

Background

- In the United States, a small number of patients, labeled as super-utilizers accounts for a disproportionately large fraction of healthcare expenditure. Their characteristics would be helpful to various stakeholders to target interventions aimed at reducing the disproportionate use of the healthcare system.

Aim

- To study the characteristics of super-utilizers and their impact on healthcare utilization among patients admitted with gastrointestinal diseases.

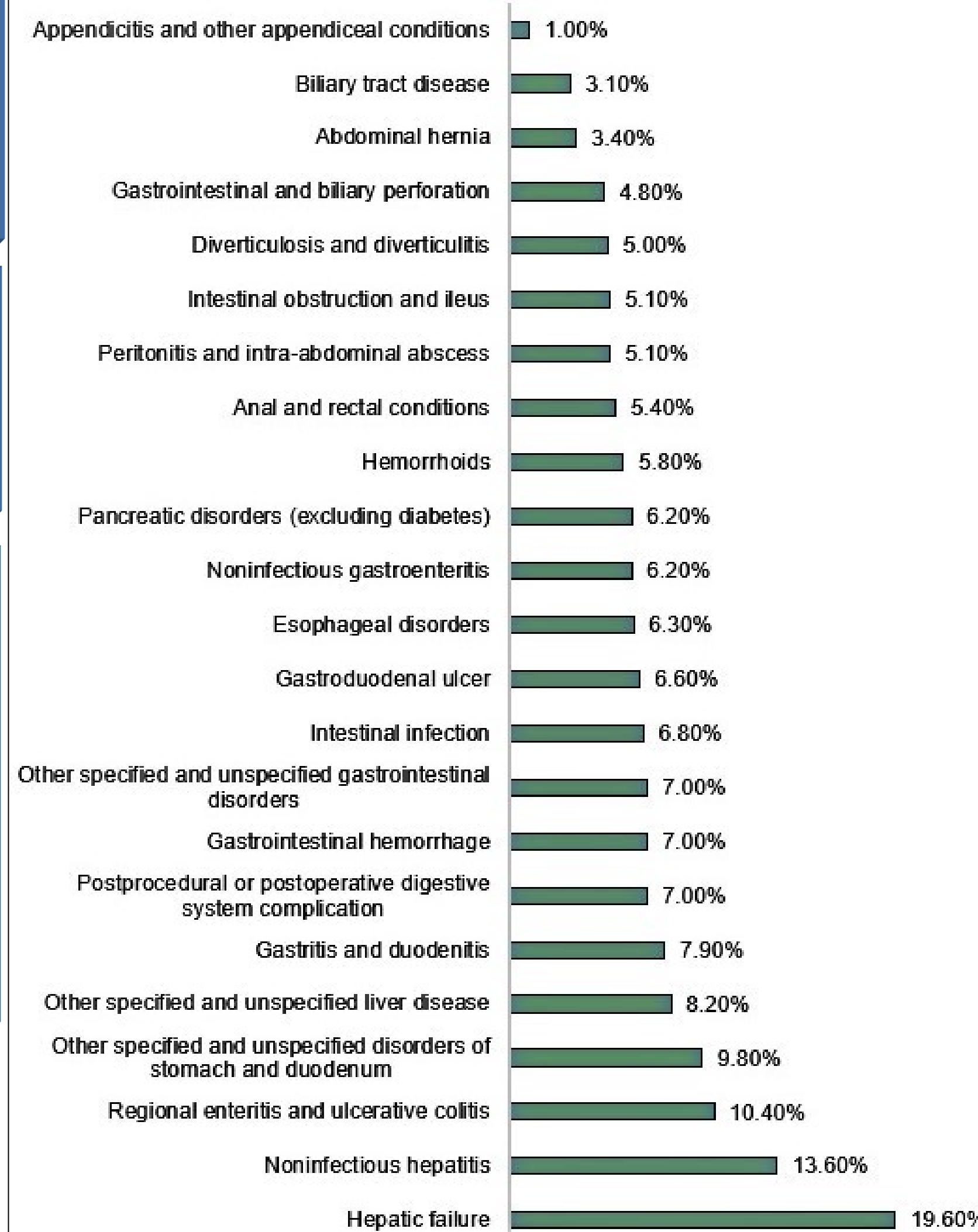
Methods

- A retrospective cohort study on years 2019 nationwide readmission database (NRD)
- **Definition**-Agency for Healthcare Research and Quality's definition for super-utilizers (2 standard deviations above the average number of hospital stays for patients in each payer category which were ≥ 4 for Medicaid/Medicare and ≥ 3 for privately /uninsured in 2019).
- **Inclusion criteria:** Adult patients admitted with a GI diagnosis

Results

- Of 1,704,913, 6.3% were categorized as super-utilizers
- The highest proportion of super-utilizers was among patients with hepatic failure (19.6%), non-infectious hepatitis (13.6%), and inflammatory bowel disease (10.4%) (Fig 1).
- On multivariate analysis, the comorbidity burden (OR 1.7), disease severity (OR1.4), and teaching hospital (OR 1.2) were independently associated with super-utilizers.
- Higher proportion of super-utilizers were admitted for medical reasons(83.4 % vs 67.3%; $p < 0.01$)

Fig 1. Percentage of super-utilizers among various GI pathologies resulting in hospitalization in 2019.

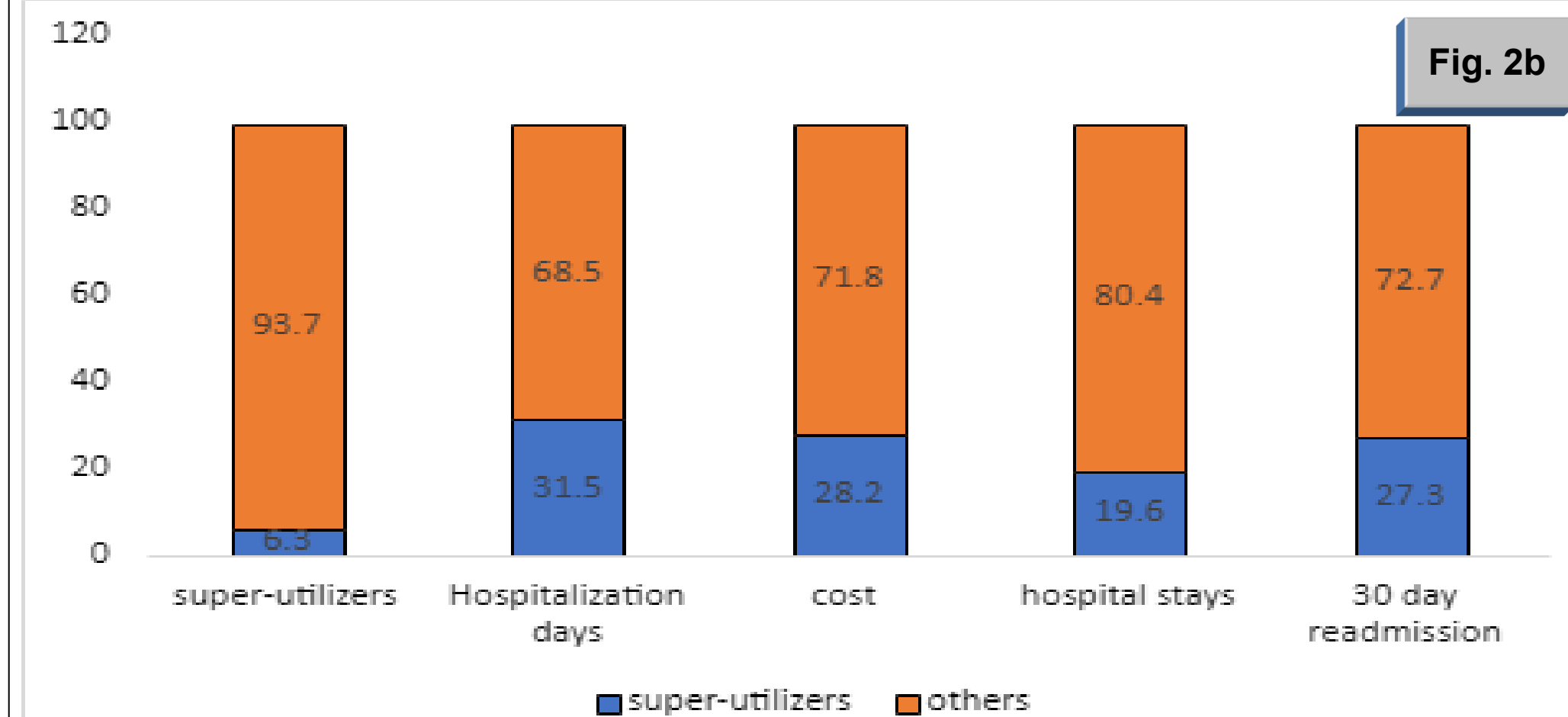
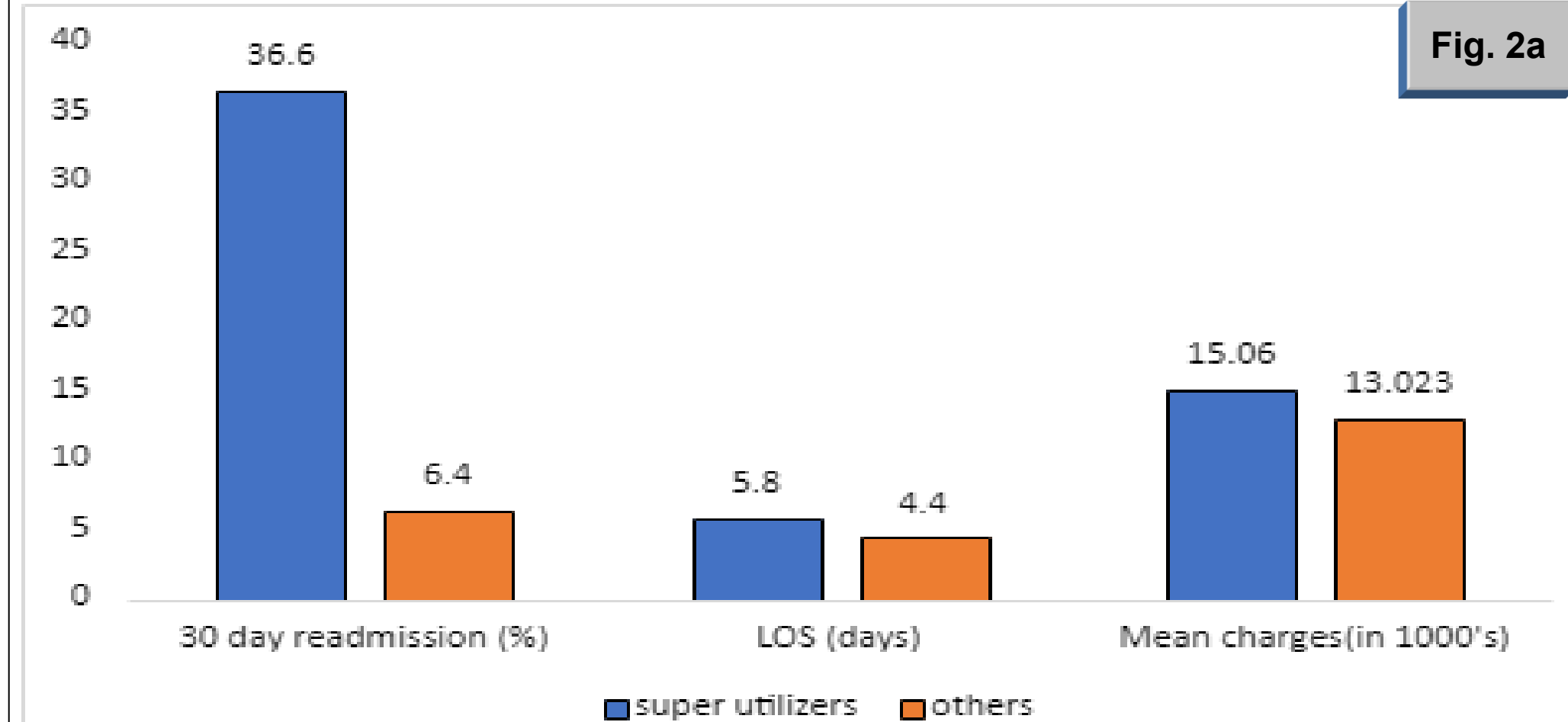


-30-day readmission rates were six times higher among super-utilizers (fig. 2a)

-LOS and mean charges per stay were significantly higher among super-utilizers ($p < 0.01$) (fig 2a)

-Although only 6.3%, super-utilizers accounted for a disproportionately higher fraction of hospitalization days, costs, hospital stays, and 30-day readmissions

Fig 2. Healthcare utilization among super-utilizers (a) comparison of 30-day readmission rates and healthcare utilization between super-utilizers and others (b) Share of healthcare utilization and 30-day readmission by super-utilizers



Conclusions

- A small fraction (6.3%) of patients admitted with a GI diagnosis were classified as super-utilizers.
- Comorbidity burden, disease severity, and teaching hospital were strongly associated with super-utilizers.
- Super-utilizers accounted for a disproportionate share of hospital days, costs, stays, and 30-day readmissions compared to other patients.