occurrence to hospital arrival, impact the accident fatality rates.

Aim/Purpose To assess the relationship between fatal road accidents per county and accident response time.

Methods/Approach Data were pooled across eight years (2010 - 2017) from the Fatality Analysis Reporting System dataset. A total of 3,193 counties and county-equivalents were included in the study. The outcome variable was the fatality rate per county, defined as the yearly fatal counts per yearly county population. The predictor variables were the average duration of accident-to-notification, accident-to-EMS, accident-to-hospital, notification-to-EMS, notification-to-hospital, and EMS-to-hospital arrival times. The covariates were rurality, county-level racial, gender, age, unemployment, gross domestic product, and hospital utilization proportions. Measures of association were determined with Mann-Whitney U and Kruskal-Wallis tests. A negative binomial time series regression model was used to estimate the relative risks with significance set at a 95% confidence interval.

Results The median fatality rate per county was 6.90 per 100,000. There was a statistically significant difference in the median accident response times across the eight years ($p < 0.05$). The average accident response times were significantly higher in rural counties compared to non-rural counties. In the unadjusted model, fatality rate increases by 1.9% (RR: 1.019; 95% CI: 1.016–1.022) and 3.0% (RR: 1.03; 95% CI: 1.028 – 1.032) for every minute increase in accident-to-notification and notification-to-EMS arrival times, respectively. In the adjusted model, a minute increase in accident-to-EMS and notification-to-EMS arrival times increases the fatal risk by 1.6% (RR: 1.016; 95%CI: 1.014–1.017) and 2.9% (RR: 1.027–1.031) respectively.

Conclusion Response time varies widely between rural and non-rural counties. Accident response events from accident occurrence to EMS arrival impact the greatest on fatality rate.

Significance/Contribution There is a need for more rapid response, especially in rural counties.

Poster Presentations

13 THE EPIDEMIOLOGY OF POLICE-REPORTED PEDESTRIAN INJURIES TREATED IN NORTH CAROLINA EMERGENCY DEPARTMENTS: A FOCUS ON HEALTH DISPARITIES AND SERIOUS INJURIES

¹Katherine Harmon, ²Katherine Petcolas, ³Amy Ising, ³Anne Walleranna. ¹University of North Carolina Highway Safety Research Center; ²North Carolina Department of Health and Human Services; ³Carolina Center of Health Informatics, Department of Emergency Medicine, University of North Carolina at Chapel Hill

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Statement of Purpose Older adults, people of color, and residents of lower-income communities are disproportionately represented in pedestrian fatalities. Fatalities, however, represent a small proportion of all pedestrian traffic-related injuries. We linked crash, emergency department (ED) visit, and American Community Survey (ACS) data to examine the socio-demographic and crash characteristics of pedestrian injuries and their association with serious injuries in North Carolina (NC).

Methods/Approach We linked information for pedestrians from 2017 NC police-reported crashes to population-based ED visit and ACS data using hierarchical deterministic linkage methods.

We used descriptive epidemiologic methods to calculate injury incidence rates and to examine the relationships among patient, socio-demographic, and crash characteristics and serious injuries, defined using an adapted definition of 'serious injury' developed by the National Transportation Safety Board.

Results We linked 45% percent of police-reported pedestrian injuries to NC ED visit data (N=1,398). The 2017 rate of police-reported pedestrian injuries treated in NC EDs was 13.6 visits per 100,000 person-years. Rates per 100,000 person-years (in parentheses) were highest among adults 20–29 years of age (19.2), higher among men (15.5) than women (10.6), and higher among blacks (22.7) than whites (8.2). Patient and socio-demographic characteristics associated with serious injuries included age, sex, race/Hispanic ethnicity, expected source of payment, and county poverty level. Crash characteristics associated with serious injuries included posted speed limit, ambient light, number of lanes, and striking vehicle type.

Conclusion Pedestrian injuries are not distributed evenly across the NC population. Communities of color and counties with high levels of poverty are disproportionately impacted. Key crash characteristics are associated with rates of serious injury.

Significance/Contribution to Injury and Violence Prevention Science Policies, interventions, and other countermeasures designed to prevent pedestrian injuries should recognize and address social disparities and promote health equity.

17 IMPACT OF SOCIOECONOMIC STATUS/RACE ON PREVENTABLE FALLS INJURIES IN PEDIATRIC PATIENTS

Aashka Shah. Tufts Medical Center

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Statement of Purpose Falls are the leading cause of ER visits for nonfatal injuries, with approximately 40% of injuries sustained in toddlers. The aim of this study is to better understand the impact socioeconomic status and race/ethnicity have on preventable falls in children so as to better target injury prevention program initiatives.

Methods/Approach Interviews were conducted using a modified fall-related safety questionnaire to parents of children under the age of 3 (n=40) on the medical/surgical in-patient floor of a Level 1 Trauma Center.

Results Overall, 50% of children sustained a fall-related injury (most commonly falling from a bed or walking), with 65% of those children on Medicaid. In addition, 38% of parents (47% Hispanic and 20% Black) reported leaving their child alone on a bed without a railing. Nearly 33% of parents (46% of which have a high school diploma or less) reported not using safety guards on all windows. Parents reported not using stair gates 48% of the time, with 55% of those parents having completed less than a Bachelor's Degree. Also, 67% of parents (all on Medicaid) reported their child wore a helmet 'sometimes' or 'never' while riding a bicycle. Even though 79% of parents 'strongly agreed' to having the knowledge to protect their child from being injured by a fall, 63% of parents reported 'sometimes' or 'rarely' watching their child when on playground equipment.

Conclusion Certain populations may be less likely to understand the importance of injury prevention. The relationship of socioeconomic status, race/ethnicity, parental safety measures, and preventable injuries should be further studied in order to