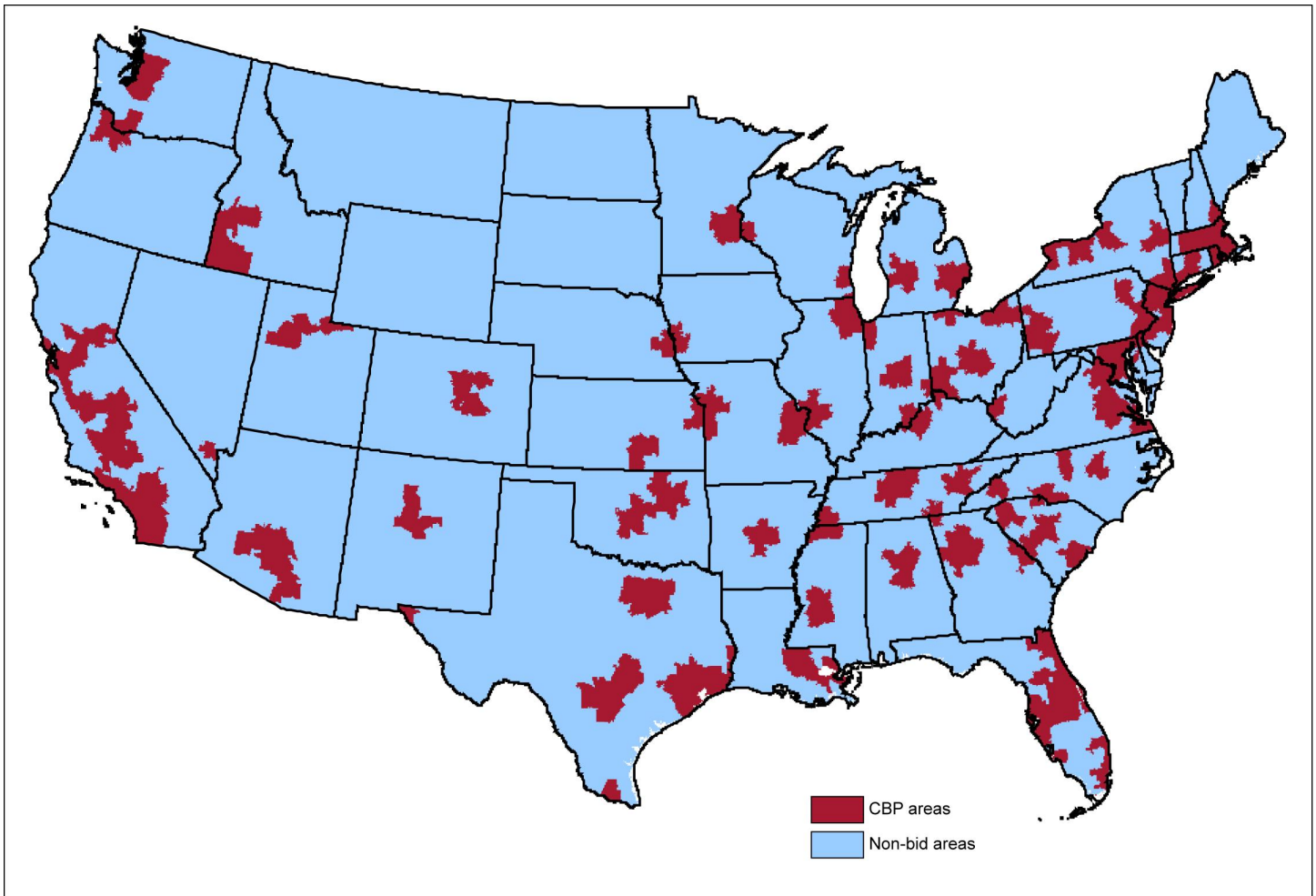
²⁵For rate adjustment purposes, CMS divides the contiguous United States into the eight geographic regions developed for economic analyses by the Bureau of Economic Analysis within the Department of Commerce. The contiguous United States includes 48 states and the District of Columbia.

²⁶In November 2016, CMS issued a final rule to establish that bid limits for individual items for future CBP rounds will be based on the fee schedule rates that were in effect before the items were adjusted based on competitive bidding information. 81 Fed. Reg. 77,834, 77,949 (Nov. 4, 2016).

²⁷CMS defines a zip code as rural if half of the zip code's total geographic area is estimated to be outside any metropolitan statistical area or if it has a low population density and is not part of a CBP area.

²⁸For additional information on CMS's methodologies for adjusting FFS payment rates, see CMS's final rule setting forth the methodology for adjusting DME fee schedule payment amounts using information from the CBP. 79 Fed. Reg. 66,120, 66,223 (Nov. 6, 2014).

Figure 1: Durable Medical Equipment (DME) Competitive Bidding Program (CBP) Areas and Non-bid Areas as of 2016



Sources: GAO analysis of Centers for Medicare & Medicaid Services data; MapInfo (map). | GAO-18-534

Note: There are at least one or more CBP areas in 43 states and the District of Columbia. Seven states do not include any CBP areas—Alaska (not pictured on this map), Maine, Montana, North Dakota, South Dakota, Vermont, and Wyoming. Hawaii (not pictured on this map) includes one CBP area (Honolulu).

Phase-In of Adjusted FFS Payment Rates

According to CMS, it initially used a phased-in approach to adjust FFS payment rates beginning in 2016; this allowed for a transition period in which the agency could closely monitor health outcomes and access to affected DME items prior to implementing fully adjusted rates. From January 1 through June 30 of 2016, FFS payment rates were based on a

50/50 blend of non-adjusted and adjusted rates, and from July 1 through December 31 of the same year, FFS payment rates were 100 percent adjusted based on CBP information. However, the 21st Century Cures Act required CMS to retroactively apply the 50/50 blended payment rates to claims in the second half of 2016, delaying the fully adjusted payment rates to January 1, 2017.²⁹ Because the retroactively applied 50/50 blended rates were based on newly available information from the CBP round 2 recompetes that went into effect on July 1, 2016, the adjusted rates for the second half of 2016 may have differed from the adjusted rates for the first half of 2016.³⁰ CMS contractors retroactively adjusted claims for this period, which were processed during the second half of calendar year 2017. Because this rate change became effective mid-December 2016, most decisions by suppliers and beneficiaries during the second half of 2016 were made based on the 100 percent adjusted rates, and the retroactive adjustments affected the total allowed charges, or expenditures, that suppliers were reimbursed. The implementation of adjusted rates may also affect other populations in addition to Medicare suppliers and Medicare beneficiaries in non-bid areas, because some private and other government insurers base their payment rates on Medicare's fee schedule. For example, the federal government's TRICARE military health program uses Medicare's fee schedule to help determine how much it pays for DME items.

DME Supplier Requirements

CMS has established certain requirements that all DME suppliers must meet in order to enroll in Medicare and maintain Medicare billing privileges, which include accreditation and appropriate licensure. Specifically, DME suppliers must meet Medicare enrollment and quality

²⁹Pub. L. No. 114-255, § 16007, 130 Stat. 1033, 1328 (2016). The 21st Century Cures Act also delayed the implementation of adjusted rates to accessories furnished in connection with complex rehabilitation technology power group 3 wheelchairs through June 30, 2017. In June 2017, CMS announced the agency had reconsidered its policy and excluded such accessories from being subject to adjusted rates. In addition, in May 2018, CMS issued an interim final rule with comment period to resume higher 50/50 blended rates for rate-adjusted items furnished in rural contiguous and all non-contiguous non-bid areas from June 1, 2018, through December 31, 2018. 83 Fed. Reg. 21,912 (May 11, 2018).

³⁰CMS is required by federal law to recompetes the CBP contracts at least once every three years, and adjusted rates must be updated each time new CBP payment information becomes available or a new DME item is included in the CBP.

standards.³¹ CMS also requires all DME suppliers and each of their locations to be accredited by a CMS-approved accrediting organization. In addition, DME suppliers must meet state licensure requirements in order to furnish certain items or services. Finally, certain DME suppliers are required to post a surety bond of at least \$50,000 for each business location.

There are two key differences between supplier requirements in non-bid areas versus CBP areas. First, only suppliers who are awarded a contract—referred to as contract suppliers—can furnish certain DME items at competitively determined prices to Medicare beneficiaries residing in CBP areas, and they are contractually obligated to furnish items in their contract upon request.³² According to CMS's competitive acquisition ombudsman, contract suppliers in CBP areas may receive more scrutiny than DME suppliers in non-bid areas because CMS can take action to ensure the suppliers are meeting their contract obligations.³³

However, in non-bid areas, any Medicare-enrolled DME supplier can furnish DME items. DME suppliers do not sign contracts in non-bid areas and are not contractually obligated to furnish items upon request. Second, contract suppliers in CBP areas must accept Medicare assignment, meaning that they must accept the competitively determined Medicare payment rate in full (and may not charge beneficiaries more than any unmet deductible and 20 percent coinsurance), whereas suppliers in non-

³¹For all DME suppliers, the Medicare enrollment standards are listed at 42 C.F.R. § 424.57(c) (2017).

³²In some circumstances, suppliers who are not selected for a CBP contract may choose to be a grandfathered supplier. Grandfathered suppliers may continue to furnish some CBP-covered items to beneficiaries who were their customers when the CBP round began, and who reside in the competitive bidding areas. Once the relevant rental period expires or the beneficiary involved decides to select a contract supplier, the grandfathered supplier generally can no longer provide the CBP-covered items and services to the beneficiary. Additionally, there are circumstances in which physicians, treating practitioners, and hospitals can furnish certain items as non-contract suppliers.

³³According to CMS officials, one action CMS can take is to conduct secret shopping calls, where representatives from CMS's competitive bidding implementation contractor pose as referral agents or family members acting on behalf of beneficiaries and call contract suppliers to request items, such as specific diabetes testing supplies, to determine whether the suppliers offer the supplies covered under their contracts. Some calls are conducted on a random basis and are intended to reach contract suppliers from across all product categories and CBP areas, while others are directed at particular suppliers.

bid areas may choose not to accept assignment and there is no limit on the amount they may charge a beneficiary.

CMS's Monitoring Activities

CMS has implemented several activities to monitor whether beneficiary access has been affected by the implementation of adjusted rates in non-bid areas, as summarized below.

- **Inquiries to 1-800-MEDICARE.** Beneficiaries with DME questions—referred to by CMS as inquiries—are directed to call CMS's 1-800-MEDICARE call line. Callers are assisted by customer service representatives trained to answer questions and assist beneficiaries in finding DME suppliers.³⁴ One CMS official told us the agency tracks DME-related inquiries to 1-800-MEDICARE but does not track whether inquiries are received from beneficiaries in CBP areas versus non-bid areas.
- **Health Status Monitoring Tool.** CMS analyzes Medicare claims data to monitor real-time health outcomes, such as death, hospitalizations, emergency room visits, and physician visits for beneficiaries in both CBP and non-bid areas. CMS posts information on its website to show historical and regional trends in health outcomes for specific groups of beneficiaries.
- **Monitoring Changes in the Number of Suppliers and Beneficiary Utilization Rates.** CMS officials told us they closely monitor changes in the number of suppliers furnishing items subject to adjusted rates in non-bid areas as well as changes in beneficiary utilization of rate-adjusted items.
- **Monitoring Assignment Rates.** CMS monitors the percentage of claims suppliers have submitted as “assigned” in non-bid areas. According to CMS, assignment rates are a good indicator of whether FFS payment amounts are sufficient.

While CMS conducted beneficiary satisfaction surveys before and after the implementation of previous CBP rounds in order to measure changes

³⁴To locate an enrolled Medicare supplier, beneficiaries can also use the CMS online supplier directory tool on CMS's Medicare website. The Medicare Supplier Directory is searchable by zip code and indicates whether a zip code is in a CBP or non-bid area and identifies suppliers who furnish specific items, such as walkers or manual hospital beds.

in beneficiary satisfaction in CBP areas, CMS officials reported they have not conducted similar surveys of beneficiaries residing in non-bid areas.

Payment Rate Reductions Were Generally Significant but Varied, and Number of Suppliers Continued a Trend of Annual Decreases

FFS Payment Rate Reductions Were Generally Significant but Varied By Product Category and DME Item

The payment rate reductions for DME items in non-bid areas were generally significant. The average unweighted percentage reduction across the top product category items combined—measured by calculating the percentage change between the 2015 non-adjusted and the 2017 fully adjusted rates—was 46 percent.³⁵ However, payment rate reductions varied by DME product category and by individual item within product categories. This is not unexpected given that the adjusted rates for each item were based on competitively determined payment rates from prior or current CBP rounds, and rate reductions for those payment rates also varied widely by product category and item. Specifically, average payment rate reductions by DME product category ranged from 18 percent to 74 percent with a midpoint of 47 percent.³⁶ For example, the average payment rate reduction for the top items in the oxygen product category—the category that accounted for the highest percentage of total expenditures in 2016—was 39 percent. The range of reductions among individual items within product categories also varied. For example,

³⁵The average unweighted percentage reduction across all 393 rate-adjusted items combined—measured by calculating the percentage change between the 2015 non-adjusted and the 2017 fully adjusted rates for items in the fee schedule in both years—was 26 percent. As previously noted, during the second half of 2016 fully adjusted payment rates were in effect, but in mid-December 2016 the 21st Century Cures Act required CMS to retroactively apply the 50/50 blended payment rates to claims in the second half of 2016, delaying the fully adjusted payment rates to January 1, 2017. For purposes of this analysis, we reviewed the fully adjusted payment rates for January 1, 2017, instead of the fully adjusted rates that were in effect in the second half of 2016.

³⁶The average unweighted percentage rate reduction for each product category does not correspond to overall utilization. For example, the top items in the TENS product category had the largest average payment rate reduction (74 percent) but accounted for 0.2 percent of the 2016 total expenditures for rate-adjusted items in non-bid areas. The product category with the smallest average payment rate reduction across the top items was infusion pumps (18 percent), which accounted for 4 percent of the 2016 total expenditures.

payment rate reductions for the top items in the enteral nutrients product category ranged from 46 percent to 56 percent. In contrast, payment rate reductions for the three items in the negative pressure wound therapy (NPWT) product category ranged from 6 percent to 61 percent. (See table 2.)

Table 2: Average Percentage Reduction in Medicare Fee-for-Service (FFS) Payment Rates for the Five Rate-Adjusted Items in Each Product Category with the Largest Share of 2016 Total Expenditures in Non-Bid Areas, 2015 to 2017

Product category	Percentage of total expenditures ^a	Range in percentage reductions across top 5 items	Average percentage reduction across top 5 items ^b
Oxygen	38	-26 to -61	-39
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD)	19	-50 to -61	-54
Enteral nutrients	5	-46 to -56	-50
Wheelchairs (complex and standard) and related accessories and replacement parts	4	-11 to -65	-46
Infusion pumps	4	-10 to -27	-18
Negative pressure wound therapy (NPWT) ^c	4	-6 to -61	-25
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts)	3	-31 to -56	-47
Walkers	1	-32 to -59	-43
Nebulizers	1	-34 to -69	-51
Support surfaces	1	-23 to -72	-52
Transcutaneous electrical nerve stimulation (TENS)	<1	-54 to -84	-74
Top 53 items	80	-6 to -84	-46

Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with FFS payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on information from the competitive bidding program. The top five rate-adjusted items for each product category include items with the highest percentages of 2016 total expenditures for all rate-adjusted items furnished to Medicare beneficiaries residing in non-bid areas. These items combined accounted for 80 percent of 2016 total expenditures. One item (oxygen concentrator) accounted for 32 percent of 2016 total expenditures for all rate-adjusted items. The remaining items each had shares of 5 percent or less. All numbers were rounded to the nearest whole number.

^aThe percentage of total expenditures reflects the combined share of 2016 total expenditures across the top five items in each product category.

^bThese numbers reflect the average, unweighted percentage change across the top five items in each product category. Each item's percentage change was based on the average non-adjusted 2015 FFS payment rate and the average non-rural fully adjusted January 2017 FFS payment rate for the contiguous United States. We analyzed the new purchase rate for each item unless it was only available for rent, in which case we analyzed the rental rate. If only the rental rate existed consistently from 2015 through 2017, we analyzed the rental rate. We also limited our analysis to the contiguous United States because CMS calculates adjusted rates for non-contiguous states and territories differently. We also excluded rural rates because CMS may calculate a higher, national adjusted rate for certain DME items furnished to beneficiaries living in rural non-bid areas. On average, adjusted rural rates are about 10 percent higher than adjusted non-rural rates.

^cThis product category includes only three items.

Table 3 shows 2015 non-adjusted and 2017 fully adjusted rates and the percentage reduction in these rates for the rate-adjusted item in each product category with the largest share of 2016 total expenditures. (See Appendix II for detailed information on the 2015 non-adjusted payment rates, 2016 transitional 50/50 blended adjusted rates, and 2017 fully adjusted rates for items with the highest 2016 expenditures in each product category.)

Table 3: Medicare Fee-for-Service (FFS) Payment Rates for the Rate-Adjusted Item in Each Product Category with the Largest Share of 2016 Total Expenditures in Non-Bid Areas, 2015 to 2017

Product category	Top item (HCPCS code) ^a	Description ^b	FFS payment rate (dollars)		Percentage reduction, 2015-2017 ^c
			Non-adjusted	Fully adjusted	
			2015	2017	
Oxygen	E1390 ^d	Oxygen concentrator, single delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate	180.92	70.14	-61
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD)	E0601 ^d	Continuous positive airway pressure (CPAP) device	101.94	39.95	-61
Enteral nutrients	B4035	Enteral feeding supply kit; pump fed, per day, includes but not limited to feeding/flushing syringe, administration set tubing, dressings, tape	11.95	5.26	-56
Wheelchairs (complex and standard) and related accessories and replacement parts	K0823 ^d	Power wheelchair, group 2 standard, captains chair, patient weight capacity up to and including 300 pounds	577.42	267.92	-54
Infusion pumps	E0784 ^d	External ambulatory infusion pump, insulin	463.44	418.23	-10
Negative pressure wound therapy (NPWT)	E2402 ^d	Negative pressure wound therapy electrical pump, stationary or portable	1,642.09	639.24	-61
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts)	E0260 ^d	Hospital bed, semi-electric (head and foot adjustment), with any type side rails, with mattress	134.38	59.45	-56
Walkers	E0143	Walker, folding, wheeled, adjustable or fixed height	110.92	46.01	-59
Nebulizers	E0570 ^d	Nebulizer, with compressor	17.87	5.60	-69
Support surfaces	E0277 ^d	Powered pressure-reducing air mattress	662.42	188.63	-72
Transcutaneous electrical nerve stimulation (TENS)	A4595	Electrical stimulator supplies, 2 lead, per month, (e.g., tens, nmes)	31.86	9.97	-69

Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with FFS payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on information from the competitive bidding program. This table includes the top Healthcare Common Procedure Coding System (HCPCS) code for each product category based on the percentage of 2016 total expenditures for all rate-adjusted items in non-bid areas. Percentages were rounded to the nearest whole number.

^aA specific HCPCS code may have had different payment rates depending upon whether it was available for purchase as a new item, used item, or rental item. We analyzed the new purchase rate for each HCPCS code unless it was only available for rent, in which case we analyzed the rental rate. If only a rental rate existed consistently from 2015 through 2017, we analyzed the rental rate.

^bItem descriptions are unedited CMS HCPCS code long descriptions.

^cPercentage changes are based on the average non-adjusted January 2015 FFS payment rates and the average non-rural fully adjusted January 2017 FFS payment rates for the contiguous United States. We limited our analysis to the contiguous United States because CMS calculates adjusted rates for non-contiguous states and territories differently. We also excluded rural rates because CMS may calculate a higher, national adjusted rate for certain DME items furnished to beneficiaries living in rural non-bid areas. On average, adjusted rural rates are about 10 percent higher than adjusted non-rural rates.

^dPrices reflect the monthly rental payment rate (as opposed to the new purchase payment rate).

In 2016, Number of Suppliers Furnishing Rate-Adjusted Items in Non-Bid Areas Continued a Trend of Annual Decreases

The number of suppliers furnishing any of the 393 rate-adjusted items to beneficiaries in non-bid areas in 2016—the first year that CMS adjusted payment rates in non-bid areas—decreased 8 percent compared to 2015. This continued a trend of annual decreases in non-bid areas going back to at least 2011—the first year CMS began implementing the CBP in nine areas. The largest percentage decrease in suppliers, 13 percent, occurred in 2014 (the year after the CBP was expanded to an additional 100 areas), followed by 9 and 8 percent decreases in 2015 and 2016, respectively.³⁷ This information is based on our review of the number of suppliers billing Medicare, so it is unclear as to how much the decreases were attributable to suppliers closing their businesses, conducting

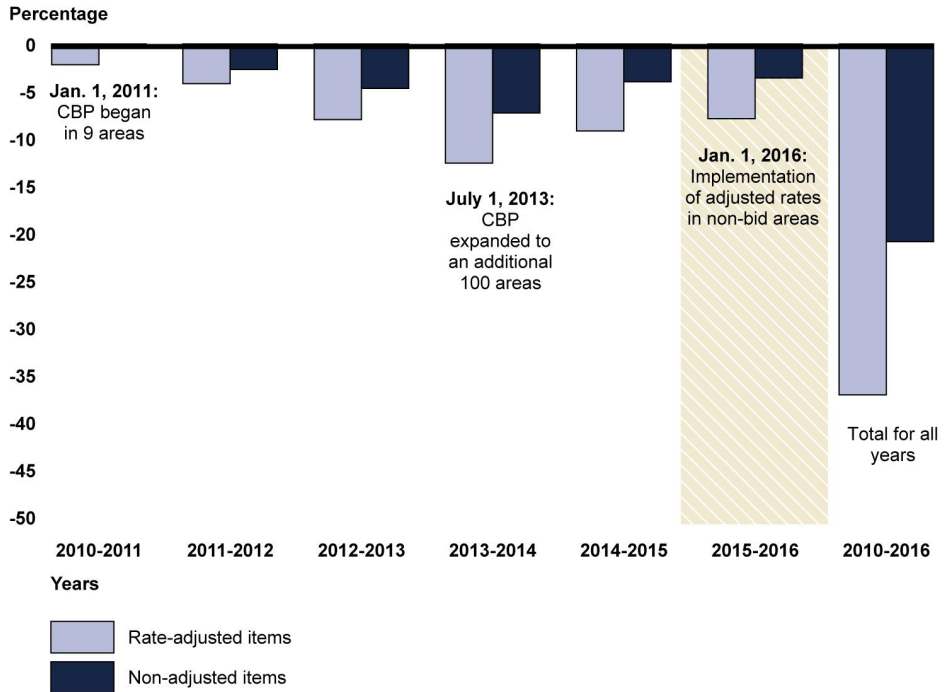
³⁷ Some suppliers have multiple locations. In general, the number of supplier locations in non-bid areas decreased somewhat more slowly than the number of suppliers. For example, between 2010 and 2016, the number of suppliers in non-bid areas decreased by 37 percent while the number of supplier locations decreased 31 percent.

mergers or acquisitions, no longer accepting Medicare beneficiaries, or other factors.³⁸

Also, the number of suppliers furnishing non-adjusted items to beneficiaries residing in non-bid areas decreased 4 percent in 2016 compared to 2015. Similar to trends found for rate-adjusted items, this continued a trend of annual decreases since at least 2011, although these decreases were smaller. As was the case with rate-adjusted items, the largest percentage decrease in the number of suppliers occurred in 2014 and then slowed in subsequent years. (See fig. 2.) Because 2016 was the most recent year of complete Medicare claims data available at the time of our study, we could only review data for the first year that adjusted rates were in effect in non-bid areas and could not determine if these trends continued in 2017.

³⁸One DME industry trade organization told us most DME suppliers are decreasing their percentage of Medicare business and some are exiting the Medicare market to focus on retail cash sales, but it is challenging to quantify the number of beneficiaries that may be paying cash for items because DME suppliers do not report such information, and, thus the information is not captured in CMS's Medicare claims data.

Figure 2: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted versus Non-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, 2010 to 2016

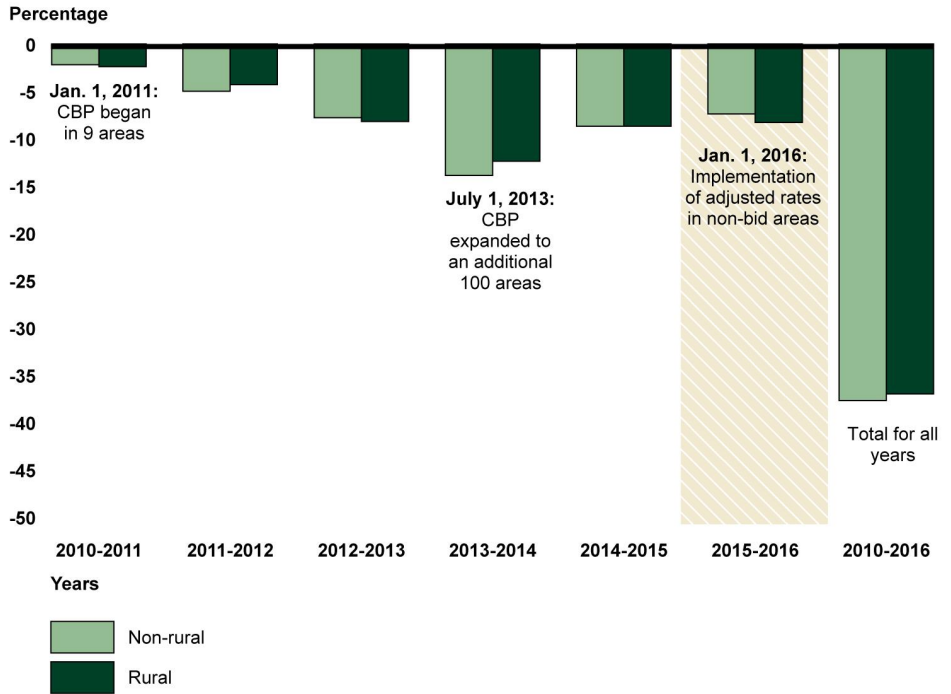


Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with FFS payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on information from the competitive bidding program (CBP). Non-adjusted items refer to DME items not included in the CBP. Each supplier was identified by its tax identification number. A supplier had to submit at least one claim for a DME item with an allowed charge greater than zero each year to be included in the analysis. This analysis is limited to items furnished to Medicare beneficiaries residing in the 50 U.S. states and the District of Columbia. If there is no bar for a given year, this indicates a percentage too small to chart.

Some DME industry trade organization representatives we interviewed reported that suppliers face an additional challenge of having to travel long distances when furnishing items to beneficiaries in rural areas, which may result in suppliers limiting their service areas. However, there was little difference between non-rural and rural non-bid areas in terms of changes in the number of suppliers between 2015 and 2016. For example, the number of suppliers furnishing rate-adjusted items to beneficiaries residing in non-rural non-bid areas decreased 7 percent between 2015 and 2016 compared with a decrease of 8 percent in rural non-bid areas. (See fig. 3.)

Figure 3: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Non-Rural versus Rural Areas, 2010 to 2016



Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

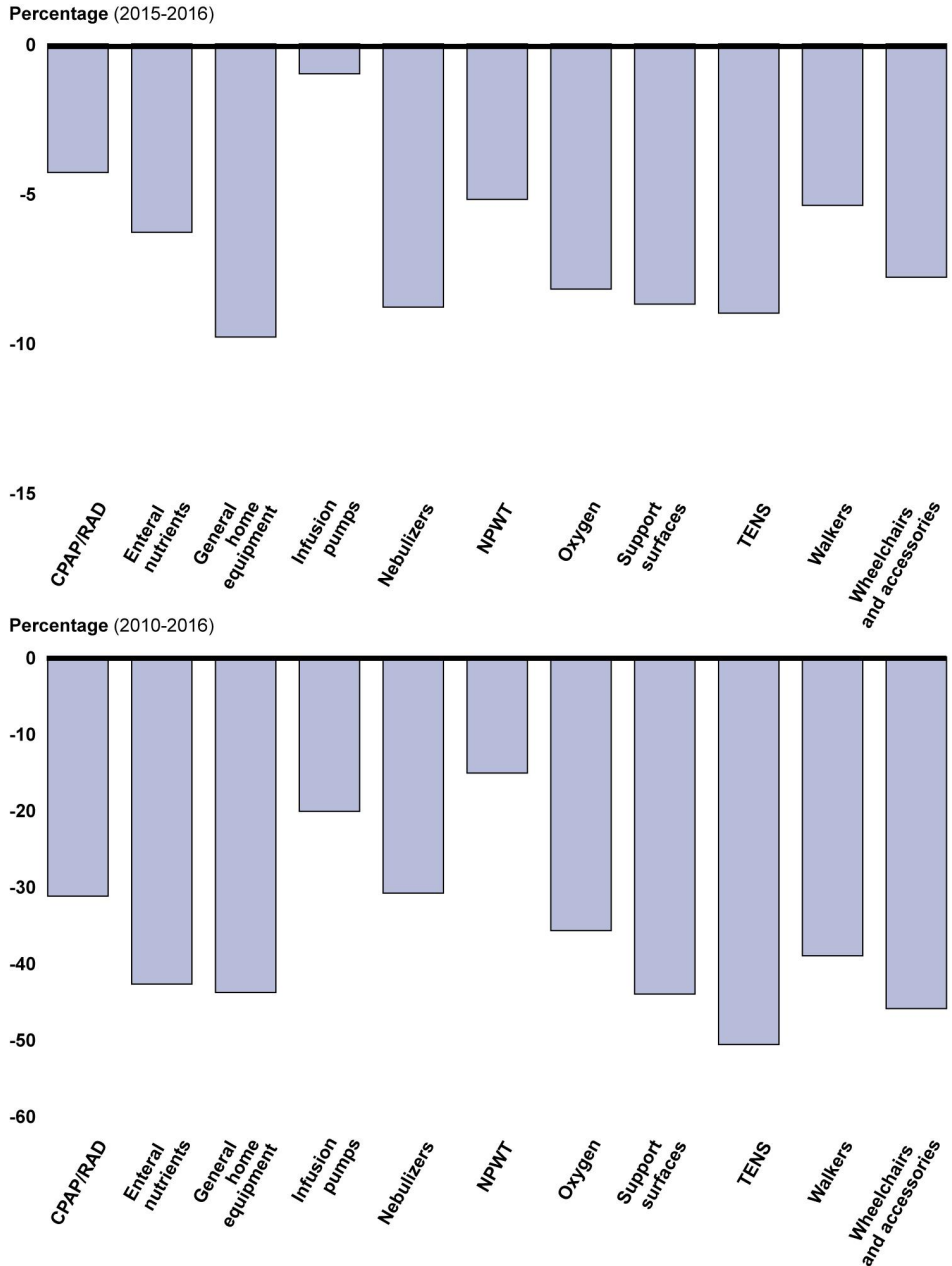
Notes: Rate-adjusted items refer to durable medical equipment (DME) items with fee-for-service payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on information from the competitive bidding program (CBP). Each supplier was identified by its tax identification number. A supplier had to submit at least one claim for a DME item with an allowed charge greater than zero each year to be included in the analysis. This analysis includes suppliers who furnished rate-adjusted items to Medicare beneficiaries in non-bid areas in the 50 U.S. states and the District of Columbia. Non-bid areas in Alaska and Hawaii are categorized as non-rural because CMS does not distinguish between rural and non-rural areas for purposes of adjusted payment rates.

There was also little difference between non-rural and rural areas in terms of changes in the number of suppliers who furnished non-adjusted items to beneficiaries residing in non-bid areas. For example, between 2015 and 2016 the number of suppliers furnishing non-adjusted items to beneficiaries in non-bid areas decreased 3 percent in non-rural areas and 4 percent in rural areas.

We found that the number of suppliers furnishing rate-adjusted items in non-bid areas decreased between 2015 and 2016 in all product categories, though the extent of these decreases varied. For example, we found that the number of suppliers furnishing items in the infusion pumps

product category decreased by 1 percent between 2015 and in 2016 while the number of suppliers furnishing general home equipment decreased by 10 percent. Trends for 2010 through 2016 were generally similar. The number of suppliers decreased in all product categories, and the extent of decreases varied. Individual suppliers may furnish items across multiple product categories. (See fig. 4.)

Figure 4: Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016^a



Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with fee-for-service (FFS) payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS)

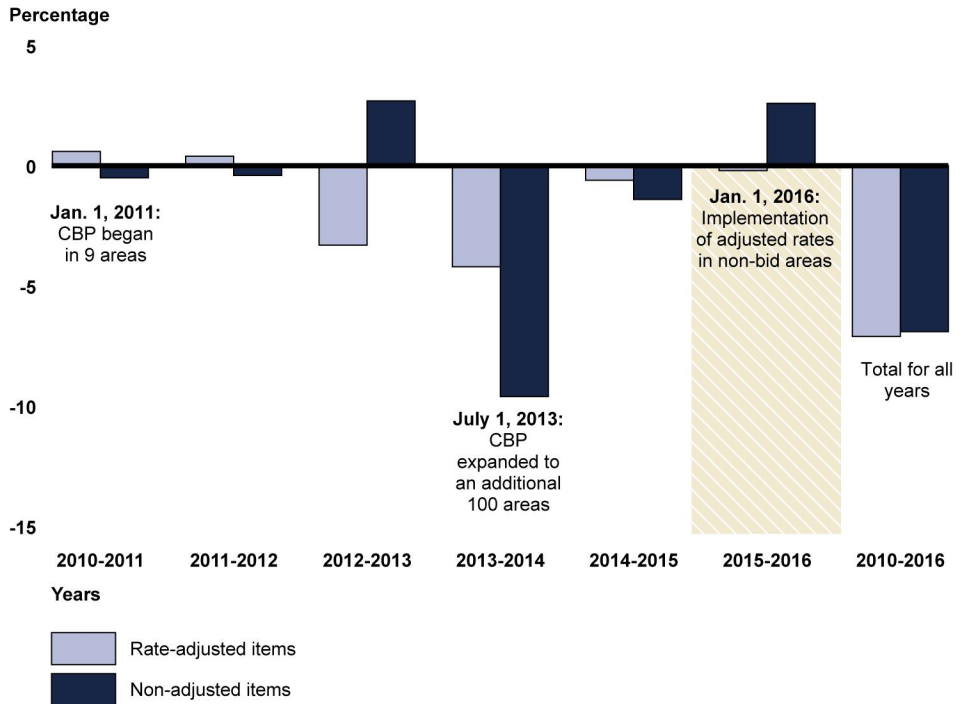
based on information from the competitive bidding program (CBP). Each supplier was identified by its tax identification number. A supplier had to submit at least one claim for a DME item with an allowed charge greater than zero each year to be included in the analysis. This analysis includes suppliers who furnished rate-adjusted items to Medicare beneficiaries in non-bid areas in the 50 U.S. states and the District of Columbia. CPAP/RAD refers to continuous positive airway pressure devices and respiratory assist devices; NPWT refers to negative pressure wound therapy; and TENS refers to transcutaneous electrical nerve stimulation.

^aCMS began implementing the CBP on January 1, 2011, in nine areas and expanded the CBP to an additional 100 areas on July 1, 2013. CMS began implementing adjusted FFS payment rates in non-bid areas on January 1, 2016.

Beneficiary Utilization of Rate-Adjusted Items Held Steady in 2016 Following Three Years of Decreases

The number of beneficiaries in non-bid areas receiving at least one rate-adjusted item in 2016—the first year that CMS implemented adjusted rates in non-bid areas—showed little change compared to 2015, decreasing by less than one-half of a percentage point. This stabilization in beneficiary utilization occurred following three years of decreases in non-bid areas with the largest decrease (4 percent) in 2014—the year following the CBP’s expansion to an additional 100 areas. In comparison, the number of beneficiaries in non-bid areas who received at least one non-adjusted item increased 3 percent in 2016. (See fig. 5.) In general, the annual trends in CBP areas paralleled those in non-bid areas. Between 2015 and 2016, there was little change in the number of beneficiaries in CBP areas who received at least one rate-adjusted item, with a decrease of less than one-half a percentage point.

Figure 5: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Bid Areas, 2010 to 2016



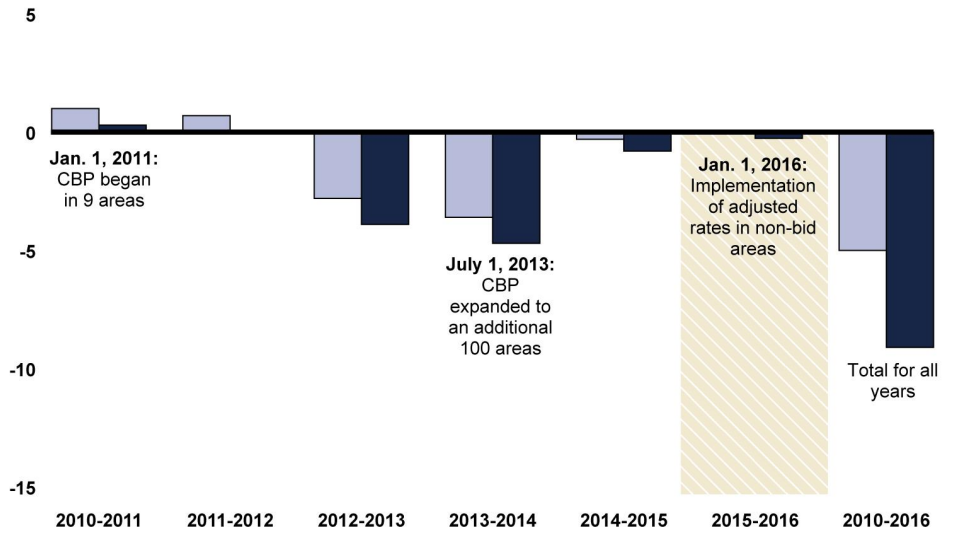
Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with fee-for-service payment rate adjustments made by the Centers for Medicare & Medicaid Services based on information from the competitive bidding program (CBP). Non-adjusted items refer to DME items not included in the CBP. This analysis includes Medicare beneficiaries residing in the 50 U.S. states and the District of Columbia who received at least one DME item of the respective type.

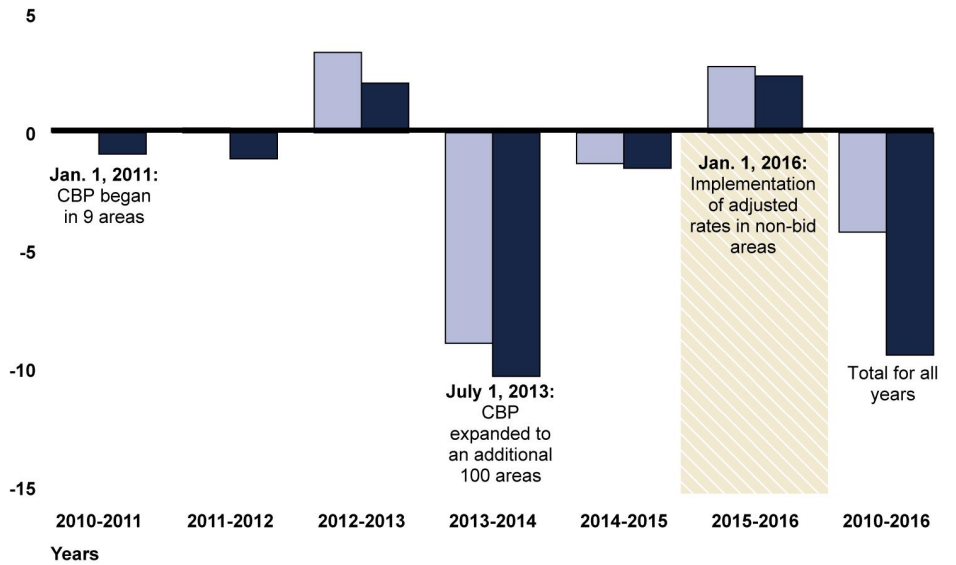
In non-bid areas, there was little difference between non-rural and rural areas in terms of changes in 2016 in the number of beneficiaries who received rate-adjusted items, with decreases in both of less than one-half a percentage point. There was also little difference in terms of the changes in the number of beneficiaries in non-bid areas who received non-adjusted items. The total decrease for the 2010 to 2016 period was smaller in non-rural areas than rural areas. (See fig. 6.)

Figure 6: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Rural versus Rural Non-Bid Areas, 2010 to 2016

Beneficiaries receiving rate-adjusted items (percentage)



Beneficiaries receiving non-adjusted items (percentage)



Non-rural
 Rural

Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with fee-for-service payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on

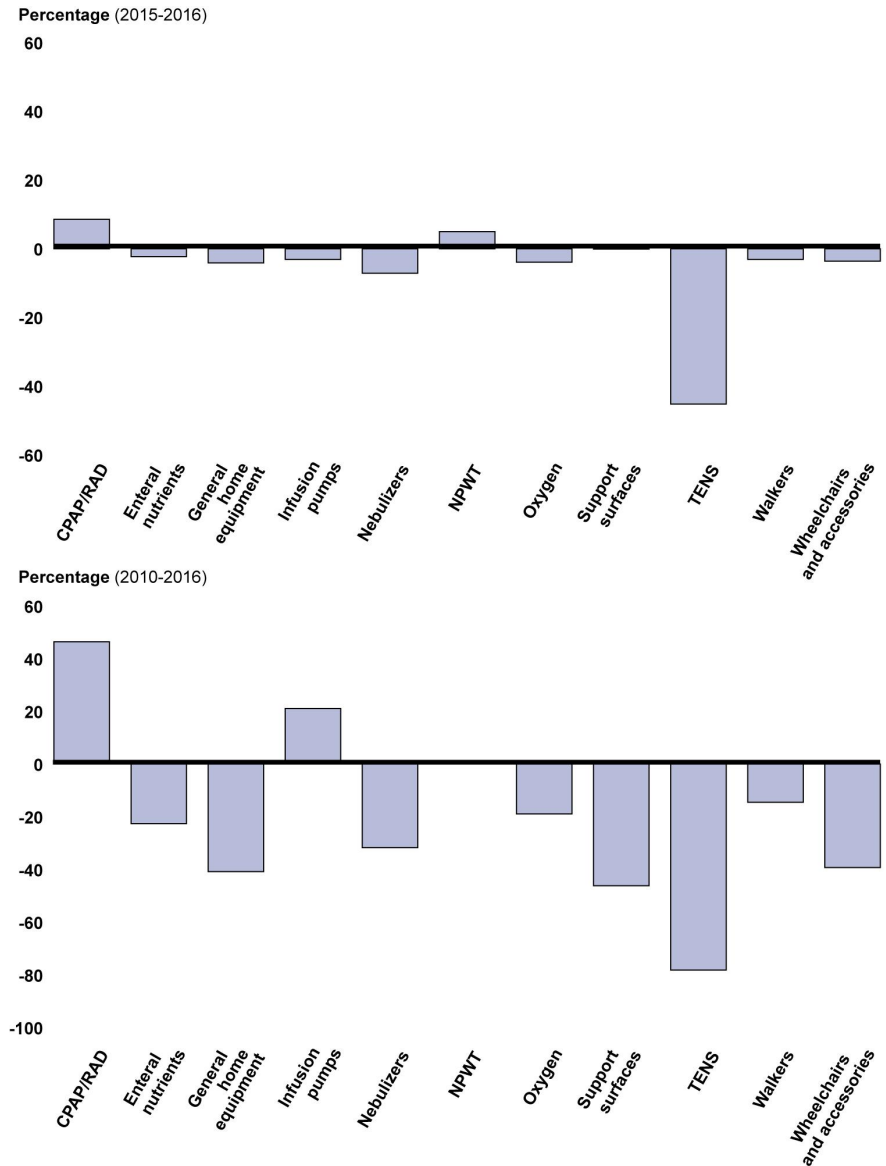
information from the competitive bidding program (CBP). Non-adjusted items refer to DME items not included in the CBP. This analysis includes Medicare beneficiaries residing in the 50 U.S. states and the District of Columbia who received at least one DME item of the respective type. Non-bid areas in Alaska and Hawaii are categorized as non-rural because CMS does not distinguish between rural and non-rural areas for purposes of adjusted payment rates. If there is no bar for a given year, this indicates a percentage too small to chart.

We found that the number of beneficiaries in non-bid areas receiving at least one rate-adjusted item decreased in 2016 for 9 of the 11 product categories. Changes ranged from a 45 percent decrease for the TENS product category to a 9 percent increase for the CPAP/RAD product category.³⁹ For the 2010 through 2016 period, most product categories also had total net percentage decreases, and percentage changes varied across product categories. (See fig. 7.) Individual product category decreases were generally larger in CBP areas than in non-bid areas. For example, between 2010 and 2016, the percentage change in the number of beneficiaries who received oxygen product category items was -29 percent in CBP areas as compared to -19 percent in non-bid areas. CPAP/RAD was the one product category for which the number of beneficiaries receiving at least one item increased rather than decreased in 2016 and between 2010 and 2016 in both non-bid and CBP areas. This is consistent with what we have previously reported.⁴⁰

³⁹CMS officials told us they identified a downward trend in TENS utilization in early 2016 and conducted a supplier-level investigation to better understand the underlying factors contributing to this trend. They said the investigation revealed that the decline was driven by a single supplier exiting the market. According to CMS officials, this supplier was suspected of improperly supplying TENS to beneficiaries who had no medical need for these devices, and later settled with the U.S. Department of Justice regarding TENS equipment.

⁴⁰We previously reviewed utilization of items included in the CPAP/RAD product category in CBP round 2 areas and non-bid areas and reported that the CPAP/RAD product category was the only product category for which the number of beneficiaries receiving items increased between 2012 and 2014 in both types of areas. See GAO, *Medicare: CMS's Round 2 Durable Medical Equipment and National Mail-order Diabetes Testing Supplies Competitive Bidding Programs*, [GAO-16-570](#) (Washington, D.C.: September 15, 2016). The HHS Office of Inspector General also conducted an analysis of devices and supplies included in the CPAP/RAD product category to determine whether the CBP has disrupted beneficiary access to certain DME items. In June 2017 the HHS Office of Inspector General reported that CBP round 2 did not appear to disrupt beneficiary access to CPAP/RAD devices and that the finding is consistent with CMS's conclusion that the program is not compromising beneficiary health outcomes. The Office of Inspector General reported that its analysis of whether the CBP round 2 disrupted beneficiary access to CPAP/RAD supplies was less conclusive. Office of Inspector General, HHS, *Round 2 Competitive Bidding for CPAP/RAD: Disrupted Access Unlikely for Devices, Inconclusive for Suppliers*, OEI-01-15-00040 (June 2017).

Figure 7: Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted Items in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016^a



Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with fee-for-service payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on information from the competitive bidding program (CBP). This analysis includes Medicare beneficiaries residing in the 50 U.S. states and the District of Columbia who received at least one DME item of the respective type. CPAP/RAD refers to continuous positive airway pressure devices

and respiratory assist devices; NPWT refers to negative pressure wound therapy; and TENS refers to transcutaneous electrical nerve stimulation. If there is no bar for a given year, this indicates a percentage too small to chart.

³CMS began implementing the CBP on January 1, 2011, in nine areas and expanded the CBP to an additional 100 areas on July 1, 2013. CMS began implementing adjusted fee-for-service payment rates in non-bid areas on January 1, 2016.

We could only report on utilization for one year following adjustment of rates because 2016 was the most recent year with complete data available; as such utilization trends may differ in 2017 and subsequent years.

Available Evidence Indicates No Widespread Access Issues in the First Year of Reduced Durable Medical Equipment Payment Rates in Non-Bid Areas

CMS's Health Status Monitoring Tool Indicates that Beneficiaries in Non-Bid Areas Have Not Experienced Changes in Health Outcomes

CMS has reported that data from its health status monitoring tool indicate the reduced payment rates have not resulted in changes in access to DME items or health outcomes in non-bid areas in 2016 as compared to 2015.⁴¹ CMS uses the health status monitoring tool to analyze Medicare claims data and track seven health outcomes—deaths, hospitalizations, emergency room visits, physician visits, admissions to skilled nursing facilities, average number of days spent hospitalized in a month, and average number of days in a skilled nursing facility in a month—for beneficiaries in both CBP and non-bid areas. The data for non-bid areas are broken out by rural and non-rural areas across eight different regions of the country and non-contiguous U.S. areas. CMS monitors these health outcomes for three Medicare FFS beneficiary groups: 1) all beneficiaries enrolled in FFS, 2) beneficiaries who are likely to use one of the rate-adjusted items on the basis of related health conditions, and 3) beneficiaries who have a claim for one of the rate-adjusted items. CMS's

⁴¹See <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSFeeSched/Fee-Adjustment-Monitoring.html> for more information about CMS's data on health outcomes for beneficiaries in non-bid areas (accessed on May 7, 2018).

tool considers historical and regional trends in health status to monitor health outcomes in all CBP and non-bid areas. CMS officials told us that staff meet bi-weekly to review monitoring tool trends as well as external complaints or stakeholder feedback to identify and investigate potential DME access issues. The officials told us these investigations have not identified any adverse health outcomes as a result of the implementation of adjusted rates.

We previously conducted an analysis of CMS's methodologies and scoring algorithm that focused on evaluating health outcome trends in CBP areas and found them to be generally sound. CMS officials told us they have not made significant revisions to the tool's underlying methodologies but did create a separate workbook specially tailored to the implementation of the adjusted rates in non-bid areas that includes additional capabilities, such as review of assignment rates.⁴² In addition, because CMS uses a 4-month window to evaluate health outcomes of all beneficiaries that meet the criteria, for this report we also conducted our own analysis of health outcomes over a longer period of time to determine if our results for a particular set of beneficiaries were consistent with CMS's shorter-term results. Specifically, we tracked a cohort of about 256,000 beneficiaries in both non-bid and CBP areas who began using oxygen items in the first half of 2014 and followed their utilization through the end of 2016 to determine if mortality and hospital admissions rates remained consistent before and after the implementation of adjusted rates. We found that the trends in mortality and hospital admissions rates for this cohort were generally consistent with the cumulative trends displayed in CMS's monitoring tool.⁴³ We did not find a change in health status between 2015 and 2016 related to the reduced payment rates.

⁴²For additional information on the CBP's health status monitoring tool's methodology and scoring algorithm, see [GAO-16-570](#). CMS officials said the non-bid area workbook examines health outcomes and performs trend analyses in real-time and that they identify anomalous trends in non-bid areas by comparing health outcomes prior to and after the reduced payment rates went into effect.

⁴³In May 2018, the HHS Office of Inspector General reported that the vast majority of beneficiaries in CBP round 2 areas appeared to have continued access to oxygen and enteral nutrients items, which is consistent with CMS's conclusion that the program is not compromising beneficiary health outcomes. Office of Inspector General, Department of Health and Human Services, *Round 2 Competitive Bidding for Oxygen: Continued Access for Vast Majority of Beneficiaries*, OEI-01-15-00041 (May 2018). Office of Inspector General, Department of Health and Human Services, *Round 2 Competitive Bidding for Enteral Nutrition: Continued Access for Vast Majority of Beneficiaries*, OEI-01-15-00042 (May 2018).

The Percentage of Medicare Enrolled Participating Suppliers and Rates of Assignment for Rate-Adjusted Items Did Not Change Following the Implementation of Adjusted Rates

One way that CMS verifies that beneficiaries have access to needed items and services is by reviewing the percentage of suppliers who enroll as Medicare “participating” suppliers and the percentage of claims that suppliers have submitted as assigned. Participating suppliers must accept the FFS payment rate in full for all claims and cannot charge beneficiaries an additional amount above the 20 percent copayment.⁴⁴ DME suppliers can also elect to be “non-participating” suppliers meaning they can choose to accept assignment on a claim-by-claim basis and there is no limit on the amount that they can charge for a DME item. Non-participating suppliers in non-bid areas are not required to accept assignment of Medicare claims. This means a non-participating supplier can decide not to accept assignment for an item and can charge beneficiaries an amount above the Medicare payment rate. CMS told us the rate of participating suppliers in 2016 was unchanged from 2015 and decreased by one percent in 2017, and the rates of assignment for rate-adjusted items remained very high (over 99 percent of all claims for rate-adjusted items in non-bid areas) in 2016 and 2017.

Number of Inquiries to CMS and the State Health Insurance Assistance Program Did Not Increase Following the Implementation of Adjusted Rates

CMS told us the nationwide number of inquiries to 1-800-MEDICARE associated with access issues did not increase after the implementation of adjusted rates. According to a CMS official, CMS uses the same process for all DME calls received, regardless of whether the caller lives in a CBP or non-bid area, so there is no way to distinguish DME-related calls in CBP areas from non-bid areas. However, the CMS official said there has been no evidence of systemic access issues in non-bid areas,

⁴⁴Every year, suppliers can change their status between “participating” and “non-participating” during the open enrollment period. Participating and non-participating suppliers retain their Medicare billing privileges and this status affects only how suppliers are reimbursed by Medicare. Regardless of their status, suppliers must accept assignment for any Part B service furnished to a “dual eligible beneficiary,” which describes an individual who is enrolled in both Medicare and Medicaid.

such as beneficiaries reporting they were not able to find suppliers to furnish DME items with adjusted rates.

We spoke with officials from three of CMS's regional offices, who also reported there has not been an increase in the number of DME-related inquiries since adjusted rates in non-bid areas went into effect. One of the officials told us that her regional office is forwarded information about all inquiries related to Medicare Parts A and B from the other CMS regional offices. She also said the regional offices generally receive direct inquiries from a variety of sources including beneficiaries, beneficiary advocates, local partners, congressional district offices, and providers, and some are also escalated by 1-800-MEDICARE customer service representatives. According to that official, each year regional offices receive close to 40,000 inquiries nationwide regarding a wide range of DME issues, and most are related to questions about coverage and documentation requirements (such as what types of DME may require additional documentation or face-to-face visits with physicians). In addition, the official told us that regional offices capture detailed information about each inquiry. This includes contact information for the individual submitting the inquiry, the type of DME involved and whether it is included in the CBP, and the regional office's response. Officials said they review this information to specifically look for access issues or trends by product category but have not identified any issues. One official said she had heard anecdotal reports of beneficiaries contacting regional offices claiming they had experienced access issues, but such reports did not indicate these issues were widespread or sustained.

We also interviewed representatives from the State Health Insurance Assistance Program who reported there has not been an increase in requests for assistance with DME-related issues since the adjusted rates went into effect. The representatives told us State Health Insurance Assistance Program counselors log all contacts, but the data do not distinguish between non-bid and CBP areas. However, they said counselors have received about 300 to 500 DME-related contacts each quarter since 2015, and the number of requests for assistance with DME-related issues remained consistent before and after adjusted rates went into effect. State Health Insurance Assistance Program representatives said counselors attempt to resolve issues on their own, but can also contact CMS's regional offices for assistance.

Several Stakeholder Groups Reported Anecdotal Examples of Specific Beneficiary Access Concerns, But Did Not Have Evidence That Issues Were Widespread

We interviewed representatives from one state hospital association, three beneficiary advocacy groups, and four DME industry trade organizations who provided anecdotal examples of varying degrees of beneficiary access issues in non-bid areas. For example, representatives from the state hospital association told us some hospital case managers in non-bid areas have reported difficulty in locating suppliers to provide DME items such as wheelchairs or walkers, but these issues are not widespread.⁴⁵ A representative from one beneficiary advocacy group told us her organization does not receive many direct inquiries from Medicare beneficiaries in regard to access issues to DME, but it has been contacted by entities such as hospital discharge planners and pharmacies regarding issues with delivery of DME items. For example, the representative said some hospital discharge planners have reported that DME suppliers are more resistant to delivering DME items, such as wheelchairs and walkers, to the hospital when the beneficiary resides in a non-bid area as opposed to a CBP area. However, the representative said such reports are anecdotal and she does not think that issues reported are widespread or have created significant hardship. She added that her organization makes webinars available on a fairly regular basis, and very few people signed up for the DME webinar, which was not the case for webinars held for other topics.

In contrast, a representative of another beneficiary advocacy group that focuses on a condition in which beneficiaries would typically use oxygen items with adjusted rates told us that without a real research instrument, it is difficult to determine if the increase in complaints that her group began receiving in 2016 from beneficiaries in non-bid areas is directly related to the adjusted rates, but she said she believes they are because she had not heard certain types of complaints before the adjusted rates went into effect. For example, she said the beneficiary advocacy group has

⁴⁵These representatives told us that hospital case managers have developed “workarounds” to help beneficiaries who cannot access DME items. For example, they said some hospitals have loan closets and case managers will help beneficiaries purchase the items on their own and subsequently bill Medicare later. The representatives told us case managers reported that difficulty in locating suppliers to furnish DME items in non-bid areas was specific to mobility items such as wheelchairs and walkers and they have not had issues with other DME items such as oxygen or nebulizers.

received complaints about reduced delivery services and reductions in the number of portable oxygen tanks that DME suppliers are willing to furnish in a single delivery and these complaints are more frequent from beneficiaries who live in rural areas. The representative said given that rural areas may have higher delivery costs, it is not surprising that some suppliers may have decreased the number of deliveries, but she was surprised to hear they have decreased the number of portable oxygen tanks they are willing to provide. According to CMS, the agency encourages individuals to report any supplier that delivers fewer tanks of oxygen than a beneficiary needs to CMS, so this violation can be immediately addressed.

Representatives from four DME industry trade organizations that we spoke with told us the implementation of adjusted rates has caused some suppliers to change their business models and practices. Specifically, individuals from all four DME industry trade organizations told us DME companies have lowered costs by reducing their number of employees, decreasing their service areas, or consolidating deliveries in specific areas to only certain days. For example, several DME suppliers told us that since the implementation of adjusted rates, they will only service beneficiaries who reside within the city limits or within a certain number of miles from their locations. Several DME suppliers told us the quality and range of items provided by DME suppliers in non-bid areas has changed since the adjusted rates went into effect. For example, several suppliers reported they provide cheaper, lower quality items and that some suppliers will no longer provide liquid oxygen to Medicare beneficiaries. In addition, individuals from all four DME industry trade organizations also told us there have been delays in hospital discharges as a result of not being able to find a DME supplier to provide needed DME. In contrast, CMS officials told us they investigated reported concerns about delayed patient discharges because of difficulties in acquiring rate-adjusted items and found there has not been a noticeable change in the average length of hospital stay before and after the implementation of adjusted rates. Specifically, CMS officials told us they measured: 1) average length of hospital stay for beneficiaries who received new rate-adjusted items shortly after their discharge, 2) whether beneficiaries were being discharged prior to receiving new rate-adjusted items, and 3) average length of stay for beneficiaries in individual access groups whether or not they received rate-adjusted items after being discharged. According to CMS, results of this analysis indicated no apparent changes in the average length of hospital stay after adjusted rates were implemented.

In addition to speaking with these representatives, we also reviewed several publicly released studies that assessed the effect of the implementation of adjusted rates on beneficiaries, DME suppliers, and others. We found these studies did not provide persuasive evidence of substantial effects, primarily because of methodological issues with how the participants in the studies were recruited. Specifically, respondents were recruited on social media platforms or through targeted email notifications, raising concerns about selection bias.

Although the number of DME suppliers and beneficiary utilization of DME items have decreased throughout the past several years, available evidence indicates there were not widespread beneficiary access issues in 2016. According to CMS officials, the long-term decreases in utilization do not necessarily indicate that beneficiaries did not receive needed DME, and suggested instead that these decreases are the result of a decline in unnecessary utilization. However, some stakeholders we interviewed continued to express concerns that lower FFS payment rates may have made it more difficult for some beneficiaries to receive needed DME, and one DME trade organization told us some decreases in utilization could be attributed to beneficiaries opting to pay for items outright rather than going through Medicare. Because there is only limited experience on changes in the number of DME suppliers and utilization of DME based on the first year that adjusted rates have been in effect, some effects may take longer to appear, and it is possible that trends could differ in 2017 or subsequent years. This underscores the importance of CMS's continued monitoring activities.

Agency Comments

We provided a draft of this report to HHS for comment. HHS provided technical comments, which were incorporated as appropriate.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the Secretary of Health and Human Services and appropriate congressional committees. The report will also be available at no charge on our website at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact me at (202) 512-7114 or clowers@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last

page of this report. GAO staff who made major contributions to this report are listed in appendix III.

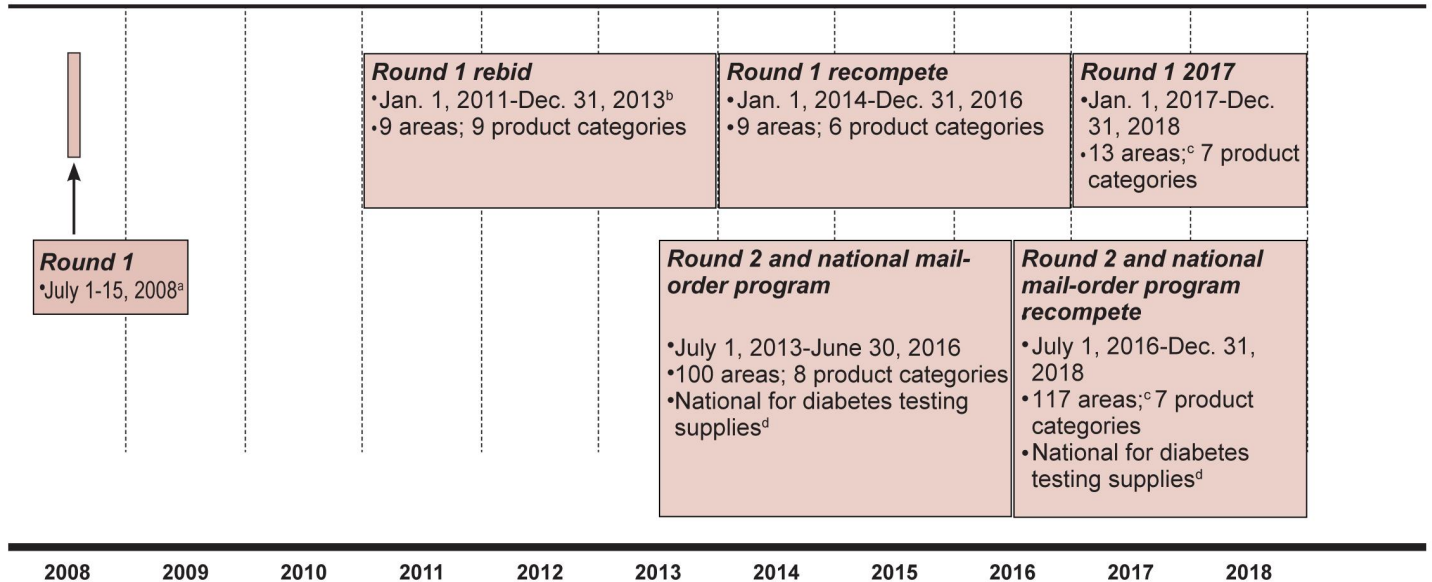
A handwritten signature in black ink, appearing to read 'A. Clowers', with a stylized, cursive flourish at the end.

A. Nicole Clowers
Managing Director, Health Care

Appendix I: The Centers for Medicare & Medicaid Services' Phase-In of the Competitive Bidding Program and Other Antifraud Initiatives, 2008 through 2019

The Centers for Medicare & Medicaid Services (CMS) has implemented several antifraud efforts that affect durable medical equipment (DME) suppliers. Specifically, CMS began phasing in DME competitive bidding program (CBP) rounds in 2008. (See fig. 8.) In addition to the CBP, CMS has also implemented several other broader initiatives. (See fig. 9.)

Figure 8: CMS's Phase-In of the Durable Medical Equipment Competitive Bidding Program



Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

^aThe Medicare Improvements for Patients and Providers Act of 2008 was enacted on July 15, 2008. This legislation stopped round 1 contracts 2 weeks after they became effective, terminated single payment amounts, and required the Centers for Medicare & Medicaid Services (CMS) to repeat the

Appendix I: The Centers for Medicare & Medicaid Services' Phase-In of the Competitive Bidding Program and Other Antifraud Initiatives, 2008 through 2019

competition in 2009. Pub. L. No. 110-275, § 154(a)(1), 122 Stat. 2494, 2560-63 (2008) (codified, as amended, at 42 U.S.C. § 1395w-3).

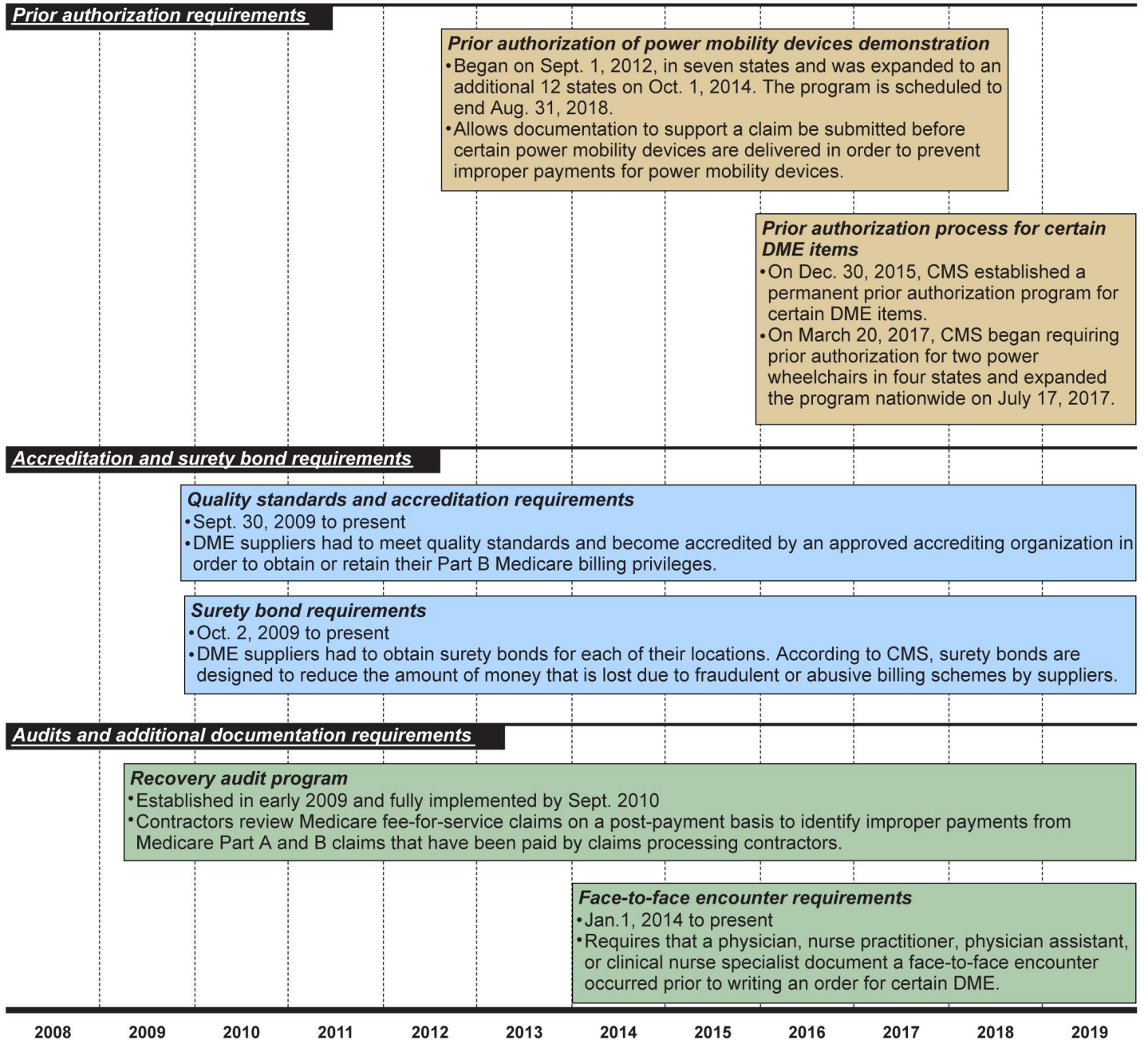
^bThe round 1 rebid included a mail-order diabetes testing supplies product category, but unlike the other product categories for which contracts were awarded for a period of 3 years, the mail-order product category had a 2-year contract period (January 1, 2011, through December 31, 2012). Beginning July 1, 2013, the national mail-order program began with contracts awarded for a 3-year period (July 1, 2013, through June 30, 2016).

^cCMS redefined areas for both the round 1 2017 and the round 2 recompetes so that each round covers the same areas that were included in earlier related rounds, but each competitive bidding area is only in one state.

^dThe national mail-order program and national mail-order program recompetes include all parts of the United States, including all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, and American Samoa.

Appendix I: The Centers for Medicare & Medicaid Services' Phase-In of the Competitive Bidding Program and Other Antifraud Initiatives, 2008 through 2019

Figure 9: The Centers for Medicare & Medicaid Services' (CMS) Antifraud Initiatives Related to Durable Medical Equipment (DME) Suppliers



Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Appendix II: Medicare Fee-for-Service (FFS) Payment Rates for Top Expenditure Items in Each Durable Medical Equipment (DME) Product Category, 2015 to 2017

Table 4 includes the top five Healthcare Common Procedure Coding System (HCPCS) codes for each product category based on the percentage of 2016 total expenditures for items included in the competitive bidding program (CBP) and subject to adjusted rates in non-bid areas. Combined, these items account for 80 percent of 2016 total expenditures across all 393 rate-adjusted items.

Table 4: Medicare Fee-for-Service (FFS) Payment Rates for the Five Rate-Adjusted Items in Each Product Category with the Largest Share of 2016 Total Expenditures in Non-Bid Areas, 2015 to 2017

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				Non-adjusted	50/50 blended ^c	Fully adjusted		
Oxygen (38 percent of 2016 total expenditures)	E1390 ^e	Oxygen concentrator, single delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate	83	180.92	137.04	125.79	70.14	-61

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			n/a	
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Oxygen (38 percent of 2016 total expenditures)	E0431 ^e	Portable gaseous oxygen system, rental; includes portable container, regulator, flowmeter, humidifier, cannula or mask, and tubing	7	30.42	24.92	23.87	17.30	-43
Oxygen (38 percent of 2016 total expenditures)	E1392 ^e	Portable oxygen concentrator, rental	3	51.63	47.13	44.98	38.10	-26
Oxygen (38 percent of 2016 total expenditures)	E0443	Portable oxygen contents, gaseous, 1 month's supply = 1 unit	3	77.45	66.45	62.80	47.83	-38
Oxygen (38 percent of 2016 total expenditures)	K0738 ^e	Portable gaseous oxygen system, rental; home compressor used to fill portable oxygen cylinders; includes portable containers, regulator, flowmeter, humidifier, cannula or mask, and tubing	3	51.63	47.13	44.98	38.10	-26
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD) (19 percent of 2016 total expenditures)	E0601 ^e	Continuous positive airway pressure (CPAP) device	18	101.94	74.56	71.27	39.95	-61

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			n/a	
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD) (19 percent of 2016 total expenditures)	A7030	Full face mask used with positive airway pressure device, each	15	180.47	141.52	134.78	87.36	-52
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD) (19 percent of 2016 total expenditures)	A7034	Nasal interface (mask or cannula type) used with positive airway pressure device, with or without head strap	11	112.53	87.94	84.01	54.66	-51
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD) (19 percent of 2016 total expenditures)	A7031	Face mask interface, replacement for full face mask, each	9	66.75	53.23	50.32	33.21	-50

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

				FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				n/a
				Non-adjusted	50/50 blended ^c	Fully adjusted		n/a
Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Continuous positive airway pressure (CPAP) devices and respiratory assist devices (RAD) (19 percent of 2016 total expenditures)	E0470 ^e	Respiratory assist device, bi-level pressure capability, without backup rate feature, used with noninvasive interface, e.g., nasal or facial mask (intermittent assist device with continuous positive airway pressure device)	8	233.46	175.63	169.91	104.89	-55
Enteral nutrients (5 percent of 2016 total expenditures)	B4035	Enteral feeding supply kit; pump fed, per day, includes but not limited to feeding/flushing syringe, administration set tubing, dressings, tape	26	11.95	8.93	8.61	5.26	-56

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

				FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				n/a
				Non- adjusted	50/50 blended ^c		Fully adjusted	n/a
Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Enteral nutrients (5 percent of 2016 total expenditures)	B4152	Enteral formula, nutritionally complete, calorically dense (equal to or greater than 1.5 kcal/ml) with intact nutrients, includes proteins, fats, carbohydrates, vitamins and minerals, may include fiber, administered through an enteral feeding tube, 100 calories = 1 unit	22	0.57	0.45	0.44	0.31	-46
Enteral nutrients (5 percent of 2016 total expenditures)	B4150	Enteral formula, nutritionally complete with intact nutrients, includes proteins, fats, carbohydrates, vitamins and minerals, may include fiber, administered through an enteral feeding tube, 100 calories = 1 unit	15	0.70	0.55	0.54	0.37	-47

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			n/a	
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Enteral nutrients (5 percent of 2016 total expenditures)	B4154	Enteral formula, nutritionally complete, for special metabolic needs, excludes inherited disease of metabolism, includes altered composition of proteins, fats, carbohydrates, vitamins and/or minerals, may include fiber, administered through an enteral feeding tube, 100 calories = 1 unit	14	1.25	0.98	0.95	0.65	-48
Enteral nutrients (5 percent of 2016 total expenditures)	B4034	Enteral feeding supply kit; syringe fed, per day, includes but not limited to feeding/flushing syringe, administration set tubing, dressings, tape	9	6.26	4.73	4.65	3.05	-51
Wheelchairs (complex and standard) and related accessories and replacement parts (4 percent of 2016 total expenditures)	K0823 ^e	Power wheelchair, group 2 standard, captains chair, patient weight capacity up to and including 300 pounds	18	577.42	430.87	423.78	267.92	-54

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				Percentage reduction, 2015-2017 ^d
				2015	50/50 blended ^c		2017	
					First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	n/a				n/a
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c		Fully adjusted	n/a
Wheelchairs (complex and standard) and related accessories and replacement parts (4 percent of 2016 total expenditures)	K0001 ^e	Standard wheelchair	11	57.06	41.69	39.81	22.32	-61
Wheelchairs (complex and standard) and related accessories and replacement parts (4 percent of 2016 total expenditures)	E1007 ^e	Wheelchair accessory, power seating system, combination tilt and recline, with mechanical shear reduction	7	836.26	785.57	785.57	745.61	-11
Wheelchairs (complex and standard) and related accessories and replacement parts (4 percent of 2016 total expenditures)	K0003 ^e	Lightweight wheelchair	7	95.17	67.88	64.72	33.63	-65
Wheelchairs (complex and standard) and related accessories and replacement parts (4 percent of 2016 total expenditures)	K0825 ^e	Power wheelchair, group 2 heavy duty, captains chair, patient weight capacity 301 to 450 pounds	4	636.20	509.53	509.17	382.59	-40

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			n/a	
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Infusion pumps (4 percent of 2016 total expenditures)	E0784 ^e	External ambulatory infusion pump, insulin	36	463.44	439.91	439.91	418.23	-10
Infusion pumps (4 percent of 2016 total expenditures)	A4221	Supplies for maintenance of non-insulin drug infusion catheter, per week (list drugs separately)	29	25.00	22.15	22.15	19.40	-22
Infusion pumps (4 percent of 2016 total expenditures)	A4222	Infusion supplies for external drug infusion pump, per cassette or bag (list drugs separately)	16	50.67	43.63	43.63	36.79	-27
Infusion pumps (4 percent of 2016 total expenditures)	E0781 ^e	Ambulatory infusion pump, single or multiple channels, electric or battery operated, with administrative equipment, worn by patient	11	280.31	255.57	255.57	231.95	-17
Infusion pumps (4 percent of 2016 total expenditures)	K0552	Supplies for external non-insulin drug infusion pump, syringe type cartridge, sterile, each	9	2.92	2.76	2.76	2.60	-11
Negative pressure wound therapy (NPWT)^f (4 percent of 2016 total expenditures)	E2402 ^e	Negative pressure wound therapy electrical pump, stationary or portable	73	1,642.09	1,219.48	1,141.25	639.24	-61

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			n/a	
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Negative pressure wound therapy (NPWT)^f (4 percent of 2016 total expenditures)	A6550	Wound care set, for negative pressure wound therapy electrical pump, includes all supplies and accessories	22	26.25	25.11	25.36	24.62	-6
Negative pressure wound therapy (NPWT)^f (4 percent of 2016 total expenditures)	A7000	Canister, disposable, used with suction pump, each	5	8.73	8.22	8.38	8.13	-7
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts) (3 percent of 2016 total expenditures)	E0260 ^e	Hospital bed, semi-electric (head and foot adjustment), with any type side rails, with mattress	57	134.38	102.53	97.04	59.45	-56
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts) (3 percent of 2016 total expenditures)	E0163	Commode chair, mobile or stationary, with fixed arms	11	117.62	93.69	84.59	51.19	-56
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts) (3 percent of 2016 total expenditures)	E0630 ^e	Patient lift, hydraulic or mechanical, includes any seat, sling, strap(s) or pad(s)	10	108.60	88.89	82.83	57.03	-47

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				Percentage reduction, 2015-2017 ^d
				2015	50/50 blended ^c		2017	
					First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	n/a				n/a
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c		Fully adjusted	n/a
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts) (3 percent of 2016 total expenditures)	E0303 ^e	Hospital bed, heavy duty, extra wide, with weight capacity greater than 350 pounds, but less than or equal to 600 pounds, with any type side rails, with mattress	4	282.64	231.07	219.69	158.22	-44
General home equipment (includes commode chairs, hospital beds, patient lifts, and seat lifts) (3 percent of 2016 total expenditures)	E0627	Seat lift mechanism, electric, any type	3	370.50	326.12	310.71	254.45	-31
Walkers (1 percent of 2016 total expenditures)	E0143	Walker, folding, wheeled, adjustable or fixed height	81	110.92	82.14	78.52	46.01	-59
Walkers (1 percent of 2016 total expenditures)	E0156	Seat attachment, walker	9	23.93	19.30	19.53	15.24	-36
Walkers (1 percent of 2016 total expenditures)	E0149 ^e	Walker, heavy duty, wheeled, rigid or folding, any type	3	21.36	16.68	16.37	11.44	-46
Walkers (1 percent of 2016 total expenditures)	E0135	Walker, folding (pickup), adjustable or fixed height	3	77.57	60.21	60.20	44.16	-43
Walkers (1 percent of 2016 total expenditures)	E0147	Walker, heavy duty, multiple braking system, variable wheel resistance	1	549.90	460.09	460.09	372.48	-32

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			2017	Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016		
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)			n/a	
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Nebulizers (1 percent of 2016 total expenditures)	E0570 ^e	Nebulizer, with compressor	67	17.87	14.49	11.80	5.60	-69
Nebulizers (1 percent of 2016 total expenditures)	A7005	Administration set, with small volume nonfiltered pneumatic nebulizer, non-disposable	20	32.20	26.81	21.92	11.42	-65
Nebulizers (1 percent of 2016 total expenditures)	A7003	Administration set, with small volume nonfiltered pneumatic nebulizer, disposable	8	2.95	2.45	2.22	1.48	-50
Nebulizers (1 percent of 2016 total expenditures)	E0565 ^e	Compressor, air power source for equipment which is not self-contained or cylinder driven	2	63.39	57.65	52.14	40.95	-35
Nebulizers (1 percent of 2016 total expenditures)	A7004	Small volume nonfiltered pneumatic nebulizer, disposable	1	1.87	1.62	1.55	1.23	-34
Support surfaces (1 percent of 2016 total expenditures)	E0277 ^e	Powered pressure-reducing air mattress	56	662.42	451.74	424.41	188.63	-72
Support surfaces (1 percent of 2016 total expenditures)	E0185	Gel or gel-like pressure pad for mattress, standard mattress length and width	20	332.20	269.61	248.23	164.35	-51

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016	2017	
				Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				n/a
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
Support surfaces (1 percent of 2016 total expenditures)	E0181 ^e	Powered pressure reducing mattress overlay/pad, alternating, with pump, includes heavy duty	9	28.88	24.46	22.02	15.08	-48
Support surfaces (1 percent of 2016 total expenditures)	E0184	Dry pressure mattress	7	201.87	187.40	178.65	156.03	-23
Support surfaces (1 percent of 2016 total expenditures)	E0373 ^e	Nonpowered advanced pressure reducing mattress	3	572.73	442.53	460.63	188.63	-67
Transcutaneous electrical nerve stimulation (TENS) (Less than 1 percent of 2016 total expenditures)	A4595	Electrical stimulator supplies, 2 lead, per month, (e.g., tens, nmes)	39	31.86	24.23	21.10	9.97	-69
Transcutaneous electrical nerve stimulation (TENS) (Less than 1 percent of 2016 total expenditures)	E0730	Transcutaneous electrical nerve stimulation (tens) device, four or more leads, for multiple nerve stimulation	37	399.67	290.41	234.79	64.91	-84

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

Category	Product category, Item (HCPCS code) ^a	Item description ^b	Percentage of product category expenditures, 2016	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				Percentage reduction, 2015-2017 ^d
				2015	First half 2016	Second half 2016	2017	
n/a	n/a	n/a	n/a	FFS payment rates in non-rural, contiguous U.S. areas (dollars, cents)				n/a
n/a	n/a	n/a	n/a	Non-adjusted	50/50 blended ^c	Fully adjusted	n/a	
				2015	First half 2016	Second half 2016	2017	Percentage reduction, 2015-2017 ^d
Transcutaneous electrical nerve stimulation (TENS) (Less than 1 percent of 2016 total expenditures)	E0731	Form fitting conductive garment for delivery of tens or nmes (with conductive fibers separated from the patient's skin by layers of fabric)	13	371.34	306.24	229.77	80.40	-78
Transcutaneous electrical nerve stimulation (TENS) (Less than 1 percent of 2016 total expenditures)	E0720	Transcutaneous electrical nerve stimulation (tens) device, two lead, localized stimulation	10	391.09	307.56	233.84	64.47	-84
Transcutaneous electrical nerve stimulation (TENS) (Less than 1 percent of 2016 total expenditures)	A4557	Lead wires, (e.g., apnea monitor), per pair	1	21.86	18.81	16.04	9.97	-54

Source: GAO analysis of Centers for Medicare & Medicaid Services data. | GAO-18-534

Notes: Rate-adjusted items refer to durable medical equipment (DME) items with FFS payment rate adjustments made by the Centers for Medicare & Medicaid Services (CMS) based on information from the competitive bidding program. This table includes the top five Healthcare Common Procedure Coding System (HCPCS) codes for each product category based on the percentage of 2016 total expenditures for all rate-adjusted items in non-bid areas. Product categories are ordered based on the top product category items' combined percentage of 2016 total expenditures. Within each product category, items are ordered based on each item's percentage of 2016 product category expenditures. The ordering is based on more precise values than the rounded percentages shown in the table, and the sum of percentages may exceed 100 percent due to rounding.

^aA specific HCPCS code may have had different payment rates depending upon whether it was available for purchase as a new item, used item, or rental item. We analyzed the new purchase rate for each HCPCS code unless it was only available for rent, in which case we analyzed the rental rate. If only a rental rate existed consistently from 2015 through 2017, we analyzed the rental rate.

^bItem descriptions are unedited CMS HCPCS code long descriptions.

**Appendix II: Medicare Fee-for-Service (FFS)
Payment Rates for Top Expenditure Items in
Each Durable Medical Equipment (DME)
Product Category, 2015 to 2017**

^cRates reflect a 50/50 blend of adjusted and non-adjusted rates. The blended rates in the second half of 2016 may differ from the blended rates in the first half of 2016 because they were based on updated CBP pricing information.

^dPercentage changes are based on the average non-adjusted January 2015 FFS payment rates and the average non-rural fully adjusted January 2017 FFS payment rates for the contiguous United States. We limited our analysis to the contiguous United States because CMS calculates adjusted rates for non-contiguous states and territories differently. We also excluded rural rates because CMS may calculate a higher, national adjusted rate for certain DME items furnished to beneficiaries living in rural non-bid areas. On average, adjusted rural rates are about 10 percent higher than adjusted non-rural rates.

^ePrices reflect the monthly rental payment rate (as opposed to the new purchase payment rate).

^fThis product category includes only three items.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

A. Nicole Clowers, (202) 512-7114 or clowersa@gao.gov.

Staff Acknowledgments

In addition to the contact named above, Kathleen M. King, Director; Martin T. Gahart, Assistant Director; Michelle Paluga, Analyst-in-Charge; Sam Amrhein; Todd Anderson; Barbara Hansen; and Emily Wilson made key contributions to this report.

Appendix IV: Accessible Data

Data Tables

Accessible Data for Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Durable Medical Equipment Items in Non-Bid Areas, 2010 to 2016

Years	Percent
2010-2011	-2.2
2011-2012	-4.2
2012-2013	-8
2013-2014	-12.6
2014-2015	-9.2
2015-2016	-7.9

Accessible Data for Figure 2: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted versus Non-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, 2010 to 2016

Years	Rate-adjusted items	Non-adjusted items
2010-2011	-2.2	-0.4
2011-2012	-4.2	-2.7
2012-2013	-8	-4.7
2013-2014	-12.6	-7.3
2014-2015	-9.2	-4
2015-2016	-7.9	-3.6
2010-2016	-37.1	-20.9

Accessible Data for Figure 3: Year-to-Year Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Non-Rural versus Rural Areas, 2010 to 2016

Years	Non-rural	Rural
2010-2011	-2.2	-2.4
2011-2012	-5	-4.3

2012-2013	-7.8	-8.2
2013-2014	-13.9	-12.4
2014-2015	-8.7	-8.7
2015-2016	-7.4	-8.3
2010-2016	-37.7	-37

Accessible Data for Figure 4a: Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016

Category	2015-2016 percentage decrease in suppliers
CPAP/RAD	-4.3
Enteral nutrients	-6.3
General home equipment	-9.8
Infusion pumps	-1
Nebulizers	-8.8
NPWT	-5.2
Oxygen	-8.2
Support surfaces	-8.7
TENS	-9
Walkers	-5.4
Wheelchairs and accessories	-7.8

Accessible Data for Figure 4b: Percentage Decrease in the Number of Suppliers Furnishing Rate-Adjusted Items to Medicare Beneficiaries in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016

Category	2010-2016 percentage decrease in suppliers
CPAP/RAD	-31.3
Enteral nutrients	-42.8
General home equipment	-43.9
Infusion pumps	-20.2
Nebulizers	-30.9
NPWT	-15.2
Oxygen	-35.8
Support surfaces	-44.1

Category	2010-2016 percentage decrease in suppliers
TENS	-50.7
Walkers	-39.1
Wheelchairs and accessories	-46

Accessible Data for Figure 5: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Bid Areas, 2010 to 2016

Years	Rate-adjusted items	Non-adjusted items
2010-2011	0.6	-0.5
2011-2012	0.4	-0.4
2012-2013	-3.3	2.7
2013-2014	-4.2	-9.6
2014-2015	-0.6	-1.4
2015-2016	-0.2	2.6
2010-2016	-7.1	-6.9

Accessible Data for Figure 6a: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Rural versus Rural Non-Bid Areas, 2010 to 2016

Years	Non-rural (rate-adjusted)	Rural (rate-adjusted)
2010-2011	1	0.3
2011-2012	0.7	0
2012-2013	-2.8	-3.9
2013-2014	-3.6	-4.7
2014-2015	-0.3	-0.8
2015-2016	-0.04	-0.26
2010-2016	-5	-9.1

Accessible Data for Figure 6b: Year-to-Year Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted versus Non-Adjusted Items in Non-Rural versus Rural Non-Bid Areas, 2010 to 2016

Years	Non-rural (non-adjusted)	Rural (non-adjusted)
2010-2011	0	-0.9
2011-2012	0.2	-1.1

Years	Non-rural (non-adjusted)	Rural (non-adjusted)
2012-2013	3.4	2.1
2013-2014	-8.9	-10.3
2014-2015	-1.3	-1.5
2015-2016	2.8	2.4
2010-2016	-4.2	-9.4

Accessible Data for Figure 7a: Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted Items in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016

Category	Percentage (Non-bid areas 2015)
CPAP/RAD	8.6
Enteral nutrients	-2.3
General home equipment	-4.1
Infusion pumps	-3.1
Nebulizers	-7.1
NPWT	5
Oxygen	-3.9
Support surfaces	-0.1
TENS	-45.2
Walkers	-3.1
Wheelchairs and accessories	-3.6

Accessible Data for Figure 7b: Percentage Change in the Number of Medicare Beneficiaries Receiving Rate-Adjusted Items in Non-Bid Areas, by Product Category, 2015 to 2016 and 2010 to 2016

Category	Percentage (Non-bid areas 2010)
CPAP/RAD	46.4
Enteral nutrients	-22.6
General home equipment	-40.8
Infusion pumps	21.1
Nebulizers	-31.7
NPWT	1
Oxygen	-18.9
Support surfaces	-46.2
TENS	-78.2

Appendix IV: Accessible Data

Category	Percentage (Non-bid areas 2010)
Walkers	-14.5
Wheelchairs and accessories	-39.3

Related GAO Products

Medicare: CMS's Round 2 Durable Medical Equipment and National Mail-order Diabetes Testing Supplies Competitive Bidding Programs. [GAO-16-570](#). Washington, D.C.: September 15, 2016.

Medicare: Utilization and Expenditures for Complex Wheelchair Accessories. [GAO-16-640R](#). Washington, D.C.: June 1, 2016.

Medicare: Bidding Results from CMS's Durable Medical Equipment Competitive Bidding Program. [GAO-15-63](#). Washington, D.C.: November 7, 2014.

Medicare: Second Year Update for CMS's Durable Medical Equipment Competitive Bidding Program Round 1 Rebid. [GAO-14-156](#). Washington, D.C.: March 7, 2014

Medicare: Review of the First Year of CMS's Durable Medical Equipment Competitive Bidding Program's Round 1 Rebid. [GAO-12-693](#). Washington, D.C.: May 9, 2012.

Medicare: The First Year of the Durable Medical Equipment Competitive Bidding Program Round 1 Rebid. [GAO-12-733T](#). Washington, D.C.: May 9, 2012.

Medicare: Issues for Manufacturer-level Competitive Bidding for Durable Medical Equipment. [GAO-11-337R](#). Washington, D.C.: May 31, 2011.

Medicare: CMS Has Addressed Some Implementation Problems from Round 1 of the Durable Medical Equipment Competitive Bidding Program for the Round 1 Rebid. [GAO-10-1057T](#). Washington, D.C.: September 15, 2010.

Medicare: CMS Working to Address Problems from Round 1 of the Durable Medical Equipment Competitive Bidding Program. [GAO-10-27](#). Washington, D.C.: November 6, 2009.

Medicare: Covert Testing Exposes Weaknesses in the Durable Medical Equipment Supplier Screening Process. [GAO-08-955](#). Washington, D.C.: July 3, 2008.

Medicare: Competitive Bidding for Medical Equipment and Supplies Could Reduce Program Payments, but Adequate Oversight Is Critical. [GAO-08-767T](#). Washington, D.C.: May 6, 2008.

Medicare: Improvements Needed to Address Improper Payments for Medical Equipment and Supplies. [GAO-07-59](#). Washington, D.C.: January 31, 2007.

Medicare Durable Medical Equipment: Class III Devices Do Not Warrant a Distinct Annual Payment Update. [GAO-06-62](#). Washington, D.C.: March 1, 2006.

Medicare: More Effective Screening and Stronger Enrollment Standards Needed for Medical Equipment Suppliers. [GAO-05-656](#). Washington, D.C.: September 22, 2005.

Medicare: CMS's Program Safeguards Did Not Deter Growth in Spending for Power Wheelchairs. [GAO-05-43](#). Washington, D.C.: November 17, 2004.

Medicare: Past Experience Can Guide Future Competitive Bidding for Medical Equipment and Supplies. [GAO-04-765](#). Washington, D.C.: September 7, 2004.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (<https://www.gao.gov>). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to <https://www.gao.gov> and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <https://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#).
Subscribe to our [RSS Feeds](#) or [E-mail Updates](#). Listen to our [Podcasts](#).
Visit GAO on the web at <https://www.gao.gov>.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Website: <https://www.gao.gov/fraudnet/fraudnet.htm>

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Orice Williams Brown, Managing Director, WilliamsO@gao.gov, (202) 512-4400,
U.S. Government Accountability Office, 441 G Street NW, Room 7125,
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

James-Christian Blockwood, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548