

City of Stirling Child Car Restraint Program

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Abstract

The City of Stirling aims to reduce the number of children killed or hospitalised as a result of road trauma through a holistic child car restraint (CCR) program that increases the number of parents/careers who use appropriate, safe and correctly fitted CCRs. A correctly fitted CCR can significantly reduce the risk of death and injury however the effectiveness of CCRs can be impaired by incorrect installation or using a CCR that is not appropriate for the size and weight of the child, damaged or old. The City established a Road Safety Officer position in 2004 and a CCR program was identified as an area of need by the Road Safety Advisory Committee. In 2005 the establishment of accredited CCR Type I fitter training in WA enabled the City's Road Safety Officer to establish a formalised CCR program. The need to develop a holistic CCR program rather than just providing a service was evident early and the program:

- Raises awareness of the issues associated with the incorrect CCR use
- Provides a free CCR fitting and checking service for residents
- Provides a free drop off service for old or damaged CCRs
- Facilitates free CCR demonstration/presentation sessions
- Provides free training to expand the CCR fitting and checking network
- Administered a subsidised CCR scheme for disadvantaged groups

The holistic nature of the City's CCR program is a defining feature as the program and partnerships with other organisations and councils has been a successful method of extending the reach of the program.

Background

Road transport injury is the leading cause of death in Western Australia for children aged 0-14 years and the second largest cause of hospitalisation for this age group (Injury Control Program, 1998). Road trauma accounted for seven deaths and 111 hospitalisations in children aged between 0 -11 in 2005 (Office of Road Safety 2007). Many child injuries and fatalities in vehicle crashes could be prevented through the appropriate use of child restraints.

A major risk factor for children is the incorrect fitting of a Child Car Restraint (CCR) (Henderson, 1994). A survey undertaken by Kidsafe WA (1998) indicated that 62% of CCRs were fitted incorrectly. This supports US studies where they found that a large number of children were occupying car seats that were not installed correctly (e.g. Anonymous, 1995, 1998; Decin & Knoebel, 1997). It is therefore seen that any intervention to increase the use of CCRs must also consider increasing the incidence of correct fitting.

Studies indicate that there are several primary reasons for non-use of CCRs. These include inadequate access to child restraints (Injury Control Program, Health Department of WA, 1998), lack of knowledge about which CCR to use, parents being forgetful or are in a hurry to get somewhere, too many passengers in a car, and short journeys (Gielen et al., 1984; Margolis et al., 1992; Webb et al., 1988).

The Western Australian Road Safety Strategy "Arriving Safely" focuses on those issues and actions with the greatest potential to reduce road trauma as proven by significant research. It has identified that "not using seat belts and child restraint is a major contributor to road trauma despite their

proven effectiveness in preventing deaths and serious injuries" (Road Safety Council of Western Australia, 2003, p. 16).

The strategy states that public education about the importance of correct fitting of child restraints, the implementation of state-wide education and checking system for the use of fitted child restraint and encouragement of local communities to have regular child restraint fitting checks will contribute to a reduction in road trauma on WA Roads by increasing restraint use by the population (Road Safety Council of Western Australia 2003, p.16).

A report by Turner et al (2005) found in a systematic review of the literature that there was some evidence that community-based programs for increasing child safety restraints and or reducing motor vehicle occupant protection are effective. Of the eight programs evaluated, three reported considerable improvements with either injury outcomes or increased use of car restraints. Another study found the same reduction in injury rates in the intervention community and limitations in the evaluation methodology of the other four programs required their results to be interpreted with caution (Turner et al 2005)

Kidsafe WA first piloted CCR Checking in 1998 which lead to the development of the BankWest Rural Child Restraint Program and periodic Free CCR Checking Stations conducted by RoadWise Committee's. In 2001 periodic free checking stations ceased whilst the establishment of the training for Type 1 fitters was developed, however community demand for the service was so strong that Kidsafe developed a centre based CCR fitting and checking service. Kidsafe WA recommended that a state-wide network of authorised fitting stations were required to meet community demand for child restraint checking and fitting, but there is a need for appropriate training of fitters, quality assurance of authorised fitting services and overall co-ordination by a body that holds knowledge, expertise and skills in the content area (Wicks & Leeds).

The BankWest Rural Car Restraint Project was implemented in 1999 and aimed to reduce the mortality rate and severity of injury due to non-restraint use in rural WA drivers and passengers. Specific to CCRs the project aimed to increase the compliance of parents with restraint use, increase parents knowledge about appropriate restraints, increase use of CCRs and increase the number of child restraint in cars that are installed correctly. Strategies used to meet these objectives included parent education and the provision of information in appropriate locations, implementation of a CCR checking service and an incentive campaign that rewarded adults and children for wearing a restraint. These strategies were based on evidence that information and education strategies would be seen as supporting those strategies shown to be more effective at increasing restraint use such as enforcements, incentives and child restraint checking services. Whilst outcome measures have not been reported the project was effective in that it achieved positive self-reported behaviour change in parents reached (Coastal & Wheatbelt Public Health & Injury Control Program 2000)

In 2005 the establishment of accredited training for Type 1 fitters was finalised and implementation began. The City of Stirling Road Safety Advisory Committee identifies the fitting of CCRs as a priority area for action and has included the activity in their 2005/06 Action Plan. As a result the committee has designed the current program for implementation during 05/06 (City 2004).

In the event of a vehicle crash, the poorly fitted or adjusted restraints is likely to result in the infant/child impacting with parts of the vehicle interior with resulting impact injuries. There is also the possibility that the infant/child may slide down through the seatbelt which can result in strangulation injuries and in injuries to the head, spinal cord and body. The infant/child may also be completely ejected from the restraint. (CCR Manual, 2005).

Introduction

The City of Stirling is committed to enhancing community health and well-being as part of the *City of Stirling Strategic Plan 2009/2012*. The City employs a full time Road Safety Officer and has established a Road Safety Working Group (formerly Road Safety Advisory Committee). A CCR program was identified as an area of need by the committee in the City Road Safety Advisory Committee Action Plan.

In 2005 the establishment of accredited CCR training enabled the City's Road Safety Officer became an accredited Type 1 Fitter and establish a formalised CCR program. It was evident early that it was important to develop a CCR program that was holistic rather than merely providing a service.

The holistic nature of the City's CCR program is a defining feature as the program combines a fitting and checking service, practical advice through demonstration sessions, awareness raising and education, disposal of old/damaged restraints and partnerships with other stakeholders.

A partnership with other organisations and Local Governments has been a successful method of extending the reach of the program and providing additional checking and fitting events. Four councils, including the City of Stirling have joined together to conduct annual checking events in each respective council.

The City, through investigation into community needs has received grant funding to develop a Subsidised CCR Scheme for disadvantaged groups. The grant funding also allowed the City to develop CCR demonstration cards in a range of languages to assist in running demonstration sessions to raise awareness of the dangers of not restraining children, ensure restraints are appropriate for the child's weight and size and ensure restraints are fitted correctly for Cultural and Linguistically Diverse (CaLD) communities.

Aim

The City aims to reduce the number of children killed or hospitalised as a result of road trauma through a holistic CCR program that increases the number of parents and carers who use appropriate, safe and correctly fitting CCRs.

Objectives

The objectives of the City's CCR program are to

- Raise awareness of the issues associated with the incorrect use of CCR
- Provide a free CCR fitting and checking service for residents
- Provide a drop off and recycling service for old or second-hand CCRs
- Facilitate CCR fitting demonstration sessions for parent groups
- Develop a Subsidised CCR Scheme and culturally appropriate educational materials for disadvantaged groups
- Provide training to members of the community to expand the CCR fitting and checking network and ensure sustainability

Awareness Raising

The City works with child road safety stakeholders, Kidsafe, School Drug Education and Road Aware (SDERA) and the WALGA RoadWise Program to raise awareness of the dangers associated with incorrect CCR use. The City through its community road safety program is able to distribute relevant information produced by these organisations at a community level. This is done by

providing education packs at checking stations, community displays, utilising paid and free media and networking with other organisations in the City.

CCR Fitting and Checking

The City through initial grant funding offers a free CCR fitting and checking day twice every month for the City's residents. The service includes an inspection of the CCR for appropriate use, damage and age and clients are shown how to install the CCR rather than just fitting it for them to further enhance their knowledge. After the initial grant funding the City is able to continue a successful program with limited resources and promotion.

In addition to the regular service, the City offers a CCR fitting and checking service for parent groups and organisation such as the Department of Child Protection (DCP). In order to offer the service in a variety of settings, the City in partnership with the Town of Cambridge, City of Subiaco, Town of Vincent and the WALGA RoadWise Program combine resources to host a CCR station in each Council once a year.

Outdated and Damaged CCRs

The City offers a service where residents can drop off their old or damaged CCRs to be recycled. In addition to incorrectly installed CCRs, a CCR over 10 years old or one that is damaged may result in unnecessary road trauma. The plastic shell of a CCR will deteriorate over time and it is recommended that they be replaced after 10 years. CCRs are a 'once use' item and must be replaced in the event of a crash or if they show signs of damage or deterioration. This service is promoted during demonstration sessions and via a notice in the bulk rubbish collection flyer pamphlet.

CCR Demonstration Sessions

The City's Road Safety Officer offers demonstration sessions at child services facilities, events, community groups and playgroups to demonstrate correct fitting of CCRs. The sessions raise awareness of the issues associated with incorrect CCR use in an interactive way to allow for different learning needs. This method is particularly effective with CaLD groups and parents who are more task/action orientated. Demonstration cards are currently being developed in a range of languages which will further assist in running demonstration sessions that are inclusive for all residents.

Subsidised CCR Scheme

The City, through investigation into community needs, developed a Subsidised CCR Scheme. CCRs funded through the Community Road Safety Grants Programs were available to the City's residents who are financially unable to purchase a new CCR for a \$50. This was to make CCRs available to all parents and contribute to reducing the amount of unsafe second hand, older and overseas restraints being used. The Scheme relied heavily on partnerships with external agencies to determine and refer the clients who are in most need of the scheme.

Network Building and Sustainability

After initial marketing and promotion the City's CCR Program is promoted by 'word of mouth' through previous clients and partnerships with other organisations alone. The free fitting and checking days are fully booked a month in advance with no active promotion on the City's part. Due to time constraints, many residents are forced to refer to a paid service which is a barrier in having the CCR professionally fitted or checked.

To increase the reach of the program and ensure its sustainability, the City’s Road Safety Officer is currently studying Certificate IV in Training and Assessment to offer CCR fitter courses for community based organisations. Having a network of CCR fitters and checkers in the City will increase the reach of the program, particularly into the ‘hard to reach’ groups like Indigenous and CaLD groups. This will assist in negating some of the barriers in implementing the CCR program in these communities

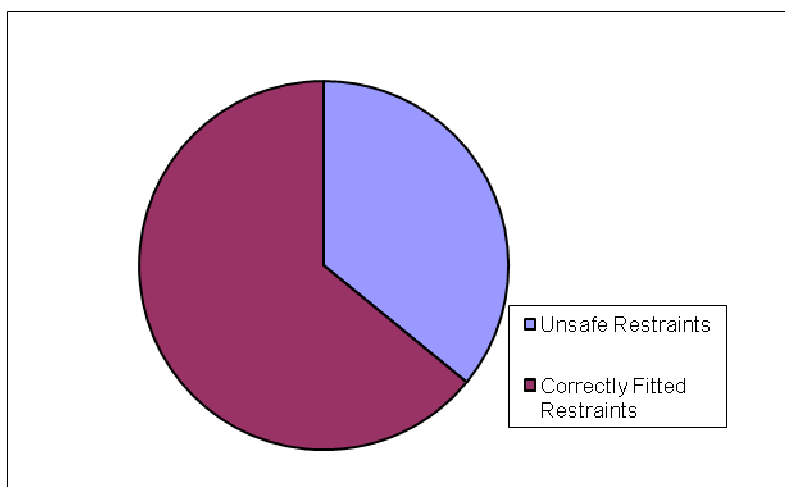
Increasing the capacity of community based organisations to provide a CCR fitting and checking service will allow the CCR project to become sustainable in the absence of a Road Safety Officer or any changes in customer service focus at the City.

Evaluation of the CCR Fitting and Checking Service

Appropriate evaluation is an essential requirement of any road safety project, an evaluation linking directly to the objectives was developed in the early planning stages.

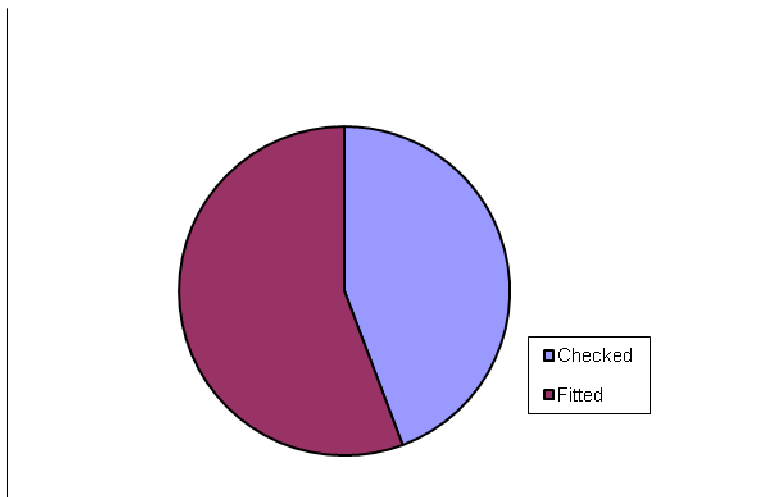
The City’s bi-monthly CCR free fitting and checking service is well utilised by residents with spots to access the service being booked out anywhere up to six weeks in advance. The following results were determined through evaluation of the City’s checking and fitting service during the grant funded period.

Figure 1: Percentage of incorrectly fitted or unsafe CCRs



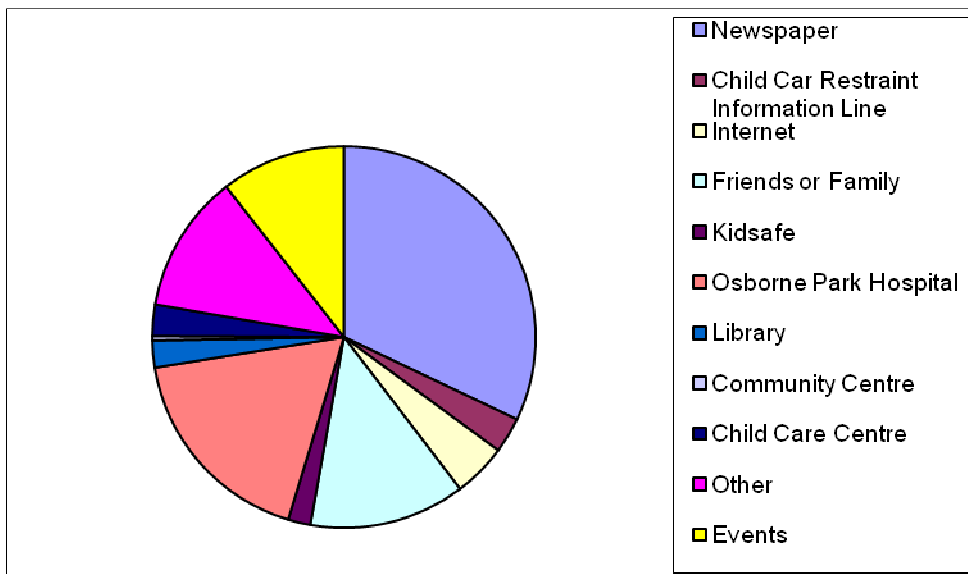
Of the total amount of CCRs checked, 36% of CCRs were unsafe. This included, incorrect anchorage point used, restraint over 10 years old, restraint not of Australian Standards, wrong seat belt path, top tether and harness strap twists.

Figure 2: Percentage of CCRs fitted or checked



Of the total amount of CCRs fitted and checked in the localised CCR program, 56% of CCRs were installed by the City of Stirling Type 1 Fitter with the remaining 44% checked.

Figure 3: Method of resident finding out about the fitting and checking service



The Newspaper initially proved to be the best form of promotion, however after initial promotion, through word of mouth, locally designed and printed flyers distributed to local baby retail stores and the hospitals have now proven to be the best promotion.

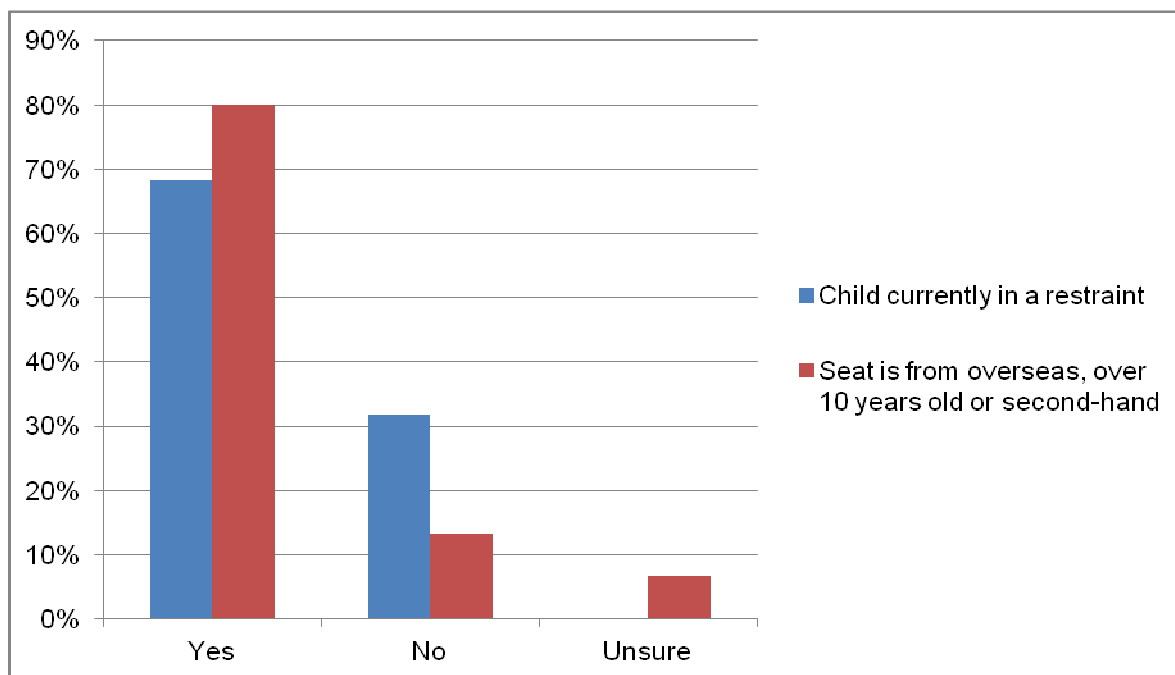
The most effective form of promotion for the campaign was newspaper advertising, initially. Once the program had been running for a year, in-house produced flyers distributed to baby retail stores, hospitals and anti-natal classes were the best form of advertising. As fitting and checking days are generally booked out a month in advance there is no need for the City to actively promote the CCR program.

Evaluation of the Subsidised CCR Scheme

Organisations referring clients to the City for a subsidised restraint were asked to administer a survey to assess current restraint usage and determine barriers to restraint use. This approach was favoured due to a lot of clients not being able to either read or speak English and to ensure truthful answers to a person they know and trust.

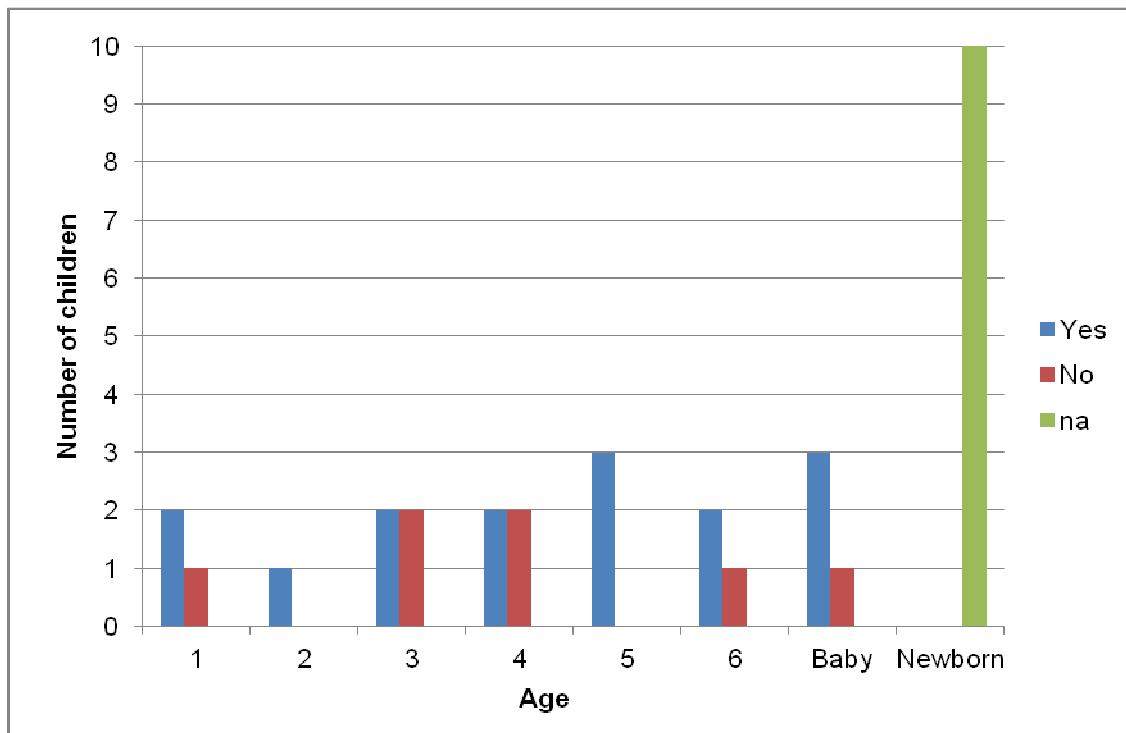
On the most part compliance with administering the survey was high as organisations were informed that it was a condition of referring clients for a subsidised restraint. 34 surveys were administered to individual clients and one survey was conducted in a group situation with referees recording answers that were the consensus of the group. The following results are a collation of responses from the 34 individually administered surveys:

Figure 4: *Current restraint usage and use of overseas, old or second hand restraints*



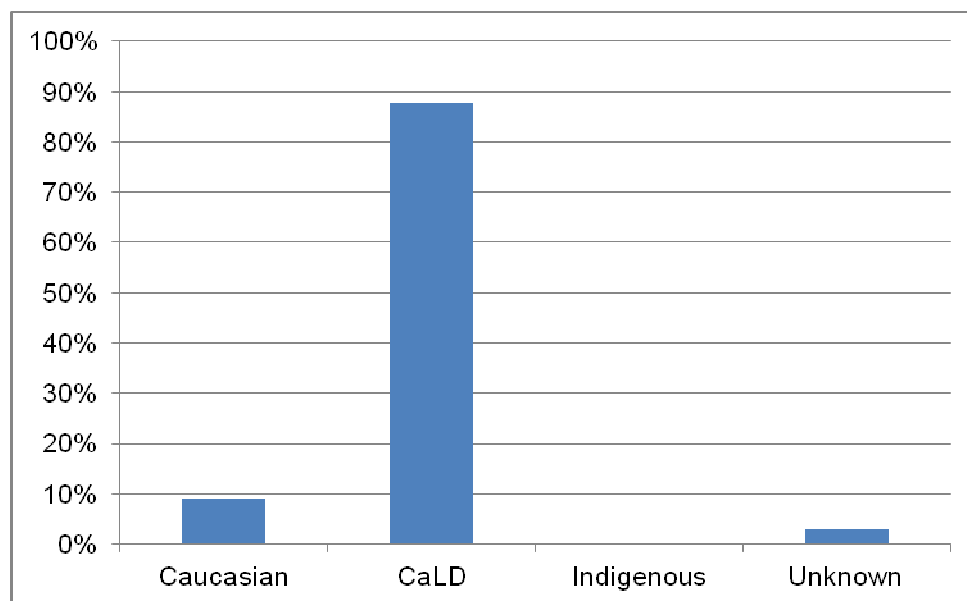
The rate of children currently not in a restraint was just over 30%. 80% of the children that were in a restraint were in one that did not comply to Australian Standards, was over 10 years old or damaged or was second hand.

Figure 5: Current Restraint Usage by Age of Child



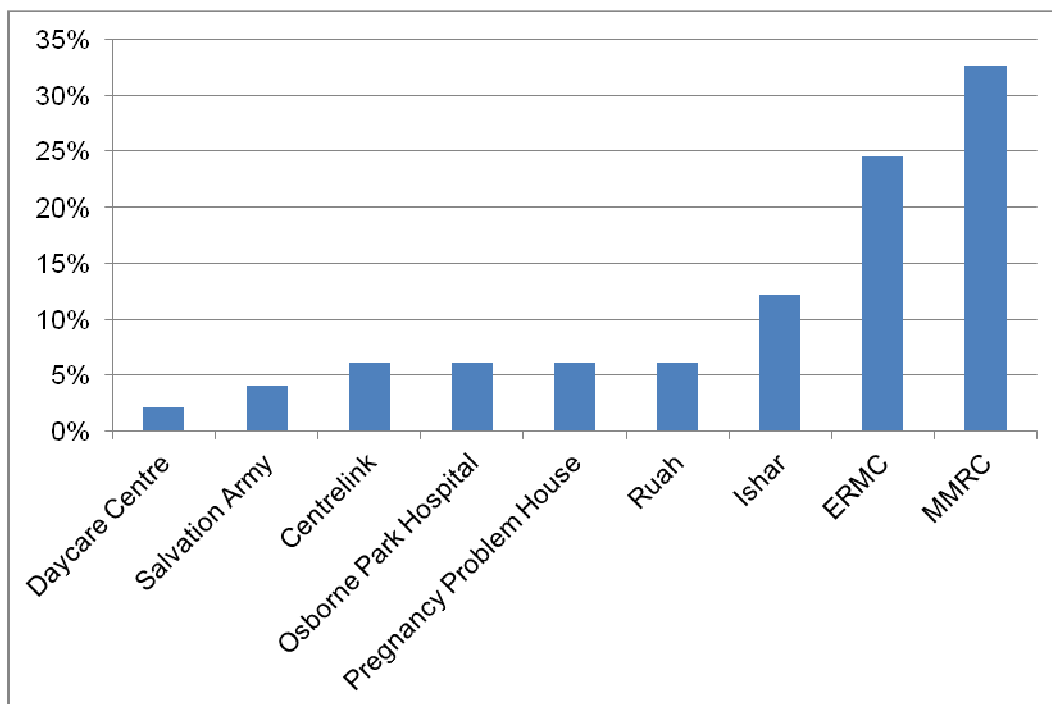
There appeared to be no pattern for restraint usage across the different age groups except for a lower compliance rate (50%) in the 3 and 4 year age groups. A surprising result was the level of compliance in the higher age groups due to the cost of ensuring all children in the car are restrained being such a key factor.

Figure 6: Background of Client Accessing a Subsidised Restraint



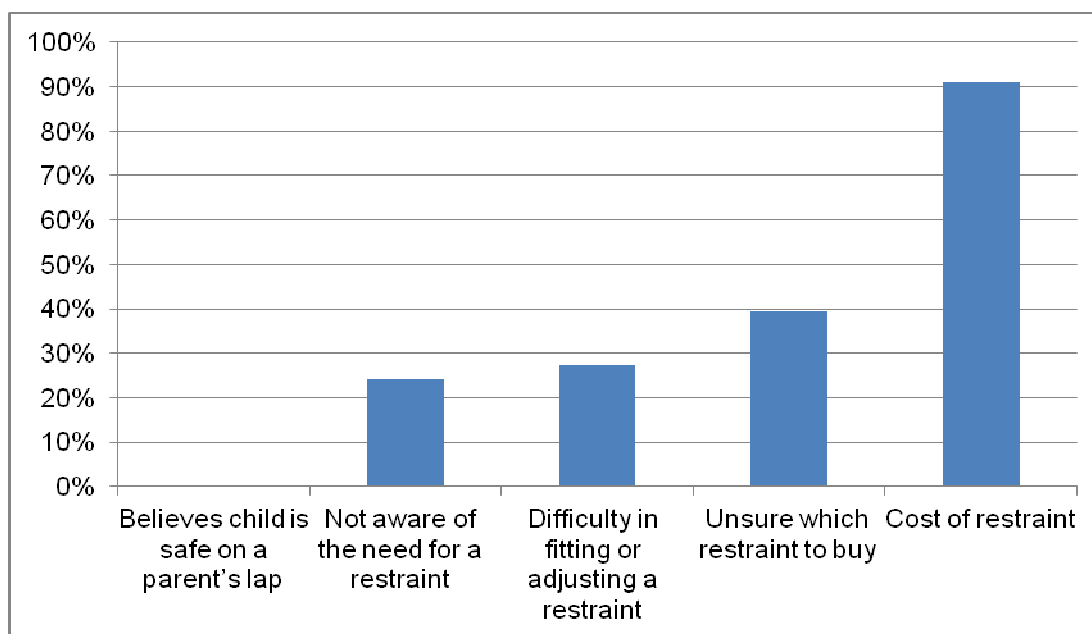
Just under 90% of the clients accessing a subsidised restraint were from a CaLD background. The City has a large multicultural population and takes on over 55% of humanitarian aid in WA. The Mirrabooka area has significant services to assist the entry of CaLD migrants and it was through these services that made up the majority of referrals.

Figure 7: Organisations that Referred Client to Access a Subsidised Restraint



Just under 70% of referrals came from organisations that assist people and families from a CaLD background including the Ishar Women’s Multicultural Centre, Edmund Rice Migrant Centre and the Metropolitan Migrant Resource Centre.

Figure 8: Barriers to Correct Restraint Use



Just over 90% of clients indicated that cost was a barrier to correct restraint use just under a quarter of clients indicating they were not aware of the need to place their child in an appropriate restraint. Over a quarter of clients indicated they had difficulty in fitting or adjusting a restraint and 40% were unsure where to purchase a restraint.

Table 1: *Recorded Responses in comments section for the reason for Client Accessing the Subsidised Restraint*

Comment	Count
Cheaper option	2
Cost	3
Currently out of work	1
Existing CCR is getting old	1
Existing seat is too old and not good condition	1
Financial hardship	8
Financial hardship. Unsure where to buy	1
Having twins too expensive. Unsure where to buy	1
Necessity	1
Need a safer seat	1
New news	1
Old seat	1
Safety of children	2
Single mum with financial troubles.	1
Wants to keep baby safe	1
Would like safer seat for my child	1

The project has assisted the City is establishing key relationships with organisations that work with and assist CaLD community and gain the trust of clients of those organisations. This will allow the City to further build the capacity of these organisations to deal directly with issues of restraint usage and provide avenues for the City to target those hard to reach groups more effectively.

The subsidised restraints had a significant impact on a relatively small target group. Several clients accessing subsidised restraints had no restraint in their car but had the child with them meaning they had arrived unrestrained. Additionally a high number of seats being replaced were over 10 years old, inappropriate for the child's weight and age, fitted incorrectly (one example was a capsule in a forward facing position) or second-hand with no knowledge of crash history. The implications for the safety of the child travelling in the vehicle before and after the restraint fitting or check were enormous.

Anecdotally the information sessions and workshops conducted at Edmund Rice Migrant Centre through an interpreter were beneficial for the ladies attending them but also for the staff at the centre. Areas covered in the workshops were correct restraints for age and size, old/second-hand /damages/Australian Standard restraints, legislation and penalties and demonstrations of the components of an A/B convertible restraint and a booster seat. The sessions were interactive in that participants could ask questions and have a go at playing with the restraints to get familiar with the various buckles and straps. Participants were provided with a collection of brochures in various languages and encouraged to distribute them amongst their community to tackle to communication barrier between organisations producing materials and the target groups they are designed for.

Sustainability

After the initial 12-month funding period, the CCR fitting and checking appointments and stations continue to be available to the residents of the City of Stirling. The initial funding from the Road Safety Community Grants helped this project to commence, and can now easily be run with very small funds, relying on word-of mouth and free and small fee promotion. Information about the service continues to be updated on the City's web page.

The fact sheets printed at the City's expense and 2 corflute signs have an extended lifespan and are used at all CCR fitting stations bookings. Litterbags in their quantity are lasting beyond the campaign timeframe and can be used for further advertising, a reminder of action on further CCR checks and other City of Stirling events.

Due to the building of key relationships in the community the majority of activities in the project are able to continue at minimal cost to the City such as:

- Running information and demonstration sessions
- Conducting fitting and checking services
- Disseminating collateral material to target groups
- Providing training to organisations and community members

Due to the onerous nature of administering subsidised restraints as well as the cost of purchasing the restraints, the City is not committed to continue purchasing restraints from the capital expenditure budget. In order to ensure the sustainability of subsidised restraints the City's Road Safety Officer is working with community organisations to assist them in applying for grant funding to purchase restraints and administer a subsidised restraint program. It is envisaged that this approach will further engage community groups in focusing on issues around restraint usage and increase the reach of the City's CCR Program. Currently only one community organisation, Edmund Rice Migrant Centre has indicated interest in applying for a community road safety grant and the Road Safety Officer has initiated meetings to providing direction and resources to develop a grant and offered to review a finished draft.

Acknowledgments

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