Comparing apples with apples? Abusive head trauma, drowning and LSVROs

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Head trauma in children, particularly as a consequence of abuse, is an important issue, and we support the need for interventions in this area. We would, however, like to clarify some potentially misleading information published in the article by Kaltner et al,¹ regarding the incidence of abusive head trauma (AHT) in Queensland in relation to other serious childhood trauma, such as drowning and low-speed vehicle run-overs (LSVROs).

Kaltner et al estimated that the incidence rate (IR) for AHT (as defined by death or admission to hospital for greater than 24 h) among children aged 0–2 years in Queensland during 2005–2008 was 6.7 per 100 000 per annum. Kaltner argued that the IR for AHT was higher than that for drowning and LSVROs. However, the references used for IRs related to drowning and LSVROs are not comparable in several respects. First, there is a 10-year gap between the IRs for LSVROs and drowning referenced by Kaltner et al, and the calculated AHT IRs. The Mackie² data on drowning are derived from 1992–1997, and the data on LSVROs from the Queensland Council on Paediatric Morbidity and Mortality³ relate to 1994–1996. Second, the IRs for drowning and LSVROs referred to by Kaltner et al relate to fatalities, whereas the IRs calculated for AHT relate to hospital admissions and fatalities. Third, Kaltner et al used data relating to 0–4-year-old children in their IR calculations, whereas the referenced IRs for drownings and LSVROs relate to 0–5-year-olds (drownings) and 0–4-year-olds (LSVROs), respectively. We suggest that for these three reasons, it is not appropriate to compare IRs calculated for AHT and drownings/LSVROs.

We present, for alternative consideration, IRs calculated from two recently completed studies on drowning and LSVROs, funded by the Queensland Injury Prevention Council. In these studies, data from multiple sources (death, hospital admission, Emergency Department presentation, ambulance) were linked to calculate IRs for fatal and non-fatal drowning (2002–2008) and LSVRO incidents (1999–2009).^{4 5} From data collected for these two studies, we have calculated IRs for drownings and for LSVROs using the same definitions employed by Kaltner et al for AHT (ie, fatalities and admission to hospital for 24 h or more), for 0–2-year-old children in Queensland, for the same time period (2005–2008). The comparable IRs are as follows: drowning IR=65.27 per 100 000 per annum; LSVRO IR=42.06 per 100 000 per annum. These IRs are much higher than those referenced by Kaltner et al (drowning: 4.6; LSVRO: 2.4).

This information is yet to be publicly released, and highlights the value of linked data when exploring injury issues. The difficulties associated with obtaining these data may explain why Kaltner et al reported IRs that were not directly comparable. This also reinforces the importance of defining serious injury to allow comparison of like with like.⁶

There is currently no linked health dataset in Queensland. Linked data to obtain accurate, contemporary and crucial information regarding injury are only

available on a project-by-project basis, when specific funding, ethical approval and access approval (via the Director General of Queensland Health), are obtained. In addition, funding for the Queensland Trauma Registry was recently terminated, thus losing another vital source of information about injury in Queensland. As highlighted earlier this year in this journal, reliable information about injuries fundamentally underpins good injury prevention.⁷

There is no doubt that AHT among young children is an important issue and one that deserves increased attention and focus on prevention. However, this does not diminish the importance of other causes of serious and fatal injuries among young children, such as drowning and LSVROs. We advocate for urgent attention on better data collection regarding serious injuries in Queensland to facilitate prevention strategies for all injuries among children.

References

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