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Federal MCH Block Grant Application & Annual Report

Maternal and Child Health (MCH) Section

Minnesota Children with Special Health Needs (MCSHN) Section

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Children with Special Health Needs

Morbidities related to environmental Toxins and Prenatal Alcohol Exposure

Summer 2004

Printer-Friendly Version (PDF: 47KB/3 pages)

Size of the Problem

In 2003 there were 475 methamphetamine labs and meth related events reported in Minnesota.

MDH has received reports of people who have moved into former lab sites and have suffered chest and respiratory symptoms months after lab chemicals were removed.

Prenatal exposure to meth may result in premature delivery and birth defects. High doses can lead to prenatal strokes or brain hemorrhages. Prenatal care may be neglected. After delivery, the infant may show abnormal reflexes and extreme irritability[1].

The reported rates of Fetal Alcohol Syndrome (FAS) vary widely. These different rates depend on the population studied and the surveillance methods used.

- Centers for Disease Control studies show FAS rates ranging from 0.2 to 1.5 per 1,000 live births in different areas of the United States.
- Fetal Alcohol Spectrum Disorder (FASD) is an umbrella term describing the range of effects that can occur when a pregnant women drinks alcohol. These prenatal alcohol-related conditions are believed to occur approximately three times as often as FAS[2].

Lead poisoning continues to pose an environmental health threat to children. Currently, about 2,000 children a year in Minnesota are identified as having elevated blood lead levels (EBLL) greater than 10 µg/dL. Many children aren't being identified and treated. Many physicians have little or no experience treating children with elevated blood lead levels.[3]

Exposure to environmental toxins has lasting implications. When children are exposed to contaminants, their developing biological makeup-the way they absorb, distribute, and metabolize chemicalswill also affect how their bodies deal with the foreign substance.[4]

Seriousness

Reported clandestine lab seizures have increased in number across the state's 87 counties. Increased out-of-home placements due to parent drug use or meth lab seizures have been reported. Out of the 87 counties in the state, 44 counties have reported one or more children involved in a seized meth lab. Two deaths of children in Minnesota in 2002 were the result of a meth lab fire.[5]

The number of children affected adversely by prenatal exposure to alcohol is probably underestimated. Some FAS cases might not be diagnosed because of the syndromic nature of the condition and the negative perceptions of FAS diagnosis. Medical records of children with FAS often lack sufficient documentation to determine case status. Some children might not be identified as having FAS until they reach school age, when abnormalities and learning disabilities are recognized more easily.[6]

The percentage of children tested for elevated blood lead levels (EBLL) varies greatly from county to county and from year to year. Based on 1998 data, 77% of the children in the Minnesota blood lead surveillance database resided in urban areas. [7]

Environmental toxins and hazardous waste materials pose a risk to all children including children with disabilities and can contribute to, and exacerbate chronic conditions. Examples include:

- Tobacco contributes to increased incidence of conditions such as asthma.
- Childhood cancers may be linked to hazardous waste sites
- Nitrates in drinking water can be harmful to children
- Children and fetuses are more sensitive to the effects of contaminants in fish.[8]

Interventions

Effective interventions include a variety of actions: Prevent exposures, raise awareness, and provide information on clean up, health effects, environmental effects, local efforts, and more.

Early diagnosis and intervention of children affected by prenatal exposure to alcohol and other drugs is known to improve the children's chance to maximize their potential.

These infants and children require continued developmental monitoring to recognize and treat problems early and avoid or minimize major them later in life. A team approach of health professionals, early childhood educators and a local support network is necessary to obtain this.[9]

MDH Lead Surveillance Project conducts a statewide program to prevent childhood lead poisoning. Data are collected to target blood lead testing and education in areas of the state where children are at high risk for lead

poisoning.

Status

In response to the problems created by meth labs and other clandestine drug labs, MDH and many other agencies created the Minnesota Multi-Agency Drug Lab Task Force to share resources, raise awareness, protect endangered children, and provide training and equipment.

Minnesota Children With Special Health Needs (MCSHN) Development and Behavior Clinics provide multi-disciplinary diagnostic evaluations for complex medical, behavioral, emotional, and psychological conditions including FASD.

Other FAS prevention activities provided by MDH include provider outreach and education, information and referral, a toll free phone line, and presentations and training

MDH and other state and federal agencies have several children's environmental health initiatives. These include the Asthma Program, Fish Consumption Advisory, Cancer Surveillance Project, Risk Assessment project. There are many initiatives also being carried out by foundations, advocacy groups, and industry groups.[10]

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9. Rizwan Shah, M.D. "Second Chance Kids: Providing development Focused Care for Drug-Exposed Infants". Target Publishing Co. 2002
10. Minnesota Dept. of Health Environmental Health Initiatives.

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