

For Many Patients Who Use Large Amounts Of Health Care Services, The Need Is Intense Yet Temporary

Take Away Points

- About 4 out of 5 ‘super-utilizer’ patients had multiple comorbid, chronic conditions, including mental health disorders. However, 1 out of 5 did not fit the profile suggested by previous studies—this group accounted for 27% of the spending on super-utilization.
- There is population stability, but individual variability in super-utilization status.
- Super-utilizers are heterogeneous and amenable to different interventions. But fortunately, this study identified clinically defined subgroups (emergency inpatient dialysis, terminal cancer, orthopedic surgery patients, serious mental health diagnosis, and patients with multiple chronic diseases) who may be more amenable to targeted interventions.

The Issue

Super-utilizers (5-10% of Medicare and Medicaid) account for 50% or more of total spending by accumulating multiple emergency room visits and hospital admissions. To address this problem, health policy analysts have developed different models and programs to help identify super-utilizers, enhance their access to community-based and primary care healthcare, and reduce the cost of super-utilization. However, little is known about the characteristics of super-utilizers, especially non-Medicaid patients, and their risk factors. Similarly, super-utilizer intervention programs that target low-income publicly insured or uninsured individuals are relatively unstudied.

Source

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Study Methods and Design

The purpose of the study was to describe the chronic disease burden and social determinants of super-utilizers’ health at a population level, assess the persistence of super-utilizer status at the individual level, quantify cost trends over time under current care models, and identify subgroups that are amenable to subgroup-aligned intervention strategies. Study setting was Denver Health, an integrated safety-net health system and the largest provider to Medicaid and uninsured patients in Colorado. Denver Health includes outpatient and inpatient services and functions as an HMO and public health department.

The study used clinical, demographic and financial data from Denver Health’s data warehouse, and defined super-utilizers as patients who “during the study period May 1, 2011-April 30, 2013 had 3 or more hospitalizations in a prior 12-month rolling calendar period or had a serious mental health diagnosis and 2 or more hospitalizations in that look-back period.” Researchers identified 4,774 adult patients who met the definition of super-utilizer and had Medicare, Medicaid, commercial insurance or no insurance. Cross-sectional predictive analyses were employed to review population sociodemographic characteristics, while longitudinal analyses were performed to quantify persistence of super-utilizer status and mortality.

Key Findings and Limitations

- During the study period, about 3% of the super-utilizers accounted for 30% of the total charges, excluding specialty fees.
- Although the population-level characteristics were stable, super-utilizers were not stable at the individual level—super-utilizers “cycled into and out of super-utilizer status on a monthly basis.” After seven months, less than half of those identified as super-utilizers met the criteria and by twelve months, only 28% remained super-utilizers.
- For the cohort examined in this study, the baseline cost of super-utilization per person was \$113,522, but reduced by about 60% after two years—although the cost analysis did not control for patients who died and those who transferred out of the Denver Health system.
- Analyses revealed heterogeneity among super-utilizers—82% had multiple chronic conditions, 41% had serious mental health diagnoses, and 30% reported homelessness.
- Interestingly, 18% of super-utilizers did not share common characteristics reported in literature—these patients had high health literacy scores, no chronic conditions, etc., but accounted for 27% of the total spending for super-utilization in the year before identification.

“Analysis of super-utilizers’ patterns of health care seeking can inform decisions about when, where, and how to optimally intervene. Embedding complex case management teams in regular primary care practices might work well for super-utilizers who have existing primary care relationships but might be less effective for those individuals with weak or no primary care attachments.”

Final Thoughts

- With the shift from volume to value-based payment, super-utilizers represent an important patient population for targeted interventions. Unfortunately, no one solution fits all. Given the marked heterogeneity in the patterns of super-utilization, specialized models are needed to identify these patients and address their risk factors. The overarching goal should be development of programs that align with the needs of each group or category of super-utilizers.
- Although there is stability in the characteristics of the entire population of super-utilizers, there is instability in individual patient status as a super-utilizer, with significant implications for program design and evaluation. While most patients shift in and out of super-utilization, a few others have persistently high utilization; hence the need for differentiated programs for each group. For example, programs for temporary super-utilizers should be time-sensitive, brief and efficient.