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Association Between Race/Ethnicity & Wait Time in Adults Presenting With Emergent vs Urgent Symptoms

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**Objective:** To analyze how changes in coverage status from 2011-2016 as a result of the ACA impacted ED utilization, and determine which populations were more or less likely to use the ED for non-emergent purposes.

**Methods:** We compared changes in the severity of ED visits and sociodemographic factors at an academic and community hospital to analyze longitudinal trends pre- and post-ACA. We used poverty level of the zip code of residence as a proxy for patient level socioeconomic status (SES). Patients were categorized as high ( $\leq 9.9\%$  of households below poverty), intermediate (10.0-19.9%), or low ( $\geq 20.0\%$ ) SES. We measured ED severity according to the validated Ballard algorithm. Multi-level logistic regression was employed to determine whether the probability of having a non-emergent ED Visit changed after the ACA. We defined the pre-ACA period as January 1, 2011-December 31, 2013, and the post-ACA period as April 1, 2014-December 31, 2016. We excluded ED visits that occurred from January 1, 2014-March 31, 2014 due to uncertainties about coverage status as insurers adjusted to the new ACA regulations.

**Results:** Our results showed that a lower proportion of ED visits were non-emergent post-ACA compared to pre-ACA ( $p < 0.001$ , 95% confidence interval [CI] [0.72-0.75]). Compared to insured patients, uninsured patients showed a 1.12 fold increase in odds of having a non-emergent visit to the ED ( $p < 0.001$ , 95% CI [1.08-1.16]). Compared to white patients, black patients had a 1.39 fold increase in odds ( $p < 0.001$ , 95% CI [1.34-1.44]) and Asian patients had a 1.14 fold increase in odds of having a non-emergent ED visit ( $p < 0.02$ , 95% CI [1.03-1.27]). Compared to non-Hispanic patients, Hispanic patients showed a 1.77 fold increase in odds ( $p < 0.001$ , 95% CI [1.71-1.84]). Compared to patients in the high SES category, patients with an intermediate SES had a 1.16 fold increase in odds of visiting the ED for a non-emergent reason ( $p < 0.001$ , 95% CI [1.12-1.19]).

**Conclusion:** Our results suggest a lower proportion of ED visits were non-emergent after implementation of the ACA. However, some patient populations remain at risk for ED overutilization for non-emergent needs.

## 4 Association Between Race/Ethnicity & Wait Time in Adults Presenting With Emergent vs Urgent Symptoms

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**Objectives:** Evidence suggests that increasing wait times in the emergency department (ED) leads to detrimental health outcomes. Specific race/ethnic groups were shown to have varying wait times, which could lead to health disparities. We seek to determine

whether there is an association between race/ethnicity and wait time on the bases of emergent and urgent presentation in ED.

**Methods:** We performed analysis of adult participants of the 2012-2014 National Hospital Ambulatory Medical Care Survey (NHAMCS) who arrived at the ED presenting with selected emergent (chest pain/shortness of breath) or urgent (abdominal pain/back pain) symptoms. Independent associations were assessed using logistic regression models. Stratification by emergent and urgent symptoms of presentation was performed to examine potential effect modification.

**Results:** We studied 9396 patients, of which 60% were Non-Hispanic whites, 22% were non-Hispanic blacks, 15% were Hispanics and 3% were other races. Overall, 47% of non-Hispanic blacks waited for  $> 30$  minutes compared to 38% of non-Hispanic whites. In the stratified adjusted analysis, among participants with emergent symptoms, non-Hispanic blacks had significantly higher odds of waiting  $> 30$  minutes as compared to non-Hispanic whites (odds ratio [1.58], 95% confidence interval [1.10-2.27]). This association was not significant for the non-Hispanic blacks presenting with urgent symptoms. No differences were found for the other race categories.

**Conclusion:** Our findings suggest that there are disparities in waiting times according to race/ethnicity. Compared to non-Hispanic whites, non-Hispanic blacks are more likely to have longer waiting times when presenting with emergent symptoms at EDs across the United States.

## 5 Trends of Freestanding Emergency Department Visits in Florida

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**Objectives:** Little is known about the characteristics of freestanding emergency department (FSED) visits. Proponents of FSEDs cite potential benefits including lower cost, waiting time, reduced overcrowding in traditional EDs, and overall convenience. However, previous studies on emergency care access and expenditure have suggested that increased access to emergency care may lead to an increase utilization of emergency departments for lower acuity patients, resulting in higher overall health care expenditures. The objective of this study is to examine trends of FSED visits.

**Methods:** Publicly accessible statewide emergency department (ED) data during years 2014-2016 were collected. Total FSED visits per quarter were plotted. Trends in total visits, top diagnoses treated, and average charges of those conditions were noted.

**Results:** Total FSED visits in 2016 has more than doubled (203%) from total FSED visits in 2014. FSED visits have captured increasingly more of all ED (traditional ED and FSED)