



**Joint**

**Royal New Zealand Plunket Society**

**&**

**Safekids**

**Submission on**

**Land Transport Rule 32017- Vehicle Equipment**

- **Section 2.9: Child restraints**
- **Section 2.1: Audible warning devices**
- **Section 2.2 / Clause 2.2: Speed measuring devices for agricultural vehicles**

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### **Summary of recommendations**

Plunket and Safekids welcome recent government initiatives to improve general vehicle and road user safety.

This joint submission by Plunket and Safekids outlines the extent of the child injury problem in New Zealand, and argues the case for making changes to the Draft rule particularly regarding the following issues under consideration in the Draft Rule:

### **We are strongly in favour of changing the Draft Rule to:**

#### Section 2.9: Child Restraints

Approve the sale in New Zealand only of child restraint product complying with the Australian / New Zealand Standard 1754.

This recommendation has the support of:

**Commissioner for Children**

Roger McClay

**Consumers Institute**

David Russell

**The Paediatric Society of New Zealand**

**Injury Prevention Research Unit, University of Otago**

Jean Simpson, Research Fellow and Principle Investigator Child Restraint Study

**Injury Prevention Research Centre, University of Auckland**

Professor Carolyn Coggan, Director

**Safe Waitakere**

Margaret Develin, Co-ordinator

(New Zealand's leading Community-based Injury Prevention Group based in Waitakere City Council)

**Injury Free Counties Manukau**

Marlene Stratton, Programme Advisory Group Chairperson

**Britax Childcare NZ Ltd**

John Highsted, General Manager

**and a wide range of other leading community groups across the country – see pages 20 & 21 and attached letters of support.**

### Section 2.1: Audible warning devices

We cautiously support the use of audio warning devices on heavy vehicles, but not for vehicles used by the general public.

Our support is cautious because the use of audible devices on vehicles used by the general public may be counter-productive to improving safety for children under 3 years of age. Research indicates that children under 3 years of age tend to be attracted to the audible warning signals, placing them at increased risk of being unseen by the driver and consequently run-over.

A better option may be to require the installation of a combination visual and audio system on all vehicles where the driver has no direct view of what is behind the vehicle. Such a system would be designed to provide the driver with a direct view of the rear, and provide warning to other people in the vicinity.

It should be noted that simple visual systems using wide lens mirrors all ready exist on some large “People Mover/ Carrier” type vehicles that typically seat 6 or more adults. Plunket and Safekids support the adoption of these simple devices on all vehicles that have a restricted driver rear-view.

### Section 2.2 / Clause 2.2: Speed Measuring Devices for agricultural vehicles

Support the introduction of speed indication devices on agricultural vehicles capable of travelling faster than 30kph – particularly in the context of All Terrain Vehicles (also known as Quad bikes, or 4WD bikes).

We believe this recommendation has merit in the context of the new New Zealand ATV Helmet Standard 8600:2002, which says such helmets are designed for use at speeds less than 30kph.

## ***The burden of unintentional injury – the principal cause of child death***

### **New Zealand**

Unintentional injury is the leading cause of death in New Zealand for those aged from 1 to 34 years, and it is the third leading cause of death for those aged 35-54 years.<sup>1</sup> Injury is also a significant problem for older people (65+ years), and for Maori and Pacific Peoples. Injury prevention is listed as one of the eight priority areas in the National Health Strategy for Maori.

The premature loss of these lives represents very significant levels of lost productivity. It is estimated that of potential years of life lost in 1996, 21% were due to injuries.<sup>1</sup>

Unintentional injury is also the leading cause of admission to public hospitals for children aged 5-14 years, and the second leading cause of admission for those aged 15-34.<sup>1</sup>

Hospital admissions for injury are a major contributor to health costs. The average cost of an injury hospital admission is 10% greater than that of a non-injury admission.<sup>2</sup> In 1998/99 the average cost (all ages) for an injury or poisoning related hospital admission was \$2425, this was similar to the period 1996-97.<sup>3</sup>

### **Internationally**

Unintentional and intentional injury is now the principal cause of child death in all 26 OECD nations. For a child born in the OECD group of nations, the risk of death by unintentional injury before 15 years of age is approximately 1 in 750, compared to 1 in 5000 for death by abuse or intentional injury.<sup>4</sup>

On the standardised UNICEF Child Injury Death League, for the period 1991-95, New Zealand was 22nd of 26 nations listed in the table. New Zealand's child fatality rate of 13.7 per 100,000 children was 2.6 times higher than that of Sweden, 2.2 times that of England & Wales, and 1.5 times that of Australia. If New Zealand had achieved the same rate of child (1-14 years) deaths as that of Sweden during the same 5-year period, 324 children would be alive today.<sup>4</sup>

## Motor vehicle occupant injuries and the use of child restraints

### Child motor vehicle occupant injuries

In New Zealand, as in other 'wealthy' nations, motor vehicle traffic (MVT) crashes continue to be a leading cause of child injury mortality.<sup>4</sup>

In New Zealand in the period 1990-1998, 1118 children were killed from an injury or poisoning related event, of these 238 were motor-vehicle occupants. In the 10 year period 1990-99, 105,237 children (0-14) were hospitalised from an injury or poisoning related event, of which 3337 were motor-vehicle occupant related.<sup>5</sup> In terms of motor vehicle occupant death rates, for the years 1986-1995 a rate of 5.7/100,000 for infants and 3.7/100,000 for children aged 1-4 years have been reported.<sup>6</sup> Of these, it is estimated that at least 27% of infants who died as occupants in motor vehicle traffic crashes during the period 1986-1995 were unrestrained.

While improvements have been made in reducing overall rates of motor vehicle related injuries, child related MVT Occupant fatalities remain the second leading cause of all child fatalities, and associated injuries remain in the top ten of child injury.<sup>7</sup>

### Child restraint use

Child restraint device (CRD) use in motor vehicles has been compulsory in New Zealand since 1994, yet an observational study undertaken by the national Land Transport Safety Authority (LTSA) in 2000 found that in some regions compliance was as low as 68%.<sup>8</sup> Recent reports suggest that the results of the LTSA survey may not accurately reflect differences within regions, and suggest that rates may be as low as 20% in some small rural towns.<sup>9,10</sup>

Even if CRDs are used, they may be incorrectly installed or children may not be properly seated in them. Levels of incorrect use, ranging from 30% - 80%, have been reported for other industrialised nations.<sup>11-18</sup> Incorrect use is of concern because it may nullify the effectiveness of restraints.<sup>16</sup>

Recent pilot study research by researchers at the University of Otago Injury Prevention Research Unit (IPRU) has found high rates of incorrect use of child car seats and identified several barriers to using them correctly. The results were presented during the "Children and Young People: Their Environments Conference" at Otago University on 29 June 2001.

The pilot study collected data from 207 drivers and on 306 child passengers in Dunedin last year and drew on information from interviews with 45 drivers in eight focus groups.

The research found that about 75 % of those in the larger sample of 207 drivers were using child restraints incorrectly. Of the types of errors made, 60% percent of all drivers made at least one error installing the child car seat in the vehicle and 65% made at least one error installing the child in the child car seat. Furthermore, the most common errors were "serious" errors.

High levels of incorrect use are of concern because research clearly shows that correctly used child safety seats are highly effective, reducing fatality risk by an estimated 71% and serious injury by 67%. But incorrect use can partially or completely nullify this effect. Depending on the type of error, age of the child and vehicle type, a single error can increase the probability of a serious head and/or chest injury by up to 25%." <sup>16, 19</sup>

The Otago University pilot study also identified barriers to correct use of child car seats. The barriers were characterised into three general groups: a lack of authoritative information, ergonomic [design] and socio-economic barriers.

During a series of Kidsafe Week training seminars on CRD use in 2001, many participants, from a wide range of community and government agencies, commented that they would prefer to see just one safety standard regulating the design of child car seats, rather than the three that currently exist.

## First Call for Children

While there is a need for effective injury prevention at all stages of the lifespan, there is a strong argument for children receiving "first call" on available resources.

Children, unlike adults, receive only one chance at development and are rarely able to speak directly to decision-makers about their needs. This principle is enshrined in "First Call for Children" originating from the World Summit for Children in September 1990.

Consequently, we believe it is the duty of the Government, under the UN Convention of the Rights of the Child, to recognise the needs of children in the development of policy directions, which must then be acted upon. One such urgent need is to reduce the unacceptably high level of injury currently endured by our children.

## **Plunket and Safekids Views**

### ***Section 2.9: Child Restraints***

Plunket and Safekids recommendation

We strongly believe the rule should be changed so that only child restraint product complying with the Australian / New Zealand Standard 1754 is allowed to be sold in New Zealand;

and

Reject the LTSA proposals to retain the status quo, and to approve the Japanese Standard.

### **Rationale**

Plunket and Safekids support the 1994 law for compulsory use of child restraints devices, and welcome recent government initiatives to improve general vehicle and road user safety. Child restraints have been shown to be particularly effective in reducing vehicle occupant injury where they are used.

While the 1994 law has been beneficial, and in terms of the 80/20 general rule of thumb we believe it represents the easy 80% equating to the generally now widespread acceptance of CRDs by the general population. However, we believe we are now in a situation where the hard 20% of promoting the use and correct use of CRDs is before us. In tackling this 20%, we believe a two-pronged strategy is required that involves:

1. Providing authoritative and consistent national training
2. Promoting a legal and engineering environment that makes CRDs easier to use and to use correctly.

The first part of the strategy is being implemented through the support of the LTSA and ACC in establishing a national CRD training programme, under the leadership of Plunket.

The second part of the strategy is represented by the lobbying effort of Plunket and Safekids for a change in the LTSA rules pertaining to the sale of CRDs, and by being represented on the Australian / New Zealand Child Restraint Standard Committee.

Fundamentally, Plunket and Safekids does not believe the current rules work in the best interest of promoting the safety of children in motor vehicles. The existing rules:

- allow for the sale of product that does not necessarily follow best design practice,
- creates confusion amongst consumers, and retaining the status quo will not help to rectify this situation
- inhibits enforcement, and
- inhibits easy education of the public about how to use child restraints correctly.

We do not believe that the our recommended rule change will result in any significant:

- increased cost to the public, irrespective of their social or economic status, or
- significant loss of consumer choice in terms of product type.

In contrast, we believe our proposal would have the following benefits in the medium / long term:

- Improve the safety protection provided to children because top tether straps would be required to be used on all new CRDs sold in New Zealand, and the Australian /

New Zealand Standard has a more rigorous testing regime compared to the other standards. The joint Australian / New Zealand Standards Committee, on which Plunket and Safekids are represented, closely monitors international standard developments such as the ISOFIX system, which is currently being debated at the international level. This means that the standard reflects what is best practice and what is happening at the international level.

- Make it easier in the medium / long term to develop consistent education and training programmes on the topic of the correct use of CRDs.
- Make enforcement easier in the medium / long term because the requirements for compliance would be more readily understood by enforcement officers and end users in the years to come.

## Detailed Reasons for a child restraint rule change: Questions and Answers

### **Why are multiple standards a problem?**

The main cause of confusion amongst CRD users about how to use CRDs is the fact that in New Zealand a CRD can be sold if it meets one of three standards (Australian / New Zealand Standard NZS 1754, European Standard ECE R44), United States Standard FMVSS 213). This is a problem because the standards have different requirements for the installation of CRDs, particularly in regard to the use of top tether straps and seatbelt routing. Many ECE R44 infant restraints require a lap/sash seatbelt for installation, and this seatbelt has to be long enough to route around the head end of the restraint. The joint Australian / New Zealand Standard requires a top tether strap on all restraints, other standards vary with their tether requirement.

Adding a fourth standard in the form of the Japanese Standard, will only make the situation worse, without adding anything meaningful safety benefit to the majority of car owners with children, except for the very few owners who may purchase such imported vehicles in the years ahead.

### **How would the proposed rule offer a direct safety benefit?**

It would improve the safety protection provided to children because top tether straps would be required to be used on all new CRD's. We believe that the use of top tether

straps is an essential safety requirement to protect a child in a vehicle. Research in Australia and further afield highlights this. Compliance with the Australian / New Zealand Standard has a more rigorous testing regime compared to the other standards. It allows less head excursion; tests for inversion of the restraint (as in a roll-over crash) and in the current draft requires a new side impact test for the restraints ability to contain the child's head and torso.

The attached CD-ROM presents a six minute video showing the superior safety benefits of the AS/New Zealand Standard compared to the other standards in typical crash situations.

**Are there any other benefits?**

As outlined earlier, one standard would:

- make it easier to develop consistent education and training programmes on the topic of the correct use of CRDs.
- eliminate, in time, the confusion around the differing restraints and standards that they meet, which ALL those working with CRD's face.
- make enforcement easier because the requirements for compliance would more readily be understood by enforcement officers and end users in the years to come.
- bring the New Zealand rules into closer harmony with the Australian rules, which is in keeping with the Trans Tasman Accords and Mutual Recognition Agreements.

**Will there be a loss of public choice?**

Australian experience indicates that there will be little loss of choice. Currently there are five manufacturers supplying a wide range of styles to the Australian and New Zealand markets, all of which comply with the Australian / New Zealand Standard.

One or two products may be lost off the New Zealand market (for example - Type A infant seats) that are popular, however new product is currently being developed and tested to fill this potential gap. The new product will comply with the Australian /

New Zealand Standard, and it will offer higher levels of safety and at a similar cost to current product on the market.

There is no evidence anywhere in the world, such as the USA, Canada, Australia, and the EU, all of whom have only one standard, that there has been a loss of product because of the introduction of only one standard. Australia is a much larger market than New Zealand, There has never been any complaint from users there about the lack of choice over product.

**A rule change will breach WTO agreements on free trade. As such won't a rule change be seen as a trade barrier?**

All of our major trading partners have only one standard for child restraints. It can be argued the New Zealand situation is out of step with best practice in the rest of the world, and contra to the Trans-Tasman Accord and moves towards a common border with Australia. Currently, Australian authorities restrict the cross-importation from New Zealand into Australia of product that does not comply with the joint Australian / New Zealand Standard. In this regard, the argument that a rule change will breach WTO requirements is not sustainable and has not arisen in other countries.

The current rules allow for the dumping of product to occur that no longer complies with standards in the original target market. While this practice allows some New Zealand consumers to access cheap product, if allowed to continue, can be seen as anti-competitive and detrimental to fostering best safety practice. Plunket is particularly aware of this happening with product complying with the American Standard.

Other product standards already exist which restrict the range of product that may sold in New Zealand unless they comply with uniform restrictive safety standards, for example Babywalkers and Toys, amongst a wide range of other products.

Current enforcement takes place at border control, consequently no change is required except to the import rules. This would mean no added cost to government.

Major manufacturers such as Britax and BabyLove, who are also significant importers, inform us that they only need approximately six weeks notice of any rule change to be able to comply with the rule.

**Will product costs increase to the user?**

Any cost issues are likely to be minimal and insignificant compared to the safety benefits for the child.

An increase in product cost is unlikely because product is restricted. Cost is based upon normal business considerations such as the life span of the product, market competition (there are at least five manufactures currently supplying the New Zealand market with product meeting the Australian / New Zealand Standard), currency fluctuations, tariff levels etc.

In order to comply with the rule change, tether strap anchor points will have to be installed in some older vehicles. The cost of installation of a bracket will be approximately \$25 for each anchor point. This low cost is possible because the large majority of vehicle already have the structural positions for the anchor points already installed, or marked, in the vehicle.

The issue of cost is likely to be less important over time, because recent vehicle design rule changes in the USA and Europe require the full installation of top tether anchor points. This means that over time, all second-hand vehicles imported into New Zealand will have full anchor points already installed, such a situation already exists for new vehicles.

Plunket and Safekids are not requesting that anchor points be installed in imported vehicles at the point of entry, thus there will be no cost to importers of used vehicles. The installation of anchor points and the correct use of child restraints are the responsibility of the user of the vehicle.

**How will a rule change impact upon product built into vehicles (example: Volvo and possible future Japanese second-hand imports)?**

Volvos with CRD's built in to the seats are sold on the Australian market, and as such the CRD's must comply with the Australian rules, accordingly the proposed New Zealand rule change will not affect Volvo. Currently, there are no known Japanese imports that have similar designs to Volvos, although such vehicles do exist in Japan.

**Won't importers/stock holders lose from a rule change, and result in product being dumped in the lead up to the introduction of the new rule?**

Importers, stockholders and other purchasing agents (such as Car Seat Rental Schemes) will not lose if they are given sufficient lead-time and education about the change. A six-week lead-time should be sufficient.

An education campaign targeting large purchasing organisations such as car rental schemes, prior to the introduction of the rule change may help to prevent the import of product that is unsuitable, or of dumped product.

**How will this change affect the second-hand market?**

A situation similar to the Babywalker market would result. Sellers would not be able to sell product that does not comply with the Standard.

**How will consumers react to the change?**

Contact with users and trainers has shown strong support for one standard and a consensus that the Australian / New Zealand Standard is appropriate.

An education campaign may be necessary to inform consumers that virtually all imported vehicles already have the mounting points either marked or already installed.

In addition, due to recent vehicle design rule changes in the USA and Europe, which require the full installation of top tether anchor points in all new vehicles, it is likely all vehicles imported into New Zealand over the coming years will have anchor points fully installed. Australian vehicles are required under the Australian Design Rules (ADR) to have this design feature installed. Consumers should be educated about the

benefits of these changes, so that they can incorporate it within their purchasing decisions.

## Response to LTSA view

The LTSA have responded to the Plunket and Safekids view by arguing four points:

1. The safety benefits of the proposal are estimated to be minimal
2. The proposal could be costly
3. The proposal would limit the countries from which child restraints could be sourced
4. The proposal might not address the problem

The LTSA's reasoning behind these objections are outlined in the following box:

<p>“The LTSA view</p> <ol style="list-style-type: none"><li>1. <u>The safety benefits of the proposal are estimated to be minimal</u><ul style="list-style-type: none"><li>• A preliminary investigation suggests that any safety benefits offered by AS/NZS 1754 over other standards would be marginal, as all child restraints certified to an approved standard are safe when used correctly.</li></ul></li><li>2. <u>The proposal could be costly</u><p>All AS/NZS 1754 compliant child restraints are required to be used with a top-tether strap. As the majority of vehicles sold in New Zealand are not equipped with top-tether-strap anchorage points, these would have to be installed in every vehicle in which a child restraint was to be used. The proposal would therefore necessitate a significant and costly anchorage-retrofitting programme.</p></li><li>3. <u>The proposal would limit the countries from which child restraints could be sourced</u><p>The proposal would effectively prohibit the importation of European and USA child restraints unless they were tested to AS/NZS 1754. It is likely that the certification of a model of child restraint to this standard would be prohibitively expensive for some importers.</p><p>The proposal might prevent New Zealand benefiting from advances in child restraint technology being made in the safety conscious jurisdictions from which we source our vehicles (Japan, Australia, Europe and the USA). Accepting the standards of these jurisdictions allows New Zealand to benefit from safety advances made internationally while giving consumers access to a wide range of affordable, safe, modern vehicles and vehicle equipment.</p></li><li>4. <u>The proposal might not address the problem</u><p>The LTSA and the Ministry of Consumer Affairs considers that the proposal from Plunket and Safekids is not the appropriate method to address an education problem.</p><p>Allowing only restraints that meet AS/NZS 1754 would not address the common practice of not fastening</p></li></ol>
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(AS/NZS) top-tether straps correctly. A possible negative side effect of the proposal is that educators would not be trained to provide instruction on the wide range of non-AS/NZS compliant child restraints that are already in the market, and are likely to continue to be available for the next seven to ten years.

The LTSA's primary concern is to ensure that children are properly restrained. It is estimated that approximately 20 percent of children are not being restrained in any approved restraint at all, which is a far greater risk to safety than wearing a child restraint that does not meet AS/NZS 1754. There would be greater safety gains by ensuring that children are properly restrained in the child restraints that are currently available.

The LTSA intends to continue promoting and assisting child restraint use through the Community Road Safety Programme. It is also actively involved in counteracting the problem of incorrect use through the Plunket-managed National Child Restraint Training Programme.

Question: Should the proposed Rule take the approach suggested by Plunket and Safekids and approve only one standard for child restraints – the Australian/New Zealand standard?"

Source: LTSA, April 2003: "Overview, Land Transport Rule Vehicle Equipment, Rule 32017". Pages 17-19

As our submission has already largely covered the points raised by the LTSA, the responses to the points raised by the LTSA will be kept to a minimum.

Response to LTSA objection:

LTSA: "The safety benefits of the proposal are estimated to be minimal... as all child restraints certified to an approved standard are safe when used correctly."

There are three issues here:

First, the various standards do not offer the same level of safety, including the addition of the Japanese Standard. The AS /NZS Standard offers a higher level of minimum protection than the other standards. This is because:

- the top-tether strap required by AS/NZS 1754 works to reduce the risk of head and neck injuries;
- the testing to AS/NZS 1754 requires additional roll-over and side impact testing;
- the testing to the latest version of AS/NZS 1754 (in draft) requires side impact testing of booster seats to contain the child's head.

Second, the safety benefits offered by the AS/NZS are significantly higher than other standards in situations where CRDs are used incorrectly, which research indicates is frequently the case (see page 5-7). These benefits have been clearly demonstrated in crash tests in Australia (see attached CD-ROM, which has a video clip demonstrating the increased safety levels provided by the AS/NZS compared to the American and European Standards).

Third, continuing the multiplicity of standards will only perpetuate the confusion that exists in consumer's minds about best safety practice and how to use CRDs correctly. Plunket and Safekids accepts that the one standard solution will not provide a quick fix, however moving to only one standard represents a move in the right direction towards rectifying what is an acknowledged problem.

LTSA objection: "The proposal could be costly. As the majority of vehicles sold in New Zealand are not equipped with top-tether-strap anchorage points...the proposal would therefore necessitate a significant and costly anchorage-retrofitting programme."

In fact, the overwhelming majority of vehicles brought into New Zealand since 1994 already have places for securing an anchor point installed, however the anchor itself may need to be fitted. In the very few instances where a position for installing an anchor may not exist, the cost of providing such a place could be significant – this situation already exists for some adult seatbelts. However, the cost of fitting the anchor itself is minor.

Plunket and Safekids estimate that fitting an anchor point will cost between \$25-\$45. However this cost is normally heavily subsidised via existing Car Seat Rental Schemes. It is also common Plunket practice when running a CRD promotion, to organise sponsorship for consumers who need free fitting of an anchor point. Plunket and Safekids are confident that this process can be enhanced in the future, particular with the introduction of a single standard.

The bulk of the cost of a CRD is in either the purchase of the restraint, or else finding the deposit required prior to renting a CRD. In both instances those on lower incomes already have access to heavily subsidised CRDs. This will not change under the single standard.

Manufacturers of product built to the AS/NZS have informed us that it is possible that some product may increase in cost, however this increase would occur in any case as part of the normal product cycle. This increase in cost will not affect those on low incomes as such consumers normally access rental schemes. Plunket and Safekids are of the opinion that change will not impose any significant cost on consumers, and existing measures to reduce costs to consumers will remain and will be effective in covering any small increase in cost.

No “significant and costly...retrofitting” is required because the proposal will only affect those who travel with children who have not yet progressed into booster seats. And as mentioned above, the cost of fitting anchor points is minimal – not costly as claimed by the LTSA.

LTSA objection: “The proposal would limit the countries from which child restraints could be sourced...The proposal might prevent New Zealand benefiting from advances in child restraint technology being made in the safety conscious jurisdictions from which we source our vehicles (Japan, Australia, Europe and the USA). Accepting the standards of these jurisdictions allows New Zealand to benefit from safety advances made internationally while giving consumers access to a wide range of ...equipment.”

Contrary to the LTSA view, the AS/New Zealand Standard has consistently been a world leader in incorporating and incorporating child restraint advances into the standard, and product, before other countries such as Europe, Japan and the United States. Long-term members of the AS/NZS committee are recognised internationally for their expertise and regularly serve on relevant international ISO committees.

While some product will be lost from the New Zealand market, consumer choice will not be greatly affected by this. There is no shortage of product in Australia from a range of manufacturers, and there is no record of consumer complaint about the availability of various types of product.

LTSA objection: “The proposal might not address the.... education... problem.”

Plunket and Safekids do not see this issue as an “education” only problem, nor do we see a single standard proposal as the only way to address the issue, nor do we see it as a quick fix - as outlined earlier. We see the issue as multifaceted that requires a multilevel response.

Our approach is more wholistic than that proposed by the LTSA, and fits with the Government’s Draft Injury Prevention strategy of promoting both a culture change and an environmental change (which includes both the policy and engineering environments). The LTSA approach only focuses upon education, which fits under cultural change.

The new National “Safe2go” Training programme that is being established under Plunket leadership and with the extensive support of Safekids, will provide comprehensive and consistent authoritative information about the use and correct use of CRDs. Because of the current multiple standard situation, the training will include the use of CRDs that do not use top-tether straps. Even with the introduction of only one standard, we envisage the supply of this additional training will be required for the next 5-7 years in order to cater for the current product lifecycle.

## **Significant Institutional and Community Support for the Plunket and Safekids proposal for a single Child Restraint Standard**

Written support for the Plunket / Safekids recommendation has been received from a wide range of leading institutional and community groups across the country including (see attached letters of support):

**Commissioner for Children**

Roger McClay

**Consumers Institute**

David Russell

**The Paediatric Society of New Zealand**

**Injury Prevention Research Unit, University of Otago**, Jean Simpson, Research Fellow and Principle Investigator Child Restraint Study

**Injury Prevention Research Centre, University of Auckland**, Professor Carolyn Coggan, Director

**Safe Waitakere**, Margaret Develin, Co-ordinator

**Injury Free Counties Manukau**, Marlene Stratton, Programme Advisory Group Chairperson

**Britax Childcare NZ Ltd**, John Highsted, General Manager

**New Zealand Councillor – Waitamata, Royal New Zealand Plunket Society**, Liz King

**Developmental Paediatrician, Capital Coast Health, Puketiro Child Development Team**, Dr Andrew Marshall

**Northland Health Community Paediatrician, Child Health Centre**, Dr Bobby Tsang

**Dr Mavis Duncanson**, Wellington Medical School, Public Health Physician

**Molly Pardoe, Community Injury Prevention, Te Runanga o Turanganui A Kiwa**,

**Drivewise Rotorua**, Barbara Gatley, Chairperson

**Marlborough Road Safety Council**

**Kapiti Road Safety Co-ordinator**, Sue Johnson

**Hutt Valley District Health Board Injury Prevention Team**, Regional Public Health

**Midcentral Health, Public Health Nurse, Sue Paton,**

**Nelson Marlborough District Health Board, Health Promotion, Liz Maw**

**Safe Waitakere Working Group: Child Safety**

**Franklin Kidsafe Coalition, Pukekohe Hospital**

**Hurunui Branch Plunket Society**

**Marlborough Plunket Car Rental Scheme**

**Mid-Canterbury Branch Plunket Society**

**Timaru Plunket Car Rental Scheme**

**Rotorua Plunket Car Rental Scheme**

**Motueka Plunket Sub-branch**

**Wakatipu Plunket Family Centre**

**Western Southland Plunket Branch**

**Safekids Hawkes Bay**

In summary, Plunket and Safekids believe a single standard would increase over time the minimum level of safety offered to New Zealand children, assist with making education of users easier, and thereby reduce the rate child motor-vehicle occupant injury in New Zealand.

Failure to change the current rule will mean that the current situation of consumer confusion, and variable standards of product safety, will continue at lot longer. Such a situation would be entirely unsatisfactory to Plunket and Safekids.

## **Section 2.1: Audible warning devices**

Plunket and Safekids recommendation and rationale

### **Recommendation**

We cautiously support the use of audio warning devices on heavy vehicles, but not for vehicles used by the general public.

Our support is cautious because the use of audible devices on vehicles used by the general public may be counter-productive to improving safety for children under 3 years of age. Research indicates that children under 3 years of age tend to be attracted to the audible warning signals, placing them at increased risk of being unseen by the driver and consequently run-over.

A better option may be to require the installation of a combination visual and audio system on all vehicles where the driver has no direct view of what is behind the vehicle. Such a system would be designed to provide the driver with a direct view of the rear, and provide warning to other people in the vicinity.

It should be noted that simple visual systems using wide lens mirrors all ready exist on some large “People Mover/ Carrier” type vehicles that typically seat 6 or more adults. Plunket and Safekids support the adoption of these simple devices on all vehicles that have a restricted driver rear-view.

### **Rationale**

Run-over injuries are increasingly a cause of motor vehicle related injuries in urban areas, which can result in serious injuries. However audio or visual warning signal devices can be counter productive to improving safety for children under 3 years of age. Research indicates that they are attracted to such signals, which means that they are at increased risk of being unseen by the driver and consequently of being reversed-over (Safekids Information Pack No.3 Drive Overs).

In a report prepared for the Motor Accidents Authority of New South Wales Australia, evaluating vehicle reversing warning devices and child safety, the authors concluded:

“(it) is unlikely that mandatory fitting of the systems (audio and complex visual systems) could be justified on current cost-benefit criteria but there may be a case for requiring that vehicle manufacturers make such systems available as an option” (see box below).

**DEVICES TO REDUCE THE RISK TO YOUNG PEDESTRIANS FROM REVERSING MOTOR VEHICLES. Prepared by Michael Paine and Michael Henderson for Motor Accidents Authority of NSW, March 2001 Page 16.**

**Conclusion and recommendations**

“A technical solution to the problem is feasible. A combination of short-range (and low cost) proximity sensor and a wide-angle video camera system appears to be a viable countermeasure. Such a system should cost no more than \$1000 installed. However, it is unlikely that any commercially available systems currently meet the requirements for a complete system.

With such a system in place it is important that drivers realise that they must still reverse very carefully. A maximum reversing speed of 10km/h would be appropriate for the combined system that was evaluated. The detection range (of the video system) was about 5m and a rule of thumb is that the reversing speed, in km/h, should not exceed twice the detection range in metres.

Wide-angle lenses do not offer the range and clarity of image of video cameras. It is unlikely that they could be further developed for this purpose. Video cameras provide the best opportunity for technological improvement. Some vehicle manufacturers are developing prototype camera systems that could eventually replace rear view mirrors on vehicles. Several manufacturers are looking at pedestrian detection systems as part of their Intelligent Transport System (ITS) programs and they would be interested in the outcome of our work.

Dr Henderson (2000) made a range of recommendations to address the problem of children being run over by reversing vehicles. The following items build on those recommendations:

1. This report and the draft performance specification should be circulated to stakeholders (transport authorities, motorist organisations, vehicle manufacturers and component manufacturers/suppliers) for comment and advice about available technology. The specification should then be reviewed and published (possibly by RTA).
2. Companies should be invited to develop, at their own cost, complete systems that comply with the specification. Such systems should then be independently evaluated.
3. If suitable systems become available, the MAA and other organisations should promote their availability, along with educational material on the risk of driveway injuries to small children.
4. The MAA should monitor the uptake of these devices and obtain feedback from motorists who install them. It should then review the specification, if necessary, and promotional campaigns.
5. The RTA should seek to have the specification adopted at a national level, as an optional accessory for motor vehicles. It is unlikely that mandatory fitting of the systems could be justified on current cost-benefit criteria but there may be a case for requiring that vehicle manufacturers make such systems available as an option.”

***Section 2.2 / Clause 2.2: Speed Measuring Devices for agricultural vehicles***

Plunket and Safekids recommendation and rationale

**Recommendation**

That speed indication devices must be fitted to all agricultural vehicles capable of travelling faster than 30kph – particularly for All Terrain Vehicles (also known as Quad bikes, or 4WD bikes).

**Rationale**

We believe the proposal has merit in the context of the new New Zealand ATV Helmet Standard 8600:2002, which says such helmets are designed for use at speeds less than 30kph. We believe having devices on ATVs that indicate when this speed is being exceeded would be a useful tool for wearers of ATV Helmets.

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