Prioritising Children Product Safety Initiatives Based on Frequency, Severity & Product Causality: A Secondary Data Analysis of Queensland Injury Surveillance Unit Data

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Background In product safety system and injury prevention fields, resource allocations are prioritised to issues with high frequency, severity and preventability. Based on these indicators, injury surveillance data are expected to provide evidence-based information to support product safety system.

Aim The research aimed to inform product safety prioritisation based on three indicators (frequency, injury severity and product causality) using Queensland injury surveillance data.

Methods A secondary analysis of Queensland paediatric injury data (2008–2010) was conducted to identify product safety issues. Priority areas were identified based on frequency, injury severity (i.e. urgency and admission rate) and product causality.

Results In terms of frequency, fall-related injury was identified as the most common injury mechanism accounting for 35% of all paediatric injuries with high peaks in age groups 1–3 and 10–13-years-old. Based on urgency and admission rate, injuries due to suffocation and chemical effect were identified as the most severe injury mechanisms. Product causality was highest in falls and foreign body-related injuries with high proportion of product being the main cause of injury (49% and 43%, respectively). Based on all indicators, the study identified several product safety priority areas targeting injuries due to fall, chemical effects and foreign body.

Contribution to the Field This study provides information on the techniques of interrogating injury data to identify trends and patterns of product-related injury. Currently, injury data are still underutilised to inform product safety initiatives. This study advocates the use of injury data to support the evidence-based product safety initiatives.