



## Give Kids a Boost (GKB): 4 Years of Success in Increasing Booster Seat Use among School-age Children

Lifesavers National Conference on Highway Safety Priorities  
 April 4, 2016  
 Long Beach, CA

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# Background




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## The Facts

- Car crashes are the second leading cause of death and leading cause of injury death for children 5-9 years of age.<sup>1</sup>
- Booster seats reduce the risk of serious injury in motor vehicle crashes by 45% for children 4-8 years of age as compared to seat belt use alone.<sup>2</sup>
- Texas Law: All children less than 8 years old, unless 4'9" tall, must use a child safety seat every time they ride in a motor vehicle.
- 2013 estimates of booster seat use in Texas<sup>3</sup> (for children 5-8 years old):
  - 9% were correctly restrained in a booster seat
  - 53% were completely unrestrained

1 National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 2014 Fatal Injury Data, Atlanta, GA: Centers for Disease Control and Prevention, (retrieved March 2016), <http://www.cdc.gov/wisqars/data/tables>  
 2 Knaflitz M, Wenzelak K, Miller M, and Dornan G. Effectiveness of Child Booster Seats: An Updated Assessment. Pediatrics. 1 November 2009; 124(5): 1283-1286.  
 3 Texas Transportation Institute, 2013 Observational Survey of Safety Belt Use Among School-Aged Children in Texas. Analysis for 5-year-old, by request. (retrieved 17 December 2015)




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## Project Overview



- One-year project implemented in 2 project schools per year for 4 consecutive fiscal years (Oct 2011 – Sept 2015)
  - 2-4 comparison schools with similar demographics did not receive the intervention
- Goal → Increase booster seat use of children 4-7 years of age
- Funded by one-year grants through the Texas Department of Transportation (TxDOT)



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## Selection of Project Schools

- 1) Economically-disadvantaged
- 2) Emphasis on minority populations
- 3) Supportive staff and active parents/parent groups



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## Methods



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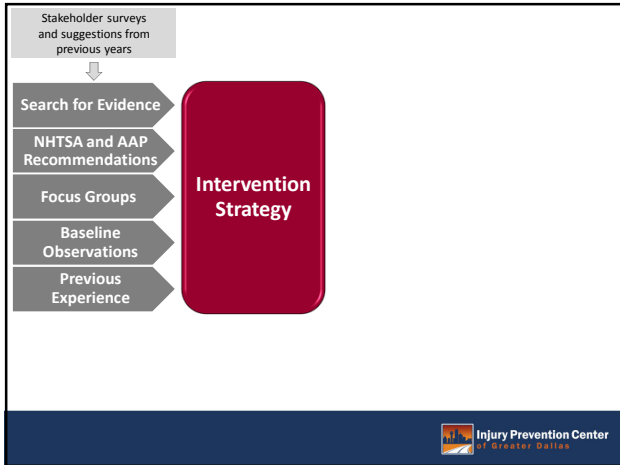
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### Letter of Commitment

- Discussed during initial meeting with school leadership
- Formalizes commitment by the school to support all aspects of the project
- Demonstrates to school leadership that the project is a shared responsibility and a team effort

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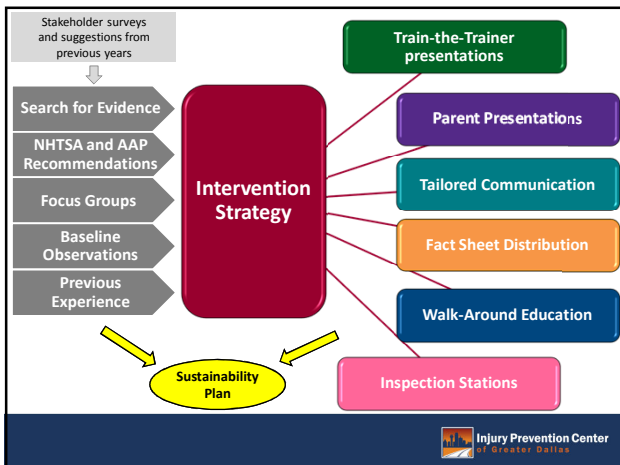
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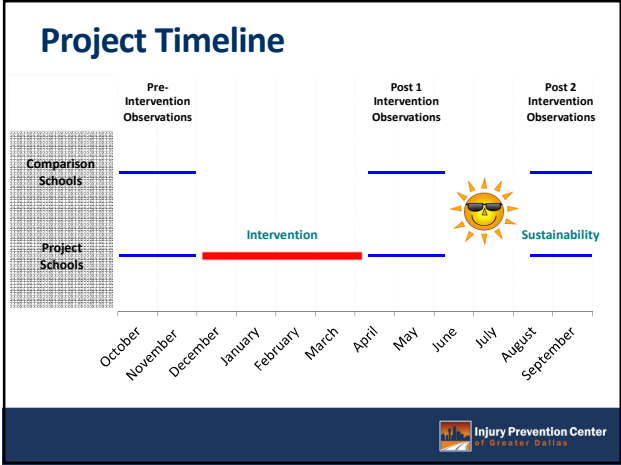
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### Evaluation Plan

- **Formative** → Focus groups
- **Process** → Ongoing feedback and stakeholder surveys
- **Impact** → Observational surveys

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### Formative Evaluation – Focus Groups

- **Purpose:**
  - To better understand the opinions and the concerns of our stakeholders
  - To specifically tailor the project to each school.
- **Topics of discussion:**
  - School and community safety concerns
  - Pre-existing knowledge about child passenger safety and the Texas law
  - Perception of law enforcement
  - Effective communication methods

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# Observation Results

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**Table 1: Combined Results of Booster Seat Use at Comparison and Project Schools Among Children 4-7 Years of Age**

	Pre-Intervention Time Period (Oct-early Dec) Percent and Number of Kids in Booster Seats	Post-Intervention Time Period (Apr-early Jun) Percent and Number of Kids in Booster Seats	Odds Ratio (95% Confidence Limits)	P-value
Comparison	4.7% 138/2929	4.9% 153/3148	1.03 (0.82, 1.31)	.39
Project	4.8% (96/2014)	25.7% 517/2013	6.90 (5.50, 8.67)	<.001

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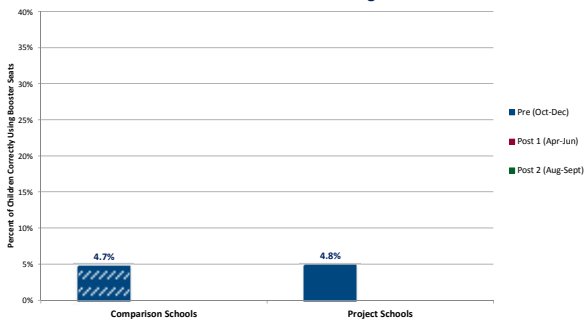
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**Combined Results  
Booster Seat Use in Comparison vs. Project Schools  
Children 4-7 Years of Age**




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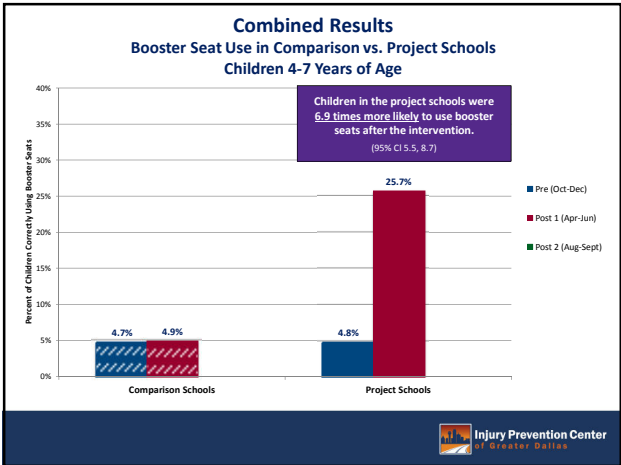
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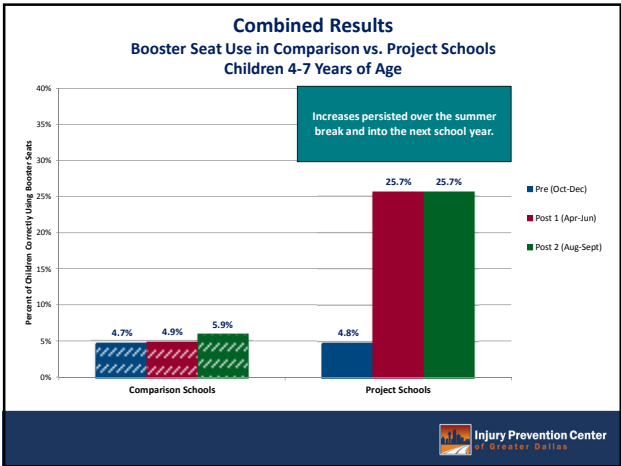
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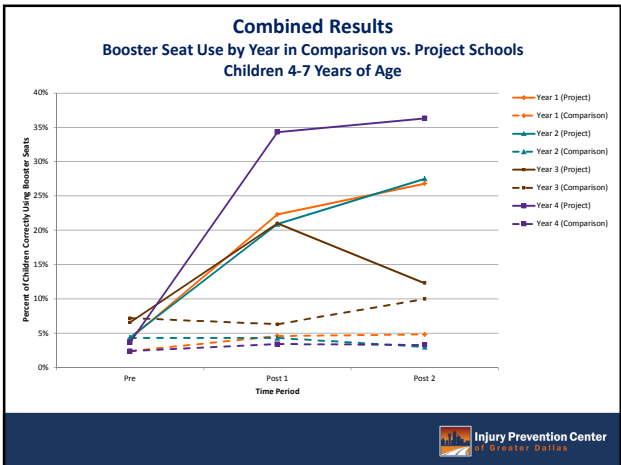
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# Conclusion



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## Keys to Success



- Collaborative relationships
- Cultural context
- Sufficient dosage
- Focus on the parents, not on the kids



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## Conclusions

- The program has been effective in increasing booster seat use for children ages 4-7 in varied school settings among diverse, economically-disadvantaged populations.
- These increases persisted into the following school year when a majority of the students returned.
- Despite project success, there is still more work to do.
- The *GKB* model is a sustainable strategy that may be effective in producing long-term increases in booster seat use among school-age children in similar settings across the country.



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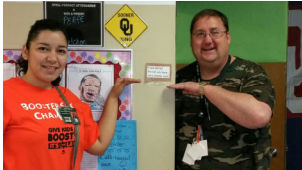
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