

# ***Medicare Beneficiaries Access to DME Survey: Preliminary Findings***

**PRESENTED TO:**

Centers for Medicare and Medicaid Services

**PRESENTED BY:**

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# Dobson | DaVanzo

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# *Presentation Overview*

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- **Purpose & Overview**
- **Survey Methodology**
- **Statistical Validity**
- **Preliminary Survey Results**
  - Beneficiaries
  - Case Managers
  - Suppliers
- **Conclusion**

# *Purpose and Overview*

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- On July 1<sup>st</sup>, 2016, Medicare applied rates received from the results from Round 2 of the DMEPOS Competitive Bidding Program to rural and non-bid areas.
- The American Association for Homecare (AAHomecare) contracted Dobson DaVanzo & Associates (Dobson DaVanzo) to create and field three complementary surveys that would analyze the effects of the Competitive Bidding program on home medical equipment (HME) and supplies since July 1<sup>st</sup>, 2016.
- The survey examines beneficiary, case manager, and supplier experiences with the Medicare Competitive Bidding program as of August 2017.
- Respondents are representative of various geographical (e.g. rural, urban bid, and urban non-bid), demographic, and supplier profiles.

# Survey Methodology

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- **With technical input and advice from AAHomecare, Dobson DaVanzo designed three complementary surveys to gauge experiences with HME since July 1<sup>st</sup>, 2016.**
  - Survey questions included a variety of qualitative and quantitative evaluations such as type(s) of equipment received/supplied, supplier changes, disruptions/delays in supply, etc.
- **Respondents were solicited through phone calls, individualized e-mail messages, and through social media postings.**
  - Self-administered online surveys have demonstrated similar feasibility and appropriateness as traditional mail-in or interview surveys.<sup>1,2</sup>
- **A series of statistical and content analyses were performed on quantitative and short-answer questions to identify distribution of experiences and distribution of major themes.**
  - All content analyses were performed on open-ended questions.

<sup>1</sup>Rankin, KM et al. "Comparing the reliability of responses to telephone-administered vs. self-administered web-based surveys in a case-control study of adult malignant brain cancer." *Cancer Epidemiol Biomarkers Prev*, 17(10): 2639-2646. October 2008.

<sup>2</sup>Brickman-Bhutta, C. "Not by the book: Facebook as a Sampling Frame." *Sociological Methods & Research*, 41(1): 57-88. 21 March 2012.

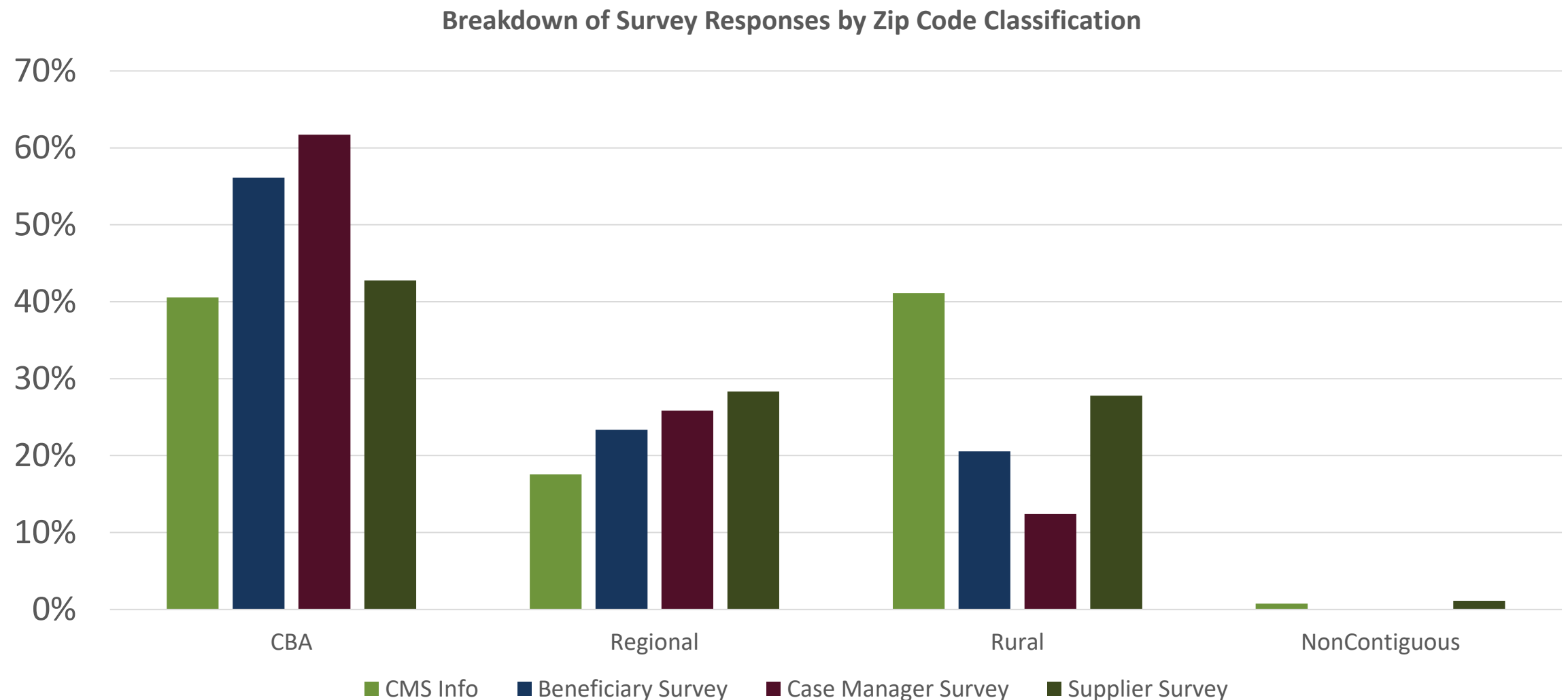
# *Survey Methodology*

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- **Total respondents from August 11<sup>th</sup>, 2017 through August 29<sup>th</sup>, 2017 include:**
  - 215 beneficiaries
    - 9 surveys completed via phone interviews
    - 1 survey completed via e-mailed survey with custom link
    - 205 surveys completed via social media/public sources
  - 248 case managers/discharge planners
    - 3 surveys completed via phone interviews
    - 20 surveys completed via e-mailed survey with custom link
    - 225 surveys completed via social media/public sources
  - 205 HME suppliers
    - 35 surveys completed via e-mailed survey with custom link
    - 170 surveys completed via social media/public sources

# Survey Methodology

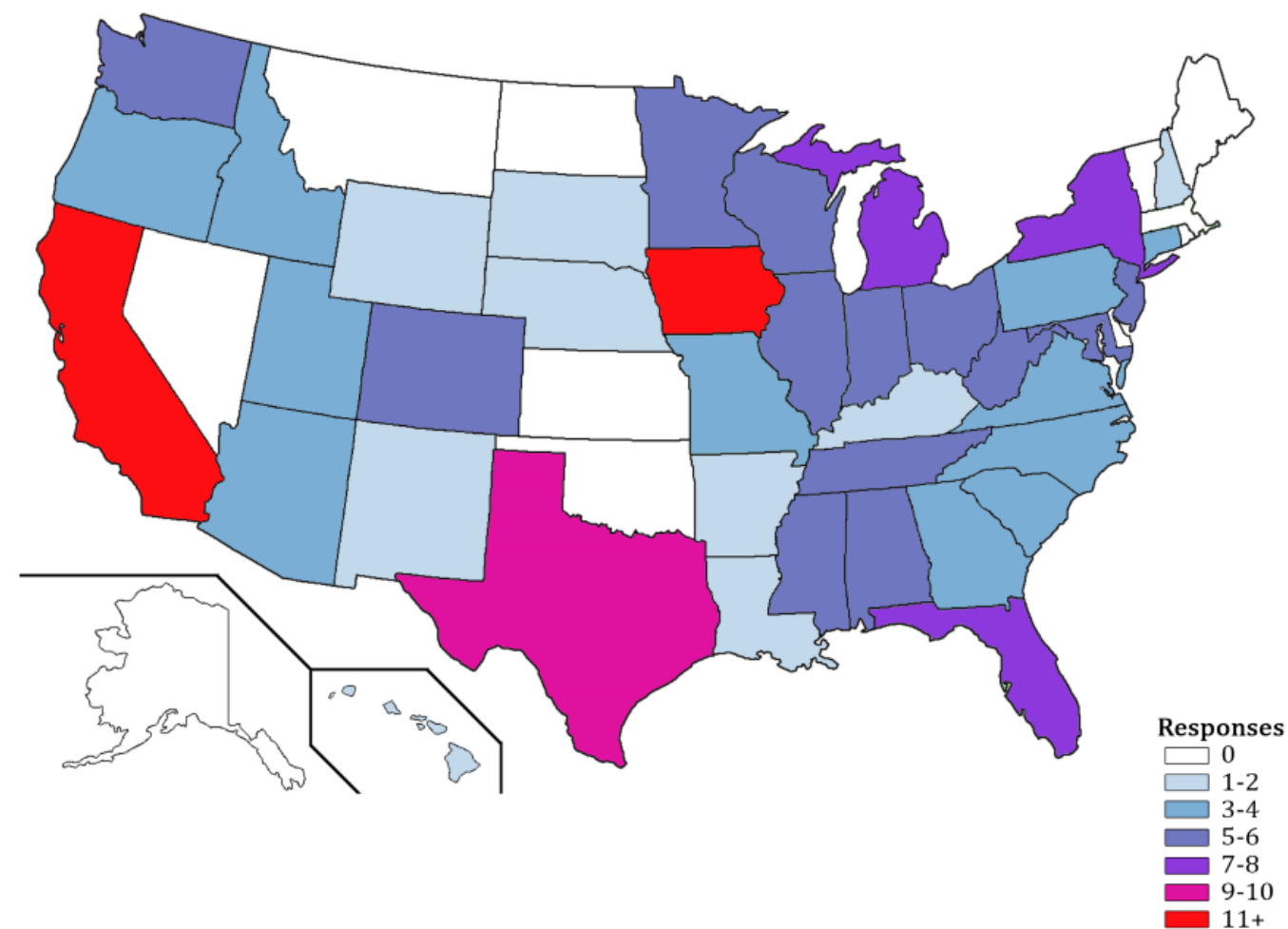
- Respondents are broadly representative of the geographical variation within the Competitive Bidding program.



Source: Dobson DaVanzo and AAHomecare analysis of survey data on DME/HME access.

# Survey Methodology

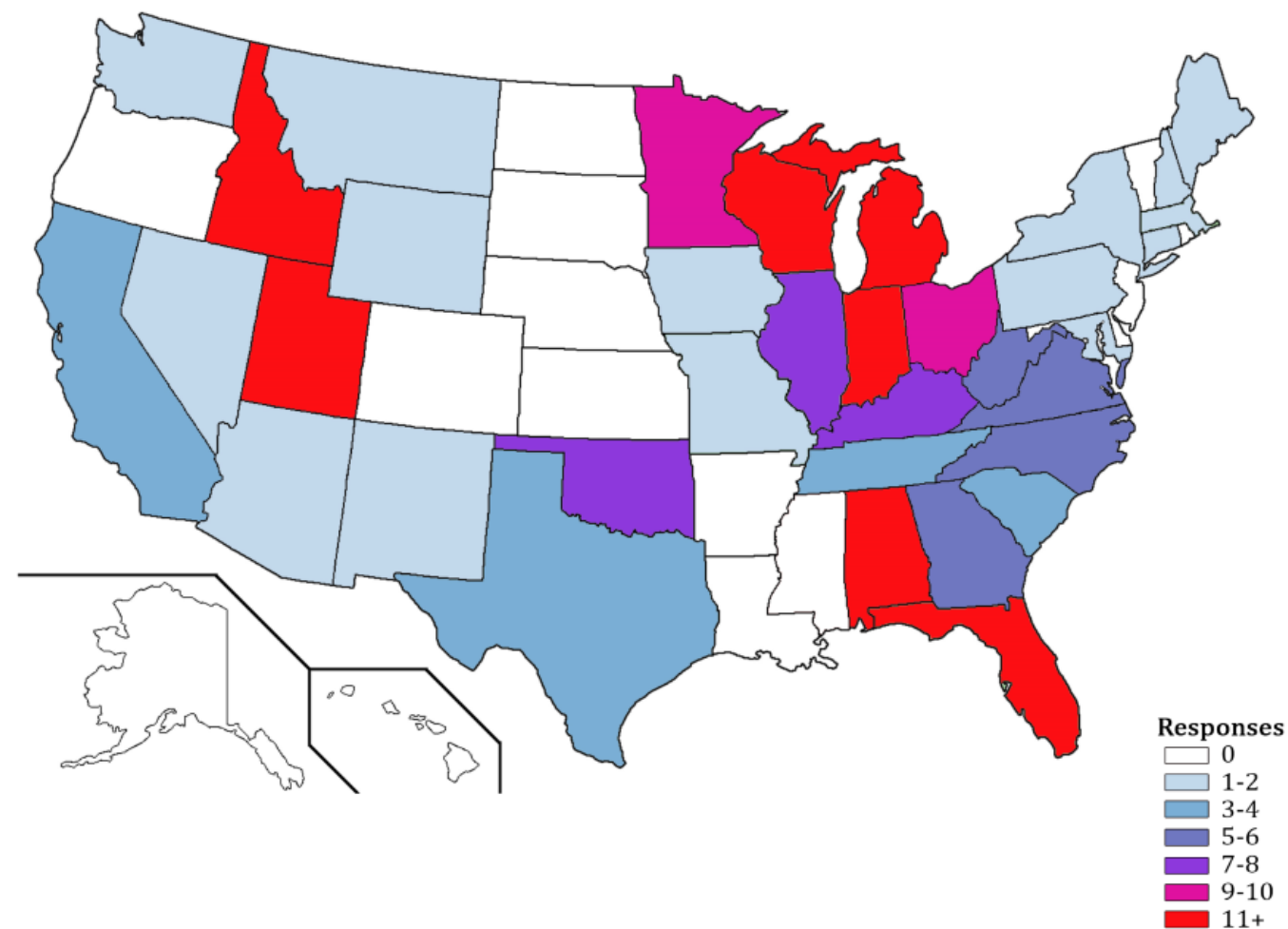
- The beneficiary respondent pool represents a wide distribution among geographic regions and represents population differences.



Source: Dobson DaVanzo and AAHomecare analysis of survey data on DME/HME access.

# Survey Methodology

- The case manager respondent pool represents a wide distribution among geographic regions and represents population differences.



Source: Dobson DaVanzo and AAHomecare analysis of survey data on DME/HME access.



# Statistical Validity

- With more than 200 observations per respondent category, the survey data is sufficient to produce estimates with relatively small 95% confident intervals.
- The right-hand table presents the numbers of observations needed to approximate a binomial distribution.

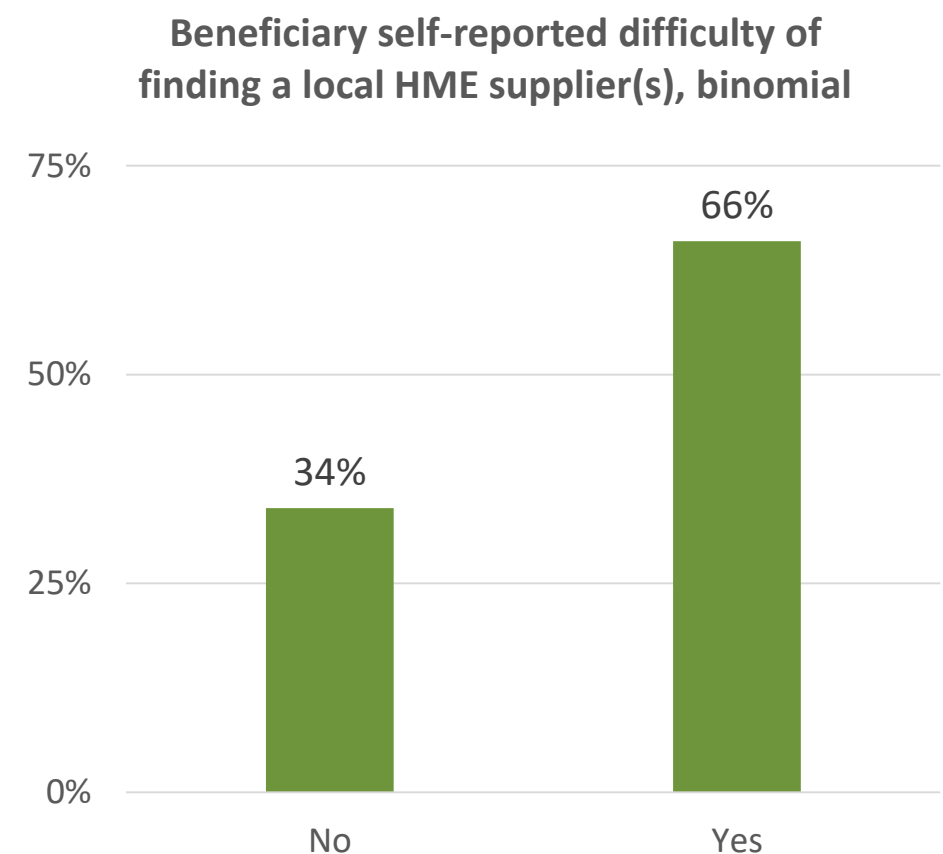
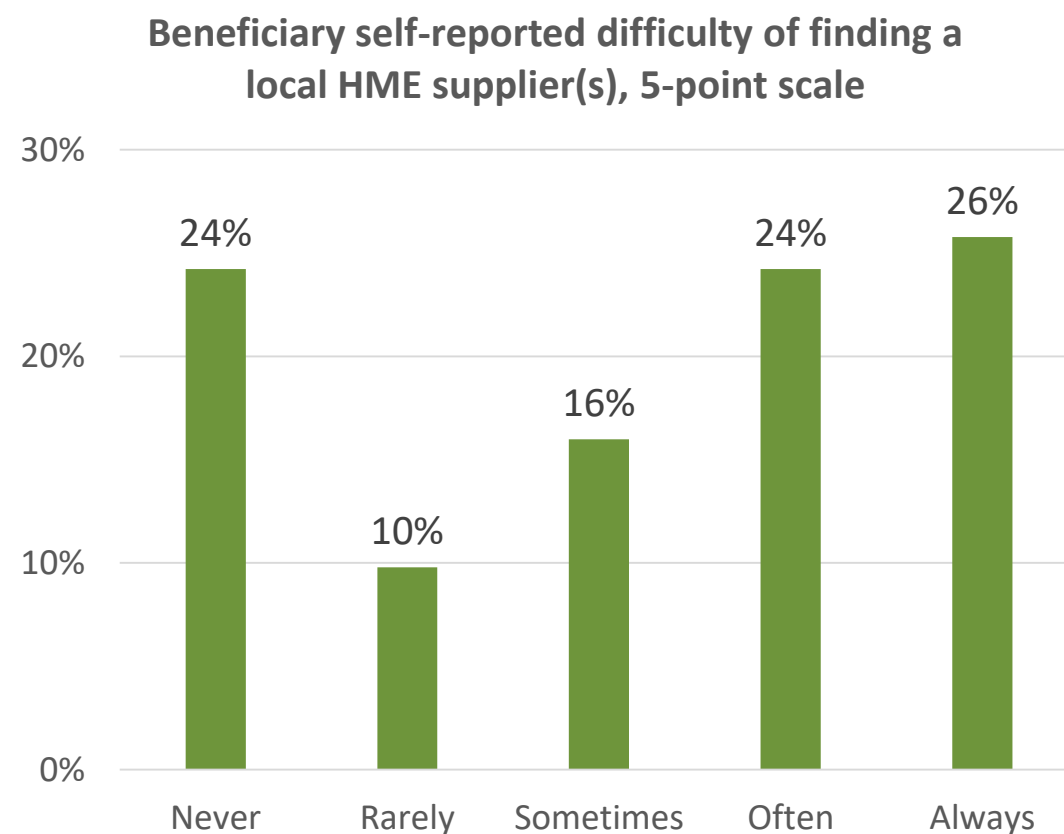
Minimum sample size for use of the normal approximation

<i>p</i>	n=Number	
	Observed in Class	N=Sample Size
0.5	15	30
0.4	20	50
0.3	24	80
0.2	40	200
0.1	60	600
0.05	70	1400
0	80	∞

Source: Cochran, William R. *Sampling Techniques: third edition*. John Wiley & Sons, Inc. USA. (1977).

# Statistical Validity

- 5-point categorical variables in the survey's self-reported data provided the initial variables for statistical analyses.
- In order to test the statistical validity of the samples, the 5-point categorical variables were converted into binomial variables.
  - "Never" and "Rarely" were converted into "No."
  - "Sometimes," "Often," and "Always" were converted into "Yes."



Source: Dobson DaVanzo analysis of survey data on DME/HME access.

# Statistical Validity

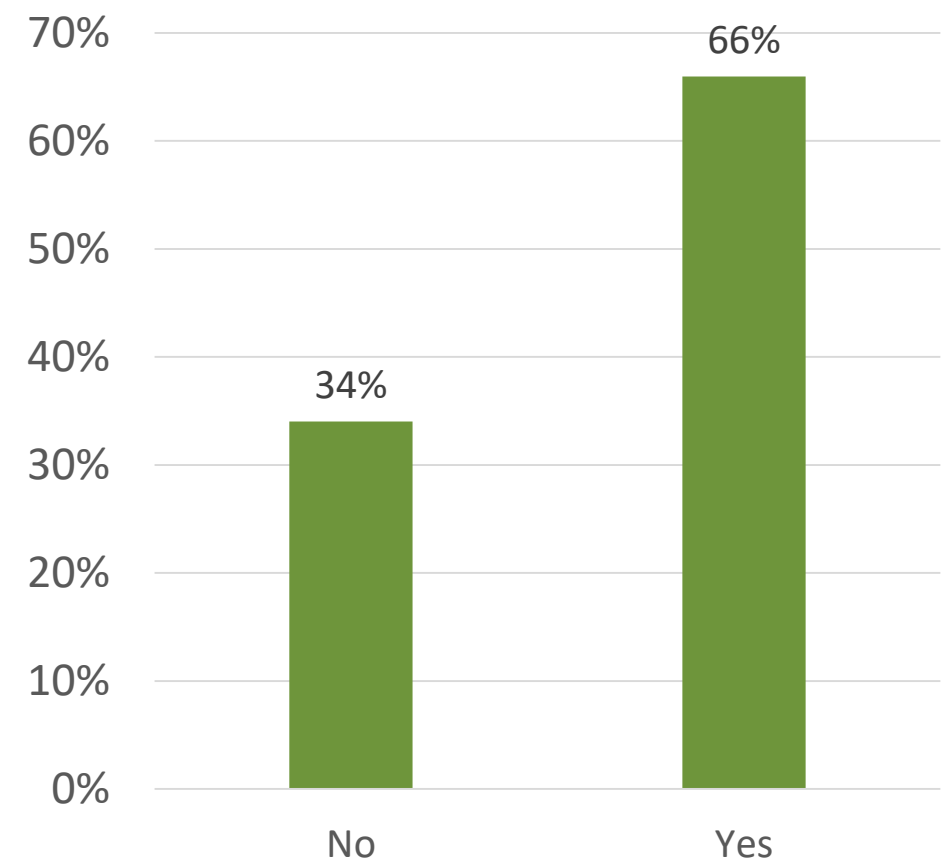
- The following equation<sup>1</sup> was used to approximate a 95% confidence interval from a binomial distribution:

$$C.I. = \frac{n}{N} \pm 1.96 \sqrt{\frac{p * (1 - p)}{N}}$$

- The example to the right demonstrates a 95% confidence interval of .407 to .274 for beneficiaries who experienced no difficulty in finding a local HME supplier(s).

<sup>1</sup>Cochran, William R. *Sampling Techniques: third edition*. John Wiley & Sons, Inc. USA. (1977).

Beneficiary self-reported difficulty of finding a local HME supplier(s), binomial



$$C.I. = \frac{66}{194} \pm 1.96 \sqrt{\frac{.34 * (.66)}{194}}$$

Source: Dobson DaVanzo analysis of survey data on DME/HME access.

# Statistical Validity

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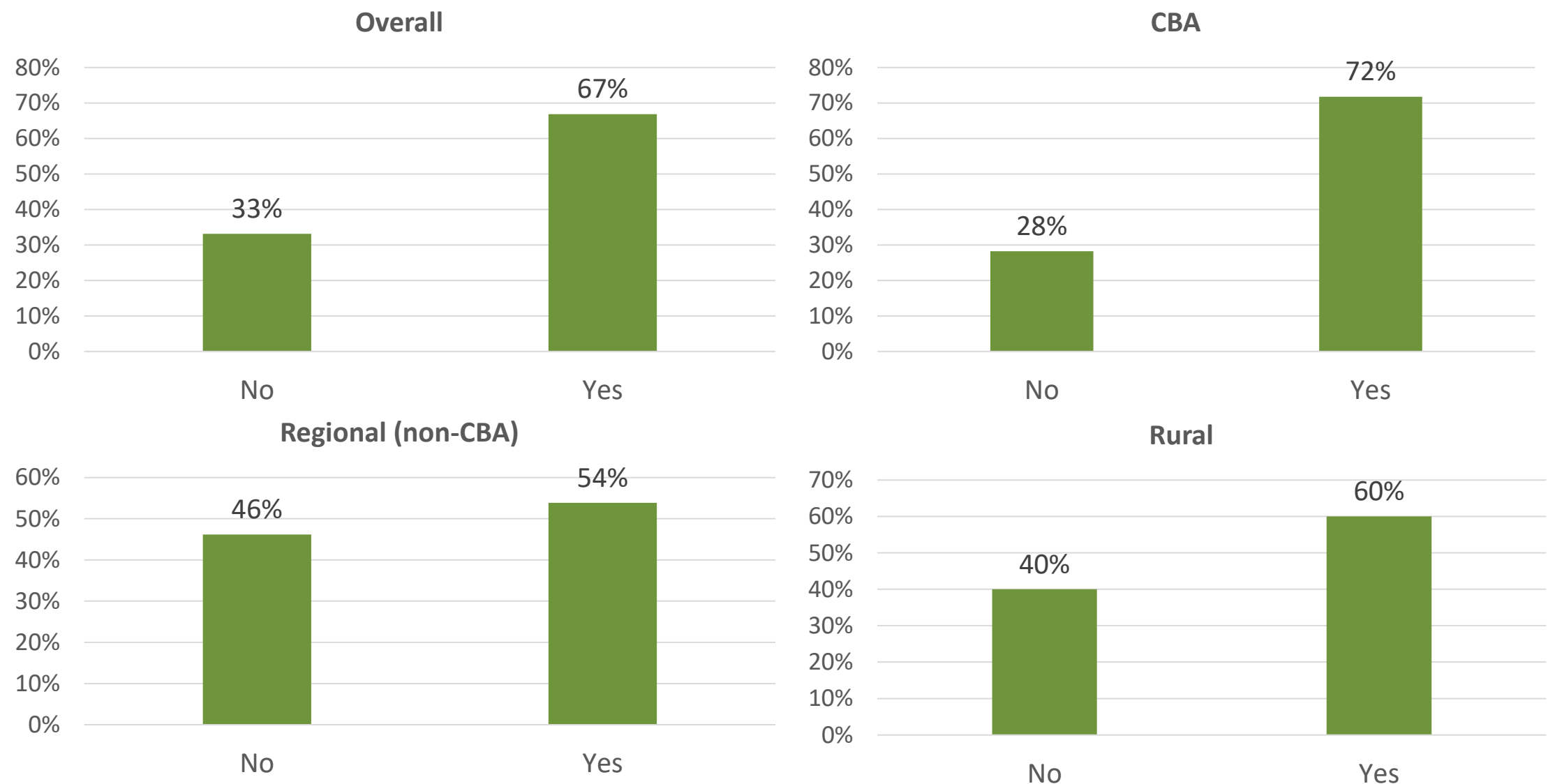
- SurveyMonkey provides a response size significance calculator described below to recommend ideal sample size for confidence:

$$n = \frac{\frac{z^2 * p(1 - p)}{e^2}}{1 + \left(\frac{z^2 * p(1 - p)}{e^2 N}\right)}$$

- The formula is similar to that presented on the previous slide, except it is solved for sample size instead of the confidence interval.
- Assuming that the Medicare population affected by Competitive Bidding is 8 million, a sample of at least 200 per respondent category is sufficiently large to support conclusions at a 95% confidence interval.

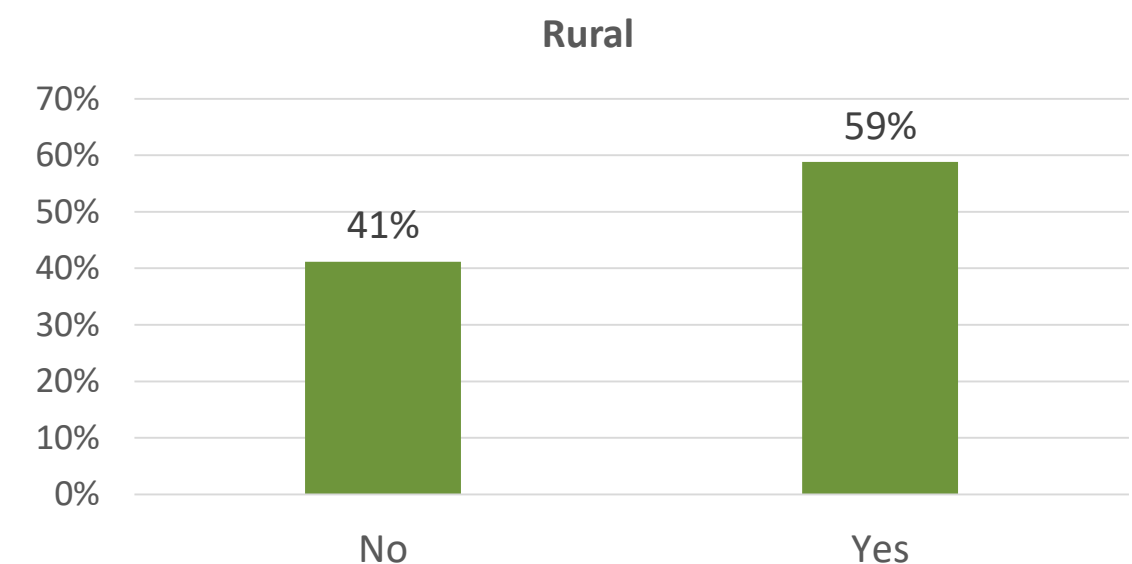
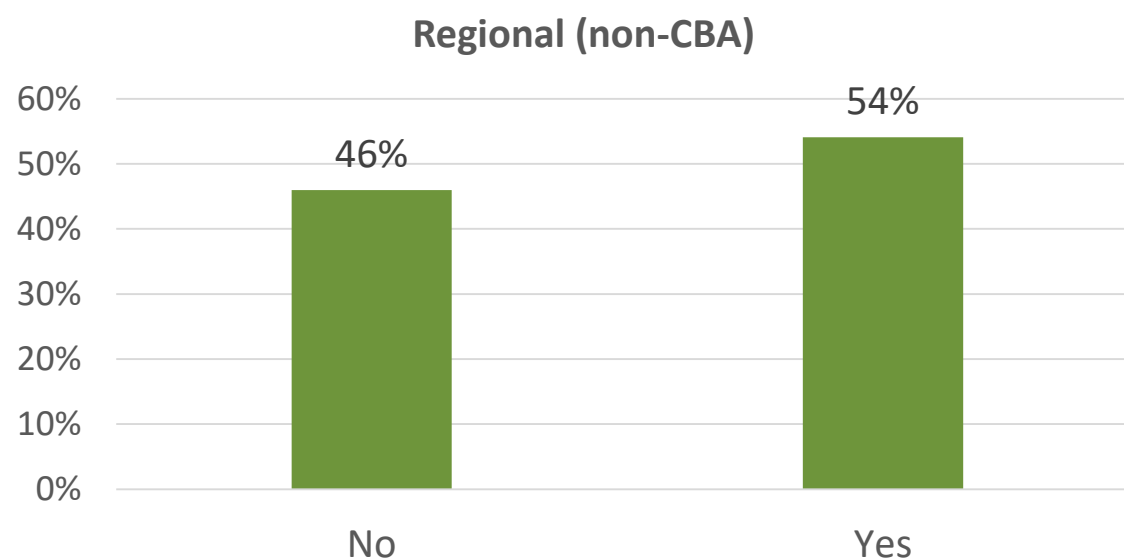
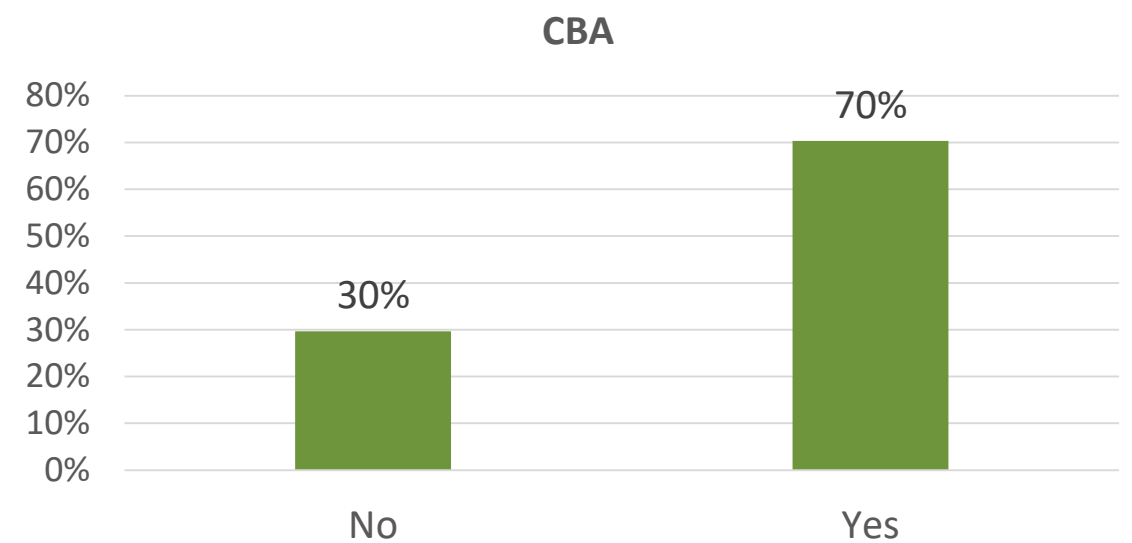
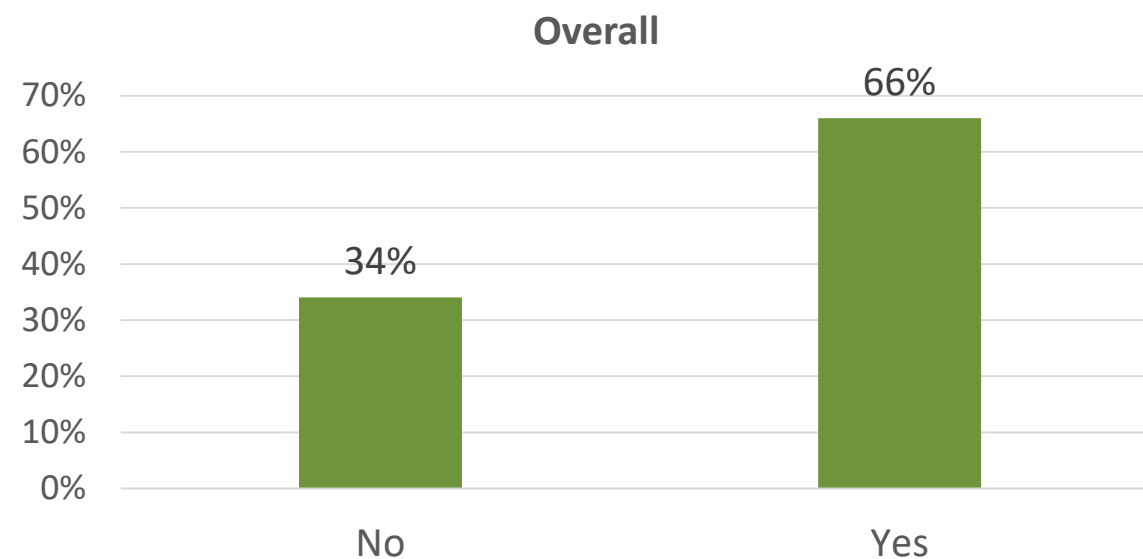
# Preliminary Survey Results: Beneficiaries

- Binomial frequency of whether or not beneficiaries experienced issues in access to HME and services.



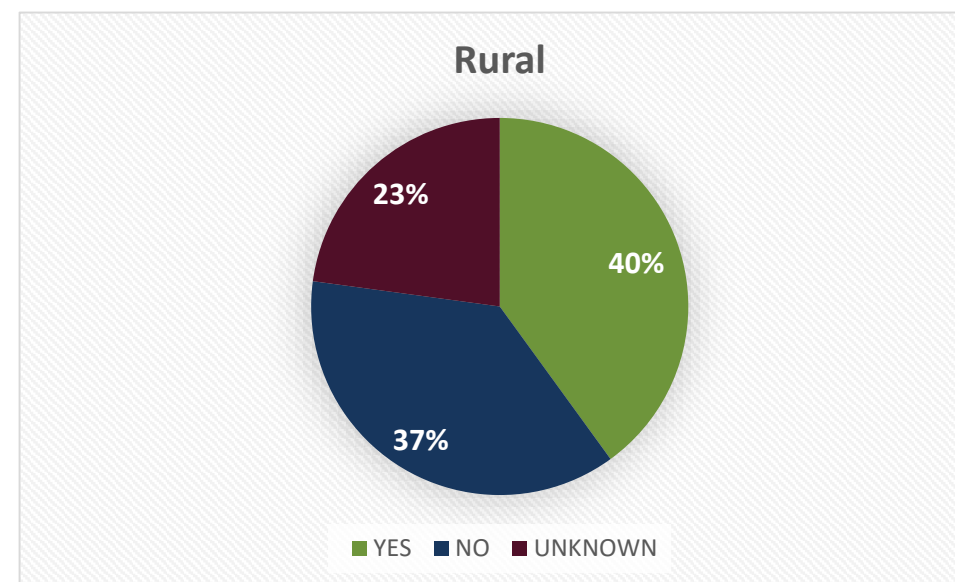
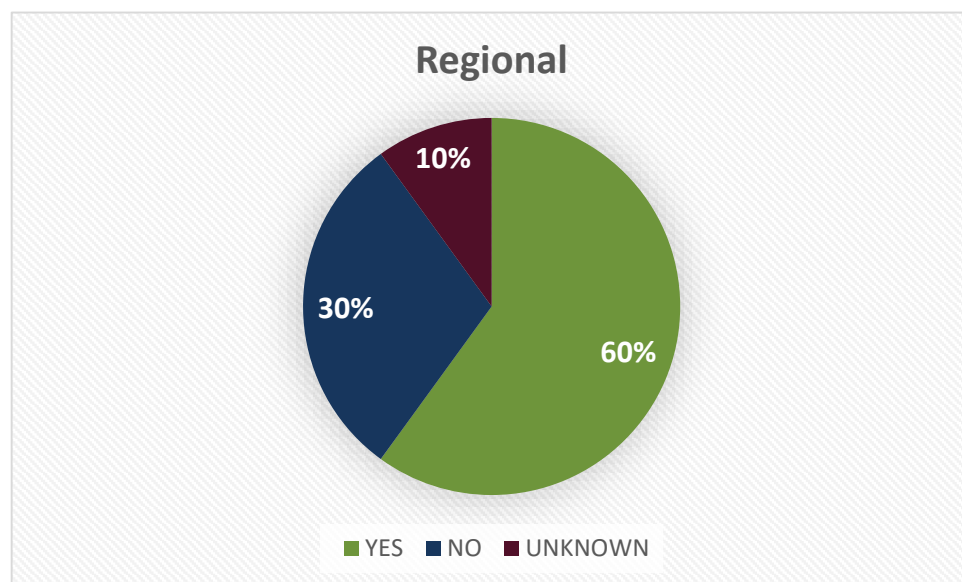
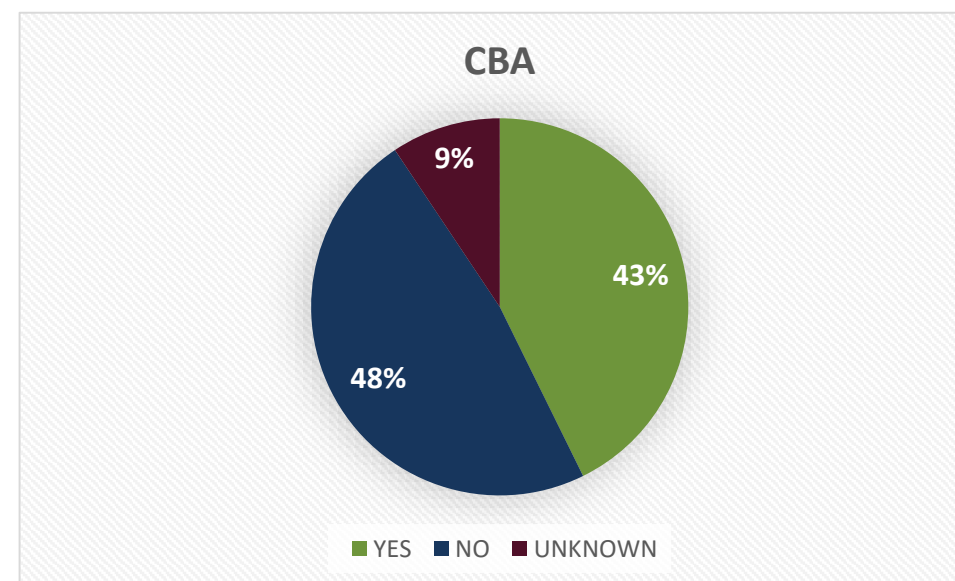
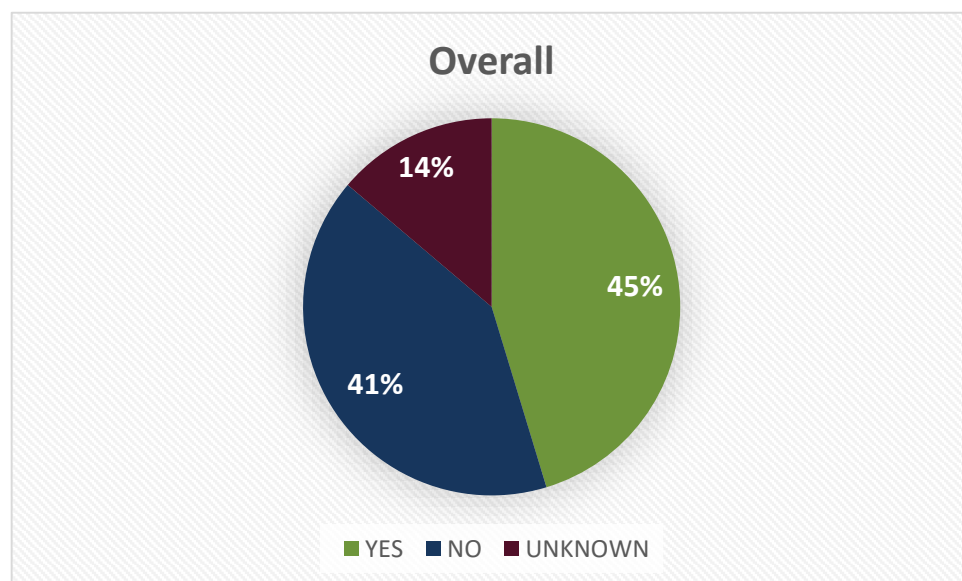
# Preliminary Survey Results: Beneficiaries

- Binomial frequency of whether or not beneficiaries experienced difficulties in finding a local HME supplier(s) to provide HME and services.



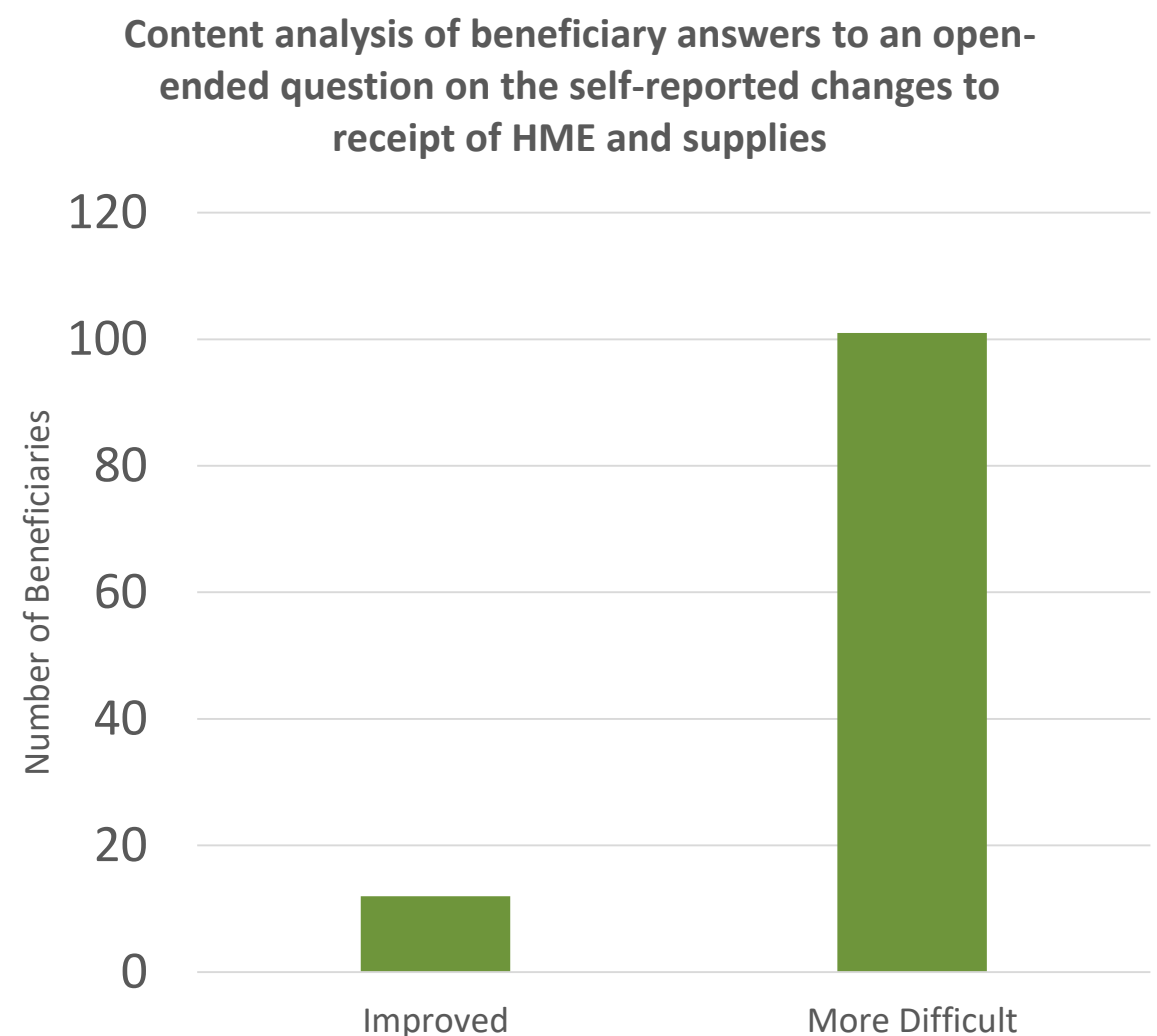
# Preliminary Survey Results: Beneficiaries

- Percent of beneficiaries self-reporting an increase in out-of-pocket medical costs regarding HME and/or supplies.



# Preliminary Survey Results: Beneficiaries, Content Analysis

- “If you were receiving HME prior to July 1<sup>st</sup>, 2016, how has your ability to receive home medical equipment and supplies in a timely manner changed since that date, if at all?”
- 12 beneficiaries stated their ability to receive HME and supplies improved; 101 stated their ability had become more difficult.



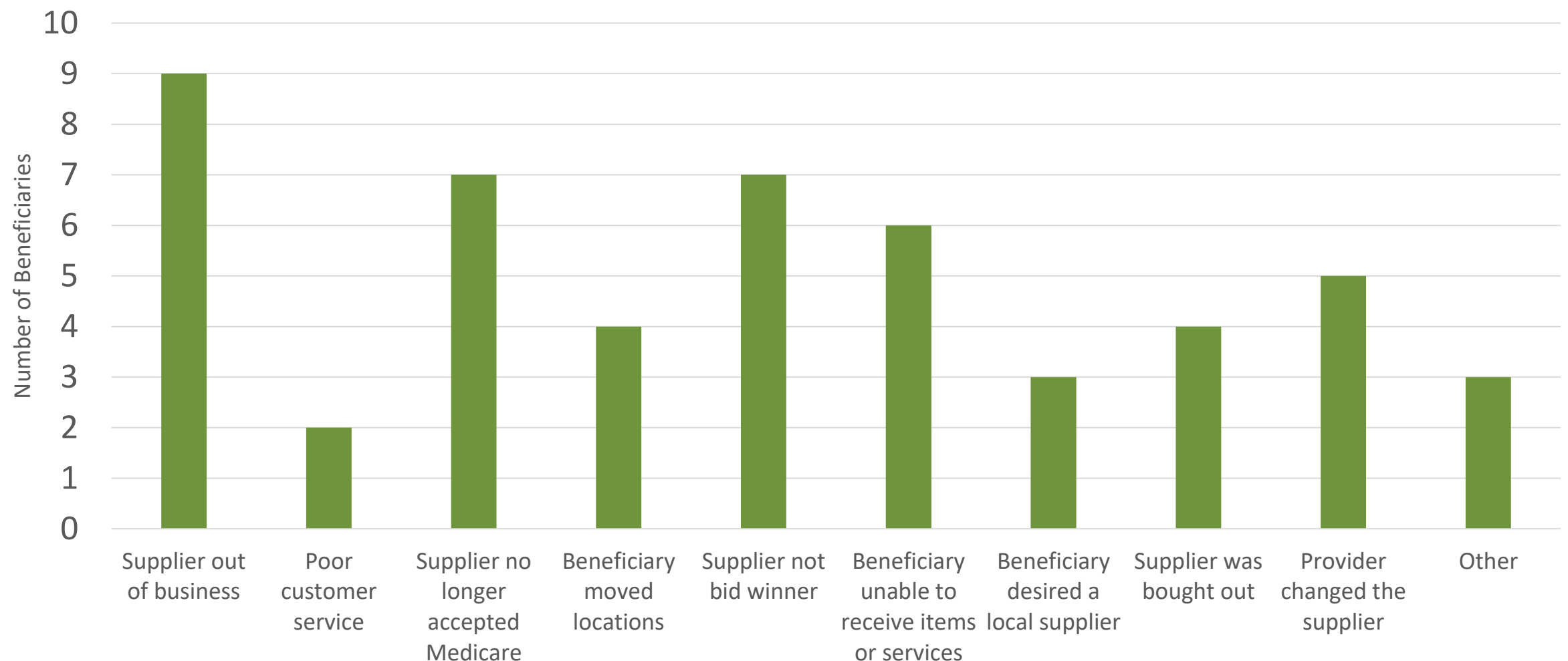
Source: Dobson DaVanzo analysis of survey data on DME/HME access.



# Preliminary Survey Results: Beneficiaries, Content Analysis

- “If you [changed your HME supplier since July 1<sup>st</sup>, 2016], please explain the circumstances of your change.”

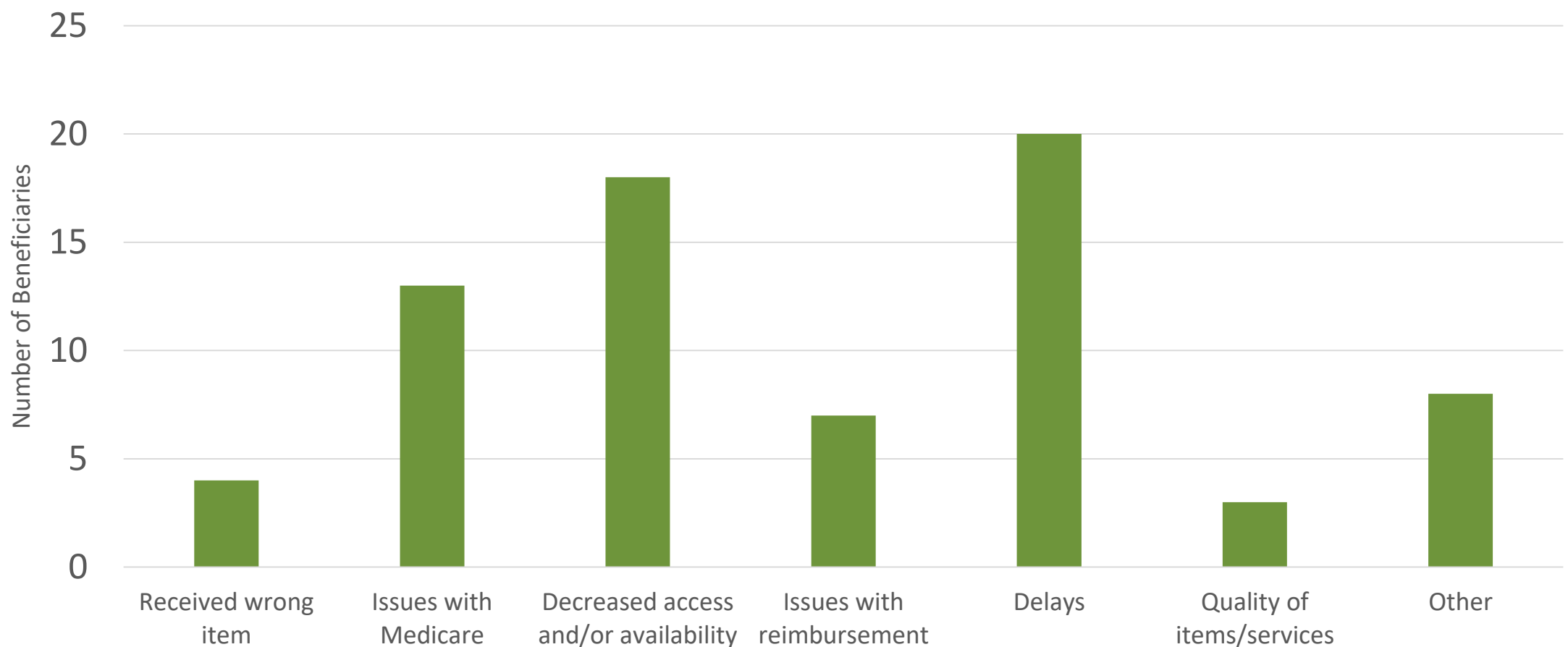
Content analysis of beneficiary answers to an open-ended question on self-reported reasons for changing HME suppliers



# Preliminary Survey Results: Beneficiaries, Content Analysis

- “If you [filed a formal or informal complaint to Medicare or your supplier], please describe the nature of your complaint.”
- 20 respondents filed complaints due to delays in receipt of HME and supplies, and 18 filed complaints due to decreased access and/or availability.

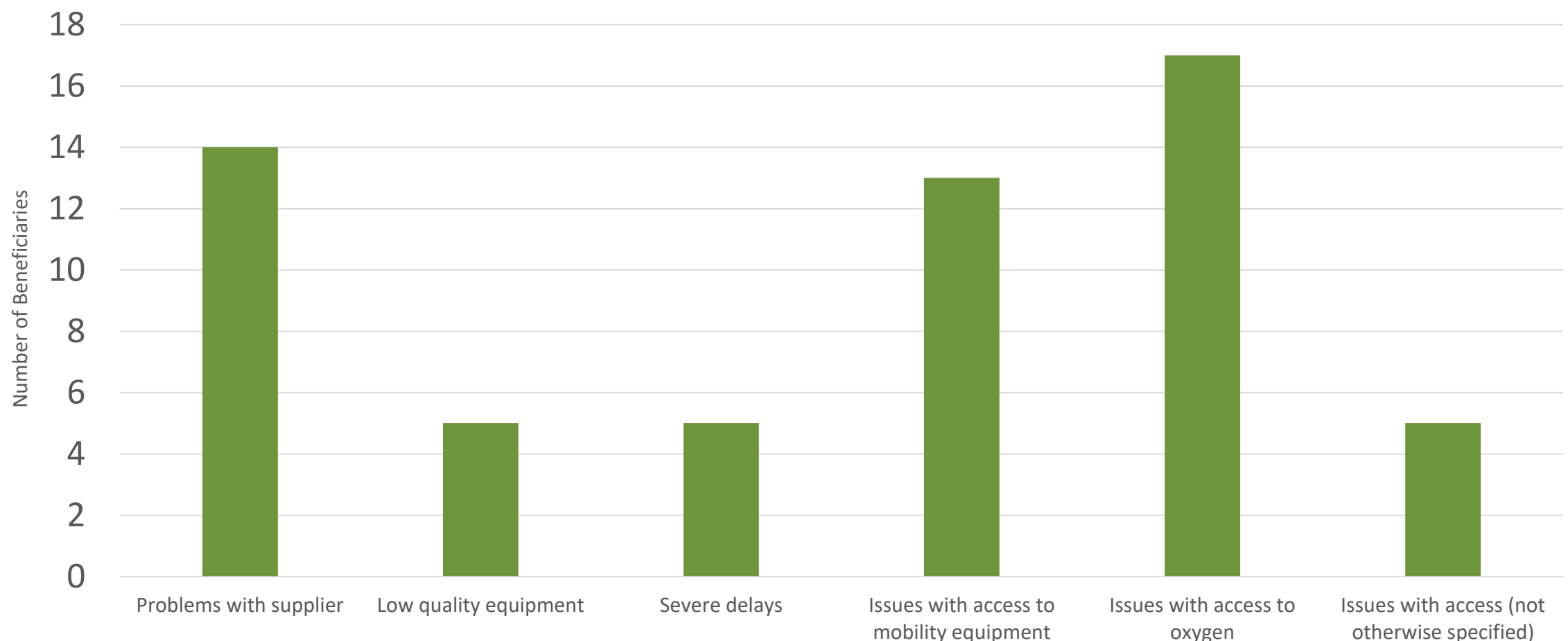
Content analysis of beneficiary answers to an open-ended question on the self-reported content of formal and informal complaints



# Preliminary Survey Results: Beneficiaries, Content Analysis

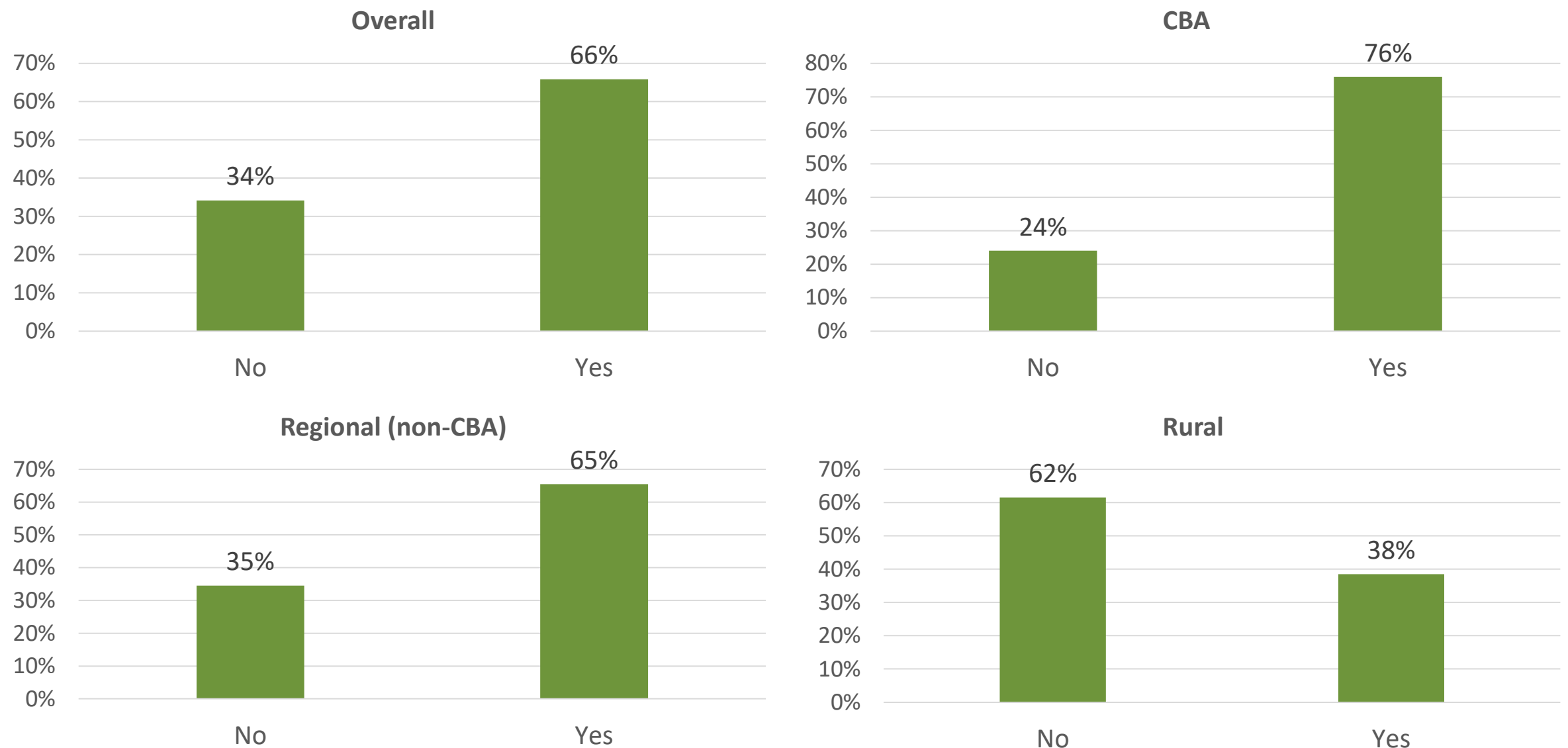
- “If you [indicated that your current HME and/or supplies do not meet your healthcare needs], please describe the ways in which your needs are not met.”
- 17 respondents reported issues with their ability to access HME and supplies related to oxygen therapy, and 13 reported issues with access to mobility equipment such as walkers and wheelchairs.

Content analysis of beneficiary answers to an open-ended question on self-reported unmet healthcare needs due to HME and/or supplies



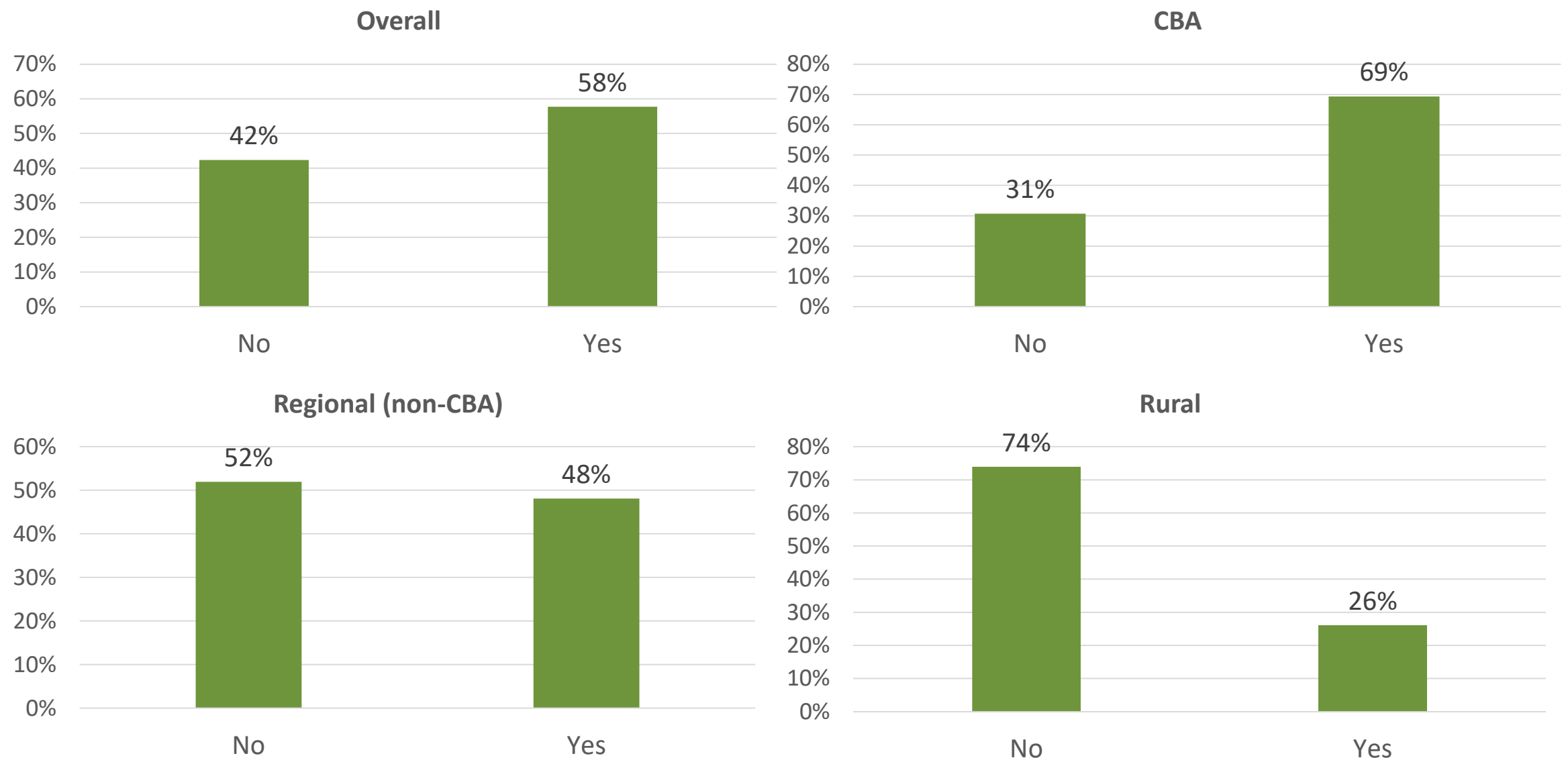
# Preliminary Survey Results: Case Managers

- Binomial frequency of whether or not case managers self-reported increased difficulties in their ability to find a local HME supplier(s) to provide HME.



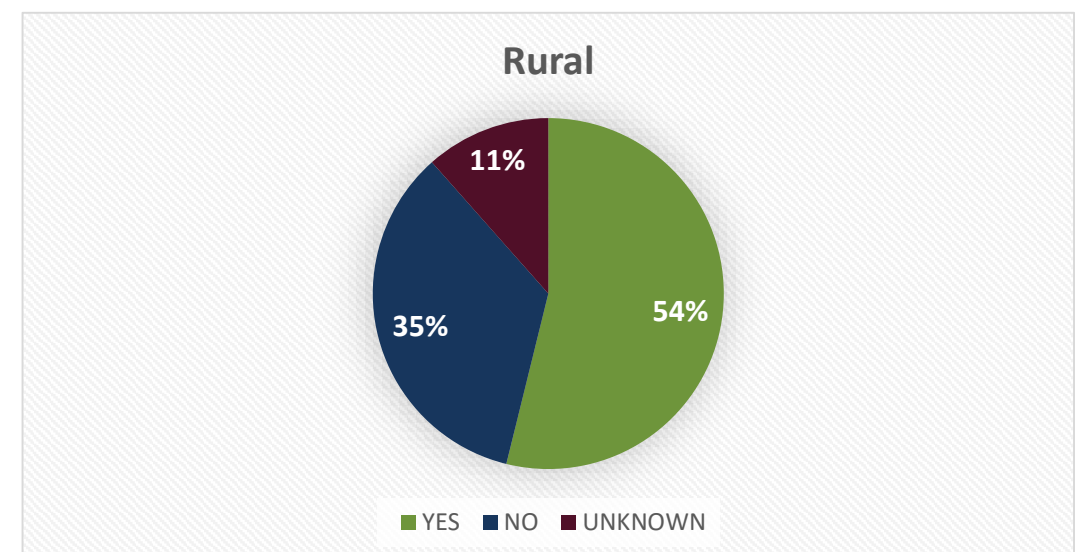
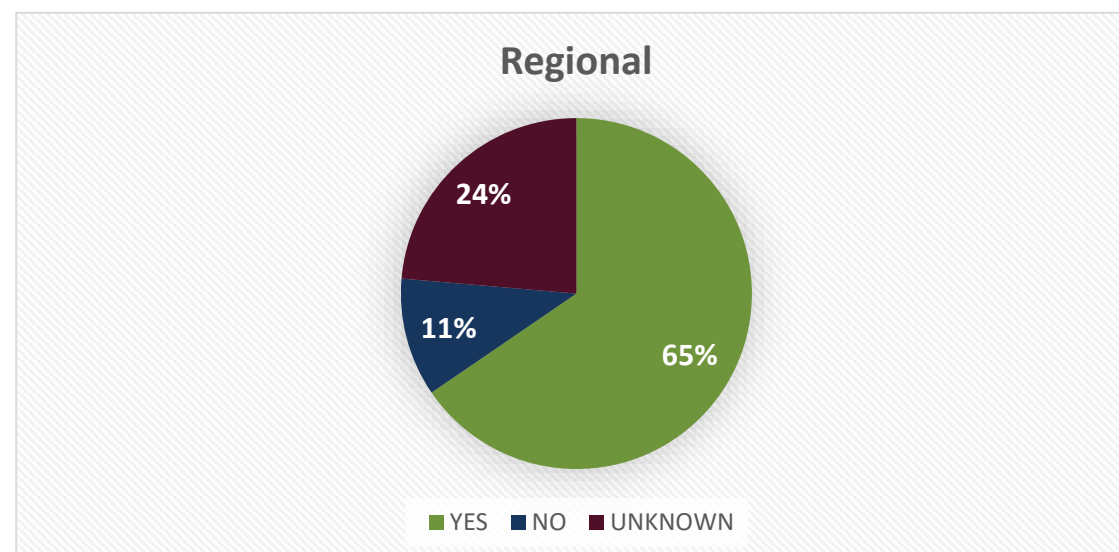
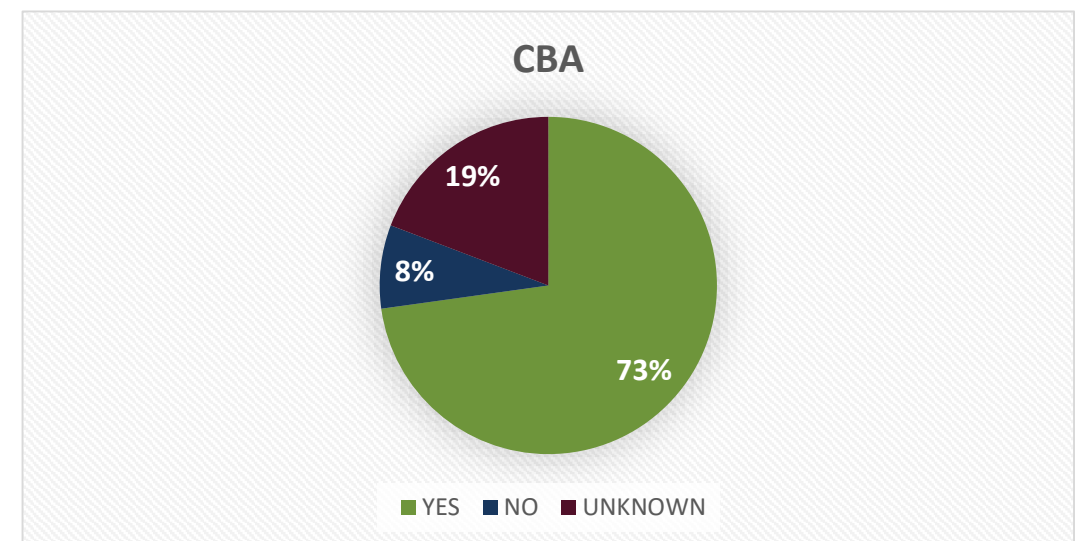
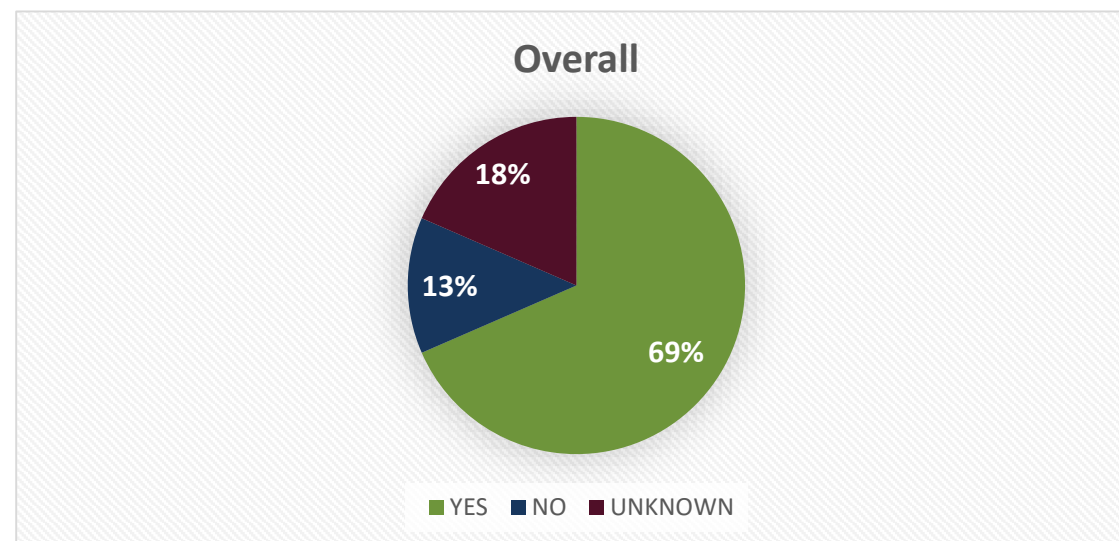
# Preliminary Survey Results: Case Managers

- Binomial frequency of whether or not case managers self-reported difficulties with the quality of HME and services provided by their supplier(s).



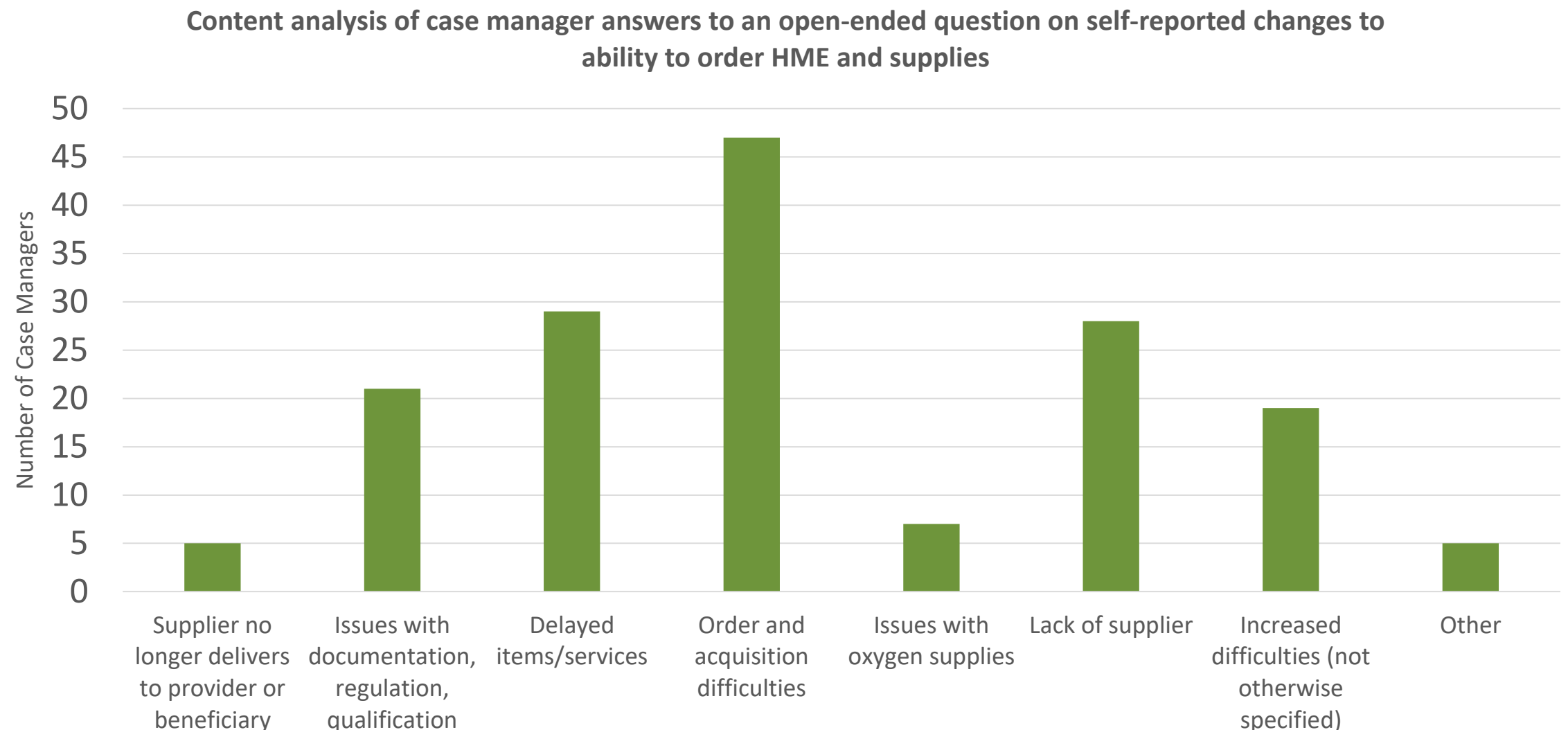
# Preliminary Survey Results: Case Managers

- Percent of case managers who self-reported an increase in patient complaints or out-of-pocket expenses concerning HME and supplies.



# Preliminary Survey Results: Case Managers, Content Analysis

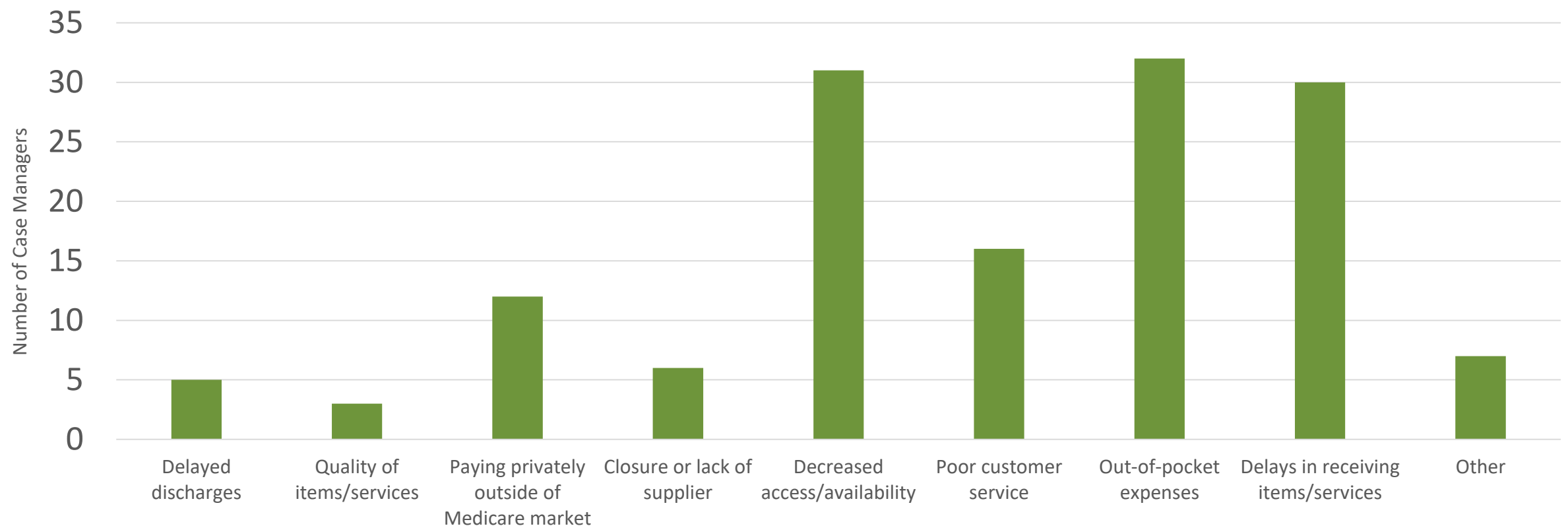
- “How has your ability to order HME and supplies changed since July 1<sup>st</sup>, 2016, if at all?”
- The majority of case managers reported difficulties in order and acquisition, delayed items and services, and in accessing a supplier.



# Preliminary Survey Results: Case Managers, Content Analysis

- “If you [experienced an increase in beneficiary complaints concerning access to HME and supplies], please describe the nature of the complaint(s).”
- The majority of case managers reported beneficiary complaints concerning delays, decreased access, out-of-pocket experiences, and poor customer service.
- 12 case managers reported beneficiaries bypassing the Medicare HME market altogether and paying for their equipment privately due to access issues.

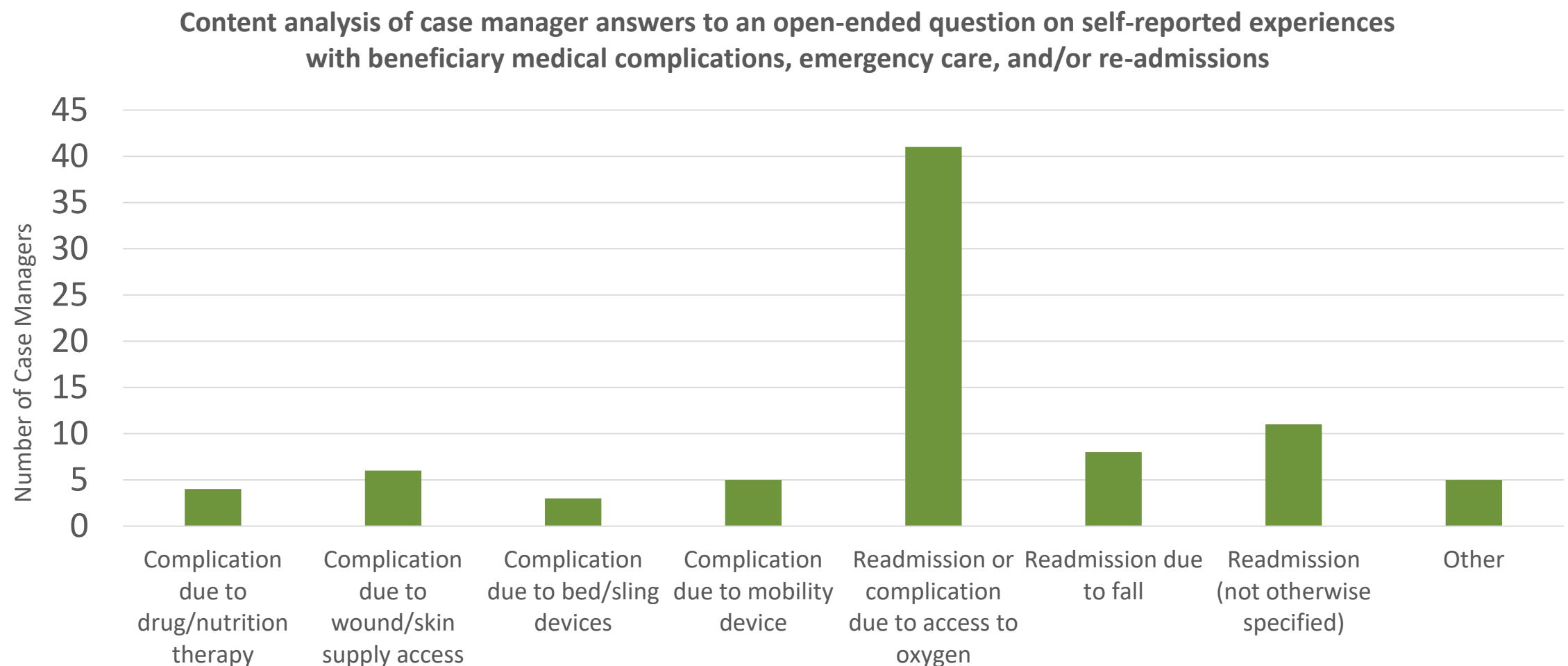
Content analysis of case manager answers to an open-ended question on the self-reported nature of patient complaints





# Preliminary Survey Results: Case Managers, Content Analysis

- “If you [are aware of patients who have developed medical issues related to obtaining proper and/or timely HME], please describe the nature of the medical complications, emergency care, and/or re-admissions.”
- The vast majority (41) of case managers reported beneficiary re-admissions due to lack of access to oxygen therapy HME and supplies out of a pool of 73 case managers who had reported awareness of beneficiary medical issues due to HME.



Source: Dobson DaVanzo analysis of survey data on DME/HME access.

# Conclusion

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- **The three complementary surveys concurrently demonstrate widespread dissatisfaction with many issues, indicating market failure.**
  - E.g. Access and availability, increased readmissions, delays of medically necessary equipment, and increased out-of-pocket expenses.
- **Beneficiaries and case managers have reported adverse changes to access and availability to oxygen therapy HME and supplies since July 1<sup>st</sup>, 2016.**
- **Beneficiaries self-report intentionally bypassing the Medicare HME system and paying for equipment/supplies out-of-pocket to avoid delays and inaccessible equipment, which is corroborated by case managers' reports on beneficiary complaints.**
- **The survey reflects the conclusions of economics theorists who predicted that the design of this Competitive Bidding program would be problematic.**
  - E.g. Crampton P., Ellermeyer, S., and Katzman, B. "Designed to Fail: The Medicare Auction for Durable Medical Equipment." *Economic Inquiry*, Vol. 53 (1), pp. 469-485.
- **Given the short time of the survey field and the continued receipt of survey results, consumers felt strongly that they needed to express that the Competitive Bidding program is not working as intended and can be fixed.**