



A member of the  
National SAFE KIDS Campaign

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***Motor vehicle traffic crashes are the leading cause of injury death for children ages 0-14.<sup>1</sup>***  
*Injury in Colorado, 2002*

***Motor vehicle traffic crashes are the 2<sup>nd</sup> leading cause of injury hospitalization for children ages 0-14. The leading cause is falls.<sup>1</sup>***  
*Injury in Colorado, 2002*

## Motor Vehicle Occupant Injuries for Colorado Children Ages 0 to 14

### Motor Vehicle Occupant Injury Deaths

- On average, 25 Colorado children ages 0-14 die as occupants in motor vehicle crashes each year. This represents 22% of all injury deaths in this age group.<sup>2</sup>
- The motor vehicle occupant injury death rates are similar for boys and girls and vary little for the different age groups.<sup>2</sup> The death rates are also similar for different race/ethnic groups.<sup>1</sup>
- Fifty-two percent of children ages 0-14 who were killed in a motor vehicle in 2000-2001 were unrestrained,<sup>3</sup> putting them at twice the risk of death and injury as those riding restrained.<sup>4</sup>
- Of the fatalities reported in 2000-2001, 21% of the deaths took place on the weekends and 79% during the week. The majority of the fatalities (61%) happen on weekdays between 7 am and 8 pm.<sup>3</sup>
- For children ages 0-12, in eleven of the fatalities (23%) the child was riding in the front seat and four (36%) of the vehicles involved had an airbag.<sup>3</sup> The backseat is the safest place to ride and it is recommended that children under age 12, in a vehicle with an airbag, should ride in the rear seat.<sup>4</sup>

### Motor Vehicle Occupant Injury Hospitalizations

- On average, 235 children ages 0-14 are hospitalized each year for injuries sustained as an occupant in a motor vehicle crash. This represents 11% of all childhood injury hospitalizations in this age group.<sup>2</sup>
- Fourteen percent of the hospitalizations, in the motor vehicle occupant category, involved a non-traffic situation. This means the injury occurred in a parking lot, driveway or on a non-public highway.<sup>2</sup>
- Hospitalization rates for children injured in a motor vehicle crash are similar for boys and girls overall. However, for ages 1-4, boys have a higher rate than girls. The hospitalization rate for 10-14 year olds is significantly higher than the rates for the other age groups; the rate for <1 year olds is significantly lower than all the other age groups.<sup>2</sup>
- Based on a self report telephone interview in 1997, Colorado adults indicated that 85% of children under age 16 always use a seatbelt or car seat. Young children, ages 0-4, were much more likely to be reported to be restrained while riding in a car (96%) than children ages 13-15 (74%). Children living in a household with an adult who always used a seatbelt were 15.7 times more likely to also always use car seats or seatbelts. The reported use of car seats and seatbelts by children under age 16 were similar for both urban and rural regions in the state (82% vs. 87%).<sup>5</sup>

Death and hospitalization rates, with confidence intervals, for children ages 0-14 for total motor-vehicle occupants, CO <sup>2</sup>					
Age Group	<1	1-4	5-9	10-14	TOTAL
Death Rate (1992-2001)	4.8 (2.9-6.6)	2.8 (2.1-3.5)	2.1 (1.6-2.7)	3.5 (2.8-4.2)	2.9 (2.6-3.3)
Hospitalization Rate (1995-2001)	12.6 (9.1-16.1)	22.8 (20.4-25.2)	24.0 (21.9-26.1)	35.0 (32.4-37.6)	26.6 (25.3-27.9)



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## Injuries Due to Motor Vehicle Occupant Crashes Can Be Prevented

When correctly installed and used, child safety seats reduce the risk of death by up to 71% and reduce the need for hospitalization by 69% for children ages 4 years and younger.<sup>4</sup>

Booster seats can be protective for children ages 4-8. Studies show that the percent of children who sustain significant injuries in a crash is 45% lower among children in booster seats compared to children using seatbelts only.<sup>7</sup>

Children model adults. When properly used, seatbelts are 45 to 60% effective in preventing fatal injuries. Airbags, combined with lap/shoulder belts, offer the most effective safety protection for adults.<sup>6</sup> Everyone in the vehicle needs to be protected, on every ride.

Health agencies and safety advocates can assist in prevention by participating in community coalitions that promote public awareness, enforcement of existing laws, and development of effective educational and skill building strategies. The Task Force on Community Preventive Services made evidence-based recommendations on effective strategies.<sup>8</sup> These strategies include:

- Develop distribution and education programs for child safety seats and booster seats. This may include safety seat checkpoints to promote the correct use of child safety seats, booster seats and seatbelts.
- Support increased enforcement of seatbelt and child safety seat laws, graduated licensing laws and impaired driving laws.
- Provide data and information to groups who are promoting stronger legislation regarding seatbelt and booster seat laws, graduated licensing and impaired driving laws.
- Participate in community-wide programs to reinforce the proper use of seatbelts, booster seats and car seats by all motor vehicle occupants.
- Develop specific messages for each target audience.

## References

1. Injury in Colorado, Colorado Department of Public Health and Environment, June 2002. Available at: <http://www.cdph.state.co.us/pp/injepi/>
2. Injury Epidemiology Program. Colorado Department of Public Health and Environment. (2002). Unpublished raw data.
3. National Center for Statistics and Analysis. (2002). *Fatality Analysis Reporting System*. Retrieved January 13, 2003, from <http://www-fars.nhtsa.dot.gov>
4. National SAFE KIDS Campaign. (n.d.). *Injury Fact :Motor Vehicle Occupant Injury*. Retrieved January 10, 2003, from <http://www.safekids.org>
5. Health Statistics Section. (1999). *Child Safety Belt, Car Safety Seat, and Bicycle Helmet Use: Colorado Behavioral Risk Factor Surveillance System, 1995 and 1997*. (Brief No. 30), Denver, CO: Colorado Department of Public Health and Environment.
6. National Highway Traffic Safety Administration. (2000). NHTSA Traffic Safety Facts 2001: Occupant Protection. (DOT HS 809 474). Retrieved January 13, 2003, from <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2001/2001occpo.pdf>
7. Stewart, D. J. (Ed.). (2001). Children Over 40 Pounds: Considerations for Legislation. *Safe Ride News*. 19(4): 1-4.
8. Harris, K. W., Thompson, R. S., & Zaza, S. E. (Ed.). (2001). The Guide to Community Preventive Services; Reducing Injuries to Motor Vehicle Occupants, Systematic Reviews of Evidence, Recommendations from the Task Force on Community Preventive Services, and Expert Commentary. [Supplement]. *American Journal of Preventive Medicine*, 21 (4).



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**"SAFE KIDS are no accident!"**