

Booster Seat Observational Study: Report Summary

Introduction: Children between 4 and 8 years of age, less than 4 feet 9 inches tall (145 cm), and less than 80 pounds (36 kg) require a booster seat for optimal protection against the risk for injury and death in motor vehicle collisions. Despite evidence documenting the effectiveness of booster seats in reducing these risks, observed rates of booster seat use remain low.

Objective: To measure the prevalence of observed use of booster seats for children aged 5 to 8 years old in Winnipeg, Manitoba.

Method: Roadside observations were conducted at 27 traffic intersections throughout Winnipeg, Manitoba in June 2011. Observations were recorded by trained observers using Transport Canada's methods for periodic child restraint system surveillance. The Transport Canada Roadside Site Observation Form and Site Administration Form were used. To be included, vehicles had to be transporting at least one child estimated to be between 5 and 8 years of age. Observers recorded the age range (infant, toddler, booster age, and older) and the type of restraint, if any, that was used for each child in the vehicle. Information on driver's sex and driver's restraint use were also collected. Vehicles were classified as "booster users" (all 5-8 year olds were in booster seats), "booster non-users" (none of the 5-8 year olds were in booster seats), and "some booster users" (some 5-8 years olds were in booster seats while others were not).

Results: A total of 1,541 vehicles (transporting 2,026 children) were observed during the data collection period. Driver's sex was fairly evenly distributed between males (51.1%) and females (45.9%). Of the 1,317 vehicles where driver's restraint status could be determined, 98.3% of drivers were wearing a seatbelt.

Of the 2,026 children observed, 1,762 were in the booster seat age range (i.e., 5 to 8 years old). These children were restrained as follows: 0.5% forward-facing child seat; 20.5% booster seat; 55.1% seatbelt only; and 2.3% unrestrained. An additional 21.6% of the children were not in a booster seat, but seatbelt use could not be confirmed (therefore, the child was either in a seatbelt only or unrestrained). Restraint status was unknown for 0.8% of the 5 to 8 year old children.

In total, 20.8% of the vehicles were classified as booster users (all children 5 to 8 years in the vehicle were restrained in a booster seat). More concerning is the fact that 77.0% of the vehicles were classified as booster seat non-users. Only 1.5% of vehicles had booster seats for some, but not all, of the 5 to 8 year old children in the vehicle. An additional 0.7% of the vehicles could not be definitively classified. Driver gender and driver restraint use were not significantly related to booster seat usage.

Conclusion: In this study, the rate of booster seat use in vehicles transporting booster seat aged children was 20.8%. These results are consistent with previous research that suggests relatively few children in provinces without legislation ride in booster seats, and underscores the need to implement programs that increase booster seat use. It is imperative that researchers continue to examine interventions that may increase booster seat use such as community education and promotion, low cost booster seat distribution for lower income families, social marketing strategies, and advocacy for booster seat legislation.

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