

Community Booster Seat Promotional Campaigns

Why Booster Seats?

Head injuries, neck and spine injuries, abdominal and internal organ damage are all tragedies that can occur when children ages 4-8 are not in a booster seat or are only wearing an adult seatbelt. Children in this age group are often too large to fit into a child restraint seat and too small to fit into a regular seatbelt. Booster seats are needed to provide the added height or “boost” that children need to have seatbelts, designed to fit an adult, positioned properly across their bodies.

Based on research using mechanical tests, computer simulations and epidemiologic data, booster seats are found to be effective in preventing child injury.¹ In fact, they are shown to reduce injury by 59% compared to using adult seatbelts alone.² Children who are placed into an adult seatbelt too early are four times more likely to be injured compared to those children in a child passenger safety seat or booster seat.²

What does a crash involving a 6 year old wearing only an adult lap belt look like?

View the crash test dummy clip at the website designed by Harborview Injury Prevention Research Center at the University of Washington and the King County Booster Seat Campaign:

http://depts.washington.edu/booster/why_booster_seats.html.

Due to the increased awareness of the necessity of booster seats, **36** states have passed laws requiring that children ages 4-8 be seated in a booster seat while traveling in a motor vehicle (as of November 2005).²

Children should be in booster seats until they weigh 80 pounds AND are 4’9” tall.

Injury prevention research has increased awareness of the importance of seating children ages 4-8 in booster seats, allowing parents, community members, health professionals, and even policy makers to recognize that booster seats prevent severe injuries and even death.

Researchers at the Harborview Injury and Prevention Research Center (HIPRC) at the University of Washington, led by Dr. Beth Ebel, have conducted a pioneering study leading to the implementation of a community based campaign seeking to increase booster seat usage.

Booster Seat Campaign

From January 2000 to March 2001, the Harborview researchers conducted their community campaign in 12 communities: 4 communities in Seattle acted as intervention sites, and 8 communities in Spokane, WA and Portland, OR acted as control communities.¹ A total of 3,609 children meeting the booster seat requirement parameters were observed both at the beginning of the campaign and after 15 months of exposure to the health promotional messages.¹

The booster seat campaign involved a multi-faceted, comprehensive approach, which contributed to its success. Before beginning the campaign, focus groups were conducted to understand why parents did or did not use booster seats.³ The results from these interviews were instrumental in developing an intervention, using theory-based health promotion planning models.

To have a consistent message, the researchers included a diverse group of community members, who not only contributed to the booster seat campaign implementation, but who have also *sustained* the booster seat program after the research funding ended. These community members, comprised of parents, public health professionals, community outreach workers, childcare providers, law enforcement officers, physicians, emergency medical technicians, and educators have formed the King County Booster Seat Coalition. By gaining an understanding of all stakeholders’ viewpoints, these groups were able to work together to increase awareness and educate families on booster seat use.

SUCCESS!

Evaluation of the booster seat campaign showed the program to be successful at increasing booster seat use.

The rates of booster seat use in the intervention communities **doubled** from 13% to 26%, showing a significant rise in booster seat usage over 15 months, compared to control communities.¹

The informative booster seat website had 81,000 hits by August 2002.¹

A Consistent Message

“Is your child ready for a seatbelt? Think again! Every child needs to be in a booster seat until the belt fits right. Booster seats solve the problem.”

This message is located on the website, www.boosterseat.org, which is one of the avenues used for disseminating this message.

Dr. Ebel and her colleagues wanted to ensure that there were multiple outlets for their booster seat messages to get through to families. They also wanted to provide means to overcome the barriers families may face when deciding to buy a booster seat.

In addition to the coalition formation and car seat training programs, various educational programs to increase parent and caregiver knowledge and awareness (see side box), and discount coupons for the purchase of booster seats were developed.

The booster seat campaign demonstrated that utilizing multiple avenues with a consistent message is effective for increasing the use of booster seats.



Health Disparity

In the Seattle area, it was discovered that 14% of Latino children are in booster seats, as compared to 40% of non-Latino families. In addition, 41% of Latino children were found to be completely unrestrained, while only 14% of non-Latino children were found to be unrestrained.⁵

Sharing the Message

While the booster seat program was successful, what about those families who may not understand the educational materials and messages due to language or cultural barriers? How can these groups be reached? Latino families comprise 14.4% of the US population.⁴ Dr. Ebel states that it is important to recognize that we need to reach these families with culturally appropriate materials and outreach. Based on the successful booster seat campaign, Dr. Ebel and her colleagues set out to develop a more tailored message, addressing barriers as to why some Latino families in the state of Washington do not use booster seats. The implementation and evaluation for this program is ongoing; however they have utilized qualitative research methods to obtain detailed focus group data from 91 Latino parents.⁵ Based on these findings and those from a baseline survey, the researchers have produced multiple materials regarding booster seat usage.

Barriers for not using booster seats¹

- ◆ Lack of complete knowledge regarding booster seats and their use
- ◆ No consistent information
- ◆ Child resistance
- ◆ Peer pressure of child to be seated in the car without any car seat
- ◆ Finding affordable booster seats

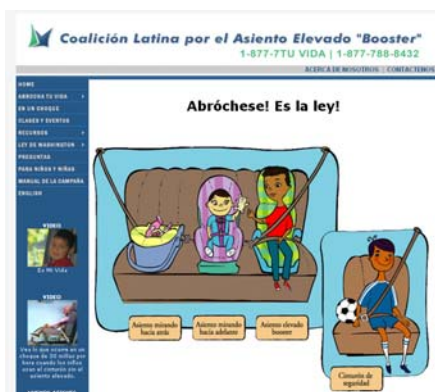
Education program components¹

- ◆ Newspaper articles
- ◆ Website– www.boosterseat.org
- ◆ Tip sheets, brochures and flyers (in multiple languages)
- ◆ Telephone information hotline
- ◆ Resource kits for preschools and health care providers
- ◆ Radio and television public service announcements
- ◆ Local news reports
- ◆ Programs to address barriers to booster seat use.

They also gained a snapshot of what barriers and motivators exist for Latino parents when it comes to booster seat use.

Barriers ⁵	Motivators ⁵
<ul style="list-style-type: none"> ◆ Cost- many families were unaware that booster seats were <i>less expensive</i> than the child passenger safety seats used for children 0-4 years old. Many families come from countries where booster seats are a “luxury not a necessity.” ◆ Child maturity- many parents felt that because children were older than 4 and had outgrown the safety seats, they were old enough to ride without any seat. ◆ Lack of knowledge- families were unaware of what could happen in a crash when a child was not restrained properly. Many parents in the focus group wanted to learn more about injuries sustained in a crash. 	<ul style="list-style-type: none"> ◆ Receiving a citation from police officers—many parents did not know that the state of Washington imposes a \$101 fine to drivers who do not have their child properly restrained. ◆ Child safety when traveling—parents were worried about what could happen in a crash and wanted to protect their child from severe injury. ◆ Low cost of booster seats—parents were unaware that booster seats were less expensive than other safety seats. ◆ Ease of use of booster seats. ◆ Children are willing to use the seat— if children are happy using the seat, then parents do not have to argue or fuss with their child to get them to use the seat.

The research team had a foundation for developing their next intervention based on their findings. Materials for Spanish-speaking families were designed. Brochures depicting what could happen to a child in a crash, parents buckling up their children in a booster seat, cost of booster seats, and police officers issuing citations for not using a booster seat were all developed and are available for professionals and families. Radio and television public service announcements were developed; an informative website, www.abrochatuvida.org, which complements the English version of www.boosterseat.org, has materials and resources. A booster seat hotline was also established, with Spanish-speaking injury professionals available to assist parents. The distribution of these materials is occurring through schools, WIC clinics, law enforcement, the website and community organizations. While evaluation of this intervention is still pending, preliminary data suggests that their messages are being widely disseminated. In addition, the radio messages, videos, and print materials have won awards at the 8th World Conference on Injury Prevention and Safety Promotion in South Africa in April 2006.^{6,7}



View all of the materials and messages at www.abrochatuvida.org



Pending evaluation, Dr. Ebel hopes that this tailored intervention will one day become a model for other injury prevention programs reaching high-risk populations. Dr. Ebel states that this was a capacity building effort as well. There were no Spanish-speaking car seat information hotlines in Washington, prior to the intervention.⁷

Child Motor-Vehicle Injuries and Economic Costs

Motor vehicle crashes are the leading cause of death by unintentional injury for children ages 5-9.⁸ NHSTA estimates that in 2004, 1,638 children (14 and younger) were killed and 214,000 children were injured as occupants of motor vehicle crashes.⁹ According to Finkelstein et al., the total lifetime cost of child and adolescent injury in the year 2000 was **\$34.6 billion**, with over \$5 billion of that coming from motor vehicle injuries to 5-14 year olds.¹⁰

By preventing injuries, society may benefit economically by saving on medical costs, resource costs (police, fire services, property damage), work loss and quality of life costs. The Children's Safety Network Economics and Data Analysis Resource Center determined that programs that distribute child safety seats yield a total benefit to society of \$1,900 for an average cost of \$46 per seat.¹¹

Booster seats have been found to be effective in reducing motor vehicle injuries to children ages 4-8, yet more needs to be done to determine the cost effectiveness of using them.

Total Lifetime Costs of Motor Vehicle Crashes, ages 5-14¹⁰

- ◆ Fatal Crashes
\$2.2 billion
- ◆ Hospitalized Injuries
\$1.6 billion
- ◆ Non-Hospitalized Injuries
\$1.9 billion

Summary

With more and more people becoming aware of the importance of booster seats, using one for children ages 4-8 will become more of a norm rather than the exception. Children's lives will be saved and injuries, such as head injuries, neck and spine injuries and abdominal and internal organ damage will be averted. Preventing motor vehicle injuries to children will benefit society economically.

Dr. Ebel and her colleagues have increased awareness about the importance of booster seat use, and have also significantly increased booster seat use in the Seattle area. Her study is referenced often and is a model for other programs. Based on past research showing that booster seats are effective, Dr. Ebel and Harborview researchers have successfully disseminated this message, ensuring that parents are aware of and are using booster seats. She is also reaching high-risk groups, such as Latino families.

These booster seat interventions have shown that injury research is vital to preventing childhood injury. Dr. Ebel and her colleagues defined the problem, identified the cause, developed and implemented a successful intervention to increase booster seat use in the Seattle area.

Better resources are now available. As more states pass laws requiring booster seats, this information will be useful for families across the country. Although there have been great strides in promoting booster seat use, pushing further to reach high-risk and diverse families is necessary. Further research-based program implementation is needed to prevent motor vehicle injury for *all* 4-8 year olds.

References

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