Family & Consumer SCIENCES

TREND ANALYSIS

Lead Poisoning

Summary of Significant Trends:

Lead poisoning can affect nearly every system in the body. Lead poisoning frequently goes undiagnosed because it often occurs with no symptoms. Health related concerns associated with lead poisoning are: learning disabilities, behavioral problems, and, at very high levels, seizures, coma, and even death. Lead poisoning is entirely preventable. The key is preventing and/or stopping children from coming in contact with lead and treating children who have been poisoned by lead.

Housing stock built prior to 1978 may contain lead-based paint, which is a primary source for potential lead poisoning. Approximately 24 million housing units in the United States have deteriorated leaded paint and elevated levels of lead-contaminated house dust. More than 4 million of these homes are where one or more young children reside. Lead was once widely used in gasoline and soils may still be contaminated. Lead poisoning is the second most critical children's environmental health issue. Because metabolic systems are still developing in the fetus and child, their bodies to do not excrete toxins as well as adults and therefore are more vulnerable. The most current data for North Carolina indicates that in 1999-2000, 201,963 children ranging in age from nine months to six years of age have been screened for lead poisoning. 442 children had elevated blood lead levels 10-19 ug/dL. 99 children had elevated blood levels > 20 ug/dL.

Emerging Trends:

Children under the age of 6 years and from all social and economic levels can be affected by lead. Children at the greatest risk are those living below the poverty line and some racial and ethnic groups living in older housing are disproportionately affected by lead. It is estimated that 22% of black children and 13% of Mexican-American children living in housing built before 1946 have elevated blood lead levels compared with 6% of white children living in comparable types of housing. To prevent exposure to lead poisoning, consumers, parents and/or guardians, and child care providers need learn about lead hazards in a child's environment and how to properly remove; and children who are at risk of lead poisoning need to be tested, and, if necessary, treated. In 1996, federal regulations were instituted requiring property sellers and landlords to disclose known lead hazards in housing built before 1978. There is a significant increase in the employment of Hispanic/Latino workers in the home remodeling business. They need to be educated on the health related issues regarding lead poisoning.

Relevance of Trends to County Programs:

The most effective way to prevent and/or stop children from coming in contact with lead is through education. The County Extension Center has been and is the primary source for information and training on controlling lead exposure within the home and surrounding areas. This is evident by the number of phone calls and requests for information. Extension agents are well known for the educational outreach efforts in the children's environmental health arena along with indoor air quality issues. North Carolina Cooperative Extension has been awarded a $57, 312 EPA grant to support this program for year 2003.

Sources of Supporting Data:

http://www.montana.edu/wwwcxair/asthma.htm

http://www.schs.state.nc.us/epi/air/homes.html#lead

http://www.cehi.org/

http://www.cehn.org

http://epa.gov/iaq

http://www.cdc.gov/nceh

Other relevant sites may be accessed through a Google search.

Key words: Lead, Lead Poisoning, Indoor Air Quality and Children's Environmental Health

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