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Proceedings

Workshop On Actions To Take For Children's Health

RESPIRATORY BREAKOUT SESSION I
JULY 20, 1999

U.S. Environmental Protection Agency
Region 5, Library (PL-12J)
77 West Jackson Boulevard, 12th Floor
Chicago, IL 60604-3590

Asthma Prevention Models

Ms. Linda Ruskowski from the Marion County Asthma Community Development Group (ACDG) and Mr. Ron Burke of the American Lung Association of Metropolitan Chicago provided advice about asthma management in schools. Dr. Steven Potsic from the U.S. Department of Health and Human Services spoke about asthma initiatives and asthma statistics for residents of Chicago.

Asthma Management in Schools

Ms. Linda Ruskowski presented information on the ACDG Program she has been involved within Marion County, Ohio. The group consists of people from hospitals in Marion County and employees of the local health department and lung association. The goals of the group are to identify asthma problems in the community and to try to prevent them. The ACDG offers four different asthma education workshops, including those targeting school staff and those targeting school children.

Ms. Ruskowski focused on the workshop for school staff. The group gives folders to teachers containing material on how to manage students with asthma. The information is presented in a mandatory teachers' meeting held at the beginning of the school year and is free of charge.

Information presented during the workshop includes common asthma triggers in the school setting. Which may include:

- Perfume, lotions, and deodorants
- Pet animals, including furry pets and birds
- Clapping chalkboard erasers
- Dusty carpets
- Construction
- Opening windows during lawn maintenance

To reduce asthma triggers, Ms. Ruskowski suggests using wipes instead of chalkboard erasers to prevent chalk dust and cleaning the rooms regularly to thoroughly eliminate dust.

Ms. Ruskowski stressed the importance of community education. Members of the community can stating the teachers and parents, can be more informed about asthma triggers and be better prepared to help prevent asthma attacks.

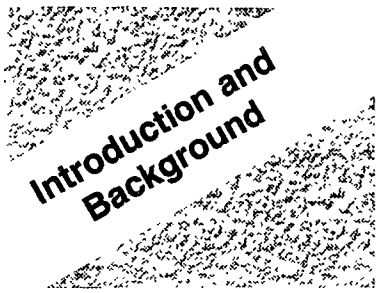
Chicago Asthma Initiative - A Chicago Area Intervention Project

Dr. Steven Potsic of the U.S. Department of Health and Human Services presented information on the mission and general model of public health initiatives, asthma initiatives for the U.S. Department of Health and Human Services, and goals for the Chicago Asthma Initiative.

Dr. Potsic spoke about the general responsibilities to public health as being assessment, assurance, and policy development. He stated that evolving public health priorities include maintaining a global approach and eliminating social disparities. Dr. Potsic spoke about a model that should be used in general public health studies. The Chicago Asthma Initiative project followed this model, which consists of the following:

1. Define the problem
2. Measure and assess the problem
3. Determine risk factors
4. Develop and implement intervention strategies
5. Evaluate the effectiveness of the strategies

Dr. Potsic also spoke about the current initiatives of secretary of the U.S. Department of Health and Human Services to help prevent and manage asthma. These initiatives include determining the causes of asthma, reducing the burden of asthma for people with the disease, improving the means for managing asthma, and tracking and assessing the effectiveness of asthma programs. The department has targeted goals to (1) reduce the asthma death rate to no more than 14 per million in the United States and (2) reduce asthma hospitalizations to 10 out of every 10,000 people in the general population. Between 1993 and 1995, the number of deaths due to asthma was 18 per million population. In 1980, the self-reported percentage of the U.S. population that had asthma was 3.1 percent. That percentage rose to 5.4 percent between 1983 and 1994.



In response to EPA Administrator Carol Browner's *National Agenda to Protect Children's Health from Environmental Threats* (1996), President Clinton's *Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks* (1997), and the establishment of the U.S. Environmental Protection Agency (EPA) Region 5 Children's Health Team (the "REACH Team," Regional Environmental Actions for Children's Health") (1997), the Region hosted a children's environmental health workshop. The workshop, entitled, "Environmental WATCH" (Workshop on Actions to Take For Children's Health) was sponsored by EPA Region 5, U.S. Department of Health and Human Services (HHS), and the Agency for Toxic Substances and Disease Registry (ATSDR). The Environmental WATCH workshop was held July 20-21, 1999 at the Metcalfe Federal Building in Chicago, Illinois.

EPA Region 5 has a goal to effectively integrate pollution prevention concepts into the children's environmental health initiative. Under the Pollution Prevention Act of 1990, Congress established a national policy that pollution should be prevented or reduced at the source whenever feasible. Pollution prevention is defined as any practice that reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment prior to recycling, treatment, or disposal; and reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants. Pollution prevention tools and resources were emphasized at the Environmental WATCH.

Workshop participants listened to various speakers during two plenary and 22 breakout sessions during the two-day workshop. Participants also developed recommendations on how to strengthen community efforts to protect children's environmental health through pollution prevention. The recommendations will form the basis for a regional action plan to protect children's environmental health through prevention, intervention, education, and collaboration. The action plan is in development. EPA Region 5 will ensure that this action plan is used as the foundation for its planning and funding decisions to support local activities to protect children's environmental health. Other regions may use this model to integrate pollution prevention into community-based efforts to protect children's environmental health. EPA is committed to ensuring that action plans are implemented, and prevention of pollution at the source becomes the fundamental way that our children's environmental health is protected.

This document contains a summary of discussions and presentations during each of the plenary and breakout sessions. More information about EPA Region 5 efforts to protect children's health, can be found on the world wide web at http://www.epa.gov/r5ptb/reach/watch.

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Plenary Sessions

The two-day workshop kicked off with two plenary sessions. During the sessions, speakers representing academia, various state and federal agencies, and a nonprofit organization, spoke about issues pertaining to:

- preventing children's health problems,
- the importance of education and collaboration in addressing children's health issues,
- tools for success in protecting children's health, and
- comprehensive approaches to addressing multiple children's health issues

Opening Remarks

Ms. Phyllis Reed, Chair of the EPA Region 5 Children's Health Team, and Ms. Hannah Rosenthal, Regional Director of the U.S. Department of Health and Human Services (HHS), welcomed participants and provided opening remarks. Ms. Reed discussed EPA's intent to provide support after the workshop and to help participants carry out the action plan that would result from discussions during the plenary and breakout sessions. She explained that EPA had set aside some funds to help communities begin implementing the action plan; EPA requested that community groups provide a written summary of their plans for using the money by July 23, 1999.

Ms. Reed pointed out that interagency cooperation and partnerships have been a benefit of the Children's health initiative. Ms. Rosenthal explained that HHS had been working in partnership with EPA on many issues, including those pertaining to children's health.

Prevention, Intervention, Education, and Collaboration

Dr. Barbara Sattler, Assistant Professor and Director of the Environmental Health and Education Center, University of Maryland, began her presentation by explaining that children's environmental and health issues surfaced as a focal point in the mid-1980's. This, she explained, was a shift from the earlier focus on natural habitats and adults. Dr. Sattler's presentation included a discussion of:

- lead poisoning
- the need to better educate families about pesticides commonly found in and around homes and their effects on children
- indoor air quality issues
- water quality issues
- opportunities for community activism

Lead Poisoning

Dr. Sattler pointed out that although most people think their homes are "safe havens," over 50 percent of homes have lead-based paint. This problem is particularly common in homes of poor families in substandard living conditions. Dr. Sattler explained that lead can cause a variety of health problems for children, including:

- kidney damage
- cardiovascular problems
- anemia
- learning disabilities
- higher incidents of aggressive behavior in adolescence

In addition, she pointed out that many cases of lead poisoning in kids are not diagnosed. These children suffer twice because the undiagnosed lead poisoning often causes learning problems. When parents and teachers do not know about the lead poisoning, they tend to alter their expectations for the child's learning. This can lead to children being placed in learning disability classes, for instance, when, in fact, their problem is not limited learning capacity but lead poisoning.

Dr. Sattler pointed to a pilot study in Rhode Island as an example of ways to address the problem of lead poisoning in children. As part of the pilot study, if a child is found to have lead poisoning, health professionals can "do the equivalent of writing a prescription to have children's homes evaluated for lead contamination." The evaluations are paid for with health department dollars. Dr. Sattler noted, however, that the Rhode Island program begins with a lead-poisoned child and focuses, therefore, on responding to the problem versus preventing it.

Pesticides

Dr. Sattler explained that pesticides are poisons; most, however, have never been tested to see how they affect fetal or children's nervous systems.

She discussed how stuffed animals, pillows, and rugs become "wicks" for pesticides when people use roach "bombs" and other similar items in their homes. This is an area where greater community education is needed.

Major issues of concern regarding pesticides and their effects on children include:

- the risk of leukemia for children increases 3.8 times when pesticides are used in the home
- the risk of leukemia for children increases by 6.5 times when pesticides are used on lawns
- children in families living in suburban areas are particularly at risk because of the number of lawns on which chemicals are used
- current standards for pesticide exposure are based on adult white males. To compare fetuses and children to adult males is like "comparing apples to oranges."

Air Quality

Dr. Sattler stated that traffic is the number one cause of air pollution. She stressed that we need to adjust our ways of thinking to consider the impacts of our actions on children's health. Vice President Al Gore is currently leading an effort to rethink how to plan for growth in a way that is less harmful on human health.

Schools present another set of potential problems with respect to children's health. Some of these problems include:

- poorly ventilated schools with synthetic products that give off chemicals that pose health problems.
- school carpets contribute to poor indoor air quality and asthma
- some schools are adjacent to Superfund sites

Dr. Sattler explained that risks to the female reproductive system are posed by a variety of environmental factors, such as:

- smoke stacks caused by waste incineration (which is a particular problem caused by U.S. hospitals)
- the creation of the by-product dioxin, generated from the burning of plastics (dioxin is a carcinogen that looks to the body like estrogen; therefore, it has the potential to disrupt endocrine systems)

Water Quality

During her presentation, Dr. Sattler pointed out that under the Safe Drinking Water Act, every public drinking water supplier will be required to produce a consumer confidence report. This requirement becomes effective in October 1999. The reports will have to identify contaminants in water, their levels, and probable sources. This information will be included in water bills.

Community Activism

Dr. Sattler concluded her presentation by noting that many opportunities exist through community activism to protect children's health. She said "although we are in a crisis situation, it is exciting that we are thinking about opportunities to make the world safer. The work of devising solutions for our children and our children's children is 'very noble' work".

Tools for Success in Protecting Children's Environmental Health

Ms. Angela Spittal, Chief of Staff, Indiana Department of Environmental Management (IDEM), presented information on an IDEM initiative focused on children's health issues. The initiative, "Bright Beginnings for Indiana's Children," is being carried out in collaboration with many partners.

Ms. Spittal explained that in 1996, Indiana Governor Frank O'Bannon established a multi agency work group focusing on children's health issues. The initiative began in fall 1997 with the following goals:

- reduce children's exposure to toxic chemicals
- educate families
- involve children
- achieve a tangible outcome

Reducing Children's Exposure to Toxics

Ms. Spittal explained that this aspect of IDEM's efforts to reduce children's exposure to toxics consisted of a multi pronged approach focusing on lead, toxic chemicals, mercury, and ozone and particulate matter. Means to achieve the overall goal of reducing children's exposure included:

Lead

- establish lead education grants for priority neighborhoods
- enhance protection from lead in drinking water
- train 100 people as lead risk assessors

Toxic Chemicals

- expand toxics monitoring network
- announce Governor's toxic reduction challenge (which was a challenge to business and industry to voluntarily reduce their toxic air emissions)

Mercury

- reduce the use of mercury by ventilation contractors
- offer a "mercury collection day" in every county

Ozone and Particulate Matter

- establishment of seven regional ozone steering committees

Educate Families

To meet the initiative's goal of educating families as a step toward reducing children's exposure to contaminants, IDEM developed a "simple steps for families" effort, which included launching an outreach campaign, complete with place mats, billboards, posters, and public service announcements.

In addition, Ms. Spittal explained that other efforts were launched, such as:

- a self-assessment program for child care centers, including the development of a "how-to" manual
- a 5-star environmental recognition program for child care centers
- efforts to reduce the number of combined sewer overflows (CSO) in Indiana and educating parents on ways to keep children away from CSOs
- an outreach program and 1-800-number for children's health issues
- development and distribution of "simple steps to get the lead out" material

Involve Children

Efforts to involve children have included getting 15,000 students involved in providing IDEM with environmental information, and educating the students on the difference they can make in creating a safer environment .

Achieve a Tangible Outcome

Ms. Spittal mentioned a variety of specific accomplishments that have been achieved through IDEM's initiative, including:

- $620,000 distributed for lead education and mercury education
- 2,100 pounds of mercury recycled
- Distribution of more than 20,000 educational brochures, place mats, magnets and other items
- Increased partnerships
- Changed behaviors
- Reduction of toxics
- Prevention of lead poisoning
- Improvement of children's lives

Ms. Spittal closed her talk by encouraging participants to be persistent in their children's health efforts, and she shared the following lessons learned by IDEM:

- set achievable goals
- expand existing partnerships
- involve partners in goal setting
- recognize factors beyond your control
- make children's health a priority
- realize that you can't do everything, but you should do something

More information about IDEM's children's health initiative can be obtained on their web site www.state.in.us/idem/kids. Or, by calling Angela Spittal at 317/233-3043.

Comprehensive Approaches to Addressing Multiple Children's Health Issues

Dr. Robert Amler, Chief Medical Officer, ATSDR, presented information based on the foundation that "Children are Not Small Adults." In his presentation, Dr. Amler explained that the fact that children are not small adults is a basic tenet to pediatrics; however, the concept of treating children as different from adults from an environmental perspective is a relatively new concept.

Pointing out specific differences between children and adults, Dr. Amler stated that:

- Pound for pound of body weight, children drink more water, eat more food, and breath more air than adults
- Children are more likely to come in contact with a variety of media
- Children are less empowered than adults
- Children are completely dependent on adults for risk management, access to child care, and other decisions

Dr. Amler urged participants to see the differences as an opportunity, not a problem, and spoke of the following major issues, summarized below that affect children's health.

- Saturation of mercury vapors into toys and blankets
- Thousands of children being rushed to emergency rooms for health problems caused by use of roach spray in their homes (and most are misdiagnosed)
- Fish contaminated by mercury and other contaminants from industry operations (a particular issue for tribal and other communities who rely on fishing as a means for sustenance)
- Nearly 1 million American children have excessive lead levels in their blood
- Early exposure to trichloroethylene and PCBs result in less mature neonatal reflexes and diminished IQS
- 50 percent of lifetime pesticide ingestion occurs in the first 5 years of life
- Asthma death rates have doubled in American children since 1980 (asthma is the most common admission diagnosis in most Children's hospitals)

ATSDR's Children's Health Initiative

Dr. Amler explained that ATSDR began its children's health initiative about two years ago. ATSDR has worked closely with the EPA Office of Children's Health Protection. Basic tenets of the ATSDR program include (1) emphasis on children's health in ATSDR's own programs, (2) educating ATSDR staff, (3) formation of an Office of Children's Health, with a message that "Children are not small adults!"

Major activities of ATSDR's Office of Children's Health:

- pediatric referral units
- expert workgroups on pediatric assessment
- children's environmental health and safety task force
- a web site
- partnerships with non-government entities (medical associations, national Parent Teacher's Association (PTA), children's health environmental coalition, National Association of Children's Health Organizations (NACHO)

Discussing one partnership as an example of training children to be risk communicators, Dr. Amler described an ATSDR partnership with the Girl Scouts of America. Girl scouts can earn a "No Lead" badge by investigating the history of mining, health education, or historical problems caused by lead in their communities.

> Problem: "You can't make a diagnosis you haven't thought of. Greater awareness is needed. Most physicians specializing in environmental medicine got there through a path of occupational medicine. If you don't take environmental factors into account, you won't make it part of your diagnosis."

Other specific efforts that Dr. Amler discussed include the creation of referral units. ATSDR brought together the Association of Occupational Environmental Clinics, which specializes primarily in adult care, and professionals specializing in pediatric care, to create referral units. The referral units stimulate dialogue and collective analysis. Four referral units are up and running in Illinois, Massachusetts, and New York. Dr. Amler said that the units are receiving thousands of calls per month and are saving lives. For example, nine children with acute mercury poisoning were diagnosed; had they not been diagnosed, they could have died.

Another effort was the creation of an expert workgroup on pediatric assessments. The workgroup has been a catalyst for the integration of basic child safety and environmental safety information into literature that is widely distributed to pediatricians and parents.

"Improving Kids' Environment: Embracing Right-to-Know"

Mr. Tom Neltner, President, Improving Kids' Environment, talked about the need for greater environmental and health education. Explaining that his view is one of an activist's perspective, Mr. Neltner said that parents have a right to know the environmental threats their children face.

Mr. Neltner expressed concern about the following health issues:

- Cautious regulatory program that sets only minimum standards
- Asthma rates rising rapidly in preschool aged children (1 in 13 school aged children have asthma)
- Cancer rates increased: from 1973 through 1985 (10 percent increase in cancer cases in children younger than 5 years of age)

- Neurological and developmental problems prevail (lead, mercury, and endocrine disruptors)
- Disconnect exists between environmental programs and children's health. Questions should be asked such as: Are programs continuing to achieve health goals? Do programs reflect new science regarding health goals? What health goals are we trying to accomplish?

Mr. Neltner expressed concern about the amount of time it takes to build new scientific developments into regulatory standards. He made the following points:

- Disconnection is most significant at the regional and state level: the focus is on implementation, not assessment
- Piecemeal delegation leads to departmentalization
- Environmental agency separated from the public health agency is an example of weak institutional links
- Bureaucratic obstacles and lack of regulatory momentum exist because of a " we've always done it that way" mentality
- Cautious programs with minimum standards (Example: ozone standards were done cautiously and defensibly, however, agencies are slow to identify and respond to new issues)
- Federal programs focus on "regulatable sources" that are able to be commanded and controlled
- Paternalistic system prevails in government agencies ("we know best!" mind set, while forgetting that standards are only minimum)
- Poorly understood but potentially significant hazards exist: toxics, and endocrine disruptors (We need to get information out on what we do know about these hazards)

Mr. Neltner pointed out that information gaps do exist in many areas regarding health risks in general and children's health risks in particular. He suggested, however, that agencies and organizations "embrace right-to-know" to fill in the gaps. He offered several models of success in this area, including:

Toxics Release Inventory data
Worker right-to-know/hazard communication
Risk management planning
Fish consumption advisory data

Consumer Product Labeling

Mr. Neltner suggested that organizations who generate children's health threats should communicate those threats directly to those threatened. Government agencies establish requirements and ensure quality, but they should not necessarily relay all information. He pointed out that a key issue is trust -- and, in particular, whether those with the information believe that they can trust parents and guardians with the information. Agencies and organizations often believe that parents and guardians will "over react" to information about health threats. Instead of allowing mistrust to prevail, Mr. Nelter said that key information should be disseminated, and (partial or complete) answers to the following questions should be provided:

What is known about the hazards?
What precautions should be taken?
What critical information gaps exist?

Mr. Neltner explained that proactive notice and information dissemination should be a focal point of organizations and agencies, to put the control in the parents' hands. He also pointed out that threats to sensitive populations need to be taken into account (those who are not representative of the population, chemically-sensitive individuals, and sick children).

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Participants in the Chicago Asthma Initiative include employees at the U.S. Department of Health and Human Services, researchers at the University of Illinois, Circle Campus, and members of the Chicago Asthma Association. The goals of the initiative are as follows:

- Facilitate outreach and education about asthma in communities
- Assist in asthma prevention
- Provide education and preventive services to families suffering from asthma
- Offer services to communities that have a greater risk of asthma
- Train and employ members of the community to help spread asthma education and prevention

Asthma Train-the-Trainer

Mr. Ron Burke from the American Lung Association of Metropolitan Chicago discussed some of the association's programs for schools and students that focus on education about and prevention of asthma. Some of the programs include Open Airways for Schools (OAS) and the Sesame Street A is for Asthma Childhood Asthma Awareness Program.

The OAS program is directed at children with asthma aged 8 to 11. It is based on the idea that children learn by doing. The OAS program includes six curriculum lessons, flipcharts, an instructor's guide, and numerous handouts about asthma triggers and prevention tips. OAS has documented that children have fewer and less severe asthma attacks after completing the program. In addition, parents have taken more steps to help control their children's asthma. OAS has been implemented in 40 schools in the Chicago area.

The Sesame Street A is for Asthma Childhood Asthma Awareness project is geared toward children ages 3 to 6. A kit developed for the project includes a videotape in English and Spanish, posters, and a caregiver's guide. The goal of the project is to increase awareness about asthma. The program has been implemented in 30 sites in Cook County, Illinois, and over 2,000 children have been given the program. In addition, over 250 kits have been distributed in the Chicago metropolitan area.

Mr. Burke also discussed several barriers encountered during the implementation of these programs, including getting parents involved, having program volunteers report results, getting into schools, and obtaining financial support.

Facilitated Discussion

Mr. Randy Cano of the U.S. Environmental Protection Agency (EPA) Region 5 facilitated a discussion on asthma prevention. The following key issues were raised during the discussion:

1. Need for overall public awareness about asthma
2. Need for parental behavioral changes
3. Education of physicians and clinics about asthma
4. Generation of community activism with regard to air quality
5. Exploration of holistic options and alternatives to asthma management
6. Awareness of policy makers and government to asthma problems

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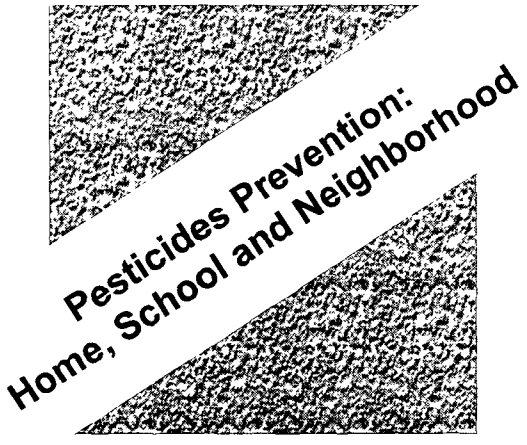

Mr. Phil Nixon of the University of Illinois, Mr. Todd Okamoto of the U.S. Environmental Protection Agency (EPA) Region 5, Ms. Amy Brown of the University of Maryland, and Mr. Steven Brachman of the University of Wisconsin presented several approaches to reducing pesticides exposure of children in the United States.

Preventing Pesticide Exposures at Home

Mr. Phil Nixon, an entomologist from the University of Illinois Extension Service, discussed how to prevent pesticides exposure in residential lawns and in the home.

Mr. Nixon described the "golf course standard" that many homeowners strive toward when maintaining their lawns. In most cases, he said, homeowners apply too much pesticides to achieve a "perfect" lawn completely free of weeds. He posed the question of whether a beautiful lawn *has* to be weedless or pestless. He showed a photograph of a tree at a golf course that was infested by leaf hoppers to demonstrate that even golf courses are not perfect. He reported that many so-called plant pests are actually not very harmful. Another photograph showed that a tree infested by the Japanese beetle still served as a good shade tree.

Mr. Nixon then turned his attention to insects in the home. He asserted that many nuisance pests such as winged ants and spiders are not harmful and therefore do not have to be eradicated with pesticides. He recommended simply vacuuming up the nuisance pests and disposing of them outside, which eliminates the problem and does not leave harmful chemical residues in the home.

Mr. Nixon reported that as median income rises, so does intolerance to pests. More affluent neighborhoods generally have better-manicured lawns and homes free of nuisance pests. These conditions are maintained primarily by the use of many pesticides. He stressed the need to change the general attitude toward weeds and pests. He stated that not all weeds or pests have to be eradicated with harmful chemicals.

Mr. Nixon introduced the concept of integrated pest management (IPM), which he defined as the combination of environmentally compatible and economically feasible management methods. He referred to subsequent presentations for more details on IPM. He stated that when pesticides must be used, applicators should keep the tips below in mind.

- Read the label on pesticides products carefully.
- Wear protective clothing such as gloves when using pesticides.
- Store pesticides where children cannot reach them.
- Triple rinse empty pesticides containers before disposing of them.

Insecticidal Chalk in Chicago

Mr. Todd Okamoto of EPA's Office of Pesticide Programs described an illegal chalk product from China that has resulted in the hospitalization of one Chicago child who ate it. He stressed the need to bring awareness of this toxic chalk to the Asian community. When asked what active ingredients comprise the chalk, Okamoto stated that permethrin was probably one of them, but he was unsure because it is an unregistered product. The chalk is currently not illegal in China, and it is being imported into the United States.

A town meeting on insecticidal chalk was held in Chicago to discuss ways to educate businesses and residents about health risks associated with using the illegal product. The meeting brought together the following groups:

- Chicago Asian community groups
- Chicago African-American community groups
- Chicago Hispanic community groups
- Minority advocacy groups
- Community business groups
- Poison control specialists
- Import brokers
- U.S. customs agents
- University of Illinois Extension Service
- Federal and state pesticide regulators
- Concerned parents

Educating Parents, School Staff, and Nurses about Prenotification Application

Ms. Amy Brown, entomologist from the University of Maryland, described a new law in Maryland that mandates school IPM programs and requires the posting of signs in school areas where pesticides are being used. She reported that pesticides are widely used in schools because of the perceived need that insect pests need to be controlled in that environment. School IPM programs are currently also required in Louisiana, Michigan, Texas, and West Virginia.

Ms. Brown and her colleagues at the University of Maryland conducted a survey of pesticides control strategies in schools. Survey respondents included staff members and parents of children at Anne Arundel Public Schools. The schools have initiated a voluntary prenotification program that involves informing school staff and parents of anticipated pesticides application activities at the beginning of the school year, followed by another notification immediately prior to the application.

Preliminary results of the University of Maryland's 1999 survey showed that about 50 percent of the parents and 30 percent of the staff surveyed did not remember receiving prenotification within the past year. In terms of actions taken in the response to notification, 44 percent of parents and 16 percent of staff members watched for possible symptoms in the children. About 86 percent of parents and 90 percent of staff did not notice symptoms associated with the application, but 3 percent of parents and 4 percent of staff thought they did. Of the 3 percent of parents who noticed symptoms in their children, 30 percent brought their children to the doctor; 56 percent of the parents did not have their children diagnosed. Most respondents preferred prenotification at the beginning of the school year, as well as another notification immediately prior to the application. Half of the parents and 64 percent of the staff surveyed stated that the school provided enough information about the pesticides application.

Ms. Brown reported that the University of Maryland and the Maryland Department of Agriculture have jointly developed resource guides and conducted training for pesticide applicators. For more information on the University of Maryland's pesticide education and assessment program, Brown directed the audience to the following web site: http:\\www.pest.umd.edu. The web site currently features information on the impacts of pesticides on migrant and seasonal laborers, includes a pesticide newsletter, and provides links to pesticides-related references and resources.

Neighborhood Spray Notification, Education, and Prevention Program

Mr. Steven Brachman, a waste education and management specialist at the University of Wisconsin Extension Service, presented a discussion of Wisconsin's landscape registry and how it can improve children's health. Brachman stated that the registry contains names and addresses of homeowners who hire commercial pesticides applicators to treat their lawns and the contact information for their neighbors. Under the program, pesticides applicators are required to notify others in the neighborhood prior to spraying.

The program was established in 1993 in response to concerns about over spraying of herbicides and potential children's health risks. It ensures that residents are notified about pesticides applications in their neighborhoods so that they can take the necessary steps to protect themselves and their children. Brachman reported that the registry has grown from 500 households in 1993 to over 1,000 households today. Dane and Milwaukee Counties, the two most populous counties in Wisconsin, comprise over half of the state registry. The program is currently promoted primarily by word of mouth

Mr. Brachman stated that the registry has a strong potential to increase educational awareness about the risks posed by pesticides application and ways to reduce exposure. He stressed the need for stronger partnerships with educational organizations and increased outreach efforts on the matter. He suggested that targeted pilot studies may generate more information about pesticides use.

Facilitated Discussion

Ms. Sue Brauer and Mr. Peter Murchie of EPA Region 5 facilitated a discussion on pesticides prevention around the home, school, and neighborhood. The following key issues were raised during the discussion:

- Expand the scope of pesticides education awareness programs to include pesticides use from all sources, not just landscape improvement
- Identify funding opportunities on the regional and federal levels to promote awareness of pesticides

- Change the public perception of the need for the "perfect lawn"
- Consider alternative ways to control pests
- Compile a children's environmental health clearinghouse or compendium of information (for example, on the EPA homepage) that links to efforts on the state and local levels
- Educate parents, school nurses, primary care physicians, and politicians, among others, about risks associated with pesticides and how to reduce the exposure of children
- Continue to work with county extension agencies and collaborate with local efforts on reducing pesticide use (an EPA role)
- Explore other avenues and programs to increase awareness about pesticides risk and use
- Increase attention on this issue, especially among private applicators, by increasing the focus on cost, in addition to health, issues

This list of discussion topics was narrowed down to the following three to be considered for the action plan:

- Need for clearinghouse of information
- Incorporation of pesticides awareness into educational programs for public and pesticides users
- Broaden view of pesticides awareness to include more than landscape management

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COMMUNITY RELATIONS BREAKOUT SESSION I

JULY 20, 1999

Environmental Training Resources for Day Care and Health Care Providers

Ms. Jane Storey and Ms. E.J. Schumaker, from the Lincoln-Lancaster County Health Department, provided advice for training day care and health care workers in environmental health issues and discussed their own efforts. Dr. Daniel Hryhorczuk, an environmental health physician, spoke about the role of doctors in environmental health and the barriers to training physicians in this environmental health specialty. Issues discussed are summarized below.

Starting an Environmental Health Program for Health Care and Day Care Providers

Ms. Storey offered the following advice for people seeking grants to set up environmental health training programs with health care and day care centers.

- Make a list of all health care and day care centers and providers in your area.
- Ascertain which centers and providers already have environmental health or related programs and which ones you can contribute to.
- Find out which laws apply to health care and day care providers in your state.
- Work with the general public through activities such as sending mailings to parents of children at day care centers.
- When applying for grants from the U.S. Environmental Protection Agency (EPA), get a mentor from the agency who will help you through the grant application process.

Ms. Schumaker works with a program called Kids in Touch Environmentally (KITE). She discussed her experience with establishing a food safety outreach program for children at day care centers. She uses games, pictures and other activities to show day care providers how to relate food safety to children. The goal of the food safety program is to encourage children to be proactive and think about cleanliness. The KITE program includes five other topics, including a program on lead.

The Role of Physicians in Environmental Health

Dr. Hryhorczuk spoke about the following roles of physicians in environmental health:

- To provide care and advice for individuals;
- To be advocates for individuals by communicating with employees, the public, environmental health authorities and landlords;
- To be involved with the community and to advise and educate citizens; and
- To participate in environmental health policy making.

Dr. Hryhorczuk also pointed out that there are several barriers faced by doctors wanting to become involved in the environmental health field, including a lack of training in the field, little reimbursement and time for practicing environmental health, and addressing legal and administrative burdens. There are several "core clinical competencies" in the environmental health field with which doctors should be familiar; these include understanding the influence of the environment on human health, being able to elicit an environmental history from a patient, and understanding the legal and ethical issues involved in seeing patients with environmental health problems.

Environmental health resources in the Great Lakes area are listed below.

- National Institute of Occupational Safety and Health (NIOSH) Education and Research Center, which offers health hazards evaluations for communities.
- National Institute of Health (NIH) Fogarty Center.
- World Health Organization (WHO) Collaborating Center.
- Toxicon, which offers 24-hour access to a toxicologist, at the University of Illinois.
- Center of Environmental Health (CEH).

Dr. Hryhorczuk informed the audience that the CEH works with parents, and the other centers are for health care professionals.

The attendees broke out into groups and then identified the following three action items:

1. To provide stable funding for an accurate center, with a repository of resources, for health care and day care providers. This repository should include both web-based and hard copies, include both EPA and non-EPA resources, and include case studies and list uses for each of the resources.
2. To train the trainer in an ethically and culturally specific manner.
3. As a prevention strategy, to use environmental issues to seek economic justice.

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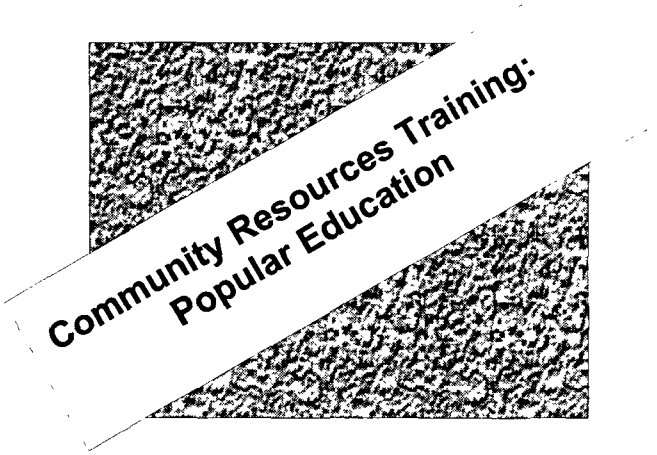
COMMUNITY RESOURCES
BREAKOUT SESSION I
JULY 20, 1999



During this workshop, Ms. Marge Altergott, Mr. Victor Ceballos, and Ms. Tess Aldrich spoke about environmental education relating to children's health issues. Ms. Altergott is from Health Organizing through Popular Education (HOPE), which deals with community wellness issues. Mr. Ceballos works with the Little Village Environmental Justice Organization on a project called the Bucket Brigade that deals with air quality issues and with schools built on contaminated land. Ms. Aldrich works at the Alivio Medical Center in Chicago with the Child to Child health program. Child to Child is an international health promotion program founded on the belief that children have the power to effect change in their lives. Founded in 1979, the program has spread to 80 nations worldwide.

Popular Education

Ms. Altergott provided an overview of the concepts behind popular education. A simple definition of popular education is education "of the people, by the people, for the people." Popular education depends on the six key principles summarized below.

Education is not neutral: People who teach have their own political agenda. Education can either maintain the status quo by teaching people the values or culture of the majority, or liberate people by helping them become creative and free.

Content comes from the participants: One cannot know what the issues are and keep them relevant to the people if the members of the community are not involved. People will act on issues they feel strongly about; therefore, educators should start by identifying issues that local people feel strongly about.

Dialogue: By participating, people shape the content of a program through working together cooperatively. Each person has something unique to bring to a discussion. Everyone needs to be a learner and a teacher. Education is a mutual learning process.

Problem-posing education: A facilitator can help participants learn by asking questions rather than lecturing. In this way, people can learn to develop skills in critical analysis.

Reflection and Action: The information people share is reflected by a body of knowledge called "popular knowledge," which develops from group work. This leads to discussion of planning, which eventually leads to action. This process of reflection and action is ongoing and given time, will lead to transformation.

Transformation: Ultimately, popular education is aimed at transformation. Education should work to transform the quality of each person's life, the environment, community, and entire society.

Popular education is an ongoing creative process that may take years to flower in a community.

Popular Education and the Child to Child Health Program

Ms. Aldrich provided a brief overview of how the Child to Child health program uses popular education to promote public health through children. Child to Child came to the United States in 1983 and was started in Chicago at the Pilsen Little Village neighborhood. The Child to Child health program process is summarized below.

- Children name the health issues that they feel affects them the most or are their biggest concerns through an interactive activity.
- After learning about that topic, children plan an action to help educate other people in their communities, schools, and families about the topic. Activities range from making up skits, posting flyers in public places, to writing letters to community leaders.
- All the activities are planned and implemented by the children themselves. In this way, the children become the "owners" of the program. The children are referred to as "health promoters." This gives them a sense of responsibility and pride.
- Each program is unique because the children pick the issues that they want to learn about.

Popular Education and the Little Village Environmental Organization

Mr. Victor Ceballos provided a real-life example of how popular education is working for the Little Village Environmental Organization. The Little Village Environmental Organization was established in 1997 as a response to proposals to build new elementary schools on or near Brownfields, drum recyclers, and other unsafe areas.

In 1997, Mr. Ceballos worked with high school students, grammar school students, and two second-year medical students to prepare a short skit aimed at educating community members about the dangers of a nearby Brownfields site. The children went door to door for 2 weeks speaking to their neighbors about the site and inviting them to a community meeting. Members of the community met in one of the high school student's back yard. The meeting started with a skit about how contamination from the Brownfields site can enter the homes of community members. A 2-hour community discussion followed the skit in which members discussed the health hazards associated with the Brownfields site and educated each other about related issues.

The Little Village Environmental Organization example shows how popular education can help people of all ages identify health issues that affect them and educate other members of the community about these issues.

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RESPIRATORY BREAKOUT SESSION II
JULY 20, 1999

Respiratory Ailments and Prevention Models

Mr. Matt Schullick of the Chicago Health Corps, Dr. Vicky Persky of the University of Illinois Chicago, and Mr. Terry Allen of the Cuyahoga Board of Health spoke about respiratory ailments and approaches to educating the community about these ailments.

Clean Air for Schools Campaign

Mr. Matt Schullick from the Chicago Health Corps discussed the Clean Air for Good Health in Schools project that focused on increasing community knowledge about indoor air quality (IAQ) in five Chicago area schools.

The goals of the project were: (1) to raise awareness about IAQ and its relationship to health outcomes, (2) educate school communities, and (3) perform environmental assessments.

Mr. Schullick described the importance of IAQ because people in the United States spend 90 percent of their time indoors. IAQ problems can lead to spread of infectious diseases and increased long-term and short-term health problems, including respiratory conditions and tissue irritation. With respect to schools, IAQ problems can lead to an unfavorable learning environment, reduced student productivity, and accelerated school deterioration.

A clean air checklist was developed to determine the main pollutants in the classroom. This one-page checklist, to be filled out by teachers, asks questions regarding classroom cleanliness, presence of animals, excess moisture, thermal comfort, ventilation, renovation, and chemicals used for maintenance and cleaning. Project volunteers informed the school staff about what they could do to improve IAQ. Teachers were told they should communicate classroom IAQ issues to engineering or maintenance staff, report spills and smells, remove chemicals from the classroom, and report temperature differences.

The project team conducted a chemical inventory in each classroom of each of the five schools participating in the study. The team did an analysis and summary of findings to determine safe alternatives for hazardous chemicals and to develop a proper storage plan. Results were shared with school staff. In addition, the school airways and vent shafts were cleaned of foreign material.

Finally, Mr. Schullick discussed lessons learned during the project. Establishing good relationships with the schools was very important, and technical expertise was only secondary. Mr. Schullick suggested that schools encourage parents to get involved and establish interactive clubs that would educate students about respiratory ailments.

Asthma Education

Dr. Vicky Persky of the University of Illinois Chicago discussed educating communities about asthma and asthma prevention.

Dr. Persky reported that the prevalence of asthma is increasing yearly. Risk factors include low birth weight, smoking, and a young maternal age. Hospitalization for asthma is higher in younger age groups and higher after increased ozone levels and high pollen counts. Asthma is more widespread in poverty-stricken neighborhoods.

Persky focused on asthma in schools and discussed several ways schools can help prevent asthma. Schools should provide a medication policy, training about asthma for nurses, a protocol for teachers, presentations for parents and school staff, and take-home brochures for parents.

Dr. Persky discussed the Community Asthma Prevention Program (CAAP) Asthma Association. The goal of CAAP is to increase asthma knowledge in communities to help prevent the disease. CAAP has educational programs based on the Head Start program, Catholic and public schools, and community-based health centers. CAAP volunteers developed culturally sensitive materials to distribute within communities as well. The program trained peer educators to work with parents. The peer educators and asthma experts made presentations in communities and schools to spread asthma education. These presentations were well received by families. The CAAP program has helped reduce hospitalizations related to asthma by 50 to 75 percent in communities.

Infant Mold Disease: Community Education and Intervention

Mr. Terry Allen from the Cuyahoga County Ohio Board of Health described infant mold disease and discussed options for prevention of and education about the disease.

Infant mold disease is also described as "bleeding lung disease" and is associated with pulmonary deterioration and hemorrhage. The Board of Health, in conjunction with the Centers for Disease Control, the Ohio Department of Health, and the Cleveland Department of Public Health, studied 43 cases of infant mold disease. Thirty of the cases occurred in males, and fifteen of the cases resulted in death. The cases occurred in the poorest parts of the county.

Mr. Allen reported that infant mold disease occurs because of mold and water problems in buildings. Mold can form on dry wall, and water can be a problem from leaking roofs and condensation. He discussed ways to control moisture and mold to help prevent infant mold disease.

Mr. Allen stated that the keys to the success of the study were the full cooperation of medical, public health, and housing agencies, and the building of personal relationships and sharing successes between the agencies.

Facilitated Discussion

Mr. Randy Cano of EPA Region 5 facilitated a discussion on respiratory ailments. The following key issues were raised during the discussion:

1. Link housing and public health agencies with medical groups.
2. Create community coalitions to address respiratory issues.
3. Involve the community, parents, and schools to address asthma issues.

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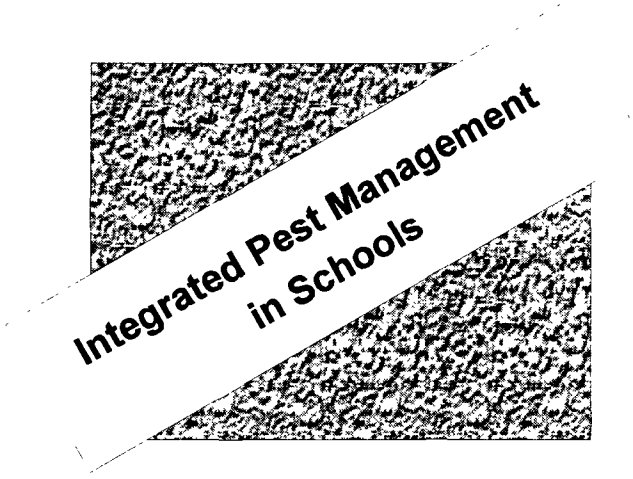
PESTICIDES BREAKOUT SESSION II
JULY 20, 1999



Mr. Marc Lame of the Indiana University-Bloomington, Ms. Karen Delahault of the University of Wisconsin Madison, and Mr. David Rountry of the Washington State Department of Ecology discussed integrated pest management (IPM) programs in schools. Issues discussed are summarized below.

Pollution Prevention and IPM in Schools

Mr. Marc Lame, an entomologist and faculty member at the School of Public Environmental Affairs at Indiana University-Bloomington, discussed IPM at child-sensitive facilities, including day care centers and elementary, middle, and high schools. He described a study that he and his colleagues conducted that introduced IPM to schools in the Monroe County Community School Corporation. He touted IPM as a "win-win" situation.

Mr. Lame reported that IPM is mandatory in several states, including Louisiana, Michigan, Texas, and West Virginia, and added that Illinois and Montana are also experimenting with voluntary IPM programs. He stated he prefers the voluntary approach because legislative mandates of IPM in schools can give special interest groups the opportunity to subvert IPM, and IPM laws have generally resulted in unfunded mandates.

Mr. Lame stated that there has been a recent shift in the pesticides management paradigm. Specifically, the focus has moved from the traditional approach of hiring commercial pesticides applicators to the new approach of educating support staff (including custodians, maintenance workers, kitchen staff, administrators, and teachers) and students about the risks associated with the use of pesticides. Similarly, there has been a movement towards IPM, from cultural, chemical, and mechanical controls to monitoring, prevention, and treatment.

Mr. Lame identified the three questions below which be addressed when implementing an IPM program.

- What action needs to be taken?
- Who should take those actions?
- Are resources available to implement the actions?

He described the implementation of IPM in schools as a five-step process involving the following:

1. Awareness - Disseminate information about pesticides use through mass media and interpersonal communication.
2. Persuasion - Communicate evidence that IPM will meet the community's needs.
3. Decision - Demonstrate that IPM will meet the community's needs by using results from model and pilot programs.
4. Implementation - Communicate the process of matching the positive attributes of IPM with mitigating the negative attributes of pests.
5. Confirmation - Communicate the fact that the decision to adopt the program worked.

Mr. Lame reported that the approach used in his study on schools in the Monroe County Community School Corporation resulted in the reduction of pesticides use by 92 percent in participating schools over a 3-year period. He listed the following recommendations when implementing IPM in schools:

- Coordinate and communicate about policies and the implementation plan among agencies involved in the management of child-sensitive facilities
- Increase outreach to school district decision-makers.
- Continue analyzing the costs and benefits associated with IPM in schools.
- Adopt pesticides application prenotification policies.
- Explore means to fund IPM programs (currently no funding sources).
- Coordinate existing IPM resources for national use (do not "reinvent the wheel").
- Feature IPM programs at annual meetings and workshops.

Reducing Pesticides Use in Turf

Ms. Karen Delahaut, an IPM outreach specialist at the University of Wisconsin Madison, discussed ways to reduce pesticides use on school athletic fields. She acknowledged that pesticides use reduces the risk of children tripping and falling. Pesticides usage on school fields may be a source of pesticide exposure to children.

Ms. Delahaut stated that a study of school grounds personnel has shown that many do not have appropriate training in pesticide application. She reported that although lawn care companies and farm cooperatives are required to be certified, school custodians whose primary responsibility is not to apply pesticides do not undergo pesticides application training.

Ms. Delahaut along with others at the University of Wisconsin created an IPM manual for schools and initiated a pilot, hands-on IPM program this year that included a range of communities and scenarios (eg., urban and rural communities). By the year 2000, she aims to expand the IPM program to include 25 schools. A trainer's manual is currently being developed for distribution to other agencies.

Ms. Delahaut stated that the IPM manual for schools and the trainer's manual that is being developed will be on the Internet at : http:\\ipcm.wisc.edu.

Community Partnerships for Safer Pest Control at Schools

Mr. David Rountry from the Washington State Department of Ecology began his presentation by distributing a blue book entitled "Calculating the True Costs of Pest Control," which was recently released by the Hazardous Waste and Toxics Reduction Program of his agency the previous week (Publication 99-433). He described the resource as a compilation of IPM success stories. He reported that demonstration sites are showing the success of IPM and new practices. He redefined IPM as "intelligent" pest management.

Mr. Rountry described Washington State's 5-year-old IPM program. He added that the U.S. Environmental Protection Agency (EPA) Region 10 is involved in his state's program. He described Washington's Master Gardeners Program as an example of an effective IPM program. The program promotes environmentally prudent horticultural practices and attempts to identify alternatives to conventional pest eradication methods.

Mr. Rountry also described a workgroup on statewide IPM programs in schools. He stated that EPA Region 10 provided funds and a representative to facilitate the workgroup's discussions. He emphasized that IPM goes beyond pest control -- it measures the ability of members in a community to cooperate. He reported that by working with various stakeholders at workgroup meetings, clear objectives are identified from the start. The workgroups focus on outcomes, not just actions.

Facilitated Discussion

The session ended with a discussion about IPM facilitated by Ms. Sue Brauer and Mr. Peter Murchie of EPA Region 5. Brauer and Murchie reviewed issues raised and asked for suggestions of issues to consider for the action plan. The following key issues were raised during the discussion:

- Consolidate resources into a national database.
- List resource people and have them talk with stakeholders on the local level.
- Funnel more funds to states for IPM program implementation.
- Consider a child-specific environmental budget line item.
- Explore methods of information delivery to department heads of buildings and maintenance at schools.

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COMMUNITY RESOURCES
BREAKOUT SESSION II
JULY 20, 1999

Community Resources: Toxics Prevention Tools

During this workshop, Ms. Tami Johnson from the Indiana Department of Environmental Management (IDEM), Ms. Kadi Row from the National Home*A*Syst Program, and Ms. Sally Patrick from the Minnesota Pollution Control Agency (MPCA) spoke about resources available to community members to help reduce the amount of toxic chemicals children are exposed to. Issues discussed are summarized below.

Self Assessments for Child Care Facilities to Prevent Health Risks

Ms. Johnson of IDEM introduced the Indiana Five-Star Environmental Recognition Program for child care facilities. This program focuses on preventing environmental threats to health and safety and includes tools such as a user-friendly self assessment to identify risks and take specific actions to reduce those risks. This plan focuses on the three core issues summarized below.

Environmental Threats: Preventing exposure to hazardous substances such as asbestos, radon, mercury, pesticides, mold, tobacco smoke, and lead.

Health and Safety: Providing training on building safety, fire and emergency planning, chemical safety, and bloodborne pathogens.

Environmental Stewardship Opportunities: Providing education to families on topics such as recycling and energy efficiency.

The Five-Star program has the following characteristics:

- Completely voluntary: It will have no licensing bearing on the child care facility.
- Not a new set of regulations: Some activities outlined in the program are already required by law. The program aims at providing easy-to-understand, inexpensive steps to decrease health and safety environmental risks.
- An educational tool: This program should promote awareness of which environmental toxins can exist at various child care facilities and what can be done to educate the child care staff about toxins used at work.

The five components of the Five-Star program are summarized below.

1. Environmental Pledge: A commitment health care providers must make to protect children from environmental threats.
2. Self Assessment: Steps outlined in an easy-to-understand publicly available booklet that allows health care centers to give themselves a high or low risk rating.
3. Five-Star Recognition: An award bestowed upon child care facilities to recognize their accomplishments. Facilities can receive 1, 3, or 5 stars depending on their condition. The star rating needs to be renewed every 2 years.
4. Confidential On-Site Telephone Assistance: A toll-free assistance number for facilities that have questions regarding the application process, technical terms, or any other program-related questions.
5. Guidance Manual: Detailed information for child care facility managers. The manual includes easy-to-understand explanations and demonstrations of environmental health regulations.

Over 50 child care facilities in Indiana currently participate in the Five-Star program.

National Home Assessment Program

Ms. Kadi Row of the Nat'l Home *A* Syst Program spoke about using the National Home Assessment Program (Home*A*Syst). Home*A*Syst is a national educational program based at the University of Wisconsin at Madison. It targets parents, renters, and homeowners and challenges them to look at environmental risks in the home. The program was designed to help an individual conduct a whole home environmental and health audit.

The program is driven by a comprehensive guide book that each state can adapt to fit individual state needs.

Health issues described in the manual include drinking water, pesticides and other hazardous products, indoor air quality, lead, and food safety. Each chapter starts with background information on each issue and an explanation of why the issue is of concern. An assessment checklist follows that individuals can use to rate risks in their homes as low, medium, or high. The manual also guides the user to create an action plan to decrease health risks in "high" rated areas.

Roots of Hazard: Household Hazardous Waste School Educational Tool

Ms. Sally Patrick of the MPCA spoke about an interactive, computer-based school educational tool she helped develop to inform children about household hazards. Roots of Hazard is a free CD-ROM software developed for use in Minnesota schools. It is a game that helps children explore the proper use, storage, and disposal of household hazardous products.

Roots of Hazard was developed through a grant and intended for license-free use on individual computers and computer laboratories.

The game was tested on 5th and 6th grade students. After the first session, students were able to recall at least one of the main learning objectives.

Roots of Hazard is also easy to install. A single copy of the CD-ROM can be used to install the software onto an unlimited number of computers. Through the use of puzzles, problem-solving activities, and matching games students can accomplish the following:

- Learn to identify different types of hazardous household products.
- Understand the importance of label reading and signal words.
- Develop and improve their computer skills by using interactive courseware.

Over 5,000 CD-ROM disks of the Roots of Hazard were printed. Of these disks, two copies were sent to each school district in Minnesota, 500 were sent to Hamline University, 250 were sent to science museums, and 500 stayed at the MPCA.

The project has been effective. When tested, 38 percent of students recognized signal words (caution, warning, danger, and poison), 24 percent understood hazard levels, and 30 percent could recognize hazard symbols.

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COMMUNITY RESOURCES
DISCUSSION FORUM ON COALITION BUILDING
BREAKOUT SESSION II
JULY 20, 1999

Ms. Jura Scharf of the Chicago Asthma Consortium, Ms. Maggie Butterfield of the Health Education Center of Wisconsin, Ms. Jackie Reed of the Westside Health Authority, and Ms. Mary Nelson of Bethel New Life discussed their experiences in coalition building.

Discussion Forum on Coalition Building: Learning by Example

Ms. Scharf of the Chicago Asthma Consortium, reviewed the findings of a study conducted by the Health Resources and Services Administration (HRSA) in 1998. The study determined that coalitions were effective in changing health status and health systems if they followed certain rules, such as having a clear goal and monitoring progress towards it. Ms. Scarf listed the seven steps below to coalition success.

1. Have a clear vision and mission.
2. Create community ownership.
3. Solidify the coalition structure.
4. Recruit and retain active, diverse members.
5. Develop leadership.
6. Focus on action and advocacy.
7. Market the coalition.

Ms. Butterfield of the Health Education Center of Wisconsin discussed one of the projects she works on: Awesome Asthma Days. The goals of the asthma coalition are as follows:

- To identify kids with asthma,
- To assess the impact of asthma on home care,
- To increase understanding and self-care of asthma, and
- To increase control of asthma symptoms.

The Awesome Asthma School Days project takes fourth-graders on field trips to teach them about asthma and provide them with ways to be proactive about their own care.

Ms. Reed of the Westside Health Authority, spoke about how she founded the Westside Health Authority in Chicago. Her goal in founding the center was to listen to people and provide programs based on their needs. For example, the community with which she worked needed jobs, so the Westside Health Authority set up a program to train people for careers as health care providers. Ms. Reed found that it was important to create specific goals and build a vision. She also pointed out that the bottom line in coalitions involves relationships, and she offered the four pieces of advice below to coalition-builders.

1. Listen to people.
2. You need to need, but not overwhelm, people.
3. Give people credit.
4. Avoid hidden agendas--get issues on the table and be clear.

Ms. Nelson of Bethel New Life talked about creating a community development corps (CDC), which works with communities to provide livable wages, housing, education, and healthy families. She noted that a sustainable community needs the following:

1. Economic security;
2. Environmental quality;
3. High quality of life; and
4. Public participation and accountability in decision-making.

Her CDC initiatives include Brownfields development, community outreach, small business development, and local worker training. Bethel New Life also spearheads a coalition of CDCs called Accelerating Community Transformation (ACT). Ms. Reed's advice to people founding CDCs or coalitions is to invite all groups to join from the beginning, to make data user-friendly, and to have someone keeping the communication lines open.

The attendees broke out into action groups and answered the following question: Based on the presentations and your knowledge, what should others remember about coalition building when they develop action plans?

The groups identified the following three topics:

1. Goals and missions of the coalition;
2. Relationships; and
3. The process of coalition-building.

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LEAD BREAKOUT SESSION III
JULY 20, 1999

Lead: State and Local Efforts

Mr. Joe Schirmer of the Wisconsin Department of Public Health and Family Services, Mr. Mark Ramion of the Milwaukee Health Department, Ms. Placida Venegas of the Minnesota Pollution Control Agency, Mr. Myron Falcon of the Minnesota Department of Health, and Ms. Susan Gust of Phillips, Minnesota, spoke about lead poisoning, focusing in particular on education, reduction, and prevention of lead poisoning. Topics discussed are summarized below.

Lead Poisoning Prevention

Mr. Joe Schirmer from the Wisconsin Department of Public Health and Family Services stated that limitations to lead poisoning prevention include using an old definition of lead poisoning, lack of resources to screen children for lead, weak enforcement mechanisms for remediating lead, and an unresponsive bureaucracy. To be successful at lead poisoning prevention, "infected" children must be identified. Ways to identify children that may have high lead levels involves cooperation of medical groups, parents, and state legislatures. Assessment would be easier if there was a universal reporting requirement for lead levels in children's blood streams. Educational materials about lead poisoning should be distributed to housing areas with high lead levels; these materials should be informative and easy to read.

Mr. Schirmer stated that lead poisoning prevention is a phased approach involving an action phase and a hazard control phase. The action phase includes inspecting and locating lead hazards inside and on the exteriors of houses. During the hazard control phase, the goal is to abate lead hazards. For example, in Wisconsin, the U.S. Environmental Protection Agency and the U.S. Department of Housing and Urban Development provided funding for high efficiency particulate arresting (HEPA) vacuums to clean lead dust and chips. The funding was also used to treat damaged exterior paint containing lead and replacing windows with lead paint trims. After only 1 year, lead dust levels decreased significantly. Cleaning is only a temporary measure; however, the study in Wisconsin shows that if lead dust levels are controlled using HEPA vacuums, lead blood levels in children will decline significantly.

Lead Hazard Education and Reduction Strategies

Mr. Mark Ramion from the Milwaukee Health Department discussed the effectiveness of education and lead hazard reduction strategies to reduce lead levels in Milwaukee.

Between 1994 and 1998 in Milwaukee, blood lead level trends were examined. The percent of lead in children's blood decreased from 35 to 17 percent as a result of lead hazard reduction strategies and education. Based on studies where only lead poisoning education materials were used, blood lead levels declined 18 percent. Based on studies where educational materials about lead were used in combination with lead hazard reduction strategies, blood lead levels declined 24 percent.

Treatments for lead hazards include scraping and repainting walls and window sills to eliminate lead hazards, and enclosing window wells and floors to isolate lead hazards. In the Milwaukee study, several intervention strategies were used, including cleaning, scraping, and painting, window replacement, and window well wrapping.

A primary prevention project was conducted by the Lisbon Neighborhood Development. The goals of the project were to educate and mobilize community members about lead poisoning and reduce lead hazards. Of the houses inspected, 88 percent had lead hazards. The average cost of hazard reduction was 12 percent of the average assessed value of the house. Target areas for the project were rental units and pre-1950s housing. Lessons learned as a result of the project are summarized below.

- Community-based strategies must be flexible.
- Risk-reduction training for renters in low-income housing is necessary.
- Multiple strategies for lead poisoning prevention need to be implemented, evaluated, and revised.

Lead Waste Disposal in Minnesota

Ms. Placida Venegas of the Minnesota Pollution Control Agency explained the properties of lead and its uses. Lead is a naturally-occurring, toxic metal that gives luster to and makes paint durable and long lasting. It is soft and can be easily bent. It is used in paint, gasoline, solder, and batteries, as well as a component of weights and sinkers, medical devices, and ammunition. Lead has hazardous effects on both children and adults. In children under 6 years of age, common health effects may include shortened attention span, hyperactivity, aggressive behavior, reading disabilities, mental retardation, convulsions, and even death. In adults, exposure to lead can affect the nervous system, kidneys, bones, heart, and reproductive system.

Minnesota's residential lead hazard reduction program is a cooperative effort between the following:

- U.S. Department of Housing and Urban Development (funding),
- Minnesota Department of Health (licensing, certification, and enforcement),
- Minnesota Legislature (lead laws),
- Minnesota Pollution Control Agency (proper lead waste disposal),
- Minnesota Housing Finance Agency (information clearinghouse), and
- Cities of Duluth, Minneapolis, and St. Paul (implementation of lead program).

Minnesota has several state laws designed to control lead hazards and enforce proper lead waste disposal: the Childhood Lead Poisoning Act, Lead Poisoning Prevention Rules, Residential Lead Paint Waste Disposal, Abrasive Blasting of Lead Paint from Residential and Steel Structures, and Hazardous Waste Disposal Rules. Under these laws, any person whose activities produce lead waste is responsible for proper disposal of the waste. Management responsibility is not transferable to the occupant of a structure with lead-based hazards. Waste produced by activities of the occupant must be managed as provided by household hazardous waste laws.

Categories of waste generated from lead paint removal projects include paint chips, paint dust, demolition debris, solvents, rinse water, rags, mops, scrapers, and materials used for testing and cleanup. Ways to contain lead waste include sealing the waste in a heavy-duty plastic bag and wrapping doors, windows, frames, and trim in polyethylene sheeting. All waste should be stored in a secured area.

Ms. Venegas also describes methods for handling and transporting waste. At the end of each working day, contractors and workers should conduct the following activities:

1. Categorize and separate waste into lead paint chips, solid debris, and demolition debris;
2. Store lead paint chips in a durable, tightly-covered container;
3. Store solid debris in a durable, tightly-covered container;
4. Store demolition debris in a covered drum; and
5. Filter wash water on site to separate any debris or paint chips present.

All lead waste should be transported in a covered vehicle to prevent blowing and loss of material. If loss does occur, the material must be picked up immediately and returned to the vehicle or container, and the area must be properly cleaned. For shipments within Minnesota, a Residential Lead Abatement Notification and Shipping form is required. For shipments out of state, a manifest may be required by the state(s) through which the waste will be transported.

Ms. Venegas discussed the authorized management methods allowed by Minnesota. A homeowner or occupant of a residence must bring lead paint chips to a household hazardous waste collection site. A contractor may take the lead paint chips to a local smelter to be reclaimed or recycled. Wastewater containing lead should be filtered with a 5-micron filter sack to remove lead debris prior to discharge to a sewer system. Options for placement of solid lead waste include the following:

- A lined landfill with liner and leachate collection system,
- A hazardous waste facility,
- A permitted demolition debris facility for woodwork, walls, and windows, or
- A solid waste incinerator ash landfill.

Ms. Venegas also discussed methods of lead waste management that are prohibited by Minnesota statutes. Lead waste must not be incinerated at a mixed municipal solid waste landfill, disposed of at an unlined landfill, left at a residence, or placed in a municipal solid waste compost or refuse-derived fuel facility.

Interagency Efforts to Reduce Lead Poisoning - Present and Future

Mr. Myron Falcon of the Minnesota Department of Health and Ms. Susan Gust, a citizen of the city of Phillips, Minnesota, discussed interagency efforts to reduce lead poisoning in Minnesota.

Mr. Falcon discussed how the Minnesota Department of Health works with the Department of Human Services, Medicaid agencies, medical providers, and local agencies to identify areas that are at risk for high blood lead levels. High risk areas were mapped using Geographic Information Systems (GIS) software. GIS was also used to identify sites that may have high lead levels but were not targeted. Data was shared among agencies through development of environmental and medical case management software. A prevalence study for high lead levels was performed in three counties.

Ms. Gust discussed how changes in lead prevention and education in her community have influenced lead prevention efforts in Minnesota. Ms. Gust stated that Phillips, Minnesota, is a very ethnic community. People in the community got together and dropped their own agendas to focus on the health issues of the children in Phillips. They lobbied for money from the University of Minnesota to study lead poisoning and lead hazard prevention in the city.

The goal of the study was to determine how many children in the community are poisoned by lead. The community volunteers for the project started at the local medical center to identify children that had elevated blood lead levels. However, the data on the blood lead levels was not organized and much of the data had to be collected again.

The city worked with Americorps and community volunteers to identify the children in the community who were at risk. Using their resources from the University of Minnesota, the core project members trained peer teachers about lead hazards. These peer teachers approached people in the community with culturally-specific materials to educate the community about lead hazards. Children at risk were identified and tested.

The project also researched the effect that lead has on the brains of infants and toddlers. It was determined that children become more aggressive when exposed to lead. The volunteers took the project a step further by providing guidance to parents on how to deal with children that have lead poisoning and brain damage as a result of exposure to lead.

Ms. Gust stated that the project was a learning experience and a success. By putting the community in charge of the project, the city of Phillips reaped the results of the research. Many relationships were built as a result of the project and people in the community actively worked together to learn about lead hazards and lead prevention and in turn educate their peers about the subject.

Facilitated Discussion

Ms. Patty Krause of EPA Region 5 facilitated a discussion on lead poisoning prevention and education of lead hazards . The following key issues were raised during the discussion:

- Instigate more collaboration among communities and the government for developing action agendas.
- Improve information dissemination.
- Mandate lead blood level screening in all children.
- Recognize local leadership in addressing lead issues.
- Shift from a medical model (screening blood lead levels) to a housing model (prevention and cleanup of lead hazards).
- Increase awareness of safe work practices.

- Promote a national annual program for increasing awareness of lead poisoning.
- Provide for sustainability of lead prevention activities and funding grants from the U.S. Department of Housing and Urban Development.

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Mercury: Education and Outreach

Ms. Louise Fabinski of the Agency for Toxic Substances and Disease Registry (ATSDR), Mr. Al Stenstrup of the Wisconsin Department of Natural Resources (WDNR), Mr. Steve Skavroneck of the Pollution Prevention Partnership, Mr. Ken Runkle of the Illinois Department of Public Health (IDPH), and Dr. Ying Feng of the Ohio Department of Public Health (ODH) described examples of education and outreach programs on the impacts of mercury. Issues discussed are summarized below.

Educational Materials for Prevention of Mercury Exposure

Ms. Louise Fabinski of ATSDR reported that in 1997, ATSDR and the U.S. Environmental Protection Agency (EPA) issued a combined alert about mercury, increasing awareness that the mercury issue goes beyond mercury in fish tissue. She reasserted the point made by Dr. Robert Amler during the Plenary Session that children are not small adults. She also suggested that parents and guardians may also be bringing mercury into the home.

Mercury Exposure Prevention Curriculum

Mr. Al Stenstrup of the WDNR began his presentation with a Jeopardy game, where he involved audience members in revealing information on mercury. He stated that the Jeopardy game was part of the training on mercury that he and his colleagues conducted for educators and high school students.

Mr. Steve Skavroneck of the Pollution Prevention Partnership reported that of the 5,000 pounds of mercury collected last year, 3,000 pounds came from schools. As Mr. Stenstrup distributed a training manual jointly developed by WDNR and the Pollution Prevention Partnership entitled "Mercury: In Your Community and the Environment" (1998), Mr. Skavroneck described the following activities that comprise the mercury curriculum):

- Case study of mercury contamination in a community.
- A local survey about mercury.
- School mercury audit.
- Home mercury audit.
- Trade-offs exercise.
- Mercury in fish.
- Community action projects.

The training promotes awareness of the risks associated with mercury which includes lesson plans and hands-on exercises.

Health Hazard Evaluation of the Ritual Use of Mercury in Chicago, Illinois

Mr. Ken Runkle of IDPH described the ritual use of mercury in Hispanic communities in Chicago. Specifically, items that contain mercury have been found in stores called botanicas, which sell health and religious ritual items such as statues and icons, natural herbs, folk remedies, amulets, and rosaries. The Chicago Department of Public Health conducted a study in which 16 botanicas visited sold mercury in one of the following different forms:

- Caplets containing 0.5 milliliter (mL) (about 6.5 grams [g]) of mercury
- Caplets containing 1 mL (about 13 g) of mercury
- An unmeasured amount in amulets of various shapes and sizes

Mr. Runkle stated that mercury is used ritually to obtain good luck, acquire money, acquire love, to control others, or for heating.

The ritual use of mercury includes the following:

- Sprinkled around the home and in beds
- Burned in candles
- Used in cleaning water
- Rubbed onto skin
- Ingested
- Carried on person

Multiple health hazards are associated with mercury. The primary route of mercury exposure is inhalation. Mr. Runkle acknowledged that because mercury vapor is dense and is present closer to the floor, children are more susceptible to mercury poisoning. He listed the following symptoms of mercury exposure:

- Headaches
- Trembling
- Blurred vision
- Personality changes
- Memory loss
- Neuromuscular problems
- Acrodynia

IDPH is conducting an exposure study to evaluate the health significance of ritual mercury use. The study involves the following aspects:

- Approximately 100 participants from 20 homes.
- Air screening with a Jerome mercury vapor analyzer.
- Air sampling with sampling tubes and pumps.
- Urine sampling of residents in the morning and afternoon.
- Monitoring of carbon dioxide levels to gauge air exchange rate.
- Distribution of educational materials.

Ms. Runkle reported the problems below associated with recruitment for the IDPH study:

- Potential participants do not want others to know.
- Identity and immigration issues arise.
- Participants mistrust the government.
- Religious reasons encourage mercury use.
- There is no financial incentive to cooperate.

Mercury Exposure Prevention Outreach

Dr. Ying Feng of ODH described mercury outreach efforts being conducted by ODH. She reported that one of the largest mercury spills occurred in Springfield, Ohio in 1997, which prompted the establishment of a mercury spill prevention program. Dr. Feng recounted the story of a group of teenagers breaking into Tower Metal Alloy Recycling Station, an abandoned metal recycling facility, in October, 1997. The teenagers found a 5-gallon drum of metallic mercury. They poured mercury into plastic soda bottles, which they removed from the premises and brought home, spilling the contents along the way. The mercury was subsequently spilled in their homes and yards, on their clothes, and brought to school the following day.

The incident resulted in the following:

- Sixteen homes were contaminated and required cleanup procedures,
- Sixty-nine residents had to leave their homes for 3 to as long as 25 days,
- 162 urine specimens were collected from area residents, and
- Five students had mercury levels above 20 micrograms per liter, the ATSDR benchmark for children.

The emergency removal action involved EPA, the Ohio Environmental Protection Agency, the Clark County Combined Health District, the Springfield Fire Division, the City of Springfield, the Springfield Emergency Management Agency, the local Red Cross, and ODH. Dr. Feng stated that 200 pounds of mercury were retrieved from contaminated residences in 28 days, resulting in a $500,000 cleanup effort. Displaced families were allowed to return to their homes by late November, 1997. The incident prompted the realization that a mercury spill prevention program was needed to (1) reduce mercury sources, (2) change the public's behavior toward mercury, and (3) develop guidance to respond to mercury spills.

Dr. Feng described a mercury recycling program that her department jointly developed with the Ohio Dental Association. There is no charge for mercury collection, and fourteen collection stations have been established around the state. She reported that 838 pounds of mercury have been collected so far.

Dr. Feng also described a mercury training program that ODH is developing with the Ohio Environmental Health Association. Regional seminars are being held in four locations around the state. In addition, the ODH Site Assessment Section has developed educational materials including a fact sheet titled "Mercury Spill Fact Sheet for Schools."

Facilitated Discussion

Mr. William Massie of EPA Region 5 facilitated a discussion on mercury use and exposure. The following key issues were raised during the discussion:

- Consider replacing all mercury thermometers.
- Overcome perception of scientific accuracy of mercury in thermometers; perceive it more as a human health risk.
- Develop standard response to cleanup and spills.
- Educate the public on the cumulative effects of mercury.
- Conduct outreach efforts to policy makers.
- Encourage medical facilities to reduce use of mercury.
- Consider alternative outreach, (e.g., culturally appropriate educational materials for fish consumption advisories).
- Eliminate abandoned mercury stockpiles.

This list was narrowed down to the following three topics for inclusion in the action plan:

- Educate society about the effects and consequences of mercury exposure using culturally appropriate methods and tools.
- Encourage and mandate mercury use reduction.
- Discourage unregulated recycling of collected mercury to eliminate abandoned stockpiles.

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COMMUNITY RESOURCES
BREAKOUT SESSION III
JULY 20, 1999

Ms.EllynMcKenzieoftheSixteenthStreet CommunityHealthCenterandMs.Sarah SchubertoftheMilwaukeeHealthDepartment spokeabouttheirexperiencesworkingwith agenciesandcommunitiesinsuccessful partnerships.Ms.JulieMoriartyEPA'sOfficeof PublicAffairsEnvironmentalEducationGrant Program)gaveadviceonhowtoapplyfor grants.

Successful Partnerships

Ms. McKenzie of the Sixteenth Street Community Health Center discussed the Center's work with the Brownfield Environmental Assessment Program (BEAP). The Center worked with the Wisconsin Department of Natural Resources and community members to clean up and develop an old factory site. Ms. McKenzie noted that the features that led to success of the project included the following:

- The agency gained the trust of the community,
- There was a common point of contact for multiple parties, and
- The agency had site-specific processes with long-term goals.

Ms. McKenzie also mentioned the following other programs:

- Child Health Champion National Initiative by EPA which provides grants for community programs in eleven cities.
- Milwaukee Community Health Center (CHC) project involves communities, parents, and children in an effort to help kids cope with asthma.

Outreach and Education

Ms. Schubert of the Milwaukee Health Dept. offered insights from her experience in dealing with community groups. She is a specialist in the lead poisoning program at the Milwaukee Health Department. A telephone survey conducted by the lead poisoning program found that there is a general awareness of the risks associated with lead in housing, especially in high-risk areas, and that an important step in reducing lead poisoning was increasing knowledge of risk reduction behaviors through outreach and education programs. Based on the findings of the survey, and a focus group, the lead poisoning program center has developed a community plan to provide people with the ability to reduce their risk of lead poisoning. When working with a community, Ms. Schubert noted that the following factors are important:

- Be flexible
- Be involved
- Listen to people
- Be honest
- Be available

Grant Applications

Ms. Moriarty, of the U.S. EPA, provided hints on how to prepare a grant application for EPA. The most important part of grant-writing is creating a plan for the organization. Ms. Moriarty suggested considering the following objectives when preparing a grant application.

- Define what your organization is and what its goals and strengths are.
- Identify funding agencies.
- Focus on a specific problem your organization will address.
- Be realistic in you goals.
- Show what partnerships your organization will form.
- Demonstrate sustainability.

One of the participants stated that some partnerships are created only because they are required in order to be eligible for a grant and are not necessarily for useful purposes. Although this is sometimes true, the speakers pointed out that partnerships should benefit all parties.

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COMMUNITY RESOURCES
TRAINING BREAKOUT SESSION III
JULY 20, 1999

Community Resources Training: Integrated Pest Management

At this workshop, Ms. Diana Fleming, a children's advocate and activist, and Ms. Clare Hintz, from Safer Pest Control Project spoke about integrated pest management (IPM.) IPM is a method of preventing and controlling pests in a way that is the least hazardous to human health and the environment.

IPM uses information about the pest's biology and habitat to get to the root of the pest problem. Pesticides are used sparingly, if at all. Topics discussed are summarized below.

Perceptions and Misconceptions of Environmental Activism and IPM: A Case Study

Ms. Fleming described how she became an activist. She helped pass one law requiring schools to notify parents and staff prior to pesticides applications on school grounds and is currently working on getting a law passed that would require schools to adopt IPM programs. She spoke about her personal journey to becoming an activist and gave advice to the audience about becoming a tactical activist. Her top ten rules of tactical activism are summarized below.

- Avoid fighting a battle on your opponent's terms.
- Pursue a proactive agenda rather than a defensive response to your opponent's plans.
- Define the problem and learn the issues.
- Establish a goal.
- Recognize a strategy.
- Define tactics to support the strategy
- Assess a campaign's success.
- Be a tactical activist--listen, be tenacious, creative, and willing to make mistakes.
- Remember that tactical activists never fail--they only make mistakes and learn from them.
- Be cautious of the media.

The common perception that governments are too burdensome for environmental change campaigns to succeed is a misconception. Becoming a tactical activist to promote positive change is a viable solution. Ms. Fleming also spoke about the importance of using IPM from a firsthand experience. She stressed the huge impact of the use of hazardous chemicals on children at school and stated that adults need to do a better job of protecting children from these dangers.

Roach Control Using IPM

Ms. Clare Hintz of Safer Pest Control Project, spoke about her research with regard to roach control. It is important to have a cockroach-free home because they can release allergens into the home that can make many people sick. These allergens can also trigger asthma attacks. Ms. Hintz described simple techniques to reduce roach populations in the home without pesticides. These techniques are summarized below.

- Seal all entryways into the home. Cockroaches can get into a home through cracks around baseboards and holes in the walls where plumbing or heating ducts come through. Cockroaches hide in cardboard boxes that people carry inside.
- Keep food away from cockroaches. Cockroaches need food to stay alive. Keeping crumbs out of the kitchen and food in sealed containers will cut off the roaches' food supplies.
- Wash dirty dishes promptly, and vacuum regularly.
- Have leaks repaired: Cockroaches also need water to live. Leaks provide all the water roaches need to stay alive.
- Reduce clutter: Clutter is hard to clean around and offers lots of hiding places for roaches.
- Use hot, soapy water to scrub away roach droppings. Roach droppings attract other roaches and can cause allergies.

Ms. Hintz stressed that IPM is a technique that anyone can implement to reduce cockroach problems without using pesticides.

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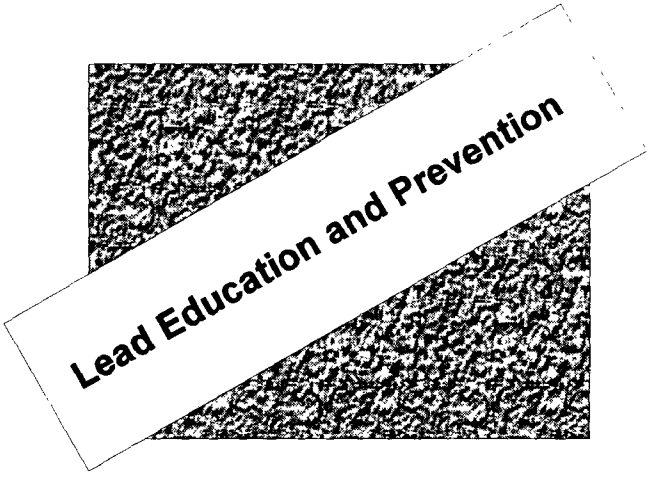
LEAD BREAKOUT SESSION IV
JULY 21, 1999



Ms.IngaBackoftheInter-TribalCouncilof Michigan,Ms.LisaSchneideroftheChicago HousingAuthority(CHA),andDr.HelenBinnsof Children'sMemorialHospitalandtheChicago AreaHealthProfessionalsLeadConsortium, spokeaboutleadeducationandprevention.

Tribal Lead Education

Ms. Inga Back from the Inter-Tribal Council (ITC) of Michigan talked about lead education and prevention for Tribes in Michigan. The purpose of the ITC lead education program was to develop Tribal-specific material about lead hazards and conduct educational and outreach activities to inform the Tribes about lead.

Ms. Back described five basic areas of lead education:

1. Sources (hobbies and occupational hazards);
2. Risk groups (children under 6 years and pregnant women);
3. Health effects (affects the central nervous system);
4. In-home hazards (paint dust and chips, remodeling debris); and
5. Protecting children (testing for lead and reducing exposure through thorough cleaning).

To educate Tribes about lead, Ms. Back used tribal-specific brochures, materials from the Center for Disease Control, and materials from EPA. Several groups were targeted for education: health care professionals, housing authorities, parents, environmental groups, and day-care and school staff. Ms. Back said it is important for health care professionals to educate the public about lead screening policies. Clinics can develop a targeted screening policy based on at risk areas. The Tribal housing facilities need to be educated about U.S. Department of Housing and Urban Development requirements regarding lead in older housing units. Monetary incentives should be provided to encourage parents to get involved, and health and housing fairs should be held. Teachers and school staff should be informed about activities they can offer to children to help them learn about lead hazards. Also, Head Start centers should be brought on board to establish early blood lead screening policies.

ITC visited 10 out of 11 Tribes in Michigan. Presentations about lead hazards and lead poisoning prevention were given at eight health clinics, eight Head Start centers, and one health fair. Four new blood lead screening programs were established and an existing screening program was strengthened.

Ms. Back stated that future activities included expanding presentations about lead hazards to junior high schools and procuring funding for testing blood lead levels.

Lead Prevention Activities in Chicago

Ms. Lisa Schneider of the CHA spoke about the CHA's lead prevention efforts in Chicago public housing units.

The CHA has approximately 39,000 units throughout the City of Chicago. About 66,000 individuals live in public housing. In 1995, no lead prevention activities existed at the housing units. Lead hazards are present in many of the family housing developments. CHA assembled a lead poisoning prevention taskforce to create a lead poisoning prevention campaign. Participants and partners in the campaign included resident environmental community groups, the University of Illinois at Chicago, the Chicago Department of Health, and the Chicago Legal Clinic.

The goals of the campaign were to educate residents prevention techniques such as good nutrition and daily cleaning. The CHA began a lead hazard notification program. The CHA tested soil, water, paint, and dust at the housing developments and sent mailings to all residents where lead was to be found. Within each mailing, residents received a $5.00 rent credit for verifying they received and read the materials. All residents were invited to a party to be held at the housing development.

CHA then held a "Lead Awareness Party" to educate about lead hazards and lead poisoning prevention. Participation was encouraged by providing free t-shirts, lunch, and free blood lead screening. Adults at the party were schooled on

cleaning and nutrition while the children learned about lead hazards through videos and games. Ameri-Corps and the Chicago Department of Health helped to support the Lead Awareness Parties.

Ms. Schneider reported that the CHA established an additional program for resident education about lead. Occupants living in the housing developments were paid to go door-to-door to educate their neighbors about lead hazards. The program's goals were to increase the number of blood lead level screenings, increase parental knowledge about lead hazards, and decrease the number of children with elevated blood lead levels. The peer educators were paid livable wages and underwent a 3-week intensive training course to learn about safety, nutrition, lead hazards, and lead prevention. The peer educators did home visits and collected data on follow-up visits to monitor retention of the information disseminated. In 6 months, over 400 initial visits and 200 follow-up visits were conducted. An increase in lead prevention and hazard knowledge decreased blood lead levels in children by anywhere from 30 to 50 percent.

Ms. Schneider reported that CHA declared the program a success. CHA hopes that lead poisonings were prevented and blood lead levels decreased. The CHA committed substantial resources and paid their employees and partners. Ms. Schneider said that, in retrospect, the CHA would have eliminated follow-up visits by the peer educators to save money and clarified program goals to avoid unnecessary financial expenditures.

Engaging Physicians in Lead Poisoning Prevention

Dr. Helen Binns of Children's Memorial Hospital and the Chicago Area Health Professionals Lead Consortium spoke about educating medical doctors and health professionals about lead poisoning prevention.

Dr. Binns reported that changes in clinical care are hard to bring about. Dr. Binns found that more lead screening and information dissemination is done by young doctors than older doctors. First, health care professionals must be schooled in lead hazards and lead poisoning prevention. Then, the clinics must transfer the knowledge to their patients and families.

Dr. Binns stressed that information should not just be mailed or handed out at the clinic. Information is more successfully transferred by encouraging patients and their families to visit hospitals and clinics. Clinical acceptance and screening patterns vary extensively. Clinics need to stress to patients that lead poisoning can cause several problems and that blood lead level screening is a logical step if the patient may be at risk of exposure to lead. To help clinics identify patients that may be exposed to lead hazards, information should be provided to hospitals and clinics regarding high-risk zip code areas that have old housing and a history of high blood lead levels.

Facilitated Discussion

Ms. Patty Krause of EPA Region 5 facilitated a discussion on lead poisoning prevention and education of lead hazards. The following key issues were raised during the discussion:

- Focus on older and low-income housing areas that are at high risk for lead.
- The need for increased awareness about lead hazards in the medical community.
- The need for increased awareness in parents and children.
- Provide permanent funding for voluntary lead analysis in high risk homes.
- Mandate blood lead level screening for young children.
- Create a lead awareness program.

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TRIBAL ENVIRONMENTAL HEALTH
SESSION IV
JULY 21, 1999

Bridging Tribal Environmental Health and Public Health Programs

Mr. Eli Hunt of the Leech Lake Reservation in Minnesota, Mr. Bruce Etchison of the Indian Health Service (IHS) in Minnesota, and Ms. Carol Rollins of the Ho-Chunk Nation of Wisconsin talked about the importance of environmental health and public health organizations sharing information and resources in Tribal communities. Topics discussed are summarized below.

Elements Needed for Successful Collaboration Among Tribal Environmental and Public Health Programs

Mr. Eli Hunt from the Leech Lake Reservation in northern Minnesota described a collaborative effort among the Minnesota Pollution Control Agency, the Minnesota Department of Natural Resources, the Bureau of Indian Affairs, the U.S. Fish and Wildlife Service, and the U.S. Forest Service in forming a natural resources trustees council to develop health risk criteria for sampling at a Superfund site on his reservation based on subsistence fishing practices.
Mr. Hunt stated the importance of acknowledging that Tribes lead a different lifestyle from the rest of the United States when assessing health risks.

Mr. Hunt reported that one community on the reservation contains 30 acres of debris from illegal dumping. He stated that the culprits included Tribe members and others. He described how stakeholders joined forces to clean up the illegal dump site and move the debris to a nearby landfill. It took 1 month and cost over $50,000. To avoid illegal dumping, the Reservation has a curbside pickup program every May. During this time, people are given time off their jobs to bring their larger pieces of trash to the curbside for pickup. Materials include tires, scrap metal, and mixed solid waste. The reservation has negotiated with the county solid waste departments to waive tipping fees to encourage recycling. Mr. Hunt reported that 75 40-cubic-yard boxes of waste have been removed from the Reservation over the past few years.

Mr. Hunt also described a $500,000 grant program that has established waste transfer stations on the Reservation. The stations include a compacter for household solid wastes and a collection system for motor oil and antifreeze. There is also an ongoing effort to educate residents on proper methods of waste disposal. He listed the following benefits of proper waste disposal:

- Reduces the risk of groundwater, soil, and air contamination.
- Prevents injury, especially to children, from entrapment and exposure to sharp objects.
- Reduces harborage of disease vectors in old mattresses, tires, and other wastes.
- Saves energy and prevents pollution by recycling.

Coordination with Indian Health Service Resources

Mr. Bruce Etchison, of the Indian Health Service in Minnesota, talked about his involvement with the Bemidji Area Environmental Health Service. The mission of the Bemidji Area Environmental Health Service is to provide services that will prevent environmentally related disease and injury in Native American communities.
Mr. Etchison stated that 12 facilities provide health services to 32 Tribes in Minnesota, Wisconsin, and Michigan. Environmental services are provided in the following areas:

- Water
- Liquid waste
- Solid waste
- Hazardous waste
- Food protection
- Air pollution
- Recreation
- Home and community
- Hotel, motel, and trailer parks
- Institutional health
- Vector control
- Epidemiology
- Injury prevention
- Codes and ordinances

Mr. Etchison described the IHS's Injury Prevention Program, which includes the following projects:

- Special injury prevention projects;
- Alcohol injury reduction projects;
- Driving-under-the-Influence (DUI) reduction projects;
- Roadside hazard evaluation;
- Car seat distribution;
- Smoke detector distribution; and
- Bicycle helmet distribution.

Mr. Etchison reported the national statistics summarized below from the Center for Disease Control for 1984 through 1995.

- Injury is the leading cause of death among children more than 1 year old.
- Motor vehicle crashes rank first or second as the cause of death for children aged 1 through 19.
- Pedestrian deaths comprise 73 percent of the total deaths among children.
- Other causes of death among children include homicide, suicide, fire, and suffocation.

In comparison, a database maintained at Bemidji for the years 1986 through 1997 reports the statistics below.

- Falls are the primary cause of injury for children aged 0 to 14.
- Motor vehicle crashes are the primary cause of death, almost twice the national average.
- Children less than 1 year old are primarily dying from suffocating, choking, or submersion.

Collaboration of Health and Environmental Tribal Resources: A Case Study

Ms. Carol Rollins, Director of Environmental Health with the Ho-Chunk Nation in Wisconsin, described experiences of the Ho-Chunk Nation's Environmental Services Program, which is based in the health department. She stated that the Ho-Chunk Nation is located in central Wisconsin and consists of scattered Indian lands across 14 counties. Because of this spread, it is difficult to deliver health services. Ms. Rollins reported that the health department currently manages six community water systems and six wastewater treatment systems throughout the Reservation.

Ms. Rollins acknowledged Mr. Jim Dunning, an environmental specialist sponsored by the U.S. Environmental Protection Agency (EPA), who set up the Ho-Chunk Nation's water monitoring program. Several challenges that Mr. Dunning encountered at the start of his efforts included a high turnover rate among plant operators and unsophisticated water systems. Ms. Rollins stated that the success of the Reservation's casinos provided funds for newer pumphouses with filtering and monitoring equipment. The upgrade has taken place over a period of about 5 years.

Ms. Rollins then described joint efforts between her environmental department and the public health department to deal with open dumping in a ravine on the Ho-Chunk Nation's grounds. Attempts to close the dump site were unsuccessful in the past. The primary public health concerns included rodent infestation and children climbing into the ravine and getting injured. Using grant money from the Bureau of Indian Affairs, the two departments excavated what they could and filled the ravine with soil. Manholes and piping were installed to drain the landfill. The flattened area was then covered with clay and seeded. Ms. Rollins showed a recent photograph of the site, now covered with grass.

Ms. Rollins also described several public works projects that are also funded by casino profits. The environmental services program strives to be involved in construction of buildings to ensure that health codes are met. Joint funding by the Indian community and a Wisconsin medium-security prison resulted in the construction of a wastewater treatment plant to serve both places. The plant relies on oxidation and ultraviolet

disinfection to decontaminate water before discharging it into the Black River.

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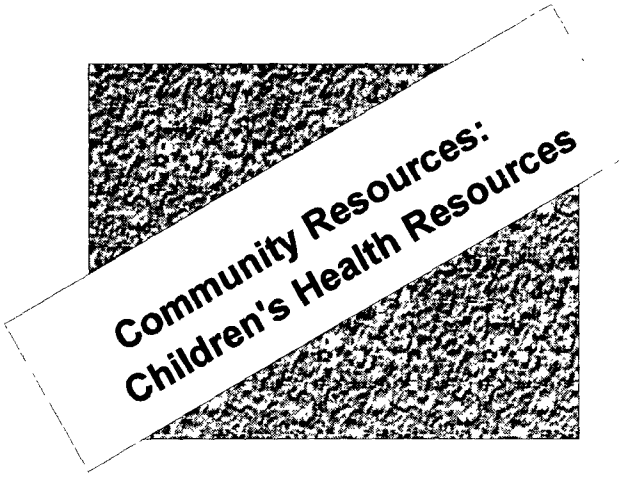
Facilitated Discussion

Ms. Dolly Tong and Ms. Peggy Donnelly of EPA Region 5 facilitated a discussion on bridging Tribal environmental health and public health programs. The following key issues were raised during the discussion:

- Coordinate county, state, federal, and Tribal entities and their health concerns without compromising sovereignty.
- Explore available resources for Tribes to implement joint environmental and health programs.
- Address environmental justice concerns.
- Strive for sustainable economic development.
- Promote conferences such as Environmental WATCH to bring together county, state, federal, and Tribal representatives.
- Cross-train health and environmental professionals in both areas.
- Suggest having more localized fish advisories in addition to the regional ones and target the primary fish eaten by individual Tribes.
- Start educating youth in environmental areas of concern.

COMMUNITY RESOURCES
BREAKOUT SESSION IV
JULY 21, 1999



Ms.M.E.SjolinfromtheUniversityofWisconsin ExtensionFamilyLivingProgram,Ms.Faith CovicifromInsureKidsNow,Ms.PegDublin andMs.AnitaSandersfromtheChicagoHealth Corps,andMs.DeniseTaylorfromHealthyKids, HealthyMindsspokeaboutresourcesavailable tocommunitiestoimprovechildren'shealth. Issuesdiscussedaresummarizedbelow.

Family Living Programs: Cooperative Extension

Ms. Sjolin presented information on the Cooperative Extension program she has been involved with at the University of Wisconsin Extension. The following program areas are under the Wisconsin Cooperative Extension program:

- Agricultural and Natural Resources
- Community Natural Resources and Economic Development
- Youth Development
- Family Living Education

This program is supported by three groups: the state university, the county, and the federal government.

Ms. Sjolin works in the family living department. The department's mission in family living education is to provide education, improve family strengths, and help communities to become positive environments for families. Family living goals are as follows:

- Encouraging family self sufficiency,
- Helping people manage transitions in their lives,
- Improving parent education and community partnership, and
- Improving community nutrition, health, and safety.

The family living program uses many different media including radio, television, newspaper, newsletters, and web sites, to educate families in the community.

Cooperative education programs exist in all states and can be contacted for further information.

Insure Kids Now: Health Insurance for Children

Ms. Covici gave an overview of the Children's Health Insurance Program in Region 5. The Insure Kids Now initiative is a nationwide effort to enroll kids in low-cost or free health insurance programs. About 11 million children in the United States do not have health insurance, and 6 million of those children are eligible for free or low-cost health insurance through state programs. Insure Kids Now wants to make sure that these eligible children are enrolled in health insurance programs.

The Children's Health Insurance Program is a $20 billion program created in 1997 to extend the age eligibility for children's insurance up through age 18. States have the option to expand their current Medicaid programs or to create new state-specific programs. In Region 5, the individual programs are as follows:

Illinois - Kid Care
Indiana - Hoosier Health Wise
Michigan - My Child
Minnesota - Minnesota Care
Ohio - Healthy Start
Wisconsin - Badger Care

Insure Kids Now is striving to enroll eligible children in these new health care programs. Members of the workshop spent time brainstorming different ways they could help spread the word about these health insurance programs. Ms. Covici noted that it is important that organizations dealing with public health issues have information about their state's health care program available to the families they serve.

Chicago Health Corps: An Integrated Approach to Outreach

Ms. Dublin and Ms. Sanders presented information about Americorp and the Chicago Health Corps.

Ms. Dublin spoke about Americorp, which is the domestic Peace Corps. There are about 350 Americorp programs in the United States covering the following four major areas:

1. Human needs
2. Education
3. Public safety
4. Environment

Ms. Dublin is a staff member of the Chicago Health Corps, which is based at the University of Illinois at Chicago and partnered with the College of Nursing and the Illinois Area Health Education Centers Program. The program focuses on asthma management and lead poisoning prevention.

The training curriculum for members of the Chicago Health Corps is summarized below.

Primary Health Care Framework: This is an approach to health care that examines health promotion and sickness prevention through collaboration of the community and health professionals.

Public Health Issues: Corps members learn about different health issues and how to relate to people, promote trust, and build relationships using poplar education techniques. Corps members are trained on the following topics:

- Health promotion
- Skill building
- Team building
- Workplace expectations

Through this training, Corps members learn to see people in a holistic way by realizing that the families they serve have a variety of needs and assets.

Ms. Sanders is a Chicago Health Corps volunteer. She spoke about experiences she had during her first year in the corps. Ms. Sanders works in a medical clinic that serves low-income families in Chicago. She deals with asthma prevention, lead poisoning issues, and promoting Kid Care. Through working at the clinic and conducting home visits, she is trying to educate families about health issues.

Case Study: Healthy Kids, Healthy Minds

Ms. Taylor is the director of the Chicago Public Schools Healthy Kids Healthy Minds Program. This program is a citywide initiative designed to increase access to primary health care services linking each of the city's 589 public schools to a federally qualified health center, hospital-based clinic, or other community provider. She spoke about her first-hand experience with enrolling children in health care programs in Chicago. She estimates that about 180,000 children in Illinois are eligible for Kid Care but are not enrolled.

The Chicago Public School System has many health resources available to children in school, including psychologists, social workers, counselors, youth outreach workers, and crisis intervention teams. Unfortunately, these people usually rotate between two or three schools and do not always have the time to make follow-up visits.

Chicago Public Schools is trying to collect health data information on all the schools in Chicago. With information such as the percentage of students without health insurance and average number of days missed per student, particularly needy schools can be targeted.

The future goals of Healthy Kids, Healthy Minds are as follows:

- To assign all Chicago public schools to a consistent health care provider
- To develop a policy of procedures manual so that health care procedures are formalized and clear
- To establish community based councils backed by local schools in neighborhoods
- To plan a citywide Healthy Kids, Healthy Minds conference in 2000.

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COMMUNITY RESOURCES
TRAINING BREAKOUT SESSION IV
JULY 21, 1999

Ms. JoAnne Chiakulus from the Illinois Department of Health, Center for Minority Health Services, led a discussion of how to successfully deliver health or environmental services within the context of a community's culture.

Cultural Issues

Ms. Chiakulus pointed out that cultural issues are becoming increasingly important in today's society because the number of non-Caucasian children is growing rapidly. Furthermore, different cultural groups still receive disparate health care.

A survey of people from various cultural groups found that the main reason people often did not go to health care providers was cost. Other reasons included several cultural issues related to service received from health care providers, including

- Perception of cultural bias,
- Offensive communication,
- A lack of understanding of values, and
- Language barriers.

A member of the public commented that in his experience, health care providers often show a lack of manners when dealing with patients. Various members of the audience, as well as Ms. Chiakulus, discussed this issue. Some felt that people from other cultural backgrounds may take a lack of manners as a personal affront. Ms. Chiakulus pointed out that this issue was a matter of perception.

Ms. Chiakulus defined perception as a process through which people select and interpret information from their environment. One issue discussed was that intragroup differences are often greater than intergroup differences and that treating a patient in one fashion simply because of his or her ethnic background is an example of stereotyping. The audience discussed stereotypes, and concluded that everybody forms them to some extent.

Ms. Chiakulus listed the following barriers to communication:

- Differences in perception
- Listening ability
- Interpretation
- Status
- Bias
- Gender differences
- Organizational climate
- Cross-cultural differences

During further audience discussion, the need for cultural competency training was discussed. Ms. Chiakulus listed several steps to culturally competent care, including the following:

- Identify possible issues,
- Ask appropriate probing questions,
- Include appropriate family members,
- Involve social service staff from the community in the diagnosis and treatment plan when necessary,
- Address language barriers by providing trained and culturally appropriate interpreters,
- Incorporate the patients' medical beliefs and practices that will add value to the treatment plan,
- Be aware that cultural differences are not always the only cause for the problem,
- Make an effort to include diverse people in your groups,
- Treat people with dignity.

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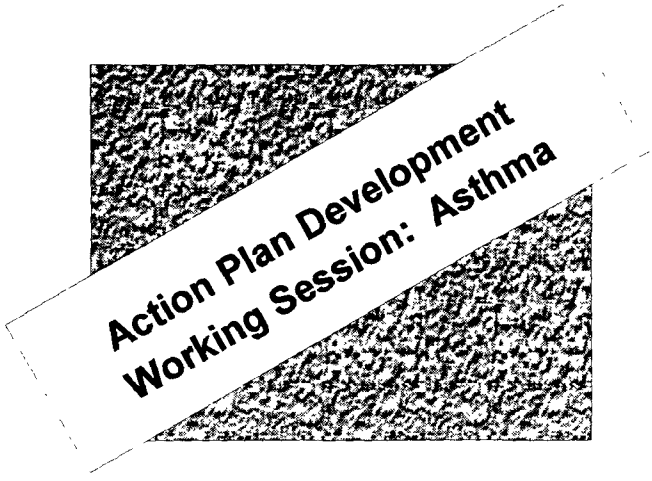
ACTION PLAN DEVELOPMENT WORKING SESSIONS

JULY 21, 1999



Ms. Jane Neuman of the U.S. Environmental Protection Agency facilitated the asthma action plan development working session. Participants discussed various issues related to asthma prevention that had been brought up during the workshop. The group narrowed its discussion to the following four important actions items:

- Build coalitions to address respiratory concerns made up of people from many different community groups (such as medical, community, parent, environmental, housing, school groups)
- Improve education
- Promote socio-economic and racial justice and equality
- Implement holistic approaches

The group voted to build a coalition. The driving force behind this decision was that morbidity and mortality from asthma are too high. The problem statement agreed upon was: There is a lack of commitment and understanding in communities to take measures to reduce asthma and a lack of collaboration among the stakeholders (such as families, child care facilities, and environmental agencies).

Charts were then drawn up and summarized to describe actions that should be taken to develop an asthma coalition and who would need to be contacted to complete the actions.

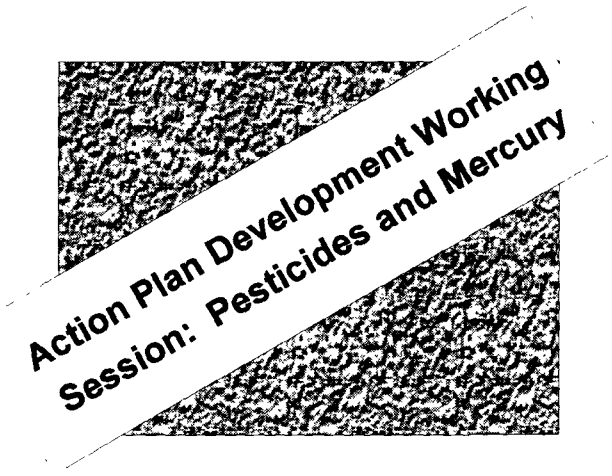
Identify the stakeholders: It was decided that each community could identify who the stakeholders were separately.

Gather background data: Data must be standardized and gathered by reputable bodies such as schools and hospitals.

Disseminate information: Informative literature and success stories should be available to all localities.

The coalition should be effective at penetrating communities with community outreach. It is important to find the people of most need and organize closest to them. The coalition should also educate parents and the community through mass media and other routes about coping with asthma attacks, preventive behavior, and other issues.

At the end of the session, participants spoke about the success of the Chicago Asthma Coalition and suggested other communities that could model similar organizations after it.



About 12 participants attended the pesticides and mercury action plan breakout session. This breakout session provided an opportunity for participants to recommend actions that will drive a regional effort to protect children from exposure to pesticides and mercury. The ideas and recommendations generated during this breakout session transpired from concurrent session discussions held prior to this one.

Ms. Cynthia Curtis of the U.S. Environmental Protection Agency (EPA) Region 5 facilitated the discussion on issues raised during previous presentations on pesticides and mercury, and the group ultimately decided on the issues to be addressed in the action plan. Issues discussed are summarized below.

Mission

The attendees decided to focus on a Regional/ National Children's Environmental Health Clearinghouse (Clearinghouse) for the action plan. The Clearinghouse would encompass all children's health issues; however, the group focused on pesticides and mercury for the purpose of creating a model that can ultimately be used for other children's environmental health issues.

Components of the Clearinghouse

The purpose of the Clearinghouse is to develop a resource that provides "one-stop shopping" for all target audiences. This resource will distribute all information regarding child health issues such as pesticides and mercury. In order to accomplish this mission, the following components were proposed:

- Central location to house all resources relating to pesticides and mercury
- Master resource list or database
- Hotline and referral hotline for diagnosis and treatment
- Internet access
- Dual-language material

Concerns relating to the Clearinghouse include the following:

- How to target all audiences, such as the community, professional, official, and parent audiences.
- How to geographically divide the Clearinghouse (for example, by state or region).
- How accessible the Clearinghouse will be to all target audiences.

Core Elements Needed to Address the Issue

The group discussed the following tasks fundamental to successfully creating a Clearinghouse:

1. Conduct research and gather technical information regarding pesticides and mercury.

2. Institute the Clearinghouse as a source to distribute information regarding pesticides and mercury health concerns for children.

3. Establish key players to execute a pesticides and mercury program, including the Agency for Toxic Substances and Disease Registry (ATSDR) and EPA's Office of Children's Health.

4. Follow the lead of other pesticides and mercury program success stories, including success stories of the Indiana Department of Environmental Management (IDEM) Mercury Program, the Seattle King County Mercury Program, and the Santa Monica Pesticides Program

While developing the Clearinghouse for the action plan, the group identified barriers that may be encountered. To counter the barriers, the group also devised solutions. The table below summarizes these barriers and solutions.

Barriers	• Cost, advertising, and the media • Political climate • Industry (for example, the agriculture business) • Information overload • School board association (in Minnesota) • Ritualistic and personal uses • Reintroduction of recycled products into commerce
Solutions	• Encourage use of alternative methods (product development) • Improve access to grant reports • Provide more accessible and free hazardous waste drops and mercury collection • Introduce public service announcements on consumption of fish • Legislate elimination of the mercury in manufacturing of items such as shoes using mercury • Provide cash incentives and pre-disposal fees for hazardous materials • Require reclamation by manufacturer (extended producer responsibility) • Implement creative solutions for outreach • Institute train-the-trainer programs (for example, educate health care professionals) • Develop better marketing strategies (for example, advertise in *Parents* magazine) • Share materials (for example, among states)

In the end, the attendees devised the following "ideal solution" statement for the action plan:

Implement collaborative initiatives involving both public and private sectors that educate a target audience about the need to replace less desirable or less sustainable products and practices with safer alternatives and offer opportunities and incentives to actually do so.

Action Plan Development Working Session: Pesticides and Mercury

Mr. John Perrecone of the U.S. Environmental Protection Agency (EPA) facilitated a discussion of the problems faced by environmental health groups attempting to foster community involvement. The participants devised an action plan to address these problems. Issues discussed are summarized below.

The Problem

The participants determined the following four major issues pertaining to the community efforts they had undertaken:

- Dissemination of information to the community
- Hesitation to talk about community involvement
- Lack of willingness of the community to "come out" to meetings and other activities
- Lack of "ownership" of environmental health issues on the part of the community

The group then identified more specific barriers and problems related to community involvement in environmental and health issues. These barriers and problems are summarized below.

- Communities lack access to resources, including computers, transportation, money, and networks of other people.
- Government institutions, well-intentioned advocacy groups, and funding groups often fail to work with "existing resources" within a community.
- There is a lack of trust by communities of "outside groups," especially those that offer funding for short-term programs. Community groups often feel that 1-year grants do not last long enough for a problem to be adequately addressed.
- Community groups sense a lack of cultural sensitivity and cultural competency on the part of advocacy groups and institutions.
- There is a lack of coordination of resources among Federal agencies.

The Solutions

The participants discussed ways for groups working within communities to encourage involvement of community members. They agreed that environmental health advocates have to become part of the community. Some people suggested attending meals and other social occasions in the community. Ms. Susan Gust (Sustainable Resources Center, Minneapolis) reported that the Sustainable Resources Center pays community members to attend meetings.

Participants also discussed sources of information. One person suggested that churches were a source of information about community issues. Another suggested using the Internet to gather information about issues.

Successes

Several participants identified their past successes in encouraging community involvement. The successful programs mentioned included the following:

- The Integrated Pest Management (IPM) program implemented by high school students in Detroit, to teach residents about basic issues involved in pest management
- The Phillips Neighborhood Health Housing Collaborative
- A Head Start program to teach community members about nutrition, sanitary skills, and raising children to become good parents and leaders
- The Tulane University Lay Health Advisory Program.
- The Chicago Asthma Initiative

The Action Plan

The participants determined that they should create an action plan in order to:

1. Promote community leadership to address local environmental and health issues and

2. Look to communities to lead themselves, with less government involvement.

The five objectives of the Action Plan were as follows:

1. Increase two-way sharing; do not separate people by "class" or technical ability.
2. Identify communities with limited resources to ensure economic justice.
3. Develop strategic partnerships with corporate and academic America to aid in addressing environmental issues.
4. Use environmental and health issues to further economic and environmental justice in communities.
5. Transfer knowledge of current success to a wider market.

Workshop members then decided that the most important objective was to develop strategic partnerships with corporate and academic America to aid in addressing environmental issues. They brainstormed the following potential methods for achieving this objective:

- Conduct educational seminars for communities
- Conduct train-the-trainer seminars
- Identify community organizations that have a stake in environmental and health issues
- Identify "informal" community leaders who know how to "get the word out"
- Integrate community "assessment mapping" into planning steps
- Involve community entities in program planning and evaluative-type research
- Promote community economic growth by paying community members who work to address environmental and health issues
- Look beyond the status quo and the members of the community who usually get involved
- Facilitate community dialogue

The group also made a list of the people who should be involved in the implementation of the action plan and the skills they could contribute. This list is summarized below.

People	**Skill Mixes**
Parents of school-aged children	May have time to do work during the day
Grandparents and senior citizens	Provide historical perspective of community
Teachers and school administrators	
Faith communities	
Maintenance people	
Elected officials	
Technical experts	Can coordinate and offer management, technical and legal skills
Children	Can be involved if adults are not sensitive about the amount of time the children are asked to spend working
Parents of all-aged children	Nurturers; can provide refreshments
College students	
Academic community	
Religious leaders	Spiritual civility
Others	Perform public and community relations activities Write grant applications Provide writing or media skills Can be visionary and passionate about the issues Can provide wealth, work, and wisdom

The participants devised the following action items to achieve the objective of the action plan of developing strategic partnerships with corporate and academic America to aid in addressing environmental issues.

EPA staff were tasked with the following action items:

- Attend the Head Start National Conference, and conduct environmental workshops
- Attend state-wide teacher meetings to present environmental information on workshop.

Other actions items include the following:

- Develop a handbook to synthesize existing work around this WATCH Conference. A suggested title is "Promoting Community Leadership."
- Collaborate with the medical community on "basic" environmental concerns such as medical education for physicians, nurses, and health service providers.
- Collaborate with community housing and neighborhood organizations in order to create links between environmental health and housing, energy and "green" architecture.

Finally, the group presented a challenge to the entire WATCH forum: "Walk the walk, talk the talk!"

Action Plan Development Working Session: Tribal Issues

Ms. Dolly Tong and Mr. Derrick Kimbrough of the U.S. Environmental Protection Agency (EPA) facilitated a discussion of environmental health and tribal issues. During the working session, attendees discussed the following issues from the morning session:

1. Coordinating with state, Federal, local, and county representatives without compromising tribes' sovereignty
2. Identifying and maximizing available resources among agencies
3. Creating a needs assessment to identify environmental risks on tribal lands

The attendees discussed the coordination of agencies and noted that it is also necessary for an agency to be aware of actions taken by other agencies. The attendees then turned to the issue of the needs of people on the reservations. The following four main action items were developed:

1. Better coordination with tribes' internal departments.
2. Identify components of tribes' needs assessments by considering the particular tribe's poverty level, demographics, and segments with high risk. The needs assessment should include baseline data collection, information about perceived threats, and a map of pollution sources and pathways of contamination.
3. Determine what roles and resources other entities could provide for the needs assessment and for correcting the problems
4. Use community outreach and education programs

An EPA representative pointed out that any tribal program should include identification of the following three elements:

- Problems faced by the tribe
- Solutions
- Potential actions to implement the solutions

The attendees also discussed ways of providing environmental health information to tribal people, such as including facts about pollution on electric bills and making information available at local clinics.

The attendees identified the following sources of information that could be used for the needs assessment:

Resource	Agency or Group
Toxic Release Inventory	EPA
Health care data	Indian Health Service (IHS) and tribes
Drinking water data	Tribes
Injury data	Center for Disease Control (CDC) and IHS
Non-major emitter data	States
Emergency response capabilities	Counties and the Bureau of Indian Affairs (BIA)
Lead level in blood of tribe members	Women, Infant, and Children (WIC), Medicaid, and states
Pesticide use	States and agricultural departments
Radon and lead in homes	Department of Housing and Urban Development (HUD) and IHS
Demographics and data on children	Census Bureau, schools, BIA, and tribal enrollment
Poverty level and income data	Tribes
Mapping	Toxic Release Inventory (EPA)

Action Plan Development Working Session: Lead

Mr. Chad Cliburn and Mr. Dale Luecht of the U.S. Environmental Protection Agency (EPA) facilitated the lead action plan development working session. Participants discussed various issues raised during the previous presentations on lead, and narrowed its discussion to lead awareness and increasing lead poisoning prevention behaviors.

What Is the Issue?

Lead awareness is still low because of relatively low priority with competing problems, lack of knowledge, and difficulty in changing people's behavior.

Awareness

- Low Priority
  - people think lead has gone away
- low prevalence
  - compare to other problems
- Everyone needs more
  - some may be more important
- Lack of knowledge
- Behavior change difficult
- Right people are not saying the right things
- No National Strategy because of targeted marketing
- WHO?
  - Parents and older Siblings
  - C.B. Housing Orgnanizations
  - Doctors - move to behavior change introduce prevention message
  - Anyone who has children their care kids

Successes in Addressing Issue

- Tap into existing resources - (i.e., Lead Safe America)
- Take message to personal level
- Message to schools
- Speakers Bureau
- parents/grandparents of children with lead
- Lead poisoning awareness successes
- Caring attitude get children lead screened and follow-up
- Partner with community organizations to address lead issues

Barriers to Increasing Awareness of Lead Poisoning

- Competing Problems
- $ $$ $$$$ $$$$$$$$$ $$$$
- People don't know what to do next
- Pediatricians not receptive - use referrals to local/community organizations
- Out of sight - Out of mind
- Lead cannot be seen - out of sight - out of mind
- Landlords and Renters unaware of lead in-home disclosure law and hazards of lead
- Limited access to large groups of very young children
- Problem in getting results
- How to contact pediatricians
- People are too busy competing demands
- Organizations are disappearing - lead is lower priority

- Start with EPA

Objective of Action Plan

Increase lead poisoning prevention behaviors in a targeted population.

Solution to Achieve Objective

Show measurable increases in lead poisoning prevention behaviors within a targeted population.

- Who would be involved - **USE NATIONAL CAMPAIGN**
- Different message for different audiences.
- Alliance to End Childhood Lead Poisoning: **202 - 543-1147**
- # for LEAD SAFE AMERICA
- National Lead organizations promote lead hazard awareness
- Who will pass out information
- Link with community health organization
- Daycare workers/homes
- Train community workers and social workers
- Mandate, enforce homeowners and landlords to eliminate lead hazards
- City organizations are hesitant to become involved due to liability
- Multi-outreach to parents with prevention message -baby products - diapers, diaper wipes

Resources

- Lead posters from lead hot line
- Get out message to use product "Cascade" to remove lead
- Use community organizations
- State resources
- Find out where are the resources

Lead Action Plan

ACTION	WHO	WHEN
Have doctor talk to groups of doctors 1. Identify population; where is the population 2. Provide GIS maps to community organization and others; and vanguard community or other PR	State and Local health departments EPA	Completed GIS maps
What are current concerns of population: - how do they receive information - radio, billboard, product advertising	Marketing Agencies: who will pay PSAs	
Where do you focus message. What will work, message to groups, individuals. How to structure campaign.	Whoever disseminates information; hospitals, neighborhood groups.	
Involve community groups /people interest in lead in developing campaign, form coalition	Any stakeholder local health department	
Policy-uniform state/lead law Seek $$$$$$$$	? Feds, Foundations, Universities, Industry	
PHASE II Lead screening as a means to measure lead levels.	Vans - health department	
Disseminate information to organizations involved in target communities, so they will disseminate information: Medicaid, food stamps, WIC, clinics, churches.		

Action Plan Development Working Session: "New Ideas"

Mr. Peter Murchie of the U.S. Environmental Protection Agency (EPA) facilitated a discussion of "new ideas" to develop a holistic framework for addressing children's health issues. The group discussed how to develop a campaign theme that would draw people's attention towards children's health. The goal would be to increase all sector awareness, involvement, and action. This would be encouraged by developing an imagery tool that would draw people's attention and get them to visualize the place and role for children's health.

The group discussed barriers to achieving this holistic view of children's health. Worker turnover, focus on single issues, and lack of resources lead to continual problems with holistic awareness of environmental health issues. Communities may feel underpowered to solve problems holistically. The group noted in order to encourage a community's involvement, its culture needs to be factored into the approach to help people help themselves.

The group suggested a "pledge" program that could help activate communities. One idea was to send out a pledge sheet with a membership card to people as an environmental reminder. To ask people to pledge, a list of principles is needed. The group identified three:

1) Children's health is our first priority. Children are the most valuable asset our planet has.
2) In working towards children's health, I will respect others' opinion, culture, values and needs.
3) Everything I do affects others and what they do affects me. "No one is an island."

The group also suggested forming a regional advisory group for children's health that would encourage different entities to work together and overcome contention.

Develop a Holistic Framework for Children's Health

Tool

- Imagery, like Mississippi River, Woman's Breast, Seven Generations
- Everyone at table visualizing place and role for Children's Health

Goal

- Increase all sector awareness, involvement and action

Barriers

- Lack of passion
- Turnover
- Conditioning
- Single issue focus
- Lack of human and $ resources
- Bias: "us" vs. "them"
- Unbalanced power
- Lack of knowledge
- Cultural differences
- Priority differences
- Turf

Solutions

- All inclusive
- Involve people/ include in all aspects
- Promote "power with" vs. "power over"
- Education at all levels (K-12 criteria)

Action Plan

ACTION	WHO*	WHEN*
Letters from EPA to medical professionals/organizations to get involvement -school systems	EPA/ATSDR	
Create Imagery/Symbol -ribbons to wear (green?)	This group and RAG	
Pledge with Children's Environmental Health(CEH) Principles	RAG, EPA, and HHS	
List serve/Internet/Web		
Marketing-Workshop on how to market CEH	Social Marketers	
Regional Advisory Group (RAG) for CEH • $ involved for staff time, database development and list serve • linkages • all inclusive • workgroups for individual topics • Steer Committee and subgroups • contact list for CEH entities • speakers bureau • clearinghouse (centralized) for CEH	• Federal agencies (USDA and FDA may be against environment issues, but it is good to get the "enemy" to the table.) • NACHO • Medical profession • NEHA • State agencies • Industries • APHA • Workshop participants • Chicago American Lung Association • AEN Education	

Local tribes can identify other sources of data for the needs assessment.

The IHS, with input from individual tribes, will develop a draft needs assessment tool consisting of two to three pages of questions by January 2000.

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