FEND (FULL ENERGY, NO DRUGS), AN INNOVATIVE APPROACH TO YOUTH DRUG PREVENTION

Jacqueline Burgess*, Tom Codere*. Preventum Initiative, Inc., Black Mountain, USA

Methods Scoping review of peer-reviewed observational studies published between 1960 and 2019 reporting acute drug and chemical poisonings in a defined cohort within Australia using Embase, MEDLINE and Informit.

Results We identified 11,038 articles and 394 were included. Almost half the studies had a population from a single city/district. Most studies focused on opioids (25%), paracetamol (9%) and amphetamines (8%). Age and sex (>80%) were well reported. Ethnicity, geographical remoteness and setting of exposure were rarely reported (<5%). Individual substance was reported in two-thirds of studies but product, dose and route was rarely reported (<10%). No improvements in reporting were seen over time and few studies used linked data. Data sources included: coronial (29%), hospital medical records (23%), poisons centres (20%), toxicology units (20%), and administrative mortality data (14%).

Conclusions We found gaps in understanding of who was affected by poisoning and environmental information on where the exposure occurred. A comprehensive understanding of the agent responsible for poisoning is poorly understood due to codeset limitations in datasets, except for a few substances. Even for those, limited information is available on the product, dose and route which has implications for control.

Learning Outcomes Policymakers, data custodians and researchers in poisoning epidemiology should prioritise improvements in known deficiencies such as creating a national minimum dataset.

P2/N95 V’S MASKS AS PROTECTION AGAINST PUBLIC HEALTH ISSUES: TIME FOR ACTION

1Jane Whitelaw*, 2Kate Cole, 3Peter Knott. 1University of Wollongong, Australia; 2Cole Health, Sydney, Australia; 3GCG, Australia

Context There has been a surge in public demand over the 2019/2020 Australian Summer to use respiratory protection against poor air quality from the extensive bushfires and more recently against the transmission of SARS-CoV-2.

Analysis This demand has created several issues including:
1. Uncertified and non-fit-for-purpose products flooding the international marketplace via direct advertising;
2. Insufficient information being available to support members of the public in how to use face masks correctly, further underpinned by frequent images of incorrect usage of face masks across popular media;
3. Use of respiratory protection by sections of the general population for which respirators were not designed for i.e. children and those with pre-existing respiratory disorders. In the general population, the use of respirators designed for healthy adults may result in adverse effects on susceptible populations.
4. Concerns that use of face masks are not appropriate for certain public health hazards, and that their use can actually increase the risk of exposure (Bin-Reza et al 2012, Huang and Morawska, 2019); and
5. A severe shortage of approved products (P2/N95) for those at high risk such as firefighters and health care workers.

Outcomes This presentation explores the different types of Respiratory Protection Devices and systematically reviews the scientific evidence of their efficacy against these Public Health respiratory hazards. Evidence-based recommendations are made and a novel infographic will be presented for use as a community engagement and education tool.

A call is also made for a publically available online register of approved products.

PATTERN OF FATAL AND NON-FATAL ROAD TRAFFIC INJURIES (RTIS) IN BANGLADESH


Backgrounds WHO estimated that yearly RTIs cause 1.35 million deaths globally. Almost 90% of all RTI deaths occur in
LIMCs. RTI is one of the leading causes of fatal and non-fatal in Bangladesh.

**Methods** The nationwide a cross sectional survey was conducted between March-June 2016 using a pretested semi-structured questionnaire. Multistage cluster sampling method considering probability-proportional-to-size strategy was used in the surveys to obtain the desired sample. Verbal autopsy method was used to ascertain the cause of death.

**Result** The mortality and morbidity rates due to RTI were 14.37 (95% CI: 10.67–19.35) and 2164.32 (95% CI: 2113.00–2217.00) per 100,000 per year respectively. The highest incidence rate of fatal was recorded as 21.89 (95% CI: 9.35–51.25) along with the age group ≥60 years and the highest incidence of non-fatal was recorded as 2702.51 (95% CI: 2178–2789) along with the age group from 25 to 59 years. The fatal and non-fatal rates were significantly higher among males 22.79 (16.32–31.85) compared to females 6.03 (3.17–11.47) and urban 16.00 (9.99–25.63) compared to rural areas 13.47 (9.19–19.74). The highest rate of fatal and non-fatal injury occurred in day time between 9.00am–12.00pm and 12.00pm–15.00pm respectively. Usage of seatbelts was 2.1% among the drivers and only 28% motorcyclists used helmets. Talking with mobile phone was 4.50% and drug addicted was 3.8% among driver and motorcyclist at the time of accident.

**Conclusion** The magnitude of fatal and non-fatal RTIs was remarkably high in Bangladesh. People aged 25 to 60 years were the most vulnerable group.

**Learning Outcome** A country-specific strategy and interventions are needed to reduce road traffic injury burden in Bangladesh.

**3A.003 ROAD TRAFFIC AND DROWNING MORTALITY IN AN AFRICAN COUNTRY: A 30-YEAR PERIOD**

1. Anne Abio,
2. Paschal Bovet,
3. Joachim Didon,
4. Till Bärnighausen,
5. Massoud Ali Shahi,
6. Jussi P. Puska,

**Background** Road traffic crashes and drowning are among the leading causes of injury mortality among youth, especially in low- and middle-income countries. The aim of this population-based study was to examine trends in road traffic and drowning related mortality from 1989 to 2018 in Seychelles.

**Methodology** The population civil death register was used to identify cases. Coding was done according to the ICD-10 codes for external causes of mortality. Mortality rates were estimated using the crude and age standardised rates. The WHO standard population was used to standardise the rates. Negative binomial regression was used to estimate the trends and annual percent changes over time.

**Results** Drowning and road traffic injuries accounted for approximately 21.9% and 17.5% of all injury-related deaths. Males had a higher risk both for drowning (RR 6.14, 95% CI 3.92, 9.62; p<0.001) and road traffic injury mortality (RR 2.25, 95% CI 1.43, 3.53; p<0.001). The drowning age standardised mortality rate was 25.9 per 100000 person-years, and road traffic mortality was 18.0 per 100000 person-years among males; and correspondingly 3.4 per 100000 and 4.6 per 100000 person-years among females, respectively. The drowning mortality increased by less than 0.01%, while the road traffic mortality increased by 2.7% among males.

**Conclusion** The major cause of mortality was drowning. However, the annual increase in the road traffic mortality was higher during the 30-year period.

**Learning outcome** Policies to reduce the road traffic crashes need to be actively implemented to reduce related mortality in order to achieve the SDG target.

**3A.004 INTERNET-BASED TEXTUAL BIG DATA AND ROAD TRAFFIC INJURIES**

1. Peixia Cheng,
2. Jianxin Wang,
3. Wangxin Xiao,
4. David Schwebel,
5. Peishan Ning,
6. Yue Wu,

**Background** Internet-based big data may offer important and timely information concerning road traffic injury data, supplementing official government statistics. We developed computer-based approaches to define, extract and automatically collect internet-based Chinese language big data on road traffic injuries.