

Submission from Kidsafe Tasmania Inc.
Select Committee into Road Safety in Tasmania
Inquiry into ways in which to improve road safety in Tasmania.

To: Mr Tim Mills, Inquiry Secretary, rst@parliament.tas.gov.au

From: KidSafe Tasmania Inc.

Summary:

Kidsafe Tasmania, given its mission of child safety, welcomes this opportunity to make a submission to the Select Committee.

Land transport accidents are a major cause of injury and death for children.

Kidsafe Tasmania recommends two ways in which the Tasmanian Government can improve road safety for children in Tasmania:

- improve regulations to protect older children for whom an adult seatbelt by itself is dangerous
- improve compliance with existing child restraint regulations – correct fitting and correct use.

Adult Seatbelts – are not suitable for most children

Current regulations allow children to sit in an adult car seat using an adult seat belt from the age of seven. At least half of all children do not reach the minimum proportions (147cm) required to correctly fit an adult seat belt until at they are at least nine years old, often older.

Seat belts are designed to keep people from hitting the inside of the vehicle or being ejected in a crash. To hold the person in place, a seat belt must be able to disperse a great deal of force across, or through, the body. The belt is designed to cross over the bones of the shoulder, chest and hips. This is because these bones can absorb the energy of the crash with less injury to the passenger than the softer more vulnerable parts of the body. When a child is too small for a seat belt, the belt rests across the wrong places, such as the child's neck and abdomen.

Children have difficulty sitting up straight in a seat belt when they are small. This is because their legs are too short to comfortably reach across the edge of the seat. They 'slouch' to become comfortable and this causes the lap belt to rise further up the abdomen. In a crash a child sitting in the 'slouch' position may suffer internal injuries to their liver, kidneys, bladder, spleen and intestines. Children are also at increased risk when they tuck the shoulder belt under their arm or behind their back, or fall asleep and fall out of the sash belt. These situations are more likely to happen when the seat belt is

touching the child's neck or face. In a crash a child sitting in this way are likely to 'jackknife' forward – fold in half – over the lap belt. Their spinal cords may be severely injured, and their internal organs crushed and ruptured. Their heads are likely to hit the inside of the vehicle, causing head, brain or facial injuries. Child transport experts have long been aware that appropriate boosters are required to provide protection for children until they are the correct proportion to fit adult seat belts. Research conducted nearly thirty years ago¹ showed that a child who can use a three-point belt alone is a child who has a sitting height of at least 74cm, standing height of at least 147cm and a weight of at least 37 kg.

For children below this size, a Belt Positioning Booster is necessary. This is a rigid, fabric covered structure placed on top of a normal car seat. The booster positions the child and guides the seat belt across the child's thighs and hips to provide a better fit than if the child was seated on the seat restrained only by the car seat belt. The booster raises the child higher in the car seat, so that the car's diagonal safety belt fits properly across the child's shoulder and breastbone, and the lap belt is positioned correctly across the top of the legs. This means that during a crash the forces are directed through the solid bony parts of the child's anatomy.

A study by surgeons in the USA demonstrated the significant difference in the risks of injury when the right restraint is used properly: *"After adjusting for age and seating position (front vs. rear), optimally restrained children were more than 3 times less likely [odds ratio 3.51 (95% confidence interval, 1.87–6.60, P < 0.001)] as suboptimally restrained children to suffer an abdominal injury"*².

Other places, for example, the United Kingdom, Germany and some Canadian provinces, require the use of booster seats for children who are too small for adult seat belts – a restriction based on size, not on age.

Tasmania can make an important contribution to road safety by updating its child restraint requirements.

Correct fitting and correct use is very important

Sound regulations are not enough, of course.

In the last five years, Kidsafe Tasmania, supported by grants from the Department of State Growth, conducted several hundred checks of child restraints around Tasmania by meeting parents at, for example, Family Day-Care Centres. and found 80-90% needed some form of adjustment or other changes. All of these faults could result in failure of the child restraint to perform properly in an accident.

¹ Santis Klinich K, Pritz HB, Beebe MS, Welty KE. [Proc. Stapp Car Crash Conf.](#) 1994; 38: 245-264

² Nance, M. L., Lutz, N., Arbogast, K. B., Cornejo, R. A., Kallan, M. J., Winston, F. K., & Durbin, D. R. (2004). Optimal restraint reduces the risk of abdominal injury in children involved in motor vehicle crashes. *Annals of surgery*, 239(1), 127–131. <https://doi.org/10.1097/01.sla.0000103068.51037.20>

In 2020 Kidsafe Tasmania received funding from the Road Safety Council of \$50000 a year for 5 years to run education, demonstration, and free child restraint checks across Tasmania. We also will produce resources to support key messages for parents, grandparent, carers and stakeholders to help educate our community.

The more we do of this, the more it is clear that much more effort is needed. There is an increasing demand for us to respond to a culturally and linguistically diverse community, to the particular needs of the Aboriginal community and to requests from the community for support for children with disabilities.

Our concerns remain and we continue to advise parents on the use of booster seat and encourage them to use them beyond the legal requirement.

. A direct effect of education and regulation – coupled with distribution or incentive programs is an increase in the demand for, and supply of, booster seat products. This will enable companies to invest in developing a greater product range and a reduction in price. Seat belts and child 0 – 4-year car restraints are now accepted as a normal part of life by most Australians, Booster seats are, however, substantially less commonly used. A New Zealand study³ showed that 60 percent of children who required a booster seat were found not to be using one. Research suggests that the main way to increase booster seat use is through education and regulation – coupled with distribution or incentive programs, especially for families experiencing medium to high levels of deprivation⁴.

We often hear excuses such as the child was “too big” for a car seat “Don’t own one” “Not enough room in the car”. There has been extensive research in this area, showing that factors such as the cost, child acceptance, parental misinformation and uncertainty about when to move their child into an adult seat belt affect the use of booster seats. Some studies identified an inverse relationship between the likelihood children would use a booster seat and the number of children in the car. Associations between parental income, the age and make of the car and the likelihood children would be using a booster seat have also been observed. Lower income families, in older model cars, were found to be less likely to use booster seats.⁵

A comprehensive education plan that incorporates risk communication and maximum parental participation is likely to achieve improved results for Tasmanian families. This should include four essential components:

³ Cameron, Leanne, Segedin, Elizabeth, Nuthall, Gabrielle and Thompson, John, “Safe restraint of the child passenger” *Journal of paediatrics and child health*, 2006, 42: 752-757

⁴ Ehiri JE, Ejere HO, Hazen AE, Emusu D, King WD, Osberg SJ. Interventions to increase children's booster seat use: a review. *Am J Prev Med*. 2006 Aug;31(2):185-92. doi: 10.1016/j.amepre.2006.03.020. Epub 2006 Jun 12. PMID: 16829337.

⁵ Alexandra Hall, Catherine Ho, Lisa Keay, Kirsten McCaffery, Kate Hunter, Judith L. Charlton, Andrew Hayen, Lynne Bilston, Julie Brown (2018) *Barriers to correct child restraint use: A qualitative study of child restraint users and their needs*, Safety Science

- marketing to increase community understanding of the need for booster seats
- identifying the best, most effective locations for families to access expert advice about booster seats and a range of products
- making these locations well known to the public
- continuing and upscaling free checks and education/training delivery to families and caregivers.

Composed by:

Jenny Branch-Allen

CEO Kidsafe Tasmania Inc.

Peter Gillon

Road Safety Manager, Kidsafe Tasmania Inc,