Background Emergency Medical Services (EMS) provide effective and coordinated care to people in need due to a medical emergency, in both hospital and pre-hospital settings. A proper and opportune care is associated with less mortality and disability. In Mexico, no information is available about the association of the opportunity of EMS response and its results in terms of health outcomes.

Methods Information from all patients with Road Traffic Injuries (RTI) was collected through an epidemiological surveillance system between 2012–2014 in two general hospitals located in two Mexican cities. A multinomial logistic regression model explored the association between health consequences (0 = received care in hospital emergency rooms <24 hrs, 1 = was hospitalised, 2 = was permanently disabled and 3 = died) with opportunity of EMS (quantified in terms of time since the injury occurred until they received EMS care) adjusting by different covariables of interest: sex, age, Injury Severity Score, received pre-hospital care (PHC), type of road user, use of safety devices, alcohol consumption 6 hrs previous to the event.

Results 2,575 people injured received EMS in both hospitals. Of them, 64% required care in hospital <24 hrs, 27% were hospitalised, 6% suffered permanent disability and 3% died. About 47% received PHC in León and 38% in Guadalajara. Time to access EMS was 32 min in Guadalajara and 38 in León; those who received PHC had lower times compared to those who did not in both cities. Opportunity of EMS was only associated to being hospitalised: the lower the time, the lower the likelihood of being hospitalised adjusting by covariables of interest. According to our data, opportunity of EMS was not statistically associated to disability and death.

Conclusions Authorities should promote strategies to comprehensively evaluate and improve quality as well as opportunity of EMS care in both cities.

Fire Safety and Burn Injuries

Post Tue 2.20

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EVALUATING DISABILITY IN ADULT BURN INJURY PATIENTS TREATED AT A TERTIARY-CARE BURN UNIT IN KARACHI, PAKISTAN: A LONGITUDINAL STUDY USING WHO DISABILITY ASSESSMENT SCHEDULE II

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Background Disability after burn injury is not assessed in the context of Pakistan. This study assesses disability among adult burn injury patients presenting to a burn unit in Karachi, Pakistan.

Methods This longitudinal study was conducted at a burn centre in Karachi, Pakistan. Adult patients (>18 years) who were discharged after 24-hour admission were enrolled from August 2014–March 2015. Baseline assessment before discharge and follow-up at 2, 6 and 12 weeks after discharge via telephone was done using 12-item WHODAS 2.0 (5 -point likert-scale; 1 = none; 2 = mild; 3 = moderate; 4 = severe; and 5 = extreme)

related to cognition, mobility, self-care, getting along, life activities and participation. The score range was 12–60 with higher score being worse. Ethical approval was taken from collaborating and participating sites.

Results Of the 59 eligible patients, 53 completed all follow-ups. There were 69.8% males. Mean age of all patients was 36.8 ± 14.0 years, 71.7% were married and 17.0% had no/informal education. About half the patients were breadwinners. More than half of burn incidents occurred at home. Flame burns (50.9%) and scalds (17%) were the most common type of burns. The average surface area burnt was $43.0 \pm 14.2\%$. The mean-scores for all patients at baseline, 2-week, 6-week and 12-week were 13.9 ± 4.9 , 35.3 ± 13.8 , 26.8 ± 11.9 and 20.1 ± 9.1 , respectively. The mean-scores for males were lower than that of females for the four assessments (Males: 13.5 ± 1.8 , 34.2 ± 14.1 , 25.3 ± 10.7 , 19.2 ± 8.4 and females: 16.1 ± 8.5 , 37.3 ± 13.3 , 30.5 ± 14.4 , 22.1 ± 10.6). The two-week score was higher for those with >15% burn (36.7 ± 13.9) compared to those with ≤15% burn (34.6 ± 14.2) while the score were similar at 12-week follow-up.

Conclusions This analysis shows that the burn injury patients tend to recover from their injury over a period of 12 weeks after discharge. Future work should focus on larger group of patients and long term follow-up at one and two years after burn injury.

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GENDER-RELATED CHARACTERISTICS OF BURN INJURY PATIENTS PRESENTING TO DESIGNATED BURN CENTRES IN SOUTH ASIA

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10.1136/injuryprev-2016-042156.795

Background Burn injury causes more than three-fourth deaths in Africa, Eastern Mediterranean and South-East Asia regions affecting females more than males. This study assesses the gender-related burn injury characteristics in South Asia.

Methods This prospective study was conducted at two main burn centres in Dhaka, Bangladesh and Karachi, Pakistan from October 2014 – January 2015. All adult (>17 years) burn injury patients were included in the analysis. Gender differences in patient demographics, burn injury characteristics and outcome were compared using Chi-square test for categorical and t-test for continuous variables. Ethical approval was taken from all collaborating and participating sites.

Results Of 1470 adult patients, 57.3% were males. Mean age of females was 36.85 ± 14.61 years and of males 33.49 ± 13.52 years. Among females, 81.6% were married and 63.7% among males (p -value<0.001). About 35.2% of females had no/informal education. Eighty% females were housewives and most males were manual-labourers (23.2%). For females, burns were common in kitchen (72.8%) while cooking (49.4%) and for males, industrial area (29.5%) during work (40.5%). Females suffered from flame (52.9%) and scalds (42.6%) while males had electrical burns (17.2%) in addition to flame (38.1%) and scalds (29.8%). Hot liquid was the common cause of burn in females (42%). Total body surface area(%) burnt was more in females (16.88 ± 20.85) compared to males (12.89 ± 17.47) (p -value<0.001). Around one-third of males and females were

admitted. About 50% of admitted females and around 30% of admitted males died. The mean duration of stay at the burn centre was higher for females (19.17 ± 23.27) compared to males (13.85 ± 15.29) (p-value 0.0001).

Conclusions Compared to males, females with burn injuries are older and married and likely to have burn injury at home. Males are more likely to have burns at work. Females suffered from higher percentage of surface area of burn. There were more deaths in females.

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RESULTS OF A COMMUNITY INTERVENTION TRIAL AIMED AT IMPROVING SAFETY BEHAVIOURS TO PREVENT HOT WATER SCALD BURNS

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Background Hot water scalds continue to pose a serious threat in the home, causing over 1500 hospital admissions and 100 deaths each year in the United States. We aimed to determine whether households who participated in an enhanced home safety visit demonstrated improved safety behaviours about hot water compared to homes receiving a standard home visit as part of a community intervention trial.

Methods The temperature of the hot water and self-reported prevention behaviours were recorded at a baseline visit, and retested 6–9 months later in a follow-up visit. Residents whose hot water temperatures remained at an unsafe temperature were asked why they did not adjust the temperatures. Demographic data were also recorded.

Results A total of 708 households participated. There was no significant difference emerged between the two study groups in the proportion of households observed to have adjusted their hot water temperature to safe levels between the baseline and follow-up visits ($t = 1.24$; $P = 0.22$). Residents who received the enhanced education were more likely to report testing their hot water temperature (27% vs 11%; $P < 0.01$) and turning their hot water temperature below 120°F (43% vs 32%; $P = 0.08$). Among those who had unsafe temperature levels and did not reduce the water temperature, the most common reason (26%) offered was that they “liked it hot.”

Conclusions These results suggest that water temperatures remain unsafe in many urban homes. The effect of educational interventions may be mitigated by personal preferences of hot water temperature. Passive intervention such the installation of scald prevention devices may be necessary to reduce risk from hot water.

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PILOT STUDY OF A NOVEL PARTNERSHIP FOR HOME FIRE AND CO PREVENTION

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10.1136/injuryprev-2016-042156.797

Background Children are at increased risk for death in the event of a home fire. Fire departments have used a number of approaches to increase the uptake of smoke alarms with mixed success. This presentation will describe a pilot study which partnered home visiting nurses with a local fire department in

Phoenix, AZ to instal smoke alarms in high-risk, hard-to-reach homes with young children.

Methods During a regularly scheduled appointment, home visiting nurses with the Nurse-Family Partnership (NFP) informed their clients about an opportunity to get free smoke alarms and recruited participants to the pilot study. Nurses sent a referral to the Phoenix Fire Department (PFD) for a smoke alarm installation. PFD responded to the next NFP appointment and installed long-life battery smoke and CO alarms in the home and provided safety education. Clients completed a follow up survey 3 months after the PFD installation visit. In-depth interviews were completed with key informants from NFP and PFD to solicit feedback on the program.

Results 58 clients were enrolled into the pilot study. To date, 41 smoke alarm installation visits have been completed and 33 follow up surveys were completed. Before the fire department arrived, 56% ($n = 23/41$) homes had no working smoke alarm. PFD installed 54 smoke alarms into 41 homes; every home had at least one working smoke alarm by the end of the home visit. At follow up, all homes maintained at least one working smoke alarm. Participants increased knowledge scores by 30%. Interviewees from both NFP and PFD spoke highly of the program and would like the program to continue. The program is consistent with the missions of both NFP and PFD.

Conclusion Partnering home visiting nurses and local fire departments can be a successful partnership to increase the number of homes with working smoke alarms.

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FIRE SAFETY PRACTICES IN ASSISTED LIVING AND HOME CARE IN FINLAND

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Background People in vulnerable positions, e.g. elderly or disabled people, substance abuser or mental health patients have an increased risk of becoming fire victims. To avoid this risk fire safety knowledge and good practices are needed for professionals working in the field.

The social and health policy in Finland prioritise assisted living and home care. At the same time the rescue service act stresses that the responsibility of fire safety is on building owners and service providers. Therefore, care professionals are in a novel situation as they are working at clients home and required to take into consideration diverse environment and self-determination of an individual.

The aim of this study was to investigate the fire risk and good practices in assisted living and home care.

Methods The data is from six group interviews done during 2014–2015. Each group included the whole care service chain: the client and one of his/her relatives, care-giver, service provider and planner representatives and fire safety officer. Each group interviewed represented different type of clients and assisted living facilities and service. Interviews took place in various regions in Finland.

Results Each agent at the service chain had ambition to improve fire safety. However, the knowledge among professionals what requires to be done and what others belonging to the same service chain are doing was inadequate. Some safety tools were used but oftentimes the user did not understand enough about their