

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 ( $19.17 \pm 23.27$ ) compared to males ( $13.85 \pm 15.29$ ) (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.

796

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

Wendy Shields, Elise Perry, Jeffery Zhu, Eileen McDonald, Andrea Gielen. *Johns Hopkins Centre for Injury Research And Policy Johns Hopkins Bloomberg School of Public Health*

10.1136/injuryprev-2016-042156.796

**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.

797

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

Wendy Shields, Elise Perry, Shannon Frattaroli, Eileen McDonald, Andrea Gielen. *Johns Hopkins Centre for Injury Research And Policy Johns Hopkins Bloomberg School of Public Health*

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.

798

#### FIRE SAFETY PRACTICES IN ASSISTED LIVING AND HOME CARE IN FINLAND

Tarja Ojala, Satu Pajala, Markus Grönfors, Nina Martikainen, Anne Lounamaa. *National Institute for Health and Welfare, Finland*

10.1136/injuryprev-2016-042156.798

**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

function. Overall, most were interested in safety information and to improve the safety, but the will to invest on safety was low.

**Conclusions** The care service chain has overall good motivation to improve the safety and fire safety of vulnerable people. However requirements of rescue service act did not materialise in assisted living as well as possible. There is apparent need of knowledge and vocational education material.

799

#### EPIDEMIOLOGY OF BURNS AND SUBSEQUENT CARE SEEKING IN MARINGÁ, BRAZIL

<sup>1,2</sup>Anjni Patel, <sup>2</sup>Nicole Toomey, <sup>2</sup>Deena El-Gabri, <sup>2,3</sup>Joao Ricardo Vissoci, <sup>2</sup>Catherine Staton. <sup>1</sup>Emory University, Atlanta, GA; <sup>2</sup>Duke University, Durham, NC; <sup>3</sup>Faculdade Ingá, Maringá, Brazil

10.1136/injuryprev-2016-042156.799

**Background** Like other injuries, the majority of burns (90%) occur in low and middle-income countries (LMIC). However, burn epidemiology is highly variable between regions, with females having a higher prevalence in some areas. This projects aims to examine the demographics of burn patients and the proportion and characteristics of those who seek care.

**Methods** Injury and burn injury data was collected by survey on care seeking behaviour after injury in Maringá, Brazil between May and September 2015. Surveys compiled household demographics, then randomly selected one household member to provide lifetime injury history. Injuries due to burns were analysed by frequency and chi-square to describe the relationship between burns and care seeking with consideration to gender, occupation and injury severity, defined as immediate loss of normal functioning.

**Results** 2678 surveys were collected reporting 812 injuries including 120 burns. 86 (71.7%) of the reported burn patients were women and half (55%) were 18–55 years old. 31.4% of women were housewives and 32.7% of men were self-employed. Significantly more burn victims (39.2%) did not seek care compared to non-burn injury victims (9.66%,  $P < 0.001$ ). Of the burn victims that did not seek care, 74.7% were female compared to 50% of the non-burn injury victims. Burn victims had a 7.8 ( $P < 0.001$ ) increased odds of not seeking care compared to road traffic victims. Most burn patients (90%, equal for both sexes) reported no long-term disability from their burn.

**Conclusions** A disproportionate number of women are injured by burns in Maringá, similar to other LMIC likely due to gender roles. Of the women injured by burns, 40% did not seek care and almost a third of those women were severely injured, suggesting significant barriers to appropriate treatment. This study offers important information on a subset of burn victims with potentially severe injuries that are not accounted for due to the fact that they did not seek care.

800

#### FIRE SAFETY TRAINING INTEGRATING INTO MEDICAL PERSONNEL STUDIES

<sup>1</sup>Jaana Sepp, <sup>1</sup>Gerli Liivet, <sup>2</sup>Virve Siirak, <sup>2</sup>Piia Tint. <sup>1</sup>Tallinn Health Care College, Estonia; <sup>2</sup>Tallinn University of Technology, Estonia

10.1136/injuryprev-2016-042156.800

**Background** According to the statistics of the National Labour Inspectorate, an alarming number of deaths and serious fire accidents have taken place during the past 10 years in the health care institutions in Estonia. There is a special legislative act for

insuring fire safety in these institutions, but it has proven to be insufficient. Each hospital and nursing home has to ensure their own safety. Therefore, the Fire Safety Training course has been implemented in Tallinn Health Care College for the future personnel of medical institutions as a method of raising awareness. It consists of an introductory training for future hospital employees and annual trainings held by hospitals. The introductory portion of the programme lies in simulation training and E-learning.

**The aim** of this study is to assess the effectiveness of the learning programme.

**Material and methods** The course is located in an online environment in which every employee goes through a number of topics followed by a test. Everyone who passes the test can print out a certificate as a confirmation of the theoretical knowledge acquired throughout the course. This programme was first used in 2014. The practical portion of the programme takes place at Tallinn Health Care College's simulation centre and includes patient evacuation practice, fire extinguishing simulations etc.

The effectiveness of the learning package was examined by comparing the results of different approaches on the programme with the participation of 70 nurses, that had undergone the usual fire safety training for 2 hours in their workplaces. The nurses were divided into 2 equal groups (35 people). The training took place for two days.

The first group began with a 2-hour lecture, followed by individual training in the E-learning environment and the simulation portion of the programme.

The second group began with a 2-hour lecture, directly followed by simulation, leaving individual training portion in the E-learning environment for last. In the first phase of the simulation portion it was necessary to extinguish a fire, the second was to ensure the proper evacuation of the patients. All of the action was filmed. The training ended with discussions, analysis and evaluating the activities recorded on video.

**Results** The results were better in the group that passed the E-learning course before entering simulation training, than for those who began their course with simulation training.

The students got the possibility to analyse important problems that may arise in real-life work situations.

**Conclusions** It is necessary to use the advanced training methods to decrease the number of fire related accidents and human losses.

801

#### AN EVALUATION OF EMERGENCY MANAGEMENT OF SEVERE BURN (EMSB) COURSE IN BANGLADESH: A STRATEGIC DIRECTION

<sup>1,2</sup>Animesh Biswas, <sup>1</sup>Saidur Rahman Mashreky, <sup>1</sup>Kamran Ul Baset, <sup>1</sup>Md Jahangir Hossain, <sup>1</sup>Fazlur Rahman. <sup>1</sup>Centre for Injury Prevention and Research, Bangladesh (CIPRB); <sup>2</sup>Department of Public Health Sciences, Örebro University, Sweden

10.1136/injuryprev-2016-042156.801

**Background** Burn is major Public health problem in Bangladesh. Interplast Australia and New Zealand, Australian & New Zealand Burn Association (ANZBA) and CIPRB come forward to help Bangladeshi physician to improve their burn management skill. ANZBA initiated EMSB training program for Bangladeshi physician in 2008. The study was designed to determine the effectiveness of EMSB programme in Bangladesh.

**Methods** A cross sectional survey was conducted among a randomly selected EMSB trained doctors. In-depth interviews (IDIs) and Focus Group Discussion (FGD) were conducted with faculties and organisers of the EMSB program.