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MORBIDITY AND MORTALITY WEEKLY REPORT

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Childhood Pedestrian Deaths During Halloween — United States, 1975–1996

During 1995, pedestrian deaths accounted for approximately 15% of all motor-vehicle-related deaths sustained by children aged 0–19 years in the United States (1). Because of the levels of participation in Halloween-related activities by elementary and middle school-aged children, these children might be more likely to sustain pedestrian injuries on that evening than on other evenings. To characterize the occurrence of fatal pedestrian injury among children on Halloween, CDC analyzed mortality data from the Fatal Analysis Reporting System (FARS) of the National Highway Traffic Safety Administration (NHTSA) during 1975–1996. This report summarizes the results of the analysis and suggests measures to prevent Halloween-related pedestrian injuries and deaths among children. The findings indicate that the number of childhood pedestrian deaths increased fourfold among children on Halloween evenings when compared with all other evenings.

FARS is a record of all motor-vehicle crashes that occur on public roads in the United States and result in the death of an occupant or nonmotorist within 30 days. NHTSA compiles data from police crash reports, death certificates, coroner reports, hospital records, emergency medical system reports, state highway department information, and other sources. For this analysis, Halloween-related pedestrian deaths were defined as deaths resulting from motor-vehicle crashes on October 31 each year from 4 p.m. through 10 p.m. This time period was selected because most outdoor Halloween activities among persons aged 5–14 years occur during these hours.

Childhood Pedestrian Deaths — Continued

During 1975–1996, from 4 p.m. through 10 p.m. on October 31, a total of 89 deaths occurred among pedestrians aged 5–14 years, compared with 8846 on all other evenings. Overall, among children aged 5–14 years, an average of four deaths occurred on Halloween during these hours each year, compared with an average of one death during these hours on every other day of the year.

Reported by: Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.

Editorial Note: The findings in this report indicate that, during 1975–1996, the number of deaths among young pedestrians was fourfold higher on Halloween evening when compared with the same time period during all other evenings of the year. This analysis may undercount the number of deaths because 1) FARS does not include off-road motor-vehicle crashes (e.g., crashes that occur in driveways, parking lots, and on sidewalks); 2) Halloween activities occasionally occur on another day, particularly if October 31 is a Sunday; and 3) some Halloween activities extend beyond 10 p.m.

Child pedestrian injuries result from an interrelated set of factors involving the driver, the child, and their surroundings. Halloween poses special environmental and behavioral risks compounded by the inherent limitations of the child's developmental stage. Most of the time children spend outdoors is during daylight hours; however, Halloween-related activities occur primarily after dark. This period of darkness is lengthened by the return to Standard Time, which immediately precedes Halloween. In addition, children engaged in door-to-door "trick or treat" activities frequently cross streets at midblock rather than at corners or crosswalks, a known risk factor for pedestrian collision (2). Black costumes can further limit the visibility of young pedestrians to drivers. Sensory acuity may be decreased by masks that can restrict peripheral vision and hearing. Attention to sensory input may be decreased because of distractions, including urges to acquire the best candy, shouts from other children, eye-catching costumes and decorations, and time pressure to acquire candy.

In addition to these holiday-specific problems, the pedestrian skills of children are limited by at least five factors related to their physical attributes (e.g., size and motor coordination) and developmental stage that impair their street-crossing skills until approximately age 12 years (3). First, young children may lack the physical ability to rapidly cross the street, and their short stature limits their visibility to drivers. Second, children are likely to choose the shortest rather than safest route across streets, often darting out at mid-block or entering the roadway between parked cars (4). Third, children normally disregard peripheral vision, have reduced attentiveness, localize sounds poorly, and lack sufficient impulse control (5). Fourth, young children do not evaluate potential traffic threats effectively; they cannot anticipate driver behavior, have less acute sensory perception, and process sensory information more slowly than adults (3,6). Fifth, children may engage in "magical thinking" that leads them to believe, for example, that they are protected from vehicular harm within the confines of a painted crosswalk (6,7).

Parents and caregivers of young children may overestimate the ability of their children to negotiate traffic independently (8), underscoring the need for constant adult supervision of school-aged children during trick-or-treat activities. Public health departments and schools should emphasize the importance of adult supervision and other injury-prevention measures just before Halloween.

*Childhood Pedestrian Deaths — Continued**References*

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