Effect of the Medicare Waiver for Freestanding Emergency Centers on Emergency Service Utilization

PRESENTED TO:

National Association of Freestanding Emergency Centers (NAFEC)

PREPARED BY: Steven Heath, Patrick McMahon, Jichuan Hu, Seung O Kim, Al Dobson

October 12, 2023

Dobson | DaVanzo

Dobson DaVanzo & Associates, LLC Vienna, VA 703.260.1760 www.dobsondavanzo.com

Presentation Overview

CMS provided a waiver in April of 2020 for FECs to treat Medicare beneficiaries during the COVID 19 Public Health Emergency

- Study Highlights
- Study Purpose
- Study Context
- Methodology
- Findings

Study Highlights

- FEC treat a wide variety of emergency patients
- FEC visits are a very small share of total ED utilization
- After Medicare FEC recognition, Texas ED utilization was consistent with ED utilization across the U.S. on an age, gender, and ethnicity adjusted basis
- Analysis of Medicare ER claims in Texas and nationally from 2020 to 2022 finds no overall post waiver increase in ED utilization
- Medicare average payments to FECs are less than those to Hospital Based Emergency Rooms (HBERs), which include Off Campus Emergency Department (OCED)
 - On a severity level standardized basis, total FEC payments are 21.2% lower than HBER payments

Study Purpose

- Dobson DaVanzo & Associates, LLC was commissioned by the National Association of Freestanding Emergency Centers (NAFEC) to assess Medicare's recognition of FECs by the Center for Medicare and Medicaid Services (CMS) during the COVID-19 Public Health Emergency (PHE)
- The study has four objectives:
 - Identify the different types of conditions treated in FECs in Texas
 - Assess utilization patterns of emergency care in Texas as compared to the remainder of the United States in the pre- and post-waiver periods
 - Evaluate Medicare payments to FECs and HBERs
 - Compare severity levels of services provided in Texas FECs to HBERs

Study Context: Background

- FECs are state licensed facilities that provide emergency care in settings that are structurally separate and distinct from an inpatient hospital and <u>are not owned by a hospital</u>.
- FECs provide care 24 hours a day, 7 days a week, 365 days a year. FECs must be staffed with appropriate qualified emergency personnel (emergency trained physicians, emergency trained nurses, laboratory and radiology technicians).
- FECs adhere to the same standards and provide the same level of care as HBERs, including stabilization of most emergent illnesses (e.g., heart attack, stroke, and trauma, among other presented conditions).

Study Context: Waiver

 On April 21, 2020, CMS issued a waiver entitled: "Guidance Allowing Independent Freestanding Emergency Departments to Provide Care to Medicare and Medicaid Beneficiaries during the COVID-19 Public Health Emergency"

"...the Centers for Medicare & Medicaid Services (CMS) issued critical guidance allowing licensed, independent freestanding emergency departments (IFEDs) in Colorado, Delaware, Rhode Island, and Texas to temporarily provide care to Medicare and Medicaid patients to address any surge."

https://www.cms.gov/medicareprovider-enrollment-and-certificationsurveycertificationgeninfopolicy-andmemos-states-and/guidance-licensed-independent-freestanding-emergency-departments-eds-participatemedicare-and

Study Context: Dynamic Environment

- CMS was concerned about potential hospital overflow of COVID and non-COVID cases, which is why FEC capacity was tapped
- There was great uncertainty and rapid changes during the COVID-19 public health emergency
- Beneficiaries were uncertain where COVID-19 tests could be provided, once testing was available
- Media reported hospitals and HBERs as overwhelmed with COVID patients and FECs provided capacity for beneficiaries who received care for emergent and urgent conditions.
- FECs emerged as a trusted and safe emergency services provider and COVID-19 testing center

Methodology: Severity Measures

The severity level of the encounter was determined from the Current Procedural Terminology (CPT) code on each claim.

- CPT 99281 : Emergency department visit for the evaluation and management of a patient, which requires these 3 key components: A problem focused history; A problem focused examination; and Straightforward medical decision making.
- CPT 99282 : Emergency department visit for the evaluation and management of a patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; and Medical decision making of low complexity.
- CPT 99283 : Emergency department visit for the evaluation and management of a patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; and Medical decision making of moderate complexity.
- CPT 99284 : Emergency department visit for the evaluation and management of a patient, which requires these 3 key components: A detailed history; A detailed examination; and Medical decision making of moderate complexity.
- CPT 99285 : Emergency department visit for the evaluation and management of a patient, which requires these 3 key components within the constraints imposed by the urgency of the patient's clinical condition and/or mental status: A comprehensive history; A comprehensive examination; and Medical decision making of high complexity.

Study Methodology: Overall Approach

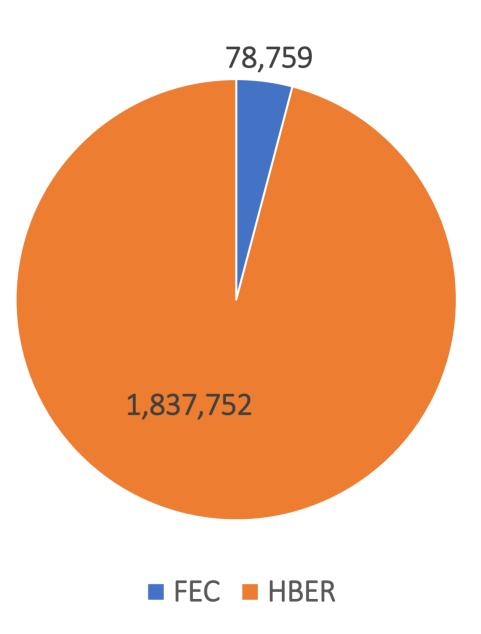
- Medicare LDS Medicare claims from the Limited Data Set (LDS) were extracted, based on Revenue Center (045x: Emergency Room) or Place of Service (POS) Code (23: Emergency Room)
- 1Q19 4Q22 Month-by-month rate of emergency department usage from January 2019 through December of 2022 was examined
 - FEC recognition by Medicare took place in April of 2020. Our analysis uses Medicare claims from Q1 2019 through Q4 2022
- FEC Identification Medicare Provider Numbers were used to identify FECs
- Texas and Other States ED utilization was identified by location, specifically Texas and "Other States" using the Medicare Provider Number (the 49 other states and DC)
- **Expected Utilization** Expected Texas utilization was calculated by applying the month-over-month change in ED utilization of Other States to Texas, using January 2020 as the base utilization period, allowing for comparison, Texas actual and Texas expected utilization numbers by month
- Impact Impact of the waiver was assessed by comparing expected utilization to actual Texas utilization

Study Methodology: Identifying FECs

- Developed a list of provider numbers contained within claims data
- Identified subunits as provider numbers containing an alpha character
- Identified Short-Term Acute Care Hospitals by provider number (if the right three digits were less than 800)
- Identified Critical Access Hospitals by provider number (if the right four digits were greater than 1300 and less than or equal to 1399)
- Identified IPPS hospitals by listing in the FY2022 and FY2023 Final Rule Impact Files
- Identified name by cross-walking the provider number to the POS file
- Identified Texas providers by provider number (if the first two digits equaled "45," "67," "74," or "97")
- Identified states of providers by provider number (the first two digits)
- Identified FECs based on manual review of Texas providers by considering omission from the FY 2022 and FY2023 Final Rule Impact Files, name, and review by NAFEC
- Identified and selected urban providers from the POS (as there are essentially no rural FECs)
- Assessed the provider-specific Wage Index from the FY2022 and FY2023 Final Rule Impact Files and CBSA from the POS (to standardize payments)

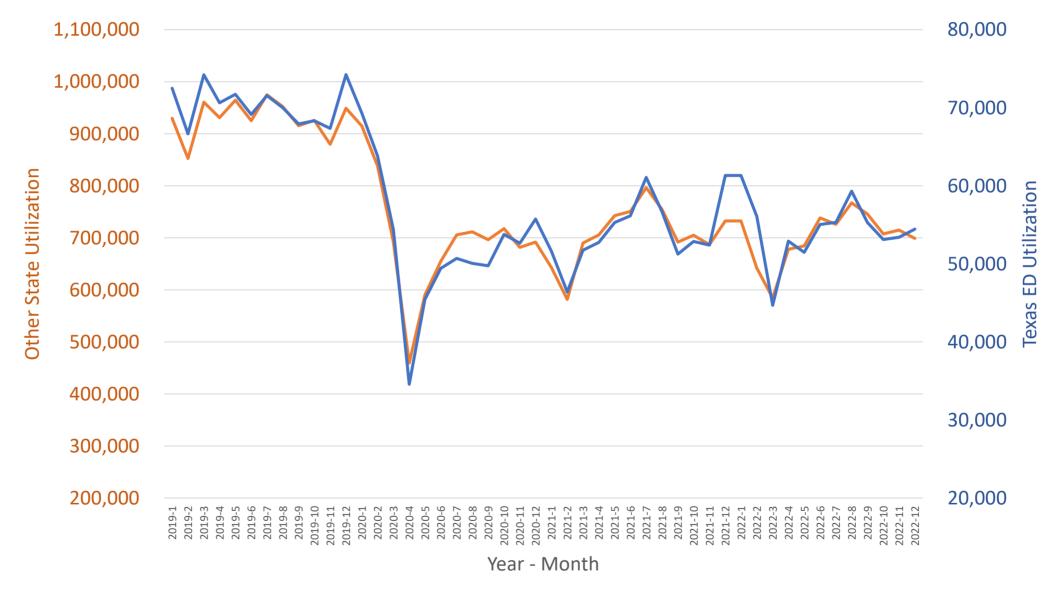
Utilization of Medicare ED services: FEC and HBER

- Our claims analysis identified 129 FECs (124 Urban FECs) in Texas treating Medicare beneficiaries under the waiver
- FECs accounted for about 4.1% of all urban ED encounters in Texas between in 2020 and 2022



Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2020, 2021, and 2022 $Dobson \left| DaVanzo \right|$

Finding: Texas Medicare ED utilization pattern over time was consistent with the Medicare ED utilization pattern across the U.S. (Slide 1 of 2)



Other States & DC — Texas

• Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2019 through 2021

Finding: Texas Medicare ED utilization pattern over time was consistent with the Medicare ED utilization pattern across the U.S. (Slide 1 of 2)

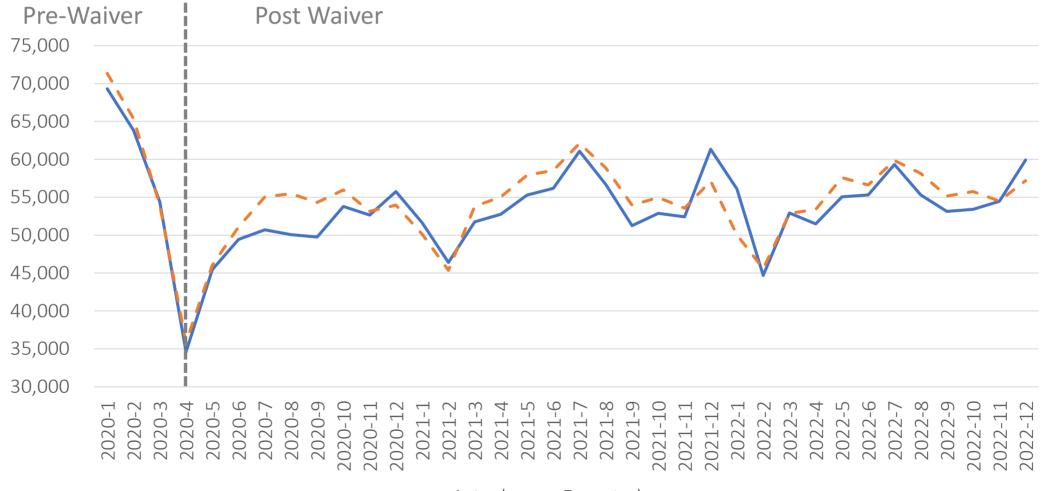
- When comparing Texas Medicare ED utilization to the Medicare utilization in other states for the same time frame, the trends are essentially identical
- There is a massive drop in Medicare utilization due to the PHE starting in March of 2020 and continuing through May of 2020, reflecting the immediate impact of COVID-19
- Medicare utilization of ED after May 2020 was lower than pre-COVID utilization and seems to achieve a new, although lower trend

Finding: No overall post-Waiver increase in Medicare ED utilization is evident (Slide 1 of 2)

- In order to account for COVID-19 related decreases in Medicare ED utilization, we compared Texas to the rest of the country (which had few FECs) over time period.
- To determine the actual versus expected trend, we modeled utilization by applying the month-over-month percentage change in Other States + DC to the actual Texas utilization, starting in January of 2020 (pre-waiver).
- There were declines in both Texas actual and Texas expected utilization as COVID 19 began to impact ED utilization in February of 2020.
- Trends in actual TX overall ED utilization generally mirrors the rest of the country in the same time period, pre- and post-waiver
- Trends in actual utilization, as compared to modeled utilization, suggest that Texas did not experience an increase in overall ED utilization in the months after the waiver was implemented (April 21, 2020).

Finding: No overall post-Waiver increase in Medicare ED utilization is evident (Slide 2 of 2)

 The actual number of ED visits in Texas after the FEC waiver is not visibility different from the expected number of visits over the 36-month period beginning in January 2020



——Actual — — Expected

• Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2019 through 2022

Demographic Characteristics between Texas and Other States

- The average age of Medicare enrollees utilizing ER services is 68.7 in both Texas and Other States
- Beneficiary utilization in Texas is 42.0 percent male as compared to 43.4 percent in Other States
- Beneficiary utilization in Texas is 73.4 percent White and 7.1 percent Hispanic while the utilization in Other States is 75.7 percent White and 3.0 percent Hispanic

| Demographic Factors | Texas | Other States |
|---------------------|-------|--------------|
| Age | 68.7 | 68.7 |
| Gender: Male (%) | 42.0% | 43.4% |
| Race: White (%) | 73.4% | 75.7% |
| Race: Black (%) | 15.6% | 15.8% |
| Race: Asian (%) | 1.2% | 1.7% |
| Race: Hispanic (%) | 7.1% | 3.0% |
| Race: Other (%) | 2.7% | 3.8% |

- Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2019 through 2022
- Note: Other race includes North American Native, Native Hawaiian/Other Pacific Islander, or Unknown.

Testing for Statistical Differences in Texas and Non-Texas ED Utilization Over the Preand Post-Waiver Time Frame

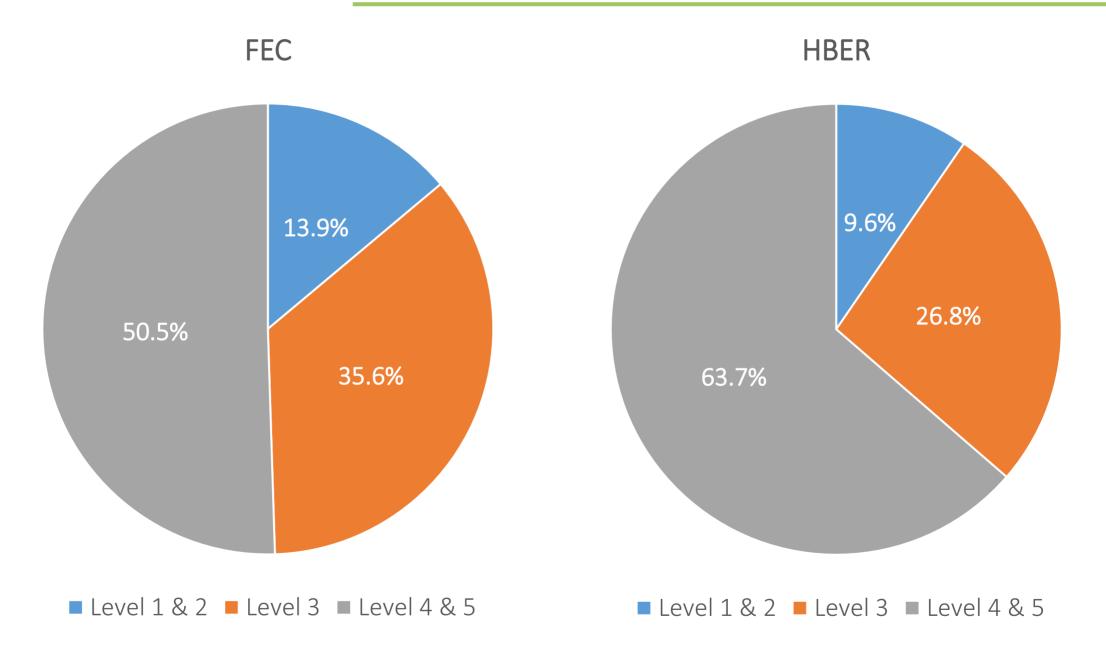
- We ran a multivariate linear regression that adjusted for several baseline demographic factors.
 - Age
 - Race
 - Sex
- We also standardized for wage index and urban versus rural (as we only looked at urban ED facilities)
- Our key statistical test was to determine if changes in Texas urban ED utilization were different in pre- and post-waiver time periods

Model-based results

| Variables | Relative Risk Estimate | Sig. Test (p-value) | |
|---------------------|------------------------|---------------------|--|
| Tx * Post | 1.045 | p = 0.920 | |
| Tx vs. non-Tx | 0.765 | p = 0.641 | |
| Post- vs Pre-waiver | 0.050 | -0.004 | |
| Time Period | 0.952 | p = 0.884 | |

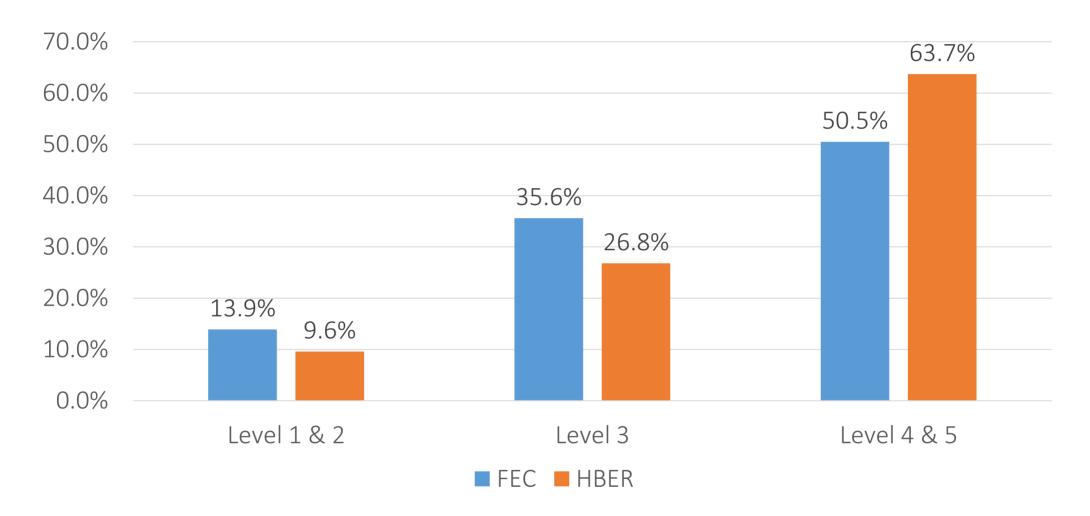
- The first variable, an interaction term between group (the second) and time (the third) variables, that is, Texas times Post, indicates that the pre- and post-waiver change in Texas ED utilization is not statistically significantly different from non-Texas ED utilization change over the same time frame.
- The second variable, Texas versus non-Texas, indicates that the Texas levels of ED utilization are not statistically different from non-Texas, overall.
- The third variable, Post- versus Pre-waiver Time Period, indicates that there was a decrease in ED utilization between the time prior to the waiver and after the waiver. However, the difference was not statistically significant. The well-known Covid 19 effect was diminished after adding 2022 data.
- The analysis for each variable was adjusted for age, sex, and race.
- Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2019 through 2022
- Note. Due to multicollinearity, dual status (%) was dropped from the final model.

Finding: Distribution of ED Encounters by Severity Levels for Texas FECs and HBERs (2021 and 2022 22) (Slide 1 of 2)



• Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2021 and 2022

Findings: While FECs show higher percentage of lower and mid-level severity cases, they show lower high-level severity cases (Slide 2 of 2)

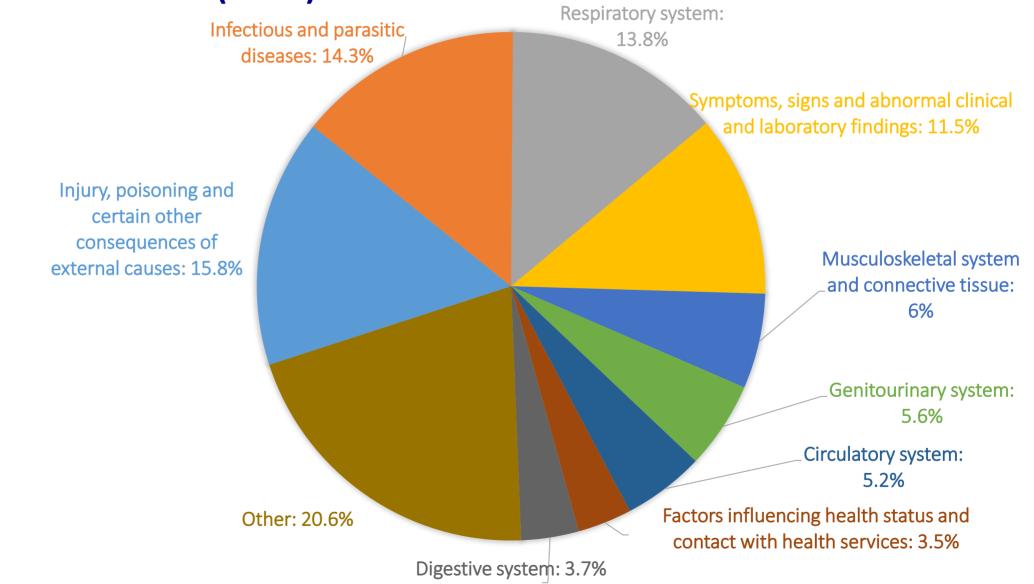


- Data shown reflect 2021 AND 2022
- Level 3, 4 and 5 are considered emergency care patients.
- FECs do not receive patients from ambulances severe trauma often do not end up in a FEC.

Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2020, 2021, and 2022
Dobson | DaVanzo

Findings: FECs Treat a Wide Variety of Emergency Conditions and Traumatic Injuries

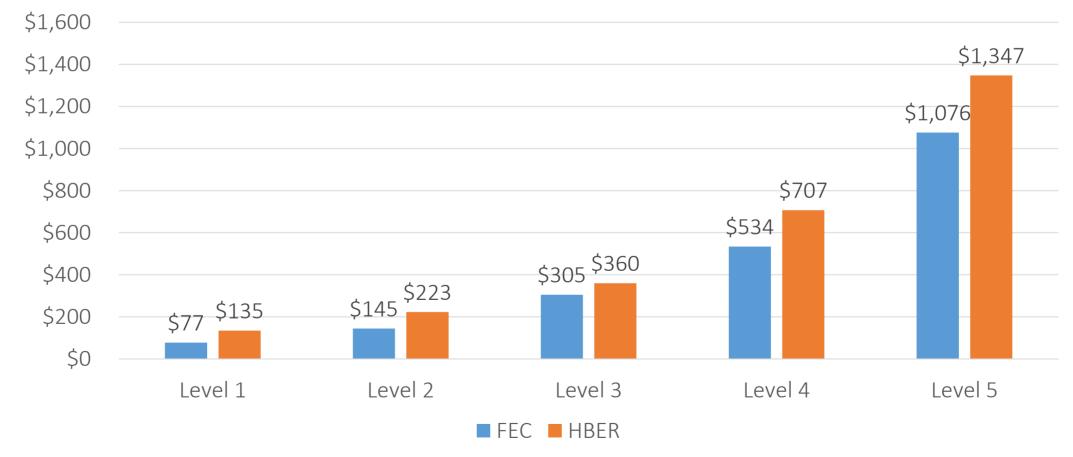
 Distribution of Severity Level 3, 4, and 5 Patients Clinical Classifications (CCSR) for Texas FECs



Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2020, 2021, and 2022
Dobson | DaVanzo

Finding: Medicare average payments to FECs are less than those to HBERs

- Total FEC Medicare payments are 21.2% lower than HBER payments on a severity level standardized basis over the 2021 to 2022 timeframe.
- Medicare payments were standardized by weighting average FEC and HBER payments by severity level by FEC proportions of level 1-5 visits.



Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2021 and 2022 $Dobson \mid DaVanzo$

Finding: Medicare urban inpatient admissions come through the ED two thirds of the time

- Between Q3-2020 and Q4-2022, there were 1,228,801 urban admissions to inpatient care in Texas
- Of these admissions, 860,332 started with an ED encounter

| | | | Percent |
|-----------------------|----------------|------------|------------|
| Admissions not | Admissions | Total | admissions |
| ED Related | through the ED | Admissions | through ED |
| 368,469 | 860,332 | 1,228,801 | 70.01% |

Finding: Medicare urban HBER encounters are more likely to result in an inpatient admission than FEC encounters

- There was a total of 1,001,513 ED encounters in Texas between Q3-2020 and Q4-2022
 - This total includes inpatient and outpatient ED encounters
- 55% of HBER encounters result in a discharge home compared to 96% in FECs
- 36% of HBER encounters result in an inpatient admission compared to zero in FECC

| | HBER | | FEC | |
|--|-----------|---------|--------|---------|
| Discharge Status | Claims | Percent | Claims | Percent |
| Discharged to home or self-care (routine discharge) | 1,320,383 | 55% | 75,651 | 96% |
| Admitted as an inpatient to this hospital | 865,062 | 36% | 2 | 0% |
| Discharged/transferred to a short-term general hospital for inpatient care | 39,683 | 2% | 2,131 | 3% |
| Left against medical advice or discontinued care | 29,981 | 1% | 723 | 1% |
| Subtotal | 2,255,109 | 94% | 78,507 | 100% |
| Other | 142,489 | 6% | 262 | 0% |
| Total | 2,397,598 | 100% | 78,769 | 100% |

Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2020, 2021, and 2022 $Dobson \mid DaVanzo$

Conclusions

- FEC treat a wide variety of emergency patients
- FEC visits are a very small share of total ED utilization
- After Medicare FEC recognition, Texas ED utilization was consistent with ED utilization across the U.S. on an age, gender, and ethnicity adjusted basis
- No overall post-waiver increase in ED utilization is evident
- Medicare average payments to FECs are less than those to Hospital Based Emergency Rooms (HBERs), which include Off Campus Emergency Department (OCED)
 - On a severity level standardized basis, total FEC payments are 21.2% lower than HBER payments

Appendix A: Final Model Statistical Results

| | | Relative | | | | | |
|---------------|-------------|----------|-----------|-------|-------|------------|-----------|
| Variable | Coefficient | Risk | std. err. | z | P> z | [95% conf. | interval] |
| Tx * Post | 0.044 | 1.045 | 0.443 | 0.10 | 0.920 | -0.825 | 0.914 |
| Tx vs. non-Tx | -0.268 | 0.765 | 0.538 | -0.50 | 0.618 | -1.322 | 0.786 |
| Post vs pre | -0.049 | 0.952 | 0.334 | -0.15 | 0.884 | -0.703 | 0.606 |
| Age | -0.100 | 0.905 | 0.329 | -0.30 | 0.761 | -0.461 | 0.545 |
| Male (%) | -0.154 | 0.857 | 0.123 | -1.25 | 0.212 | -0.048 | 0.088 |
| White (%) | -0.001 | 1.001 | 0.179 | 0.01 | 0.993 | -0.021 | 0.353 |

 Due to multicollinearity with Texas indicator as well as race variables, dual status (%) was dropped from the final model. However, when the dual status variable is included in the model, the coefficient of the interaction term (Texas times post) remains insignificant.

Source: Dobson | DaVanzo analysis of CMS Limited Data Set Claims for 2019 through 2022.
Dobson | DaVanzo