The Use of Emergency Department Services for Non-Emergent Conditions among Adults with Disabilities

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Background

- Eliminating disparities in health care access among individuals with disabilities is an important concern for policymakers
  - The Agency for Healthcare Research and Quality (AHRQ), Healthy People 2020, and The Affordable Care Act (ACA) address issues regarding individuals with disabilities and health disparities
- Individuals with disabilities are disproportionately represented in emergency department (ED) utilization
  - Individuals with disabilities account for approximately 40 percent of annual ED visits for adults aged 18 to 64 years
- Individuals with disabilities are more likely to have other characteristics associated with high ED use, such as belonging to a minority group or having lower socioeconomic status
- Prior research has shown that many ED visits were potentially preventable if appropriate primary care had been received

Objective

- Using data from the 2001-2007 Medical Expenditure Panel Survey, we examine the relationship between disability and:
  - The likelihood of ED use
  - The frequency of ED use
  - Preventable ED use

Data

- We used data from the MEPS Household Component (MEPS-HC)
  - MEPS is a nationally representative survey of the civilian non-institutionalized population
- We pooled five MEPS panels for years 2001 to 2007 to attain a sample of 8,846 adults with disabilities, out of 39,934 total individuals
- Detailed ICD-9 codes are required to create our measures on non-emergent and potentially avoidable ED use
- We obtained Institutional Review Board approval to access the detailed codes and conducted analyses at the AHRQ Data Center

Methods

- We defined an individual as having disability if he or she had difficulties with sensory, physical, cognitive, functional, mental health, or work-related functioning
- We performed logistic regression analysis to measure whether individuals had any ED visit, five or more ED visits, avoidable ED visits, or non-emergent ED visits.
  - Due to the complex survey sampling design, the models were adjusted for clustering effects of the sample selection at the primary sampling unit level
- We analyzed the number of ED visits per individual using negative binomial regression
- We controlled for the following demographic variables:
  - Age, race, ethnicity, marital status, education, income relative to federal poverty level, insurance status, having a usual source of care, self-reported health status, and region

Discussion

- Relative to those without disabilities, adults with disabilities had higher odds of ED use across measures despite being more likely to have a usual source of care
  - An exception to this was regarding non-emergent care
- Adults with a person as a usual source of care had lower odds of both preventable and non-emergent ED use relative to those with no usual source of care
- Women had higher ED use rates than men across all measures
- Non-Hispanic Blacks had higher ED use across most measures than non-Hispanic Whites
- Having public insurance increased the odds for overall ED use and increased the odds of having five or more visits, but not the odds of having non-emergent or avoidable visits

NYU Algorithm

- We used the New York University (NYU) ED Classification Algorithm to categorize ED visits by clinical characteristics.
  - 1. Non-emergent – Care was not required within 12 hours
  - 2. Emergent/Primary Care Treatable – Care was required within 12 hours, but could have been provided in a primary care setting
  - 3. Emergent, ED Care Needed, Preventable/Avoidable – ED care was required but the condition was potentially preventable or avoidable if adequate ambulatory care had been received in a timely manner
  - 4. Emergent, ED Care Needed, Not Preventable/Avoidable – ED care was required and ambulatory care treatment could not have prevented the condition
- The NYU algorithm provides a probability for each diagnoses
- We created two different classification schemes:
  - Avoidable: If the probability of a visit being in categories 1-3 was greater than the probability of the visit being in category 4
  - Emergent: If the probability of a visit being in categories 1-2 was greater than the probability of the visit being in category 4

NYU Classification

- ED Use ICD-9 Code
  - Emergent
  - Non-Emergent
  - ED Care Needed
  - Preventable/Avoidable
  - Not Preventable/Avoidable
  - Unclassified

References


Acknowledgements

Funding for this project was provided by the National Institute on Disability and Rehabilitation Research.