834

INJURIES IN HIGH MOUNTAIN VILLAGES OF NORTHERN PAKISTAN. *A Rehman, M Ahmed, S Shah (Aga Khan University, Karachi, Pakistan)

A random sample of 836 households was selected from 118 villages through a cross sectional study. Trained nurses interviewed the oldest pre-menopausal female member of the household, using a pre-tested questionnaire. Questions were focused on injuries and burns and other surgical emergencies. The prevalence rate for injuries was 1,531/100,000 persons per year. The rate of injuries was x 2.7 as high in males as compared with females. The burn injury rate decreased with advancing age, being x23 higher in the age group < 5 years as compared with age group > 40 years. Burns, falls and road accidents, in that order, were the commonest forms of injury accounting 82% of 138 cases. Out of 43 burn casualties, 46% were in the age group < 5 years. Out of 71 casualties from falls and road accidents, 85% were between 6–40 years old. Most of (69%) the injuries were managed initially at home or close to home in a health center, dispensary or civil hospital. 31% eventually sought specialist surgical care. The rate of operative deliveries was 12 per 1000 deliveries. The mortality rates were 55 per 100, 000 persons per year for injuries and for acute abdomen. Maternal mortality ratio was high (8.9/1000 deliveries). A considerable burden of serious injuries exists in the study population, requiring the services of well-trained health professionals who could manage injuries and other acute medical emergencies

835-S

NATIONAL TRENDS OF FATAL INJURY RATE BY INJURY MECHANISMS IN SOUTH KOREA, 1993–2004. *J Hong, K Kong, B Park, J Min, H Park, E Eo, K Ahn, B Lee, Y Kim, (Ewha Womans University, Seoul, Korea, 158–710)

The aim of this study was to provide an overall pattern of mortality in injuries by mechanisms in South Korea during 1993–2004. We used national data on all reported injury deaths from 1993 through 2004 based on official death certificates. Fatal injury rate on this study was age-adjusted to the 2000 mid-year population. Overall fatal injury rate decreased from 77.2 deaths per 100,000 population in 1993 to 58.0 in 2004. By sex, overall rates were generally higher for males than for females and males had decreased trends by year but females showed stable trends. By age, from birth to 60–64 years old, rates decreased by year, but after that age, rates began to steadily increase and those over 80 years had more than 2 times death rates compared with 1993. Traffic accident was the leading cause of fatal injury, peaking at 40.3 deaths per 100,000 population in 1995; however, since 2001, suicide began to outnumber to traffic accident, accounting for 21.5 and 22.0 deaths in 2003 and 2004. Especially, suicide by means of poisoning, suffocation and drowning were increased by more than 2 times. Fall also showed a rising trend by 2 times and struck by/against showed a little increase, compared with 1993. Conversely, fatal rates of drowning and machinery declined by 1/2 times and fire/burn and natural/environmental did a little. For homicide, firearm and cut/pierce, fatal injury rates showed stable trends by year. In general, fatal injury rates decreased from 1993 to 2004, but exceptionally suicide rates have remarkably increased and it was the leading cause of fatal injury from 2003 to 2004. Therefore, more emphasis on national prevention efforts for suicide is needed.

836-S

CHILDREN'S AGRICULTURAL INJURY: POTENTIAL BEHAVIOR-RELATED RISK FACTORS. *K F Carlson, S G Gerberich, B H Alexander, A S Masten, T R Church, A D Ryan, and C M Renier (University of Minnesota, Minneapolis, MN 55455)

Objective: This study examines potential behavior-related risk factors for children's agricultural injury in a cohort of 32,602 farming and ranching households. Methods: The Regional Rural Injury Study - II was a population-based nested case-control study occurring in 1999 (phase 1) and 2001 (phase 2). Computer-assisted telephone interviews were used to collect demographic, exposure, and injury data for six-month recall periods. A total of 391 injured children (cases) and 1,625 randomly selected controls were identified for the current study. We estimated children's odds of injury by behavioral items and scores adapted from the Parent Observation of Child Adaptation (POCA) checklist and the Child Behavior Checklist (CBCL). Odds ratios (OR) and 95% confidence intervals (CI) were calculated using logistic regression, controlling for potential confounders by means of directed acyclic graphs. Results: Only individual POCA and CBCL items were associated with risk. Children who often or almost always got into fights (versus sometimes/almost never) had increased odds of injury (OR = 1.9, CI = 1.0, 3.6), as did those who broke rules (OR = 2.0, CI = 0.9, 4.2) or worked hard (OR = 1.6, CI = 1.0, 2.5). Children who sometimes/almost never were cautious (OR = 1.4, CI = 1.0, 2.0) or sometimes/almost never planned carefully (OR = 1.3, CI = 1.0, 1.7) also had increased odds of injury. Conclusions: These results suggest that children's behavioral characteristics play a role in determining their risk of agricultural injury. Additional research could elucidate the mechanisms and suggest interventions.

837

INVESTIGATION OF THE PREVALENCE OF MUSCULOSKELETAL CONDITIONS AMONG PETROLEUM COMPANY EMPLOYEES AND DEVELOPMENT OF A WEBSITE CATALOGUE OF SOLUTIONS FOR PROGRAM PLANNERS. *N Wojcik, J Deeb, W Huebner (ExxonMobil Biomedical Sciences, Inc, Annandale NJ 08801)

We applied a two-phased approach to: 1) more fully assess impacts of musculoskeletal conditions (MSC) among employees; and 2) foster prevention efforts. We performed a comprehensive prevalence study of MSCs among 6,000 employees of a Canadian petroleum company during the period 1996–2000. Several types of data were available from a computerized occupational health system, including diagnoses for clinic visits and medical absences and a clinical judgment about whether the condition may be attributable to work. Results: About one out of every four employees had one or more MSC-related clinic visits during the five-year period. MSCs accounted for 30% of clinic visits and 25% of absences of five days or more. MSC illness had far greater impact than injury on clinic visits and absences; especially illness not attributed to the workplace. MSCs considered by clinicians to be attributed to the workplace accounted for 13% of clinic visits and were mainly injury rather than illness. Neck/back and lower leg/knee conditions predominated overall. These findings were generally confirmed in less comprehensive surveys of seven other company locations worldwide. Solutions: Recognizing that MSCs may be influenced by combinations of work and non-work risk factors and intrinsic employee characteristics, a variety of solutions are needed. We developed a web-based catalogue that describes and rates the effectiveness of a broad collection of prevention tools and programs to mitigate impact of MSCs. Medical, safety and human factors professionals can use the catalogue as a resource for planning and implementing MSC-related employee interventions.