

Title of Intervention: Using a Pavement Stencil to Promote Safe Behavior at School Bus Stops

Intervention Strategies: Group Education, Environments and Policies

Purpose of the Intervention: To increase safe behavior of children at school bus stops

Population: Elementary school children who rode the bus to school

Setting: Schools and school bus stops in Farmington, Connecticut; school-based, community-based

Partners: Parent volunteers, local transportation officials

Intervention Description:

- Group Education: Both the intervention and comparison groups received education about safe boarding procedures for the bus. The children were given instructions on where to stand safely until the bus arrived and how to board the bus safely.
- Environments and Policies: The bus stops in the intervention group were stenciled with a two-foot yellow school bus, located 10 feet from the curb. Children were instructed to remain behind the stencil until the bus arrived. When boarding the bus, the children were instructed to line up behind the stencil. Children in the control group (education-only, no stencil) were instructed to do the same thing, only with existing structures or visual markers (fire hydrants, vegetation and pavement cracks).

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Parent volunteers
- Training: Not mentioned
- Technology: Not mentioned
- Space: Classroom for group education
- Budget: Not mentioned
- Intervention: Paint, stencil, safe boarding procedures and instructions
- Evaluation: Data form

Evaluation:

- Design: Experimental control
- Methods and Measures: The children were observed daily over a five-week period to examine the effectiveness of the stencil/education program (intervention group) versus education-only (control) in creating behavior change.

Outcomes:

- Short Term Impact: Children in the group whose stops were stenciled were less likely to cross the safety lines when the buses approached the stops. The effect for boys and girls and among children in grades 4- 6 was statistically significant.
- Long Term Impact: Children were more likely to cross the safety lines in the education-only group compared to the education/stencil group. The likelihood of unsafe behavior as the bus approached was significantly higher at stops with no stencils located on high traffic volume roadways.

Maintenance: Not mentioned

Lessons Learned: The pavement stencil (with education) may represent a cost-effective, safe and easy way to implement an intervention to deter unsafe behavior at bus stops by elementary school children.

Citation(s):

Burke, G., Lapidus GD, Zavoski RW, Wallace L, Banco LI (1996). "Evaluation of the effectiveness of a pavement stencil in promoting safe behavior among elementary school children boarding school buses." *Pediatrics* 97(4): 520-3.

