

Safe and Healthy Homes

Summary of Significant Trends:

All people need a safe and healthy home in which to live. However, homes can contain hidden hazards, both seen and unseen, and both inside and surrounding the home. These hazards include building structural safety, electrical safety, fire safety, lead hazards, and indoor air quality issues such as mold, carbon monoxide, etc. While these hazards affect people of all ages, perhaps the elderly and children are often at greater risk.

As people age, they experience sensory changes—these include changes in vision, taste, smell, touch and hearing. Mobility may also become an issue as chronic disease such as arthritis, stroke and heart disease are more prevalent in the older population. While aging occurs at different rates and to different degrees for each individual, these changes affect the way the individual interacts in his/her environment. Physical aspects of the home may become difficult for the older adult to negotiate. Across the nation, 1.1 million elderly households report unmet needs for home modifications. Older adults tend to live in older homes that are often in need of maintenance and repair. There is a need among the older populace to have affordable housing options as well as repair, maintenance, and home modification assistance. Besides the need for repair, homes contain environmental hazards that can be dangerous for older adults including poor lighting, loose rugs,

uneven flooring, and tripping obstacles. Sixty percent of the fatal falls of those aged 65 and older occur at home. By 2020, the cost of fall injuries is expected to reach \$32.4 billion. After the age of 60, the risk of a burn injury is greater than at any other time since childhood. Those age 75 and older are more likely to die in house fires.

Children are at risk because their bodies are still growing and their young organs are more likely to be harmed by chemicals than those of adults. Also given their size, they eat more food, drink more water, and breathe more air per percentage of body size than adults—therefore when exposed to harmful pollutant or substances, they receive larger concentrations than do adults. The way a child plays and negotiates his/her environment can be potential hazardous as well. According to the National Safe Kids Campaign, yearly, over 4.5 million children age 14 and under are treated in the emergency rooms for injuries that occurred in the home. These injuries include lead poisoning, falls, and unintentional poisoning. In 1999-2000, over 200,000 North Carolina children age 6 and under were screened for lead poisoning. Of those, almost 450 had elevated blood lead levels between 10-19ug/dL. The most current North Carolina data indicate that of poisonings due to insecticides, 25% were in children and of those 96% were in pre-school aged children. Asthma is the sixth-ranking chronic condition in the U.S.

and the leading serious chronic illness of children in the U.S. Between 1982 and 1994 pediatric asthma rose from 40.1% to 69.1%. In 1998, asthma incurred an estimated annual economic cost of \$11.3 billion. The environment in which a child lives, learns and plays can exacerbate his/her asthma condition.

Relevance of Trends to County Programs:

Extension professionals can assist in identifying and implementing interventions that alleviate home hazards for individuals of all ages. Both the Accessible Housing Program and the Healthy Indoor Air for North Carolina Homes programs have been recognized as Program of Excellence by USDA-CSREES professionals. They have been identified as such because of their success in providing interventions in homes to improve the health and safety of the residents living there.

Sources of Supporting Data:

Healthy Home Partnership
<http://www.uwex.edu/healthyhome/>
National Safe Kids Campaign
www.safekids.org/
Consumer Product Safety Commission
www.cpsc.gov
National Safety Council
www.nsc.ie/

Primary Contact: Sarah Kirby, Ph.D.
sarah_kirby@ncsu.edu

2003



Family & Consumer
SCIENCE S