Administration was commissioned by the Swedish government to investigate and propose a development for the Swedish traffic accident data.

The investigation was conducted and as a result the Swedish government commissioned the Swedish Road Administration in 1996 to initiate a new information system covering injuries and accidents in the entire road traffic system.[1]

Methods The first data collection in the new common information system – Strada (Swedish Traffic Accident Data Aqcuisition) – started in four geographic areas in 1999.

Since 2003 the official statistics of road traffic injuries are based on data extracted from the police reports in Strada.

From 2009 onwards the Swedish Transport Agency is the authority responsible for Strada.

In 2015, all but one county report to Strada on a complete basis. One remaining hospital is yet to join.

Results Data from two sources – the police and the hospitals – provides more detailed information, thus increasing the knowledge of road traffic injuries and accidents.

By accessing Strada's web-based system for extraction of information without intermediaries or by requesting information from the Swedish Transport Agency, municipalities, researchers etc. can make use of the information. In practice, Strada is capable of providing a basis for national, regional and local traffic safety efforts.

Conclusions Strada was created in close collaboration with all parties concerned. The efforts to maintain as well as develop the information system continue and from the last 15–20 years there are lessons to be learned. Lessons concerning collaboration between agencies, financing, legislative issues, software development and more.

When hospital data is included there is a decrease in the number of unrecorded cases, since the police have limited knowledge about some road traffic accidents (mainly involving unprotected road users: pedestrians, cyclists and moped drivers). In addition, the hospitals' reporting of diagnoses broadens the knowledge of the injuries and their degree of seriousness.

NOTE

1 The governmental commission was accomplished in co-operation with the Swedish Police, the Swedish National Board of Health and Welfare, the Swedish Institute for Transport and Communications Analysis, Statistics Sweden and the Swedish Association of Local Authorities and Regions.

166 EPIDEMIOLOGY OF BURNS IN RURAL BANGLADESH: AN UPDATE

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Background Burns account for approximately 265,000 deaths each year with predominance in low and middle-income countries. Since most existing estimates of burn mortality and morbidity in Bangladesh have been derived from hospital records or small-scale surveys, the aim of this study was to get prevalence measures for burns and risk factors at a population level in rural Bangladesh.

Methods Census household data collected from seven rural subdistricts in Bangladesh was used to assess injury outcomes, including burns, in 2013–2014. Descriptive statistics, and univariate and multivariate analyses were conducted to determine the epidemiological characteristics and risk factors for burn injuries.

Results The overall burn mortality and morbidity rates were 2.14 deaths and 528 burn injuries per 100,000 populations. Females had a 63% (95% confidence intervals, CI: 15%–75%) higher chance of burn injuries than men across all age groups, with majority of injuries occurring inside the home. Approximately 50% of burn injuries occurred in the 25–64 year old age group. Deaths occurred mainly by flame burns (88%) where as non-fatal injuries were largely due to contact with hot liquids (56.53%), like cooking oil (21.4%). Deaths were also observed mostly in the winter season. Furthermore, children 1–4 years of age were 4.36 (95% CI: 3.37–5.63) times likelier to suffer from burn injuries than infants keeping all other factors constant. Higher level of education was seen to be associated with lower risk of burn injuries.

Conclusions Burns in rural Bangladesh are mainly seen across two extremes of ages in men and women, the propensity being higher in females. Crammed housing spaces, young age and poor educational background were found to be risk factors for burn injuries.

167 SOCIOECONOMIC STATUS AND NON-FATAL INJURIES: A POPULATION-BASED MULTILEVEL ANALYSIS IN OSLO, NORWAY

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Background Research has consistently shown an inverse relationship between socioeconomic status (SES) and both fatal and non-fatal injuries (e.g., Laflamme *et al.*, 2009). Many studies using multilevel analysis assume independence between geographical areas, thus ignoring any spatial dependencies of injury rates. Likewise, studies using spatial modelling of rates will not capture the degree to which the observed rates are explained by individual (composition) and neighbourhood (context). This study aimed to examine SES by using both a multilevel and a spatial modelling approach. We examined the rates of all-cause non-fatal unintentional injuries among the adult population in 94 neighbourhoods in Oslo, Norway, adjusting for individual demographic and socioeconomic indicators.

Methods Multilevel Poisson regression models were used to analyse the relationship between neighbourhood SES and individual SES for 150 000 non-fatal injuries from hospital data from the Norwegian Patient Registry for residents in Oslo in the period 2009–2011. Additional registry information on each individual was linked using a unique personal identification number. Area-level information was linked from Statistics Norway. In addition we used geographically weighted regression (GWR) to capture the spatial heterogeneity in associations between injury and the explanatory variables.

Results Our analyses of hospital data showed strong evidence of socioeconomic differences at both individual and neighbourhood levels. However, the magnitude and direction of these differences was not uniform, but varied as a function of gender, age, activity and location at time of injury, diagnosis and severity of injury.

Conclusions These findings highlight that both contextual and compositional effects of socioeconomic status should be considered in allocating resources for injury prevention. Given the population-based nature of this study, these findings are likely to generalise to other settings.

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Older People Safety

Parallel Mon 3.1

168 PREVALENCE OF NEGLECT AND VIOLENCE EXPERIENCED BY ELDERLY PEOPLE IN KOLKATA (INDIA)

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Background Old age is a challenging phase in life since people retire from work and physically become vulnerable to various health problems resulting into dependence on others. Limited research in this filed prompted the researcher to understand the perceived neglect and nature of violence experienced by the elderly people in Kolkata in addition of physical and psychological problems.

Methods A total of 200 elderly people, 100 male and 100 female, participated in the study voluntarily provided complete data and they were selected following convenience sampling technique from five Old Age Homes in and around Kolkata (India) in 2014. A specially designed Semi-structured Questionnaire was used for data collection.

Results In addition to range of physical health problems, they experience various psychological problems. Further findings disclosed a very disturbing picture as 87.0% female elderly people reported feeling of insecurity at their own house compared to 16.0% male elderly people which was found to be statistically significant at 0.01 levels. At the same time, 82% female elderly people reported neglect as compared to only 7.0% male elderly people (p < 0.01). Again significantly more number of female elderly people reported mental harassment. So far as physical violence is concerned, 15.0% and 9.0% female and male elderly people reported that they had experienced the same (p > 0.01). Interestingly an overwhelming number of elderly people were happy at the Old Age Homes. However, about 52.5% felt that Old Age Homes should be more neat and clean and quality of food should be better (39.5%). A good number of them (16.5%) also suggested that there should be some recreational facilities at the Old Age Homes.

Conclusions In general, female elderly people reported experience of more neglect, feeling of insecurity, mental harassment and even physical violence as compared to male counterparts. The safety of elderly people should be taken care of by the local government in terms of sensitisation of the larger society through mass and media, bringing strict legislations and through community vigilance with the help of local community-based organisation.

169 RISK OF ROAD TRAFFIC CRASH, MEDICAL FACTORS AND BEHAVIOURAL ADAPTATIONS IN ELDERLY DRIVERS

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Background If at first glance the question of medical factors in road safety seems to boil down to the list of diseases and medications consistent or incompatible with driving, the problem is much more complex because many factors come into play: mobility, loss of autonomy, perceptions of disabilities and behavioural adaptations to them. Regarding the increase of elderly drivers on the road, the aim of this project is to identify medical conditions, incapacities and medicine consumption associated with a risk of road traffic crash and to describe key parameters of the interaction between medical conditions, medical consumption and driving behaviours in this population.

Methods Gazel is a cohort of 20 000 retirees of the French national electricity and gas companies (EDF-GDF) followed since 1989 and originally included men aged 40–50 years and women aged 35–50 years. This cohort has been followed up by means of yearly self-administered questionnaires. This annual questionnaire includes questions about sociodemographic characteristics, health, diseases, lifestyle, difficulties of everyday life, psychosocial and psychological data and road traffic crashes. A driving behaviour and road safety questionnaire was administered in 2001, 2004 and 2007. In 2015, questions about mobility, health and incapacities were added and this questionnaire was administered by internet. Besides the classical statistical methods for the descriptive phase, models suitable for longitudinal data will be used.

Results The number of participants was 14,226 in 2001, 11,706 in 2004, 11,551 in 2007 and 5,402 in 2015. First results show that when participants get older, they drive more carefully and their perception of their crash risk decreases. Other analyses are in progress.

Conclusions The interactions of the three components: medical conditions, drug consumption and driving behaviours need to be understood to design effective preventive policies and proper screening of drivers unfit to drive.

170 RAPID DECELERATION AND CRASH EVENTS IN AN RCT EVALUATING A SAFE TRANSPORT PROGRAM FOR OLDER DRIVERS

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Background Older drivers have increased crash involvement and vulnerability to injury. It was hypothesised that a one-on-one safe-transport program, designed to encourage planning for retirement from driving and self-regulation, could improve the safety of older drivers.

Methods The Behind the Wheel program (adapted from the KEYS® program) was evaluated using a randomised controlled trial involving 380 drivers aged 75 years and older, residing in the suburban outskirts of Sydney. The safety outcomes for this trial were >750 milli-g rapid deceleration events (RDE) and self-reported crashes. General linear models were used to model the impact of the program on the rate of RDEs and self-reported crashes, using distance travelled as an offset.

Results We recruited 380 participants (230 men) with an average age of 80 years and 366/380 (96%) completed the 12 month