Characteristics of All-Payer Patients with Frequent Hospitalizations in MA Acute Care Hospitals

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RESEARCH OBJECTIVES

Unplanned hospital readmissions are costly and have significant impacts on patient health and experience of care. Studies of Medicare Fee-for-Service beneficiaries have suggested that high proportions of unplanned readmissions could be contributed by a small group of patients[1]. The objectives of this study are to:

1. Assess the prevalence of frequently hospitalized patients among the all-payer population being served in Massachusetts acute care hospitals.

2. Assess the impact of frequent hospital users on hospital wide all-payer readmissions.

3. Describe the characteristics of frequently hospitalized patients.
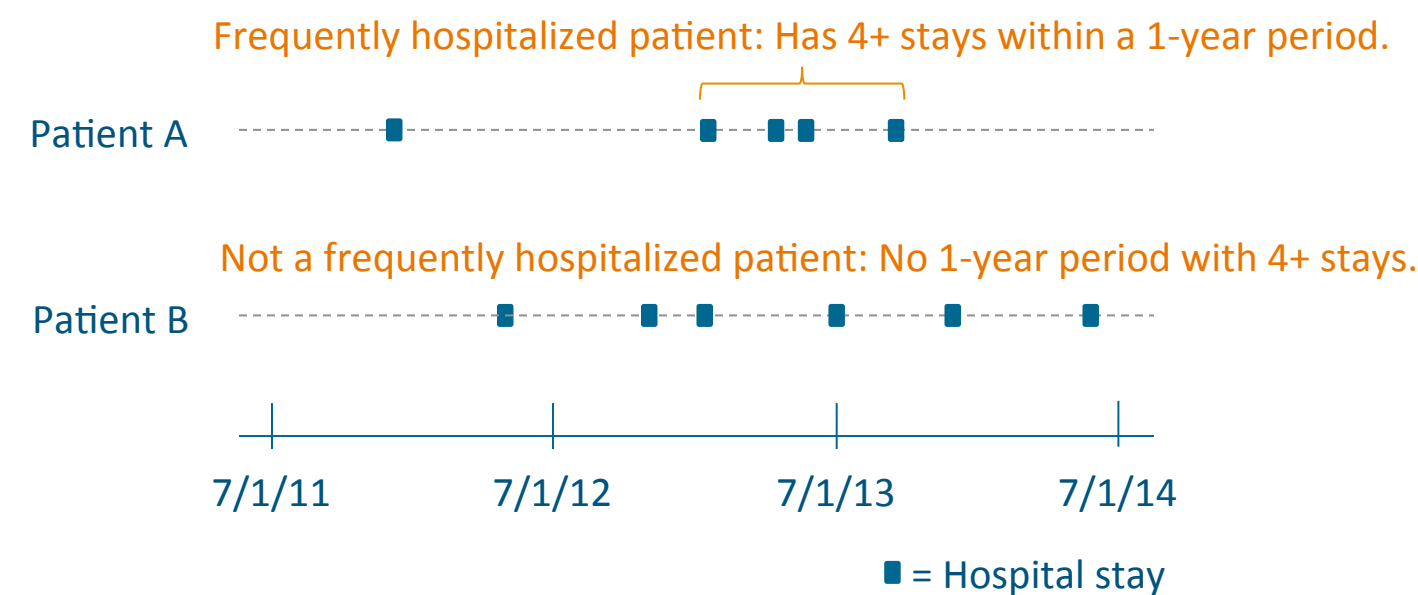
STUDY DESIGN

Study Population: Adult patients (18+) admitted to all acute care hospitals in Massachusetts from July 1, 2011 to June 30, 2014, with the following major exclusions:

- Discharges with a primary psychiatric diagnosis
- Obstetric discharges
- Discharges associated with cancer treatment or from cancer hospitals

Data Source: Center for Health Information and Analysis' Inpatient Hospital Discharge Database with stay-level discharge summary data as submitted by all acute care hospitals in Massachusetts.
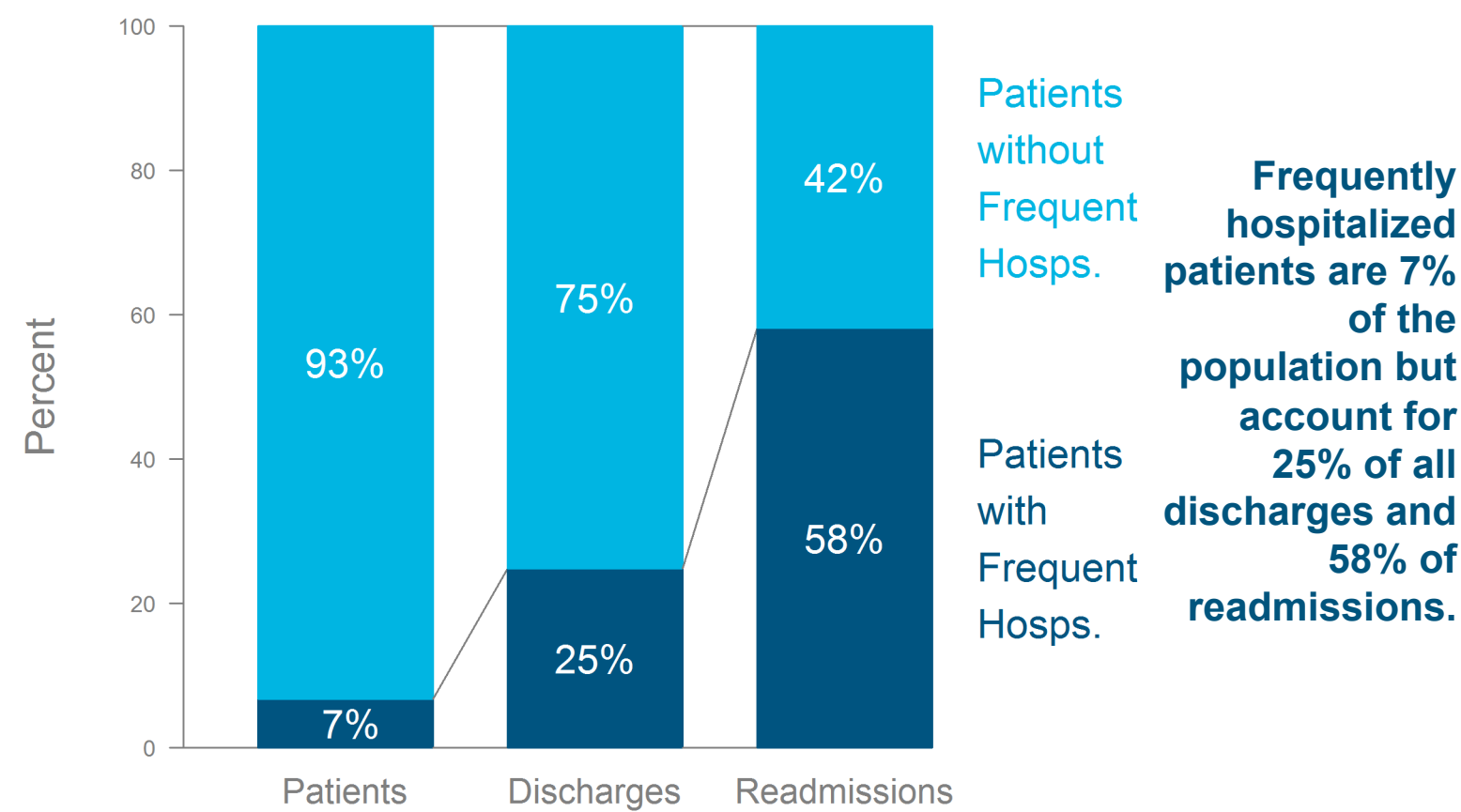
Readmissions Measure: Yale/CMS methodology for hospital-wide all-cause unplanned 30-day readmissions[2], adopted for the all-payer adult population in MA.

Definition of Frequently Hospital Patients: Patients with four or more hospital visits within any one-year interval during the three-year study period.
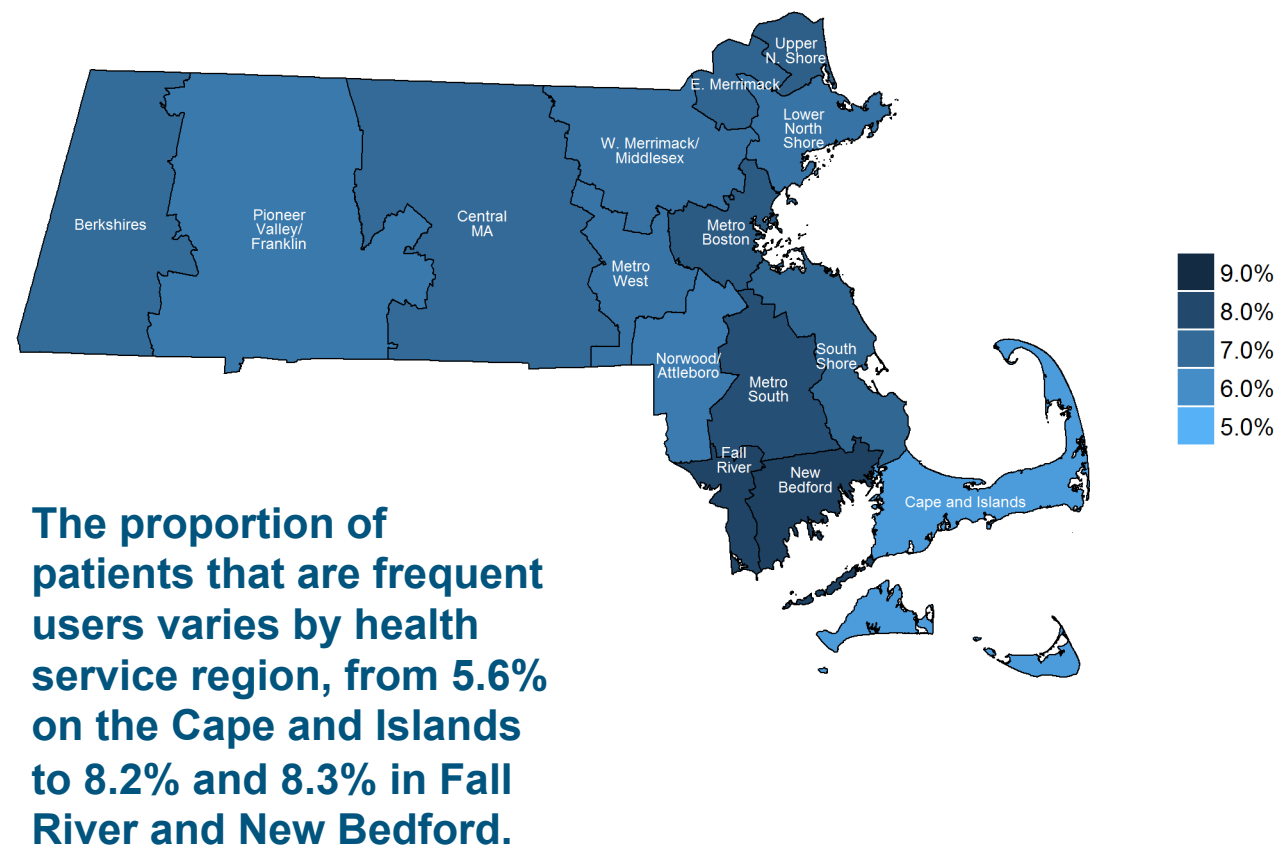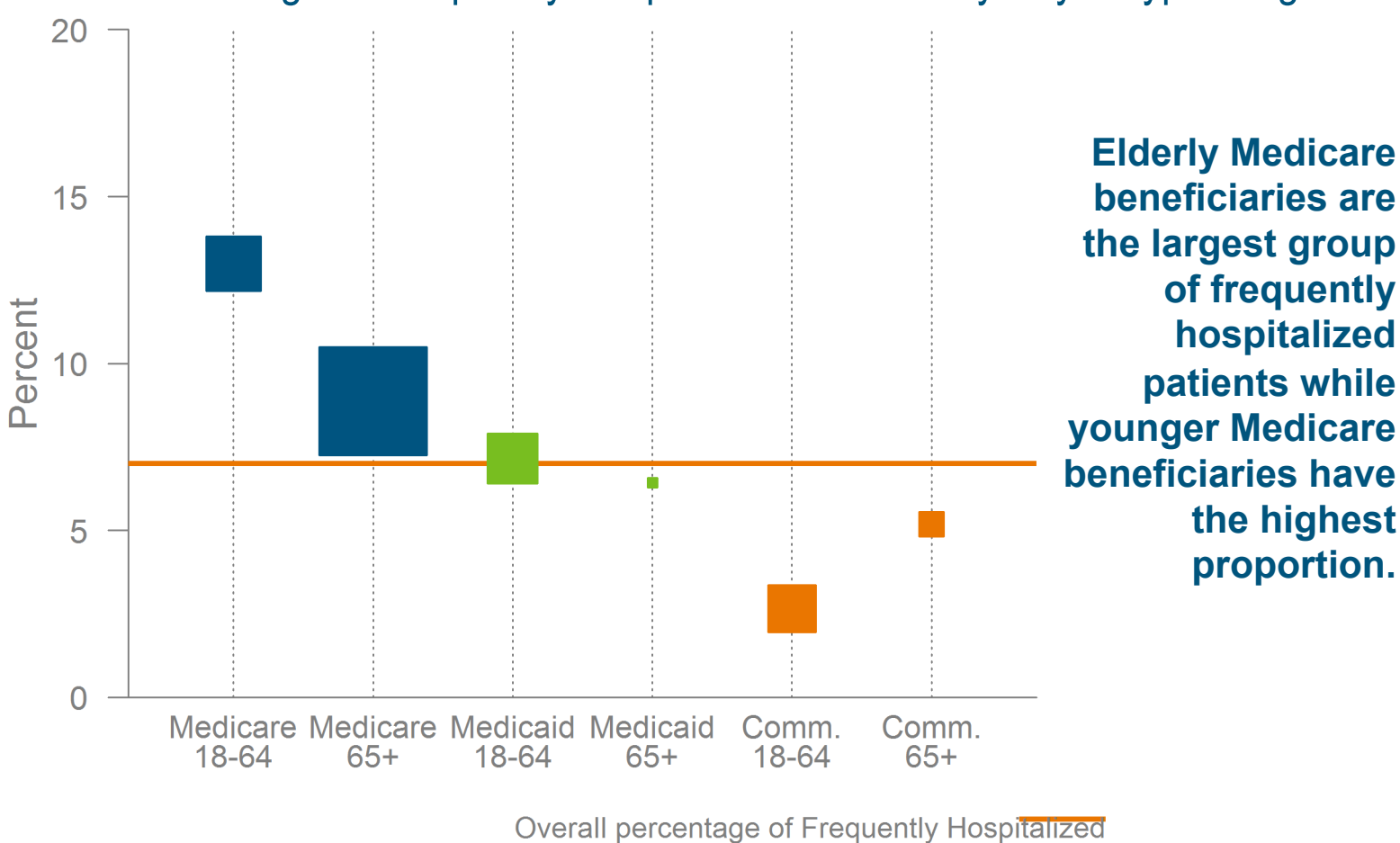
Frequently hospitalized patient: Has 4+ stays within a 1-year period.

Patient A

Not a frequently hospitalized patient: No 1-year period with 4+ stays.

Patient B

7/1/11   7/1/12   7/1/13   7/1/14

■ = Hospital stay

PRINCIPAL FINDINGS

1. All-Payer Readmissions Among Frequently Hospitalized Patients

Patients without Frequent Hosps.

Patients with Frequent Hosps.

- Patients: 93% / 7%
- Discharges: 75% / 25%
- Readmissions: 42% / 58%

Frequently hospitalized patients are 7% of the population but account for 25% of all discharges and 58% of readmissions.

2. Percentage of Frequently Hospitalized Patients by Payer Type & Age

Medicare 18-64, Medicare 65+, Medicaid 18-64, Medicaid 65+, Comm. 18-64, Comm. 65+

Overall percentage of Frequently Hospitalized

Elderly Medicare beneficiaries are the largest group of frequently hospitalized patients while younger Medicare beneficiaries have the highest proportion.

Note: The size of the squares in the figure is proportional to the number of patients with frequent hospitalizations. Payer type is based on expected sources of payments at the time of admission.

3. Percentage of Frequently Hospitalized Patients by Region of Patient Residence

9.0%
8.0%
7.0%
6.0%
5.0%

The proportion of patients that are frequent users varies by health service region, from 5.6% on the Cape and Islands to 8.2% and 8.3% in Fall River and New Bedford.

4. Percentage of Hospital Discharges Accounted for by Frequently Hospitalized Patients

Statewide percentage

Hospitals vary considerably in the extent to which they serve members of the frequent user population.
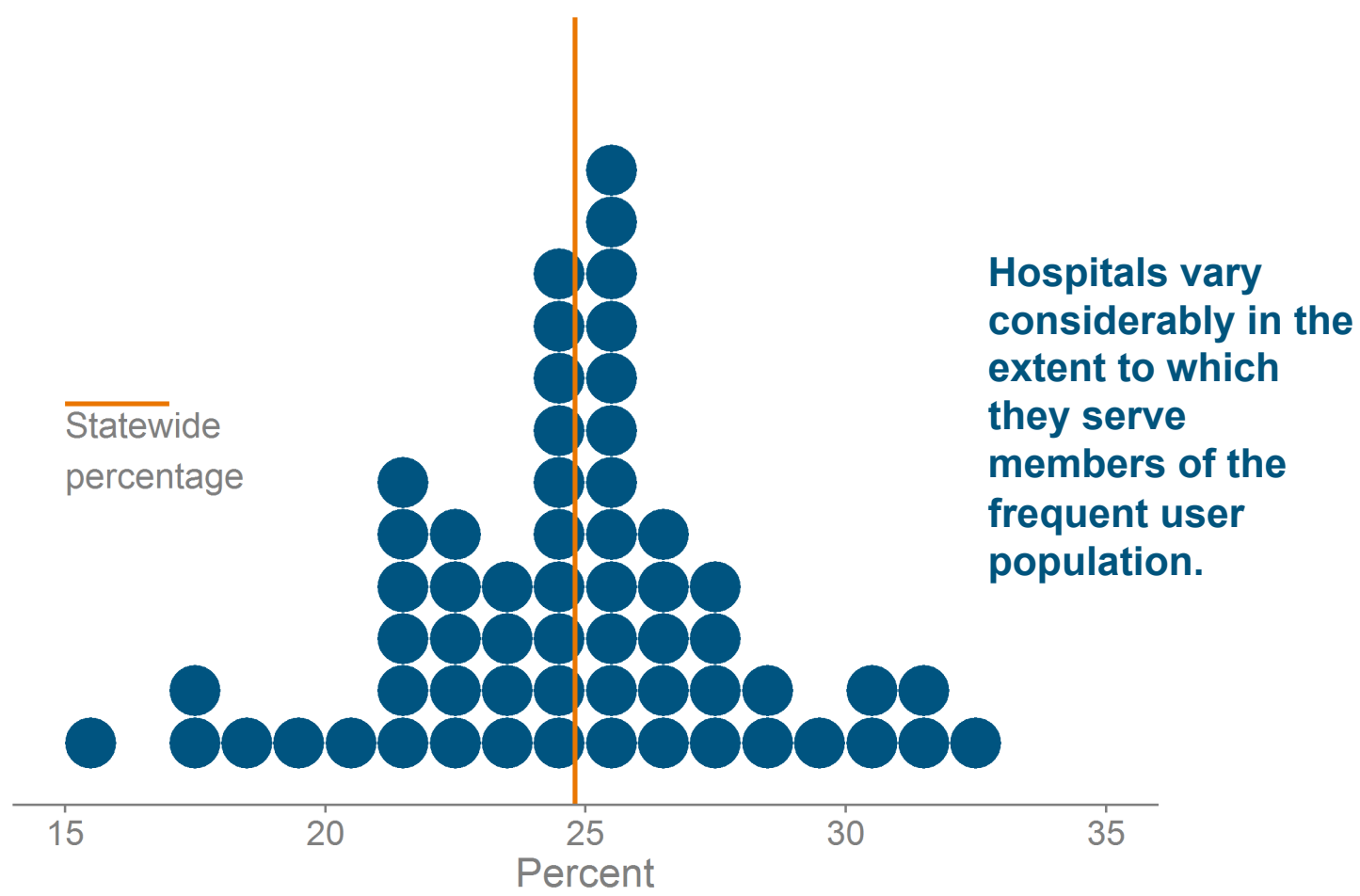
Note: Figure excludes two specialty hospitals.

CONCLUSIONS

- Frequently hospitalized patients, defined as those with four or more visits in a one-year period, constitute a small proportion of patients (7%) but account for a high proportion of discharges (25%) and readmissions (58%).

- The all-payer 30-day readmission rate among frequently hospitalized patients is 36.0%, more than four times the rate of other patients, which is 8.5%.

- Elderly Medicare patients are the largest group, while younger Medicare beneficiaries have the highest proportion of the frequently hospitalized.

- There is slight geographic variability in the proportion of frequently hospitalized patients within Massachusetts: Fall River and New Bedford have the highest concentrations.

- The population of frequently hospitalized patients is not evenly distributed across hospitals: The percentage of discharges that are accounted for by frequent users varies by a factor of two among hospitals.

IMPLICATIONS FOR POLICY

- Identifying frequently hospitalized patients may help target efforts to improve care, reduce unplanned readmissions, and reduce healthcare costs.

- Massachusetts is beginning a program of public reporting around readmissions and frequent hospital use in the all-payer population. This program publishes statewide figures and hospital-specific readmissions profiles.

- Public reporting from centralized all-payer data sources on readmissions and frequent hospital use is essential because such information is otherwise difficult or impossible to obtain for providers and other stakeholders working to improve healthcare.

- The Massachusetts Center for Health Information and Analysis will continue to explore and develop analytics and methodology for public reporting on hospital utilization and quality.

CONTACT & REFERENCES

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1. Jiang, H.J., Weiss, A.J., Barrett, M., L., & Sheng, M. (2014). Characteristics of hospital stays for super-utilizers by payer, 2012. *Healthcare Cost and Utilization Project Statistical Brief #190*. Available from http://www.hcup-us.ahrq.gov.

2. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation. (2015). 2015 Measure updates and specification report: Hospital-wide all-cause unplanned readmission measure - version 4.0). New Haven, CT: YNHHSC/CORE. Available from: http://www.cms.gov/.