

# Research News You Can Use

## Is Your Home Safe for Your Children?

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Phelan, K. J., J. Khoury, H. Kalkwarf, and B. Lanphear. January-February 2005.  
"Residential Injuries in U.S. Children and Adolescents." *Public Health Reports* 120: 63-70.

### Introduction

A house is the primary built-environment for a human being (Aragonés 2002). A house plays important roles to those who reside there not only as a shelter providing security and protection from harm (Aragonés; Betchel 1997). However, is your home safe enough for you and your children? One of the recent reports indicates that the leading cause of the U.S. children's death is injury and the home is the most common place for the children's injuries (Phelan, Khoury, Kalkwarf & Lanphear 2005).

### Methodology

The purpose of the study by Phelan et al. (2005) was to investigate the trends of unintentional residential injury for U.S. children. Data was obtained from the National Hospital Ambulatory Medical Care Survey conducted by the National Center for Health Statistics. From the NHAMCS data, a sample of patients under age 20 at the time of survey who visited to emergency departments (EDs) between 1993 and 1999 were drawn and analyzed using statistical techniques including chi-square tests.

### Main Ideas

#### Children's Injuries between 1993 and 1999

From 1993 to 1999, average 29 million children < 20 years visited EDs annually. Injury accounted 39% of the children emergency visits and 35% of the total children emergency visits were reported as unintentional injury visits. The home was found to be the most common location of the unintentional child injury, accounting for 4 million ED visit annually. Fortunately, the number of the children's ED visits for unintentional injuries decreased by 24% from 4.7 millions in 1993 to 3.5 millions in 1999. However, the number is still high. Children age under 5 showed the greatest number (1.7 millions) and highest rate (43%) of ED visits for unintentional residential injuries. Males showed a higher rate of the ED visits than females.

#### Mechanism, Type, and Severity of the Children Residential Injuries

Among the children's ED visits due to any residential injuries, falls were found to be the most frequent mechanism, accounting for 38% of the visits. "Struck/strike" and "cutting/piercing" were the second and third frequent mechanism of the ED visits.

The most commonly injured regions of the body from residential injuries were extremities, head and necks. The most frequent types of injury were an open wound or superficial injury, contusions/crush injuries and fracture/dislocation (Phelan et al., p.66). More than 10% of the annual children ED visits were for "moderate-to-severe" injuries (Phelan et al., p.67).

#### Suggestions for the Residential Injury Prevention

The researchers of the study suggested that many of the children's injuries at home can be prevented by using safety devices such as stairway gates, improving home design, and by providing

appropriate parental supervision (p.67). In addition, it was suggested that safety of home products needs to be ensured.

## Implications for Extension Programs

Considering young children (age under 5) showed the highest rate of the children's ED visits, safety education needs to be emphasized in education programs of parents of the young children and prospective parents. Also, home remodeling/modification programs and education materials need to include safety features and products related to children's in- and around-home safety. In addition, consumer education needs to be focused on appropriate purchase, installation and use of home products.

## Conclusion

Traditionally, the main image of a home includes a shelter providing protection from outside harms. However, a recent research study by Phelan et al. (2005) revealed that home was a not-so-safe place for the U.S. children. Although the number of children residential injuries was found to be decreased over the years, home is still the most common location for the children injuries in the United States. More attention and efforts are required to make your home a safer place for you and your children to live.

## Additional References

Aragonés, J. I. 2002. The Dwelling as Place: Behaviors and Symbolism. In *Residential Environments: Choice, Satisfaction and Behavior*, edited by J. I. Aragonés and T. Gärling. Westport, CT: Bergin & Garvey.

Bechtel, R. B. 1997. *Environment and Behavior: An Introduction*. Edited by Robert B. Bechtel. Thousand Oaks, CA: Sage Publications.