

This presentation will describe the key components of the campaign, including identifying key partners and how each contributed to addressing the injury issue from all angles – regulation, product design, packaging, education and awareness.

15,000 pamphlets were distributed throughout education and health providers, home visitors and care givers to families around the country. 240 kits to demonstrate the risks of the product and how the injury can be prevented were provided to organisations and government services. 90% of the resource users evaluated the material as effective and very effective and that they learnt a lot about the issue.

The presentation also describes the different mediums and technology used to reach the right audience.

**Conclusions** Outcomes to date include support from the then Ministers of Health and Consumer Affairs, International recognition for New Zealand as a world-leader in button battery child injury prevention, strong media support and heightened public awareness of the injury issue.

### 349 MACHINE SAFETY REGULATION IN THE EU AND THE US

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**Background** This paper discusses the results of a study focusing on the differences of regulation around product safety, especially machines for use at work, between the European Union (EU) and the United States of America (US). Authors analyse how the differences effect on European companies manufacturing machines for use at work and what kind of compliance management practices the companies have to tackle the differing regulation.

**Methods** The results of the study were gathered by literature review and interviews. The semi-structured interviews were conducted to representatives of six globally operating companies manufacturing machines for use at work and to representatives of organisations formulating and/or influencing EU legislation and standardisation.

**Results** European integration has clarified the companies' operations significantly within the EU. At present the legislation and standards on machinery are mostly harmonised. By contrast the European companies consider that US market is difficult because of the state-specific regulation and completely different framework to consider safety issues. Especially the costs of possible legal actions induce uncertainty.

**Conclusions** The differing requirements between market areas may hinder export, and hence the globally operating machine manufacturing companies need tools and practices for recognising and applying safety requirements more effectively. In addition, the proposed Transatlantic Trade and Investment Partnership (TTIP) between the EU and the US can have significant effects on the field of requirements as well as the legislative framework in the future.

### 350 PRODUCT RELATED HEAD INJURIES IN INFANTS AND TODDLERS – STARTING POINT FOR A CAMPAIGN

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**Background** The highest hospitalisation rates in < 18 ys for all injuries as well as head injuries (S0-09) according to the national report on “Injuries by Accidents, Self-harm and Violence” (Ellsäßer 2014) were observed in infants (<1 y) and toddlers (1–4 ys). Although this is valuable information for injury prevention we need detailed information on injury events. The Full Injury Database (FDS) contains product related injuries as well as the doctor's narratives. Since 2008 we have managed to implement a FDS at three major German hospitals reporting to the Brandenburg Department of Health.

**Methods** Monitoring of injured patient hospital admissions (< 18 ys), either at emergency or ward, based on the European IDB standard. Case analysis of a total of 5,969 head injuries according to ICD-10 (S00–S09) in the < 5-year-olds (2008–2014). An injury was considered as an injury involving a product, when a product was categorised as “triggering” the injury. In-depth analysis of the doctor's narrative.

**Results** Head injuries in infants made up 77% (644) of all injuries (831). 87% (561) of head injuries were triggered by a product. The five most frequent product related injury events were falling from/out of: #1 changing tables 20%/111, #2 furniture (e.g. couches) 17%/96, #3 parental bed 15%/84, #4 buggies 7%/40, #5 carriers 4%/20. These events pertained 62% of all product related head injuries (561).

Head injuries in 1-to 4-year-olds made up 56% (2,876) of all injuries (5,183). 77% (2,222) were triggered by a product. The five most frequent product related injury events were falling from: #1 stairs 12%/257, #2 furniture 7%/159, #3 parental bed 4%/88, #4 bunk beds 3%/73, tricycles 2%/54.

**Conclusions** Products play an important role as triggers of head injuries among young children. Age specific safety recommendations for parents and caretakers, as currently in development by the paediatric association, are an important step in reducing those injuries.

### 351 CONSUMER PRODUCT SAFETY POLICY REVISITED

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**Background** Consumer products are associated with multiple deaths and millions of hospital treated injuries each year in the developed world, with the health sector bearing much of the multi-billion dollar cost.

**Description of the problem** In Australia, as in many countries, consumer product safety is administered by multiple jurisdictions – often with blurred boundaries between jurisdictional responsibilities. Under the Australian Consumer Law (2011) – Trade Practices Amendment Act – *consumer goods* are defined as “goods that are intended to be used, or are of a kind likely to be used, for personal, domestic or household use or consumption”. The Australian Competition and Consumer Commission administers this law as it applies to product safety, but only for certain products. Since injuries and their prevention do not follow jurisdictional boundaries, from the public health perspective, a broader response to consumer goods is desirable to include any manufactured product likely to be used by consumers.

**Aims** As exemplified by Australia, to explore complexities and shortcomings of the product safety system and to propose remedies to improve the alignment of public health, public policy and the legal operating framework to enhance product safety.

**Results** Using research examples (domestic ladders, motorised mobility scooters and fire risk reduced cigarettes), the problem will be summarised by investigation of the adequacy of existing data systems to identify injuries associated with these existing and emerging products; the effects of jurisdictional boundaries on product safety; the reactive nature of the system and related limitations; and the lack of an adequate scientific evidence base to proactively guide much of the related regulatory process (e.g. Product Safety Standards).

**Conclusions** Potential new multi-sector approaches to developing a more proactive product safety system that aligns evidence with public policy and the regulatory system will be proposed.

### 352 RE:FINE NEISS: A REAL-TIME INTERACTION SEARCH SYSTEM FOR CONSUMER PRODUCT-RELATED INJURY ED VISITS IN UNITED STATES

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**Background** The United States Consumer Product Safety Commission's (CPSC) National Electronic Injury Surveillance System (NEISS) records information about consumer product-related injuries from a probability sample of emergency departments, and makes these records publicly available. NEISS is used for injury research and to guide decisions about product recall, set product safety standards, and develop public awareness campaigns. The NEISS data contain both structured and unstructured fields. However, the current NEISS query builder system only allows structured data query.

**Methods** We redesigned the online data query system and created RE: fine NEISS to enable both structured and unstructured data query while enhancing the user experience. Our design goals were to provide real-time feedback, reduce the cognitive load for users and offer advanced functionalities.

**Results** The RE: fine NEISS significantly improves the usability of the NEISS. As the user builds a query, a sample of the matching subset of data is populated in real-time and is updated each time the user modifies the query. The auto-complete lookup feature for product names makes finding products easier. In addition, the unstructured text search capability allows users to add as many conditions as they want for any field search for keywords, phrases and wildcards, apply nested Boolean queries, and exclude conditions. Furthermore users can save, share, and reuse their queries.

**Conclusions** A group of injury researchers, familiar with NEISS, assisted with the development and evaluation of RE: fine NEISS. These users found that they could easily generate queries, readily view the data in a friendly format, quickly assess project feasibility, and produce the desired dataset for more detailed study. RE: fine NEISS is available online at <http://injurysearch.nationwide-childrens.org/>

### 353 PRODUCT RELATED HEAD INJURIES AMONG INFANTS AND TODDLERS IN EUROPE – A PUBLIC HEALTH TOPIC?

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**Background** Studies show that young children (< 5 yrs) are most at risk among the under 18-year-olds for being hospitalised because of a head injury (Dunning et al. 2004). Despite the high incidence rates in this age group and some publications on a national level (Ellsaesser 2014), little knowledge exists on a European level of the importance of products triggering head injuries in young children. For such questions the European Injury Data Base (IDB) provides a valuable source of information, in particular its full data set (FDS) which is used in 18 EU countries for collecting information on the product involvement. The following study aims to use this data for an in depth analysis on product related head injuries.

**Method** Case analysis of a total of 54,001 injuries collected during a 2-year period (2013–2014) in the under five-year-olds treated in 115 hospitals (either ward or emergency) of 18 European countries. An injury was counted as "head injury" if the body part was documented as head and one of the following injury types were registered: contusion, open wound, abrasion, fracture, concussion or other specified brain injury. An injury has been counted as a product related injury if a product was registered as triggering the injury.

**Results** Head injuries in infants (<1 year) made up 63% (3,486) of all injuries (5,538) in the age group. 65% (2,255) of head injuries were triggered by products. The three most frequent product related head injuries were falling from or out of: #1 bed 20% (459), #2 changing table 10% (226), #3 buggy or carrier 7% (150). Head injuries in 1-to 4-year-olds made up 41% (19,876) of all injuries in the age group (48,463). 59% (6,977) were triggered by a product. The three most frequent products involved were: #1 furniture 8% (1048), e.g. couch, #2 stairs 7% (963), #3 bed 5% (653).

**Conclusions** Product related head injuries in young children are a crucial public health issue and new parents should be given targeted injury prevention measures.

### 354 DEVELOPING RISK-INFORMED DECISION-MAKING PROCESSES

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**Background** Finnish Safety and Chemicals Agency (Tukes) is a national agency which supervises and promotes technical safety and conformity, together with consumer and chemicals safety. One of the key tasks of Tukes is to promote safety awareness and behaviour as well as to ensure that all participants abide by the legislation.

Current changes in society and technology are extremely rapid and the variety of products on the market is ever increasing. At the same time the authorities' resources are continuing to