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ROUND 2 COMPETITIVE BIDDING FOR OXYGEN: CONTINUED ACCESS FOR VAST MAJORITY OF BENEFICIARIES

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Round 2 Competitive Bidding for Oxygen: Continued Access for Vast Majority of Beneficiaries

Key Takeaway
Round 2 of the Competitive Bidding Program does not appear to have disrupted beneficiary access to oxygen equipment or contents. The vast majority of beneficiaries who started using oxygen equipment in 2013 and who used contents in 2013 appeared to have continued access to them after Round 2 began. Beneficiaries who received oxygen equipment and contents in the first half of 2013 continued to receive them at a similar rate in Round 2 CBAs and in nonbidding areas after Round 2 began.

What OIG Found

The vast majority of beneficiaries who in 2013 started using oxygen equipment—including compressed gas systems, liquid oxygen systems, and oxygen concentrators—appeared to have continued access to this equipment after Round 2 of the Competitive Bidding Program began in July 2013. After Round 2 began, Medicare payments for equipment continued for 86 percent of beneficiaries in Round 2 competitive bidding areas (CBAs) and 89 percent of beneficiaries in areas that were not CBAs (which we refer to as non-CBAs). These rates are consistent with the 88 percent of beneficiaries for whom Medicare payments for oxygen equipment continued over the same timeframe in 2012, 1 year prior to Round 2 of competitive bidding.

Our surveys of physicians and beneficiaries provided some anecdotal context for a sample of beneficiaries for whom payments for oxygen equipment and/or oxygen contents—compressed and liquid oxygen refills for oxygen equipment—stopped. For example, physicians told us that most beneficiaries still needed the equipment, and 5 of the 11 responding beneficiaries reported continued use of equipment.

For oxygen contents, we found that the vast majority of beneficiaries appeared to have continued access to them after Round 2 began in July 2013. Medicare payments for contents continued for 86 percent of beneficiaries in Round 2 CBAs and for 88 percent in non-CBAs. These rates are almost identical to the 87 percent of beneficiaries for whom Medicare payments for contents continued over the same timeframe in 2012.

As they did with regard to oxygen equipment, our physician and beneficiary surveys provided some potential insights for a sample of beneficiaries without continued payments for contents. In our physician and beneficiary surveys, the majority of physicians in both Round 2 CBAs and non-CBAs told us that the beneficiaries still needed contents after Round 2 began, and responding beneficiaries reported getting contents when they needed them.

What OIG Concludes

The Competitive Bidding Program aims to combat fraud, waste, and abuse; improve the methods for setting payments for durable medical equipment (DME); and create cost savings for Medicare and its beneficiaries—all while maintaining beneficiary access to needed DME. Our analysis for this report supports the conclusion that the vast majority of beneficiaries had continued access to oxygen equipment and contents after Round 2 began. However, we did find that the percentage of beneficiaries for whom Medicare payments for oxygen equipment and contents did not continue was slightly higher in Round 2 CBAs than in non-CBAs. This difference may or may not indicate disruptions in receiving needed oxygen equipment and contents. For example, this difference may indicate that the program reduced the provision of unnecessary oxygen equipment and contents, as the Centers for Medicare & Medicaid Services determined to be the case with Round 1 of the program.

Full report can be found at oig.hhs.gov/oei/reports/oei-01-15-00041.asp

Why OIG Did This Review

The Competitive Bidding Program changed the way Medicare pays for DME, and it is important to understand how this change may have affected beneficiary access to needed DME. Medicare established the program to combat fraud, waste, and abuse in the provision of DME. The program replaced a fee schedule with a competitive bidding process to set Medicare reimbursement amounts for certain types of DME.

In a letter to the Office of Inspector General (OIG), Members of Congress expressed concerns about the program's effect on access to DME and requested that OIG study this issue.

How OIG Did This Review

We used Medicare claims to identify two populations of beneficiaries for whom Medicare paid claims for oxygen equipment and contents before Round 2 of the Competitive Bidding Program started in 2013. The first population included those with paid claims for oxygen equipment; the second, those with paid claims for oxygen contents. Using discontinued payments after Round 2 began as a proxy for disrupted access within each population, we compared the rates of discontinued payments in Round 2 CBAs and non-CBAs. We also analyzed Medicare claims data from 2012 to determine how often Medicare payments stopped for beneficiaries who were receiving oxygen equipment or oxygen contents in the last full year prior to Round 2 of the program. In addition, we drew samples of beneficiaries for whom Medicare payments for oxygen equipment and contents stopped after Round 2 began. We then sent surveys to the physicians who had ordered oxygen for these beneficiaries and to some of the beneficiaries to learn about their experience after Round 2 began.

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OBJECTIVE

To determine whether Round 2 of the Competitive Bidding Program (CBP) appeared to disrupt beneficiary access to oxygen equipment and contents.

BACKGROUND

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 mandated the establishment of the CBP as one of several efforts aimed at combating fraud, waste, and abuse.[1] For selected categories of durable medical equipment (DME), this program replaces a fee-schedule payment methodology with a competitive bidding process in certain areas of the country. The goal of the program is to improve the methodology for setting DME payment amounts in a way that creates cost savings for Medicare and its beneficiaries while maintaining beneficiary access to quality items and services. The Centers for Medicare & Medicaid Services (CMS) has reported that the CBP is a success; however, Congress and other stakeholders have raised concerns about the program's impact on beneficiary access to DME.

In a July 2014 letter to the Office of Inspector General (OIG), 138 Members of Congress expressed concerns about the CBP's effect on Medicare beneficiary access to DME. The letter suggested that noncompliance of contracted suppliers in the CBP is affecting the quality and choice of DME available to beneficiaries and requested that OIG study the CBP's effect on access to DME.

In a report issued in May 2016, CMS concluded that the CBP was saving money for Medicare and its beneficiaries without compromising access to DME. In that report, CMS stated that the CBP had saved about $3.6 billion and had not had any negative impact on beneficiary health outcomes.[2] CMS conducts real-time data analysis to monitor the health status of beneficiaries served by the CBP, and as of the end of June 2017, CMS reported that it had not observed any negative changes in beneficiary

[1] Medicare Prescription Drug, Improvement, and Modernization Act of 2003. P.L. No. 108-173 § 302(b).

[2] CMS, *Providing Quality, Affordable Durable Medical Equipment for Beneficiaries*. Accessed at https://wayback.archive-it.org/2744/20161207130006/https:/blog.cms.gov/2016/05/17/providing-quality-affordable-durable-medical-equipment-for-beneficiaries/ on April 26, 2017.

health outcomes.[3] For its real-time data analysis, CMS monitors health outcomes such as deaths, hospitalizations, and emergency room visits, as well as the average number of days that beneficiaries spent hospitalized, among other data. In addition, CMS estimated in 2012 that Round 1 of competitive bidding had reduced Medicare spending on oxygen equipment and contents (compressed and liquid oxygen refills for oxygen equipment) by nearly $60 million.[4]

Overview of the Competitive Bidding Program

Under the CBP, DME suppliers compete to contract with Medicare to supply selected DME items within specific geographic areas known as Competitive Bidding Areas (CBAs). CMS and its Competitive Bidding Implementation Contractor evaluate a supplier's bid on the basis of the bid amount and several other criteria, including the supplier's eligibility and financial stability.[5]

Pursuant to the Medicare Modernization Act, CMS established bidding in rounds, which CMS must recompete at least once every 3 years.[6] Each round involves certain DME product categories and CBAs. Each product category includes a group of related products that are used to treat a similar medical condition. In January 2016, CMS began using pricing data from the CBP to set reimbursement rates for DME in areas of the country not subject to the CBP.[7] (In this report, we refer to areas not subject to the CBP as "non-CBAs.") See Exhibit 1 below for details on the rounds of the CBP.

[3] CMS, *Durable Medical Equipment, Prosthetics, Orthotics, and Supplies Competitive Bidding Program—Health Status Monitoring: Summary of Findings thru the Second Quarter of 2017*. Accessed at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSCompetitiveBid/Downloads/DME-Summary-of-Findings.pdf on November 16, 2017.

[4] CMS, *Competitive Bidding Update—One Year Implementation Update, April 17, 2012*. Accessed at https://www.cms.gov/medicare/medicare-fee-for-service-payment/dmeposcompetitivebid/downloads/competitive-bidding-update-one-year-implementation.pdf on October 26, 2016.

[5] CMS, *DMEPOS Competitive Bidding – Home*. Accessed at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSCompetitiveBid/index.html?redirect=/dmeposcompetitivebid/ on May 5, 2015.

[6] Social Security Act, § 1847(b)(3)(B), 42 U.S.C. § 1395w-3(b)(3)(B); 42 CFR § 414.422(b).

[7] 42 CFR § 414.210(g).

Exhibit 1: CBP Round Effective Dates, CBAs, and Product Categories

CBP Round	Effective Dates	CBAs	Product Categories*
Round 1	**Round 1 Rebid:**[8] Jan. 1, 2011 – Dec. 31, 2013 **Round 1 Recompete:**[9] Jan. 1, 2014 – Dec. 31, 2016 **Round 1 2017:** Jan. 1, 2017 – Dec. 31, 2018	9 to 13 CBAs – For the Round 1 Rebid and Round 1 Recompete, 9 CBAs covering the largest metropolitan statistical areas by population that did not span multiple Medicare Administrative Contractor jurisdictions,[10] but not including New York City, Los Angeles, and Chicago. For Round 1 2017, to prevent multi-State CBAs, CMS split 3 of the original 9 CBAs into multiple CBAs, for a total of 13 CBAs.	All Effective Dates: Oxygen; CPAP/RAD devices and supplies; enteral nutrition; standard power wheelchairs; scooters; walkers; hospital beds Some Effective Dates: Complex rehabilitative wheelchairs, standard manual wheelchairs, support surfaces, mail-order diabetes supplies, commode chairs, patient lifts, seat lifts, transcutaneous electrical nerve stimulation, external infusion pumps, nebulizers, negative pressure wound therapy pumps
Round 2	July 1, 2013 – June 30, 2016 **Recompete:** July 1, 2016 – December 31, 2018	100 to 117 CBAs – For Round 2, 100 CBAs, covering the next 91 largest metropolitan statistical areas and including New York City, Los Angeles, and Chicago, with each subdivided into multiple CBAs. For the Round 2 Recompete, 117 CBAs to prevent multi-State CBAs.	Oxygen; CPAP/RAD devices and supplies; enteral nutrition; standard wheelchairs; walkers; hospital beds; support surfaces; negative pressure wound therapy pumps
National Mail Order Program	July 1, 2013 – June 30, 2016 **Recompete:** July 1, 2016 – December 31, 2018	1 CBA – All parts of the United States, including the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, and American Samoa.	Diabetes testing supplies

*Some product categories were renamed and combined from one contract cycle to the next.

Suppliers that rent equipment to beneficiaries and are not awarded a contract under the CBP may—under a "grandfather" provision—continue renting those items to beneficiaries in CBAs to whom they were renting at the time the CBP was implemented. Those suppliers may also provide related supplies to the beneficiaries to whom they are renting equipment.

[8] Round 1 was implemented in 2008 and discontinued 2 weeks later by the passage of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA). As required by MIPPA, the supplier competition was held again in 2009. This 2009 competition is referred to as the Round 1 Rebid.

[9] The Round 1 Rebid included contracts for mail-order diabetes testing supplies, but those contracts ended in December 2012, and bidding for diabetes testing supplies moved to the National Mail Order Program. CMS, *Round 1 Rebid Mail-Order Diabetic Supply Contracts Ending on December 31, 2012*. Accessed at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSCompetitiveBid/Downloads/2012-12-14-DMEPOS.pdf on January 12, 2017.

[10] CMS, *General Overview of the Final Rule for Competitive Acquisition for Certain Durable Medical Equipment, Prosthetics, Orthotics, and Supplies*, April 10, 2007. Accessed at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSCompetitiveBid/Downloads/DMEPOSRegSumm.pdf on May 5, 2015.

These noncontract suppliers are called grandfathered suppliers and must agree to meet certain conditions, including accepting assignment of Medicare payment as payment in full.[11] Grandfathering is designed to support continuity of access to DME when an area transitions to the CBP.

Medicare Coverage of Oxygen Equipment and Contents

To be covered by Medicare, an item or service must be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body part.[12] Medicare considers oxygen equipment and contents to be reasonable and necessary for beneficiaries diagnosed with significant hypoxemia (i.e., abnormally low levels of oxygen in the blood) who meet certain requirements for medical documentation, laboratory evidence, and health conditions.[13]

Medicare pays for oxygen equipment through monthly rental payments. Payments for oxygen equipment may last up to 36 months, after which the beneficiary may continue using the equipment.[14] After the first 36 months, the supplier that furnished the oxygen equipment still owns the equipment and must continue to service it as long as medical necessity exists. Medicare also pays for oxygen contents. For patients using stationary equipment (with or without portable equipment), the payments for oxygen contents are included in the payments for oxygen equipment for the first 36 months. For patients using portable equipment only, Medicare pays for oxygen contents separately from the oxygen equipment payment. After

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[11] CMS, *The Durable Medical Equipment, Prosthetics, Orthotics, and Supplies Competitive Bidding Program: Grandfathering Requirements for Non-Contract Suppliers* (ICN 900923). Accessed at https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/DME_Grandfathering_Factsheet_ICN900923.pdf on October 25, 2016.

[12] Social Security Act § 1862(a)(1)(A), 42 U.S.C. § 1395y(a)(1)(A).

[13] CMS, *Medicare National Coverage Determination Manual*, Pub. No. 100-3, ch. 1, pt. 4, § 240.2. Accessed at https://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx on April 25, 2017.

[14] 42 CFR § 414.226(a)(1) and (f)(1). See also, Local Coverage Determination (LCD) for Oxygen and Oxygen Equipment (L33797) for DME MAC Jurisdictions A, B, C, and D. Accessed at https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=33797&ver=10&DocID=L33797&bc=gAAAABAAAAAA& on January 18, 2018. Prior to 10/1/2015, the DME MACs had separate but identical LCDs for oxygen and oxygen equipment (i.e., LCDs L11468, L27221, L11446, and L11457 for DME MAC Jurisdictions A, B, C and D, respectively), available online at https://localcoverage.cms.gov/mcd_archive/.

the first 36 months, Medicare pays separately for oxygen contents as long as medical necessity exists.[15, 16, 17]

Oxygen equipment includes stationary and portable compressed gas systems; stationary and portable liquid oxygen systems; and oxygen concentrators.[18] Oxygen contents include compressed and liquid oxygen refills for stationary and portable oxygen systems.[19] Medicare instructs suppliers to contact beneficiaries to ensure continued need prior to sending refills of oxygen contents to beneficiaries.[20]

Program Integrity Concerns with Oxygen Equipment and Contents

Medicare's Comprehensive Error Rate Testing (CERT) program has long found high error rates in DME, including oxygen equipment and contents. In 2012, the year before Round 2 of the CBP started, the CERT found a 66-percent error rate in DME and a 81-percent error rate in oxygen equipment and contents. This error rate for oxygen equipment and contents corresponded to an improper payment amount of about

[15] 42 CFR § 414.226.

[16] *Oxygen and Oxygen Equipment—Policy Article A52514 for DME MAC Jurisdictions A, B, C, and D*. Prior to 10/1/2015, the DME MACs had separate policy articles for oxygen and oxygen equipment—A33768, A47097, A33750, and A33677—available online at https://localcoverage.cms.gov/mcd_archive/.

[17] CMS, *Medicare Learning Network: Home Oxygen Therapy* (ICN 908804), p. 21. Accessed at https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Home-Oxygen-Therapy-ICN908804.pdf on January 17, 2018.

[18] LCD L33797.

[19] LCD L33797.

[20] CMS, *Medicare Program Integrity Manual*, Pub. No. 100-08, ch. 5, § 5.2.8. This requirement has moved from § 5.2.6 (see CMS Transmittal 378, effective August 2, 2011) to § 5.2.9 (see CMS Transmittal 623, effective November 10, 2015) to its current position at § 5.2.8 (see CMS Transmittal 641, effective March 19, 2016). See also CMS, *Medicare Learning Network: Home Oxygen Therapy* (ICN 908804), p. 21. Accessed at https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Home-Oxygen-Therapy-ICN908804.pdf on April 11, 2018.

$1.4 billion.[21] In 2016, the CERT found a 46-percent error rate in DME overall and a 45-percent error rate in oxygen equipment and contents.[22, 23]

Related OIG Work

OIG has a long history of identifying fraud, waste, and abuse in the provision of DME devices and supplies. Since passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, which established the CBP, OIG has opened more than 2,000 investigative cases involving DME suppliers. Over the last several years, OIG investigations have contributed to several fraud cases by the Department of Justice against suppliers of oxygen equipment and contents.[24, 25, 26]

OIG audits and evaluations have examined implementation of the CBP and market trends for specific types of DME.[27] A November 2017 OIG audit found that CMS generally met requirements in Round 2 of the CBP.[28] However, because of inconsistency in how CMS followed its procedures, CMS awarded a small number of Round 2 contracts to suppliers that did not meet program requirements. OIG has also released three

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[21] CMS, *Medicare Fee-For-Service 2012 Improper Payments Report*, p. 32. Accessed at https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/CERT/Downloads/Medicare-Fee-for-Service-2012-Improper-Payments-Report.pdf on November 2, 2016.

[22] CMS, *Medicare Fee-For-Service 2016 Improper Payments Report*, p. 29. Accessed at https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/CERT/Downloads/MedicareFeeforService2016ImproperPaymentsReport.pdf on November 16, 2017.

[23] CMS, *Medicare Fee-For-Service 2016 Improper Payments Report*, p. 21. Accessed at https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/CERT/Downloads/AppendicesMedicareFee-for-Service2016ImproperPaymentsReport.pdf on November 16, 2017.

[24] The Federal Bureau of Investigation, *President of DME Company Sentenced to 12 ½ Years for Medicare and Medicaid Fraud,* August 2011. Accessed at https://archives.fbi.gov/archives/tampa/press-releases/2011/president-of-dme-company-sentenced-to-12-12-years-for-medicare-and-medicaid-fraud on April 27, 2017.

[25] U.S. Department of Justice, *Oxygen Equipment Provider Pays $11.4 Million to Resolve False Claims Act Allegations*, April 2017. Accessed at https://www.justice.gov/opa/pr/oxygen-equipment-provider-pays-114-million-resolve-false-claims-act-allegations on April 27, 2017.

[26] U.S. Department of Justice, *Oxygen and Sleep Therapy Company Agrees to Resolve False Claims Act Allegations*, December 2014. Accessed at https://www.justice.gov/usao-ma/pr/oxygen-and-sleep-therapy-company-agrees-resolve-false-claims-act-allegations on April 27, 2017.

[27] OIG, *CMS Generally Met Requirements in the DME Competitive Bidding Round 1 Rebid Program*, A-05-12-00067, April 2014.

[28] OIG, *CMS Generally Met Requirements in Round 2 of the DMEPOS Competitive Bidding Program*, A-05-14-00049, November 2017.

memorandum reports evaluating the market shares of different types of diabetes test strips.[29, 30, 31]

This report is one of a series on how the launch of Round 2 of the CBP has affected continued access to DME. It examines beneficiary access to oxygen equipment and contents, which in 2013 made up 34 percent of paid claims in Round 2 of the CBP. The other reports in this series examine CPAP/RAD devices (continuous positive airway pressure devices and respiratory assist devices) and related supplies and enteral nutrition supplies. The former found that the launch of Round 2 of the CBP did not likely disrupt beneficiary access to CPAP/RAD devices but that it was inconclusive as to whether Round 2 had affected access to related supplies.[32] The latter, *Round 2 Competitive Bidding for Enteral Nutrition: Continued Access for Vast Majority of Beneficiaries*, OEI-01-15-00042, which is being issued simultaneously with this report, found that Round 2 of the CBP did not likely disrupt beneficiary access to enteral nutrition supplies.

METHODOLOGY

This inspection considers two different populations of Medicare beneficiaries over two different time spans to determine whether Round 2 of the CBP appeared to disrupt access to oxygen equipment and contents. The first population includes beneficiaries using oxygen equipment and covers the 6 months before and the 6 months after Round 2 contracts became effective on July 1, 2013. The second population includes beneficiaries using oxygen contents and covers the 2 months before and the 6 months after Round 2 contracts became effective. For ease of presentation in this report, we refer to July 1, 2013—the date when Round 2 contracts went into effect—as the date that Round 2 began.

We used Medicare claims data to identify our populations. Both populations include beneficiaries who resided in Round 2 CBAs and non-CBAs, which enabled us to make comparisons to look for evidence of potential disruptions in access.

[29] OIG, *Memorandum Report: Medicare Market Shares of Mail Order Diabetes Test Strips from July–September 2013,* OEI-04-13-00680, June 2014.

[30] OIG, *Memorandum Report: Medicare Market Shares of Mail Order Diabetes Test Strips Immediately Prior to the National Mail Order Program*, OEI-04-13-00681, June 2014.

[31] OIG, *Memorandum Report: Medicare Market Shares of Mail Order Diabetes Test Strips 3–6 Months After the Start of the National Mail Order Program*, OEI-04-13-00682, November 2014.

[32] OIG, *Round 2 Competitive Bidding for CPAP/RAD: Disrupted Access Unlikely for Devices, Inconclusive for Supplies,* OEI-01-15-00040, June 2017.

Beneficiaries With Claims for Oxygen Equipment: Beneficiaries in our first population, which includes beneficiaries using oxygen equipment, met both of the criteria below:

- They started using oxygen equipment in the first half of calendar year 2013, before Round 2 began, and had no Medicare payments for oxygen equipment in 2012. Choosing beneficiaries who were new to oxygen eliminated the chance that any interruption in Medicare payments for oxygen equipment rental was because beneficiaries had reached the 36-month limit on payments, at which point the beneficiaries own the equipment.
- They had five or more paid claims for oxygen equipment in the first half of 2013. This criterion helped to ensure that beneficiaries were established users of oxygen therapy before Round 2 began.

Beneficiaries With Claims for Oxygen Contents: Our second population includes beneficiaries for whom there was at least one claim for oxygen contents in May or June of 2013. We selected these beneficiaries to help increase the chance that beneficiaries were using oxygen therapy immediately before Round 2 began.

Using Medicare claims data, we determined the extent to which beneficiaries in our populations appeared to have their access to oxygen equipment and/or contents disrupted by Round 2 of the CBP. Specifically, we used the absence of paid claims for beneficiaries in each population after Round 2 began as a marker of potential disruption in access. We calculated the percentages of beneficiaries in each population for whom Medicare payments stopped and compared them between beneficiaries residing in Round 2 CBAs and those in non-CBAs. As a comparison, we analyzed Medicare claims data from 2012 to determine how often Medicare payments stopped for beneficiaries receiving oxygen equipment or contents in the last full year prior to Round 2 of the CBP.

To learn more about the experience of beneficiaries with a potential disruption in access after Round 2 began, we selected samples of beneficiaries in our populations for whom Medicare payments stopped. We stratified the samples by whether the beneficiaries resided in Round 2 CBAs or non-CBAs. To determine whether the sampled beneficiaries continued to need the items after Round 2 began, we separately surveyed the physicians who ordered their oxygen equipment and the physicians who ordered their oxygen contents. Each physician whom we surveyed had ordered equipment or contents for one of our sampled beneficiaries. When a physician told us that the beneficiary had a continued need for the items and Medicare records indicated that the beneficiary was still living in 2016, we considered that beneficiary to be eligible for our survey,

which asked beneficiaries to describe their experiences after Round 2 began. Exhibits 2 and 3 provide details on these samples and surveys.

Exhibit 2: Surveys Regarding Oxygen Equipment

	Round 2 CBAs	Non-CBAs	Total
Total Physicians in Sample	150	150	300
Physicians Surveyed[1]	103	108	211
Physicians Responding With Usable Data[2]	66	62	128
Physician Response Rate	**44%**	**41%**	**43%**
Beneficiaries Eligible for Survey	21	29	50
Beneficiaries Responding With Usable Data	6	5	11
Beneficiary Response Rate	**29%**	**17%**	**22%**

Source: OIG analysis of physician and beneficiary responses to survey, 2016.
[1] We did not survey a physician if the beneficiary was deceased when Round 2 began, if the physician was under investigation, or if the physician was no longer in business.
[2] In some cases, physicians cooperated by responding to our survey, but their responses included no usable information.

Exhibit 3: Surveys Regarding Oxygen Contents

	Round 2 CBAs	Non-CBAs	Total
Total Physicians in Sample	150	150	300
Physicians Surveyed[1]	134	134	268
Physicians Responding With Usable Data[2]	72	79	151
Physician Response Rate	**48%**	**53%**	**50%**
Beneficiaries Eligible for Survey	27	18	45
Beneficiaries Responding With Usable Data	8	4	12
Beneficiary Response Rate	**30%**	**22%**	**27%**

Source: OIG analysis of physician and beneficiary responses to survey, 2016.
[1] We did not survey a physician if the beneficiary was deceased when Round 2 began, if the physician was under investigation, or if the physician was no longer in business.
[2] In some cases, physicians cooperated by responding to our survey, but their responses included no usable information.

Limitations

This review has two limitations. First, we use continued Medicare payment as a proxy for continued access to oxygen equipment and contents. Continued Medicare payment is a measure of *potential* continued access, but we understand that it is not a direct measure of continued access to oxygen equipment and contents. Without

a determination of a beneficiary's continued need, the lack of continued Medicare payments does not necessarily indicate a disruption in access to oxygen equipment and contents.

Secondly, the response rate for our survey was too low to project the results to all beneficiaries for whom claims did not continue. Therefore, we present our survey responses as testimonial evidence to provide potential insights into these individual beneficiaries' experiences in accessing oxygen equipment and contents. We did not independently verify responses from physicians and beneficiaries, nor did we conduct a medical review of beneficiaries' medical need for oxygen equipment or contents. See Appendix A for a detailed description of our methodology.

Standards

We conducted this study in accordance with the *Quality Standards for Inspection and Evaluation* issued by the Council of the Inspectors General on Integrity and Efficiency.

FINDINGS

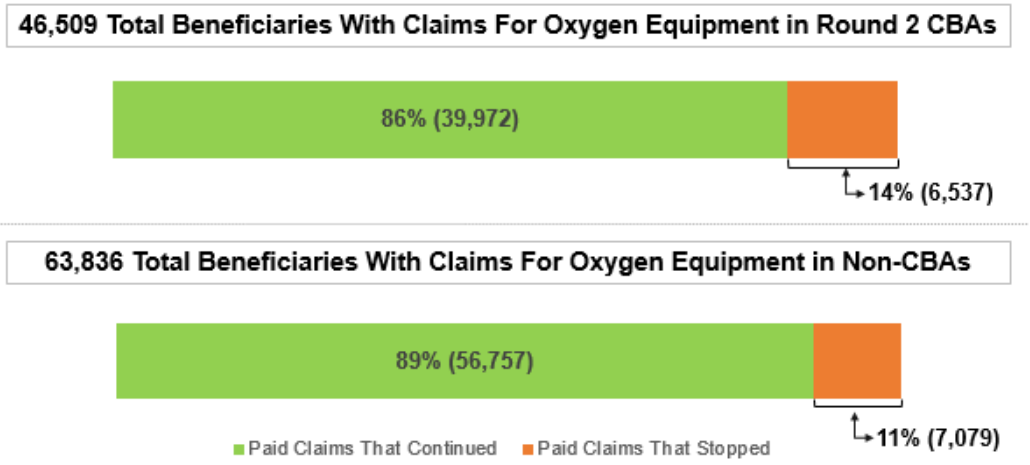
The start of Round 2 does not appear to have disrupted access to oxygen equipment for the vast majority of beneficiaries

In the first half of 2013, 110,345 beneficiaries started using oxygen equipment in Round 2 CBAs and non-CBAs. These beneficiaries had claims that indicated Medicare paid for the devices for at least 5 months during this period. The proportions of beneficiaries for whom Medicare made continued payments for oxygen equipment after Round 2 began were similar in Round 2 CBAs and non-CBAs.. Additionally, the rate at which Medicare payments continued for beneficiaries who started using oxygen equipment in the first half of 2013 was similar to the continuation rate for beneficiaries who started using oxygen equipment in the first half of 2012.

In 2013, Medicare payments continued for 86 percent of beneficiaries in Round 2 CBAs and 89 percent of beneficiaries in non-CBAs

After Round 2 began, 86 percent of beneficiaries in Round 2 CBAs and 89 percent in non-CBAs had one or more paid claims for monthly rental of oxygen equipment. Furthermore, Medicare paid four or more claims for nearly all of these beneficiaries, which suggests that beneficiaries continued to possess oxygen equipment both in Round 2 CBAs and non-CBAs months after Round 2 began. These continued payments suggest continued access. However, we note that the slightly higher proportion of beneficiaries without continued Medicare payments in Round 2 CBAs compared to beneficiaries in non-CBAs may suggest that a small proportion of beneficiaries experienced disruptions in receiving needed oxygen equipment. Alternatively, it may indicate that Round 2 of the CBP reduced the provision of unnecessary oxygen equipment, similar to what CMS analysis found after Round 1 of the CBP. See Exhibit 4 for additional detail on the numbers and percentages of beneficiaries for whom paid claims for devices continued or stopped.

Exhibit 4: Numbers and Percentages of Beneficiaries For Whom Paid Claims for Oxygen Equipment Continued or Stopped After Round 2 Began



Source: OIG analysis of Medicare claims data, 2016.

In addition, Medicare claims suggest that the vast majority of these beneficiaries likely continued to possess oxygen equipment without interruption, indicating continued access. On average, over the 6 months before Round 2 began, suppliers of oxygen equipment submitted claims every 31 days or sooner for 97 percent of all beneficiaries in Round 2 CBAs and non-CBAs, compared to 98 percent of beneficiaries in Round 2 CBAs and non-CBAs over the 6 months after Round 2 began. This suggests that beneficiaries with continued Medicare payments overwhelmingly kept their oxygen equipment without interruption after Round 2 began. CMS's grandfathering policy may have supported continued access; however, we did not determine whether these beneficiaries switched suppliers and received new equipment or continued on with a grandfathered supplier.

In 2012, Medicare payments continued for 88 percent of beneficiaries who started using oxygen equipment in the first half of the year

We also examined Medicare payments in 2012, the last full year prior to Round 2, and found that Medicare payments in 2012 continued at a rate similar to that in 2013. We found that 88 percent of beneficiaries with Medicare payments for oxygen equipment in the first half of 2012 continued to have payments for oxygen equipment in the second half of that year.

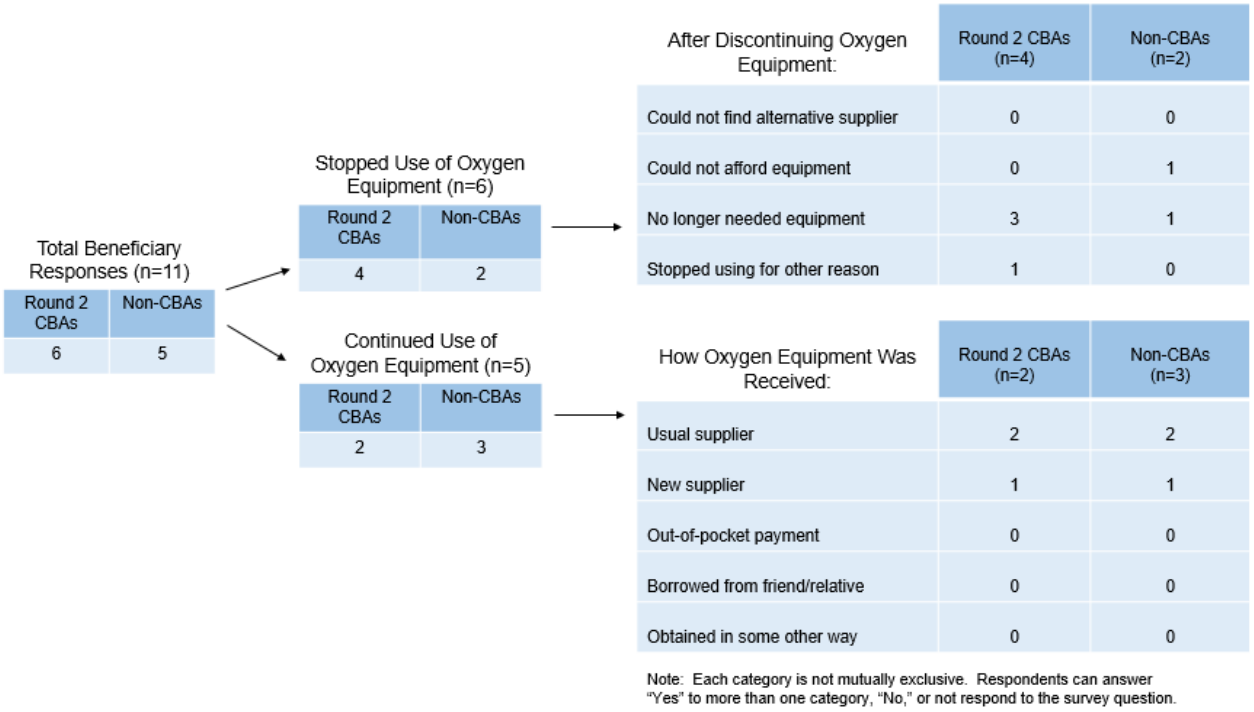
In their survey responses, physicians often told us that beneficiaries without continued payments still had a prescribed need for oxygen equipment, and 5 of the 11 responding beneficiaries reported continued use of oxygen equipment

Our surveys provide some insights, albeit limited, to the experiences of beneficiaries for whom payments stopped after Round 2 began—an indicator of a potential disruption in access. The physicians who responded to our survey generally reported that beneficiaries for whom they ordered oxygen equipment still had a prescribed need for it after Round 2 began. This was the case both in Round 2 CBAs and non-CBAs. In Round 2 CBAs, 34 of 44 physicians reported that the beneficiaries for whom they ordered equipment still had a prescribed need for this equipment. This compares to 40 of 47 physicians in non-CBAs.

Responding beneficiaries provided some insights on their experiences with oxygen equipment. For example, 5 of the 11 beneficiaries reported continued use of oxygen equipment, even though Medicare stopped paying for this equipment. Specifically, two of six responding beneficiaries from Round 2 CBAs and three of five responding beneficiaries from non-CBAs reported continued use of oxygen equipment. Of the five beneficiaries who reported continued use of oxygen equipment, none reported paying out of pocket and all reported obtaining needed oxygen equipment from their usual supplier or from a new supplier. Having to pay out of pocket could limit access to needed items.

Also, of the six beneficiaries who reported that they stopped using oxygen equipment, none reported stopping because they could not find a supplier. Of the four beneficiaries in Round 2 CBAs who reported that they stopped using oxygen equipment, three reported doing so because they no longer needed oxygen equipment. In comparison, one of two beneficiaries in non-CBAs reported having stopped using oxygen equipment because of no longer needing it. See Exhibit 5 for additional detail on survey responses from beneficiaries.

Exhibit 5: Survey Responses From a Subset of Beneficiaries For Whom Paid Claims for Oxygen Equipment Stopped



After Discontinuing Oxygen Equipment:	Round 2 CBAs (n=4)	Non-CBAs (n=2)
Could not find alternative supplier	0	0
Could not afford equipment	0	1
No longer needed equipment	3	1
Stopped using for other reason	1	0

How Oxygen Equipment Was Received:	Round 2 CBAs (n=2)	Non-CBAs (n=3)
Usual supplier	2	2
New supplier	1	1
Out-of-pocket payment	0	0
Borrowed from friend/relative	0	0
Obtained in some other way	0	0

Note: Each category is not mutually exclusive. Respondents can answer "Yes" to more than one category, "No," or not respond to the survey question.

Source: OIG analysis of beneficiary responses to survey, 2016.

The start of Round 2 does not appear to have disrupted access to oxygen contents for the vast majority of beneficiaries

In May and June of 2013, 85,551 beneficiaries had one or more claims for oxygen contents in Round 2 CBAs and non-CBAs. Similar proportions of beneficiaries in Round 2 CBAs and non-CBAs had continued Medicare payments for oxygen contents after Round 2 began. Additionally, Medicare payments in 2012 continued at a similar rate for beneficiaries who started using oxygen contents in May and June of that year.

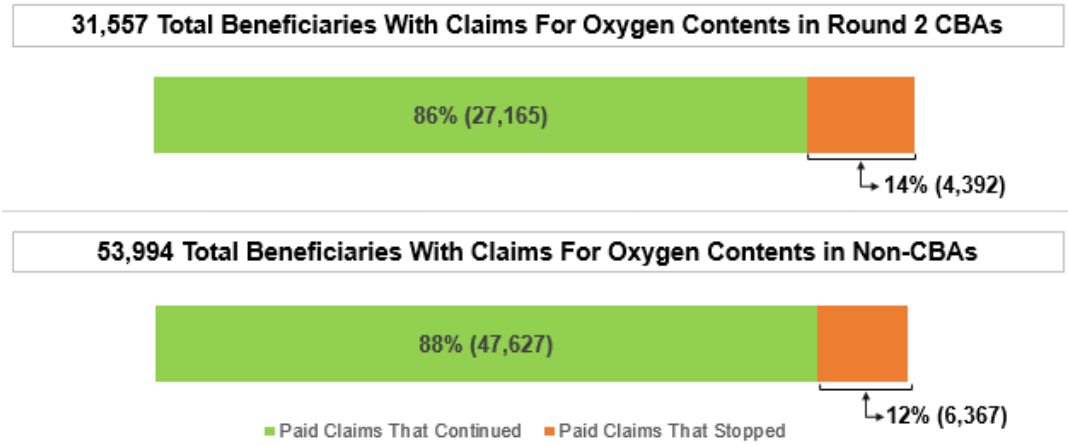
After Round 2 began, Medicare payments for oxygen contents continued for 86 percent of beneficiaries in Round 2 CBAs and 88 percent in non-CBAs

Eighty-six percent of beneficiaries in Round 2 CBAs who had one or more paid claims for oxygen contents in May or June of 2013 had paid claims in the second half of the year, compared to 88 percent in non-CBAs. These continued payments suggest continued access. However, we note that the slightly higher proportion of beneficiaries without continued Medicare payments in Round 2 CBAs compared to beneficiaries in non-CBAs may suggest that a small proportion of beneficiaries experienced disruptions in

receiving needed oxygen contents. Alternatively, it may indicate that Round 2 of the CBP reduced the provision of unnecessary oxygen contents, similar to what CMS analysis found after Round 1 of the CBP.

See Exhibit 6 for additional detail on the number and percentage of beneficiaries with continued or stopped paid claims for contents.

Exhibit 6: Numbers and Percentages of Beneficiaries For Whom Paid Claims for Oxygen Contents Continued or Stopped After Round 2 Began



Source: OIG analysis of Medicare claims data, 2016.

In 2012, Medicare payments continued for 87 percent of beneficiaries who used oxygen contents in the first half of the year

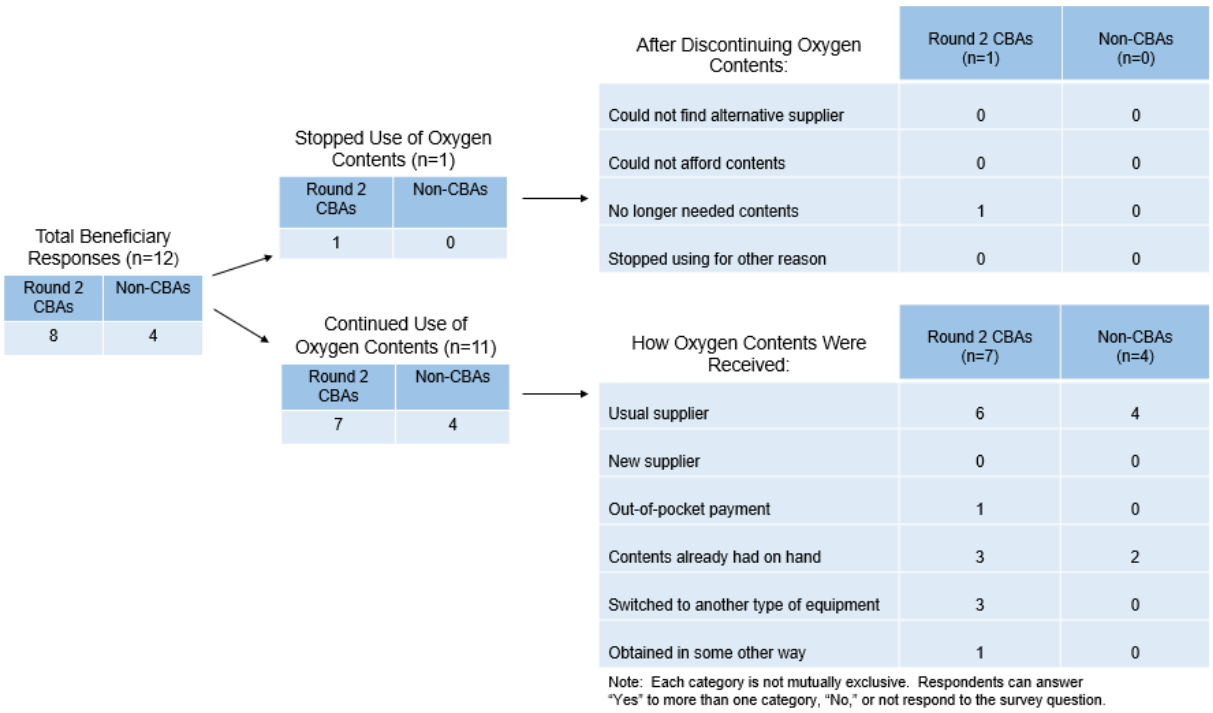
The percentages of beneficiaries in Round 2 CBAs and non-CBAs that did not have paid claims in the second half of 2013 are in line with the claim patterns for 2012—the year before Round 2 began. In 2012, 87 percent of beneficiaries who had a paid claim for oxygen contents in May or June had a paid claim in the second half of the year, while 13 percent did not.

In their survey responses, most physicians told us that beneficiaries still had a prescribed need for contents, and responding beneficiaries reported getting contents when they needed them

We surveyed physicians and beneficiaries to gain some insight to the experience of beneficiaries for whom Medicare payments for oxygen contents stopped after Round 2 began. The physicians who provided usable data largely told us that most of the beneficiaries we asked about continued to have a prescribed need for contents after Round 2 began. In Round 2 CBAs, 58 of 64 physicians reported that the beneficiary for whom they ordered oxygen contents still had a prescribed need for contents after Round 2 began, compared to 60 of 71 physicians in non-CBAs.

Beneficiaries who responded to our survey provided insights into their experiences. Almost all beneficiaries who responded to our survey reported continuing to use oxygen contents in the 6 months after Round 2 began. All of these beneficiaries reported acquiring contents when they needed them. Only 1 of the 11 who reported acquiring contents paid out of pocket for them. Additionally, three of the seven beneficiaries in Round 2 CBAs who continued to use contents reported using contents they had on hand, compared to two of four beneficiaries in non-CBAs. See Exhibit 7 for additional detail on survey responses from beneficiaries.

Exhibit 7: Survey Responses From a Subset of Beneficiaries For Whom Paid Claims for Oxygen Contents Stopped



After Discontinuing Oxygen Contents:	Round 2 CBAs (n=1)	Non-CBAs (n=0)
Could not find alternative supplier	0	0
Could not afford contents	0	0
No longer needed contents	1	0
Stopped using for other reason	0	0

How Oxygen Contents Were Received:	Round 2 CBAs (n=7)	Non-CBAs (n=4)
Usual supplier	6	4
New supplier	0	0
Out-of-pocket payment	1	0
Contents already had on hand	3	2
Switched to another type of equipment	3	0
Obtained in some other way	1	0

Note: Each category is not mutually exclusive. Respondents can answer "Yes" to more than one category, "No," or not respond to the survey question.

Source: OIG analysis of beneficiary responses to survey, 2016.

CONCLUSION

This study is one in a series that determines whether the Round 2 of the CBP appeared to disrupt access to certain types of DME when it began in 2013. In this study, we examined oxygen equipment and contents, which together accounted for a third of paid Medicare claims under Round 2 in 2013.

According to our claims analysis, Round 2 of the CBP does not appear to have disrupted beneficiary access to oxygen equipment and contents.

Another report in this series examines beneficiary access to CPAP/RAD and found that Round 2 did not likely disrupt beneficiary access to CPAP/RAD devices but that it was inconclusive as to whether Round 2 had affected access to related supplies. A third report—on enteral nutrition and supplies—found Round 2 of the CBP did not likely disrupt beneficiary access to those items.

Taken together, the three types of DME we examined in this series comprise just over 70 percent of DME subject to bidding under Round 2. The CBP aims to combat fraud, waste, and abuse; improve the methods for setting DME payments; and create cost savings for Medicare and its beneficiaries—all while maintaining access for beneficiaries who need DME. With respect to the DME we examined in this report, our analysis supports the conclusion that the vast majority of beneficiaries had continued access to oxygen equipment and contents after Round 2 began. However, we did find a slightly higher proportion of beneficiaries in Round 2 CBAs than in non-CBAs for whom Medicare payments did not continue in 2013. These declines may suggest that a small proportion of beneficiaries experienced disruptions in receiving needed equipment and contents. Alternatively, they may instead indicate that Round 2 of the CBP reduced the provision of unnecessary oxygen equipment and contents, similar to what CMS analysis found after Round 1 of the CBP.

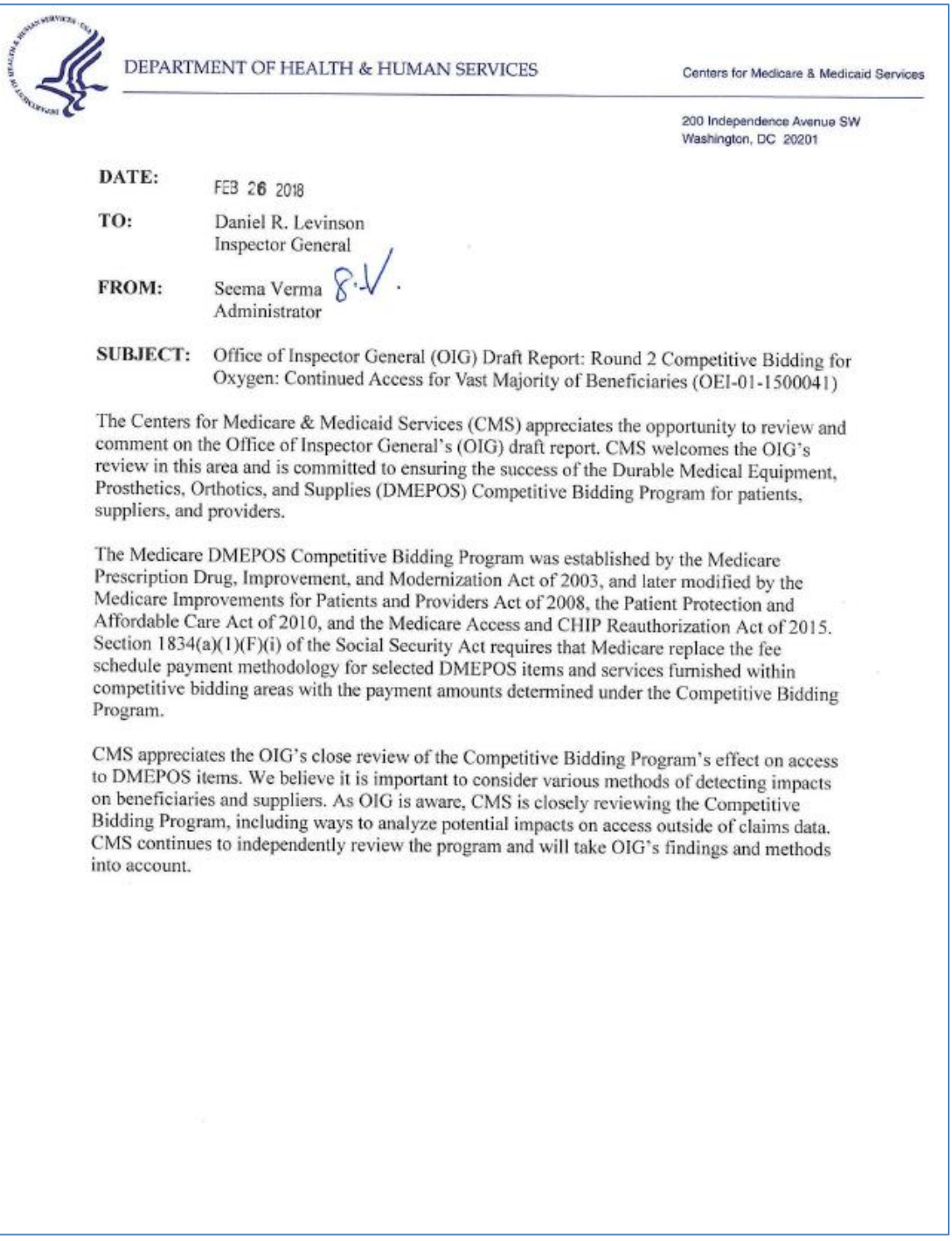
AGENCY COMMENTS AND OIG RESPONSE

CMS wrote that it appreciates our review of the CBP's effect on beneficiary access to DME. CMS stated that it continues to review the CBP and will take our findings and methods into account.

OIG appreciates CMS's review of and comments to this report.

APPENDIX A

Agency Comments



DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

200 Independence Avenue SW
Washington, DC 20201

DATE: FEB 26 2018

TO: Daniel R. Levinson
Inspector General

FROM: Seema Verma
Administrator

SUBJECT: Office of Inspector General (OIG) Draft Report: Round 2 Competitive Bidding for Oxygen: Continued Access for Vast Majority of Beneficiaries (OEI-01-1500041)

The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to review and comment on the Office of Inspector General's (OIG) draft report. CMS welcomes the OIG's review in this area and is committed to ensuring the success of the Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS) Competitive Bidding Program for patients, suppliers, and providers.

The Medicare DMEPOS Competitive Bidding Program was established by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, and later modified by the Medicare Improvements for Patients and Providers Act of 2008, the Patient Protection and Affordable Care Act of 2010, and the Medicare Access and CHIP Reauthorization Act of 2015. Section 1834(a)(1)(F)(i) of the Social Security Act requires that Medicare replace the fee schedule payment methodology for selected DMEPOS items and services furnished within competitive bidding areas with the payment amounts determined under the Competitive Bidding Program.

CMS appreciates the OIG's close review of the Competitive Bidding Program's effect on access to DMEPOS items. We believe it is important to consider various methods of detecting impacts on beneficiaries and suppliers. As OIG is aware, CMS is closely reviewing the Competitive Bidding Program, including ways to analyze potential impacts on access outside of claims data. CMS continues to independently review the program and will take OIG's findings and methods into account.

APPENDIX B

Detailed Methodology

Scope

This inspection considers two different populations of Medicare beneficiaries over two different time spans to determine the effect of Round 2 of the CBP on access to oxygen equipment and contents. The first population includes beneficiaries using oxygen equipment and covers the 6 months before and the 6 months after Round 2 contracts became effective on July 1, 2013. The second population includes beneficiaries using oxygen contents and covers the 2 months before and the 6 months after Round 2 contracts became effective. For ease of presentation in this report, we refer to July 1, 2013, as the date when Round 2 began.

We used Medicare claims data to identify our populations. Both populations include beneficiaries who resided in Round 2 CBAs and non-CBAs, which enabled us to make comparisons to look for evidence of potential disruptions in access.

Beneficiaries With Claims for Oxygen Equipment: Beneficiaries in our first population, which includes beneficiaries using oxygen equipment, met both of the criteria below:

- They started using oxygen equipment in the first half of calendar year 2013, before Round 2 began, and had no Medicare payments for oxygen equipment in 2012. Choosing beneficiaries who were new to oxygen eliminated the chance that any interruption in Medicare payments for oxygen equipment rental was because beneficiaries had reached the 36-month limit on payments, at which point the beneficiaries own the equipment.
- They had five or more paid claims for oxygen equipment in the first half of 2013. This criterion helped to ensure that beneficiaries were established users of oxygen therapy before Round 2 began.

Combined, these criteria enabled us to focus our analysis on beneficiaries who generally could be expected to continue using and having Medicare payments for devices for several months after Round 2 began.

Beneficiaries With Claims for Oxygen Contents: Our second population includes beneficiaries for whom there was at least one claim for oxygen contents in May or June of 2013.

Data Sources

Our data sources for this evaluation were Medicare claims and administrative data and survey responses that we collected from samples of beneficiaries and the physicians who ordered their oxygen equipment and contents. We used the continuation of paid claims as a marker for continued access after Round 2 began. We surveyed physicians and beneficiaries to learn about the experience of beneficiaries for whom Medicare stopped paying for equipment and contents after Round 2 began. Because we did not receive sufficiently high response rates to our surveys, we did not project the survey responses we received to our populations of beneficiaries.

Identification of Beneficiaries Using Oxygen Equipment and Contents

We identified beneficiaries who used oxygen equipment and contents in 2013 using data from Medicare's National Claims History File and CMS's Competitive Bidding Implementation Contractor. To compare the 2013 data with 2012 data, we identified beneficiaries who used oxygen equipment and contents in 2012 using data from Medicare's National Claims History File.

We first created files of claims for oxygen equipment and contents. To do so, we downloaded a list of Healthcare Common Procedure Coding System (HCPCS) codes for oxygen equipment and contents subject to bidding from the Competitive Bidding Implementation Contractor's website. We then used these HCPCS codes to extract paid claims for oxygen equipment and contents from Medicare's National Claims History File. We created one claim file for 2012 and another for 2013. Next, we matched ZIP Codes from Medicare's Competitive Bidding Implementation Contractor to the beneficiary ZIP Code on the claim to identify each claim as being for a beneficiary in a Round 2 CBA, Round 1 CBA, or non-CBA.

To identify beneficiaries using oxygen equipment, we used our claims files to select beneficiaries who used oxygen equipment in the first half of 2013. Specifically, we selected all beneficiaries in Round 2 CBAs and non-CBAs for whom there were no paid claims for equipment in 2012 and at least five paid claims for oxygen equipment in the first half of 2013. This identified 110,345 beneficiaries.

To identify beneficiaries using oxygen contents, we used our 2013 claims file to select all beneficiaries for whom there was at least one paid claim for contents in either May or June of 2013. This identified 85,551 beneficiaries. See Exhibits A-1 and A-2 for additional detail on beneficiary selection criteria.

Exhibit A-1: Selection Criteria for Sample of Beneficiaries Using Oxygen Equipment

Characteristics of Equipment-Using Beneficiaries in Sample	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
HCPCS: With RR (Rental) Modifier; **E0424: Stationary Compressed Gaseous Oxygen** **E0439: Stationary Liquid Oxygen System** **E1390, E1391: Oxygen Concentrator** **E0431, E0433: Portable Gaseous Oxygen System** **E0434: Portable Liquid Oxygen System** **E1392: Portable Oxygen Concentrator** **K0738: Portable Gaseous Oxygen System, Homefill** **Payment History** **No paid claims in 2012** **At least 5 paid claims Jan.–June 2013**	46,509	63,836	110,345

Source: OIG analysis of Medicare claims data, 2016.

Exhibit A-2: Selection Criteria for Sample of Beneficiaries Using Oxygen Contents

Characteristics of Contents-Using Beneficiaries in Sample	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
HCPCS: **E0441, E0442: Stationary Oxygen Contents** **E0443, E0444: Portable Oxygen Contents** **Payment History** **At least 1 paid claim Jan.–June 2013**	31,557	53,994	85,551

Source: OIG analysis of Medicare claims data, 2016

Identification of Populations of Beneficiaries For Whom Medicare Payments Stopped

Next, for each group of beneficiaries we identified, we identified the population of those for whom there were no paid Medicare claims after Round 2 began. For oxygen equipment, we identified 13,616 beneficiaries for whom there were claims for oxygen equipment from January 1 through June 30, 2013, only. We did the same for oxygen contents, identifying 10,759 beneficiaries for whom there were claims for contents in May or

June of 2013 only. See Exhibits A-3 and A-4 for additional detail on beneficiary claims data.

Exhibit A-3: Beneficiaries With Paid Claims for Oxygen Equipment

Status of Beneficiaries Who Used Oxygen Equipment Before Round 2 Began	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
Medicare payments stopped after Round 2 began (equipment population)	6,537	7,079	13,616
Percentage of beneficiaries for whom Medicare payments stopped after Round 2 began	14%	11%	12%
Medicare payments continued after Round 2 began	39,972	56,757	96,729
Percentage of beneficiaries for whom Medicare payments continued after Round 2 began	86%	89%	88%

Source: OIG analysis of Medicare claims data, 2016.

Exhibit A-4: Beneficiaries With Paid Claims for Oxygen Contents

Status of Beneficiaries Who Used Oxygen Contents Before Round 2 Began	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
Medicare payments stopped after Round 2 began (contents population)	4,392	6,367	10,759
Percentage of beneficiaries for whom Medicare payments stopped after Round 2 began	14%	12%	13%
Medicare payments continued after Round 2 began	27,165	47,627	74,792
Percentage of beneficiaries for whom Medicare payments continued after Round 2 began	86%	88%	87%

Source: OIG analysis of Medicare claims data, 2016.

We also analyzed Medicare claims data from 2012 to determine how often Medicare payments stopped for beneficiaries receiving oxygen equipment or contents in the last full year prior to Round 2 of the CBP.

Sample Selection

From each population of beneficiaries for whom Medicare payments stopped after Round 2 began, we drew a statistical sample of 300 beneficiaries. We stratified the samples by whether the beneficiaries were in Round 2 CBAs or non-CBAs. See Exhibit A-5 for a description of beneficiary sample sizes.

Exhibit A-5: Samples of Beneficiaries Using Oxygen Equipment and Contents

Type of Beneficiary	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
Beneficiaries using oxygen equipment	150	150	300
Beneficiaries using oxygen contents	150	150	300
Total	300	300	600

Source: OIG analysis of Medicare claims data, 2016.

Physician Survey

To determine whether beneficiaries in our samples still had a prescribed need for oxygen equipment or contents, we surveyed the physicians who were the ordering physician on the beneficiaries' final oxygen claims and who were still living. We sent similar but different surveys for equipment and contents. The surveys asked physicians if the beneficiary for whom they ordered equipment or contents had a prescribed need for them during the period from July 1 through December 31, 2013. In the surveys, we also asked physicians if they prescribed alternate DME to replace oxygen contents, such as a "home-fill" system or an oxygen concentrator.

We made at least three attempts to reach physicians with our survey. We sent the surveys using a trackable delivery service and accepted survey responses by mail and by fax to a secure fax server. We received responses from 390 of the 479 physicians we surveyed. In 226 of those responses, physicians were able to answer our key question as to whether or not the beneficiary still needed equipment or contents after Round 2 began. In 192 of these responses, physicians told us that the beneficiary had a prescribed need for oxygen equipment or contents after Round 2 began. See Exhibits A-6 and A-7 for information on physician survey sampling and responses.

Exhibit A-6: Results From Survey of Physicians for Beneficiaries Using Oxygen Equipment

Characteristics of Physicians	Round 2 CBAs	Non-CBAs	Total
A) **Total Physicians in Sample**	150	150	300
B) **Physicians Surveyed**[1]	103	108	211
C) **Physicians Responding With Usable Data**[2]	66	62	128
D) **Physicians Answering Key Question**	44	47	91
Physician Response Rate (Row C/Row A)	**44%**	**41%**	**43%**

Source: OIG analysis of data from survey of physicians, 2016.
[1] We did not survey a physician if the beneficiary was deceased when Round 2 began, if the physician was under investigation, or if the physician was no longer in business.
[2] In some cases, physicians cooperated by responding to our survey, but their responses included no usable information.

Exhibit A-7: Results from Survey of Physicians for Beneficiaries Using Oxygen Contents

Characteristics of Physicians	Round 2 CBAs	Non-CBAs	Total
A) **Total Physicians in Sample**	150	150	300
B) **Physicians Surveyed**[1]	134	134	268
C) **Physicians Responding With Usable Data**[2]	72	79	151
D) **Physicians Answering Key Question**	64	71	135
Physician Response Rate (Row C/Row A)	**48%**	**53%**	**50%**

Source: OIG analysis of data from survey of physicians, 2016.
[1] We did not survey a physician if the beneficiary was deceased when Round 2 began, if the physician was under investigation, or if the physician was no longer in business.
[2] In some cases, physicians cooperated by responding to our survey, but their responses included no usable information.

Beneficiary Survey

To learn about beneficiaries' experiences in the 6 months immediately after Medicare stopped paying for their oxygen equipment or contents, we sent a brief survey to beneficiaries. Specifically, we surveyed the beneficiaries who were still living and whose physicians told us in the physician survey that they had a prescribed need for equipment or contents after Round 2 began. We sent similar but different surveys for equipment

and contents. In the surveys, we asked beneficiaries if they continued to use oxygen equipment or contents after Round 2 began and, if so, how they managed given that Medicare did not pay for their equipment or contents.

We made at least three attempts to reach beneficiaries with our survey. We used a trackable delivery service to send the surveys to beneficiaries and provided them with postage-paid business reply mail envelopes for returning the surveys directly to the Office of Inspector General. We received responses from 23 of the 95 beneficiaries we surveyed. We did not survey beneficiaries when Medicare records indicated that they were no longer living. See Exhibits A-8 and A-9 for information on beneficiary survey eligibility and responses.

Exhibit A-8: Response Rates for Survey of Beneficiaries Using Oxygen Equipment

Status of Beneficiaries	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
Beneficiaries Eligible for Survey	21	29	50
Beneficiaries Responding With Usable Data	6	5	11
Beneficiary Response Rate	**29%**	**17%**	**22%**

Source: OIG analysis of survey data, 2016.

Exhibit A-9: Response Rates for Survey of Beneficiaries Using Oxygen Contents

Status of Beneficiaries	Beneficiaries in Round 2 CBAs	Beneficiaries in Non-CBAs	Total
Beneficiaries Eligible for Survey	27	18	45
Beneficiaries Responding With Usable Data	8	4	12
Beneficiary Response Rate	**30%**	**22%**	**27%**

Source: OIG analysis of survey data, 2016.

Data Analysis

All-Beneficiary Analysis Using Medicare Claims

We analyzed claims data to determine the extent to which beneficiaries experienced a potential disruption in access to equipment or contents. To do so, we calculated the percentage of equipment-using beneficiaries for whom there were no paid claims for equipment after Round 2 began and the percentage of contents-using beneficiaries for whom there were no

paid claims for contents after Round 2 began. We used these percentages as the basis of our lead findings for equipment and contents.

We analyzed claims data to determine two aspects of Medicare payments for equipment-using beneficiaries for whom there were continued payments after Round 2 began. First, we counted the number of paid claims for equipment for these beneficiaries after Round 2 began to determine whether payments had continued for a sustained period. Second, we checked whether these beneficiaries experienced an interruption in payments immediately after Round 2 began. To do so, we calculated the average number of days that beneficiaries went between equipment claims before Round 2 began and compared it to the average number of days between claims after Round 2 began. We then determined the percentages of beneficiaries for whom these spans were greater than 31 days.

Tabulation of Physician and Beneficiary Survey Responses

We counted responses to our physician survey to determine the number of responding physicians who told us that beneficiaries in our samples still needed equipment or contents after Round 2 began. Our denominator of responses for this analysis considered the responses in which physicians were able to tell us whether the beneficiary still needed oxygen equipment or contents after Round 2 began—i.e., we did not include responses of "cannot determine."

We also counted survey responses to determine the extent to which responding physicians reported that they prescribed alternate oxygen contents to beneficiaries in our samples.

We counted responses to our survey of equipment-using beneficiaries to determine the extent to which beneficiaries reported that they continued to use oxygen equipment in the 6 months after Round 2 began. For beneficiaries who reported continued use, we counted how many reported that they continued to use equipment from their existing supplier, found a new supplier, paid out of pocket, or borrowed oxygen equipment from a friend. When beneficiaries reported stopping use of oxygen equipment, we counted how many reported stopping because they could not find a supplier, could not afford to pay out of pocket for the equipment, or no longer needed the equipment.

We counted responses to our survey of contents-using beneficiaries to determine the extent to which beneficiaries reported that they continued to use oxygen contents in the 6 months after Round 2 began, and, if so, whether they needed any contents during that time. For beneficiaries who reported that they did need contents during that time, we counted how

many reported that they got contents from their existing supplier, found a new supplier, paid out of pocket, used contents that they already had on hand, or switched to another type of equipment that did not require oxygen contents. When beneficiaries reported stopping use of oxygen contents, we counted how many reported stopping because they could not find a supplier, could not afford to pay out of pocket for the contents, or no longer needed oxygen contents.

Limitations

This review has two limitations. First, we use continued Medicare payment as a proxy for continued access to oxygen equipment and contents. Continued Medicare payment is a measure of *potential* continued access, but we understand that it is not a direct measure of continued access to oxygen equipment and contents. Without a determination of a beneficiary's continued need, the lack of continued Medicare payments does not necessarily indicate a disruption in access to oxygen equipment and contents.

Secondly, the response rates to both our survey of physicians and our survey of beneficiaries were too low to project the results to all beneficiaries for whom claims did not continue. Therefore, we present our survey responses as testimonial evidence to provide potential insights into these individual beneficiaries' experiences in accessing oxygen equipment and contents. We did not independently verify responses from physicians and beneficiaries, nor did we conduct a medical review of beneficiaries' medical need for oxygen equipment or contents.

ACKNOWLEDGMENTS

Jesse Valente served as the team leader for this study, and Lyncy Ha served as lead analyst. Other Office of Evaluation and Inspections staff who conducted the study include Jessica Fargnoli. Office of Evaluation and Inspections central office staff who provided support include Joe Chiarenzelli, Kevin Farber, Evan Godfrey, and Christine Moritz. Other Office of Inspector General staff who provided support include Maria Maddaloni and Jessica Swanstrom.

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

To obtain additional information concerning this report or to obtain copies, contact the Office of Public Affairs at Public.Affairs@oig.hhs.gov.

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