TRENDS IN UNITED STATES EMERGENCY DEPARTMENT VISITS AND CHARGES, 2010-2016

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Background

- Care in Emergency Departments (EDs) have been estimated to represent five, approximately $200 billion, of United States (US) health care spending [1] and the number of visits has been increasing substantially [2].
- However, changes in associated ED charges and underlying trends in common clinical complaints have not been examined.

Objectives

- To describe the national trends in emergency department visits and associated charges in the United States (US) from 2010 to 2016.

Methods

- A retrospective analysis of ED visit data from the National Emergency Department Sample (NEDS) from 2010 through 2016.
- Visits were stratified by age, sex, payer, and diagnostic category. Survey analysis techniques accounted for clustering and stratification of the visits.
- The total annual ED visits and charges associated with the visit were reported.
- The total ED visits and charges were reported for the top five diagnoses. Trends in ED utilization and charges over time were evaluated using variance-weighted regression.

Results

- Between 2010 and 2016, the number of US ED visits increased from 128.9 million to 144.8 million.
- The annual increase in ED visits was 12.31% and the compound annual growth rate (CAGR) was 1.95%. [Figure 1]
- The overall population increased by 4.4% and the CAGR was 0.73%. [Table 1]
- The average charge per visit increased from $2,061 (SD $2,962, median $1,180) to $3,516 (SD $5,285; median $1,959; p <0.0001). [Figure 2]
- The increase in charges was 56.0%, the CAGR was 9.31%, and the total estimate of ED charges was $509 billion in 2016. [Figure 1]
- The top five reasons for an ED visit in 2016 were: abdominal problems (14.70 million); upper respiratory infections (URI) (6.59 million); chest pain (6.34 million); mental health and substance abuse (MH) (6.32 million); and superficial injury (5.55 million).
- The average charge per visit was $5,111 for an abdominal problem, $1,481 for an URI, $7,096 for chest pain; $3,116 for MH, and $2,715.

Results (cont.)

Figure 1. Cumulative percentage change in Emergency Department Visits per 1000 Population, Average Charge per Visit, and United States Population Growth, 2010-2016

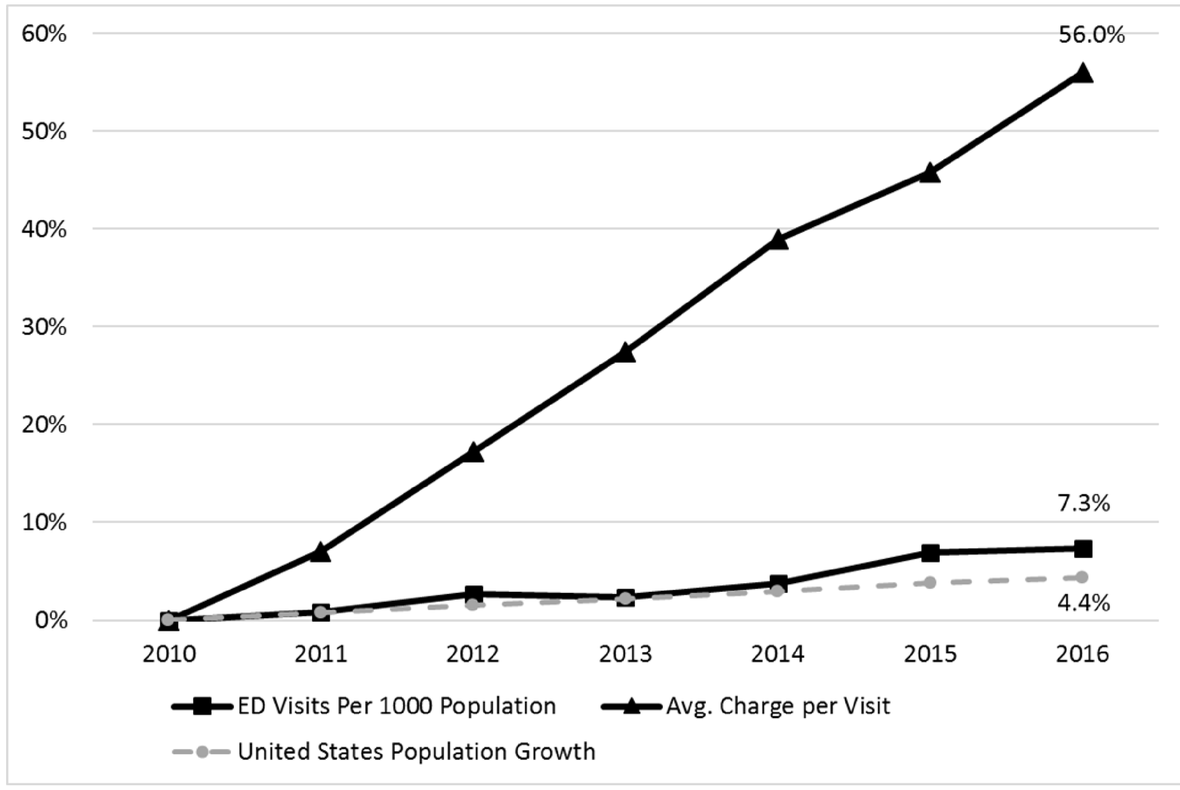
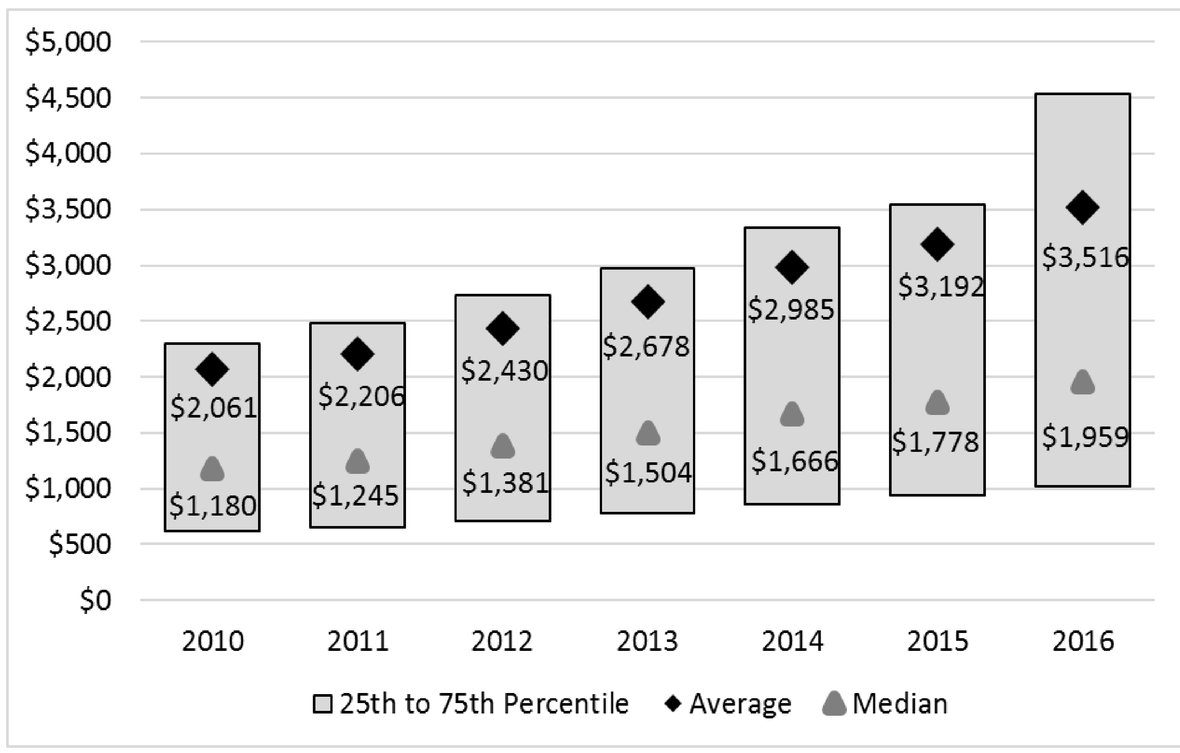


Figure 2. Emergency Department Charge per Visit, 2010-2016



Conclusion

- These data show the population rate for ED visits is growing at a CAGR of 1.21% and mean charges are growing even faster at a CAGR of 9.31%.
- The top 5 reasons for visits may represent focus areas for increasing the value of ED care.
- The economic burden associated with the increasing ED visits and charges may challenge the sustainability of the US healthcare system.

References

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