



Family and Consumer Sciences Extension

Indoor Air Quality Education 2004: Exposure to Environmental Contaminants in the Home

Putting Knowledge to Work for Georgia Families

The University of Georgia

Cooperative Extension Service

The Problem

- Many Georgians are exposed to contaminants within their home and near environment which can negatively impact their health, and thereby their quality of life. Of primary concern are polluted drinking water, poor air quality and toxic chemicals and/or gases such as lead, radon and asbestos.
- Scientific evidence has indicated the air people breathe in their homes could be more polluted with toxins than outdoor air. This is quite significant if one realizes that people spend 90% of their time indoors, particularly older adults and children.
- Sources of indoor air pollution, which are common in a typical home, are: household products and chemicals (volatile compounds), carbon monoxide, formaldehyde, dust (allergens), mold and mildew, asbestos, radon gas, lead poisoning, and tobacco smoke.
- According to the United States Environmental Protection Agency, indoor air quality problems in schools are responsible for triggering asthma related problems such as children's absenteeism and visits to the emergency room.
- Each year 21,000 people die from radon-related lung cancer.
- According to the 2004 Georgia County Guide, chronic respiratory diseases caused 3,154 deaths in Georgia accounting for 4.8% of deaths in 2002.

Research-based Solutions

- Pollutant identification through various tests helps families single out pollutants, which create immediate adverse health symptoms.
- Source control helps prevent indoor air pollution by not allowing the source of pollution in the first place.
- Mitigation measures serve to remove the pollutants in the home.

Extension's Role

- Create an awareness of the availability of pollutant identification devices, source control practices and mitigation measures.
- Provide healthy indoor air classes/educational information for consumers through research-based solutions.

Extension's Contribution to Solving the Problem

- Over 5,100 contact hours of *Indoor Air Quality Education* were provided to 4,044 participants in 2004. This includes 4,931 contact hours of radon education provided to 3,680 Georgians.
- Extension events such as health fairs, and poster contests reached 9,958 Georgians.
- Mass media was used to educate Georgians about indoor air quality. For example, Indoor air quality education articles in newsletters reached 41,650 individuals; 35 exhibits reached over 14,500 individuals; eighteen radio spots were broadcast to over one million listening audience; nineteen newspaper columns went to a circulation of almost 273,200 readers; and 179 television programs were broadcast to a viewing audience of 18 million.

Impact on Georgians

- Almost all the participants in the *Radon Education* program said it was helpful to understand the significance of testing radon for indoor air quality.
- Georgians who participated in the *Radon Education* program significantly improved their indoor air quality knowledge and learned how to prevent radon contamination in near environment. Eighty-nine percent of the

children improved their knowledge about radon and indoor air quality. As a result of the *Radon Education* program, 94% of the participants planned to test their homes for radon; and 81% of the participants planned to seal radon entry points into the home and contact a certified radon mitigator if elevated radon levels are found their homes.

- Ninety percent of the participants in the Indoor Air Quality and Asthma program said it was helpful for them to learn about the relationship between indoor air quality and asthma. The participants significantly improved their indoor air quality and asthma knowledge. At the end of the program, most of the participants said that they plan to adopt appropriate measures to control asthma. For example, 95% planned to educate their children about asthma triggers as well as symptoms of asthma; 86% planned to educate their families about asthma; and 62% planned to control asthma triggers by taking steps such as proper cleaning.
- Ninety-five percent of the contractors, builders, and realtors who participated in the *Lead Based Paint Pre-Renovation Education Rule* program said it was helpful for them to prevent the potential hazards of lead based paints. Most of them improved their knowledge and planned to adopt recommended practices to prevent lead related hazards. For example, 97% planned to encourage families living in homes built before 1978 to have their children tested for elevated lead blood levels; 92% planned to talk to other contractors and inspectors about the Lead-based Paint Pre-renovation Rule and how it affects them; and 87% planned to distribute the pamphlet “*Protect Your Family From Lead in Your Home*” to housing residents before renovations begin.

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