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Lead Education Conference Convened To Inspire a More Concerted Public Health Response

Lead poisoning is the foremost preventable disease of children in all socioeconomic and demographic strata. However, many lead-poisoned children are never identified, even though both the Centers for Disease Control and Prevention (CDC) and the American Academy of Pediatrics recommend routine screening. According to the Alliance To End Childhood Lead Poisoning—a national nonprofit public interest organization—African-American and Hispanic-American children are more than twice as likely to be lead poisoned. In many urban communities, more than 50% of young children are lead poisoned.

These statistics are all too familiar to hundreds of nonprofit and community organizations and local, state, and federal agencies that conduct initiatives in lead education. To date, few opportunities have existed for these agencies to coordinate and share information. The National Childhood Lead Poisoning Prevention Education Conference held in Atlanta, Georgia, March 9-11, 1994, was convened to provide a more comprehensive and integrated approach to education and communication activities in childhood lead poisoning prevention.

Approximately 400 public health professionals attended the 3-day meeting, sponsored by CDC and the Agency for Toxic Substances and Disease Registry (ATSDR). Other federal agencies cosponsoring the conference were Health Resources and Services Administration, National Institutes of Health, National Institute of Standards and Technology, U.S. Environmental Protection Agency, U.S. Department of Housing and Urban Development, U.S. Food and Drug Administration, U.S. Consumer Product Safety Commission, and Department of Defense.

The conference agenda was designed to examine the planning, implementation, and evaluation of lead education programs through information exchange in workshops and plenary sessions. Highlights of community-based strategies included "Common Sense Approaches to Needs Assessment" from the City of Houston Health and Human Services; a videotape presentation on reaching diverse audiences from the Southeast Asian Lead Poisoning Prevention Program in Lowell, Massachusetts; and a walk-through exhibit designed by the Central Virginia Health District to teach children and their parents how to identify lead hazards and prevent lead poisoning.

Houston, Texas, Collects Baseline Data

The City of Houston, the nation's fourth largest city, began lead screening programs with CDC funding 3 years ago because of several communities at high risk. These included areas characterized by (1) homes built before 1978; (2) a density of children under age 5; (3) high levels of poverty; (4) Hispanic-American

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and African-American populations; and (5) residences that are located near the city's freeways. Lead contamination up to 700 parts per million has been found in soil along major thoroughfares.

However, many health professionals in the city maintain that childhood lead poisoning "...is not our problem," according to Sonya Vodehnal, MPA, project manager of the Childhood Lead Poisoning Prevention Program. Her program began to collect baseline data on awareness of the problem in the general population. "The goal of our telephone survey was to find out how many people [in Houston] knew about childhood lead poisoning," says Ms. Vodehnal.

The survey, consisting of 12 questions that took 1½ minutes to administer, was conducted in minority communities with a high density of children. The survey results revealed that 14% of the 685 respondents in the survey sample were not aware of the problem of childhood lead poisoning.

Program staff were also provided with useful information about the relationship of residents' awareness of lead poisoning and their primary health care services. Eighty percent of respondents who took their children to city clinics knew about childhood lead poisoning; however, the percentages were much lower when health care was provided by county, hospital, or private physicians. Medicaid families "...who don't take their children for well child care visits but visit private physicians [for acute care]" were less likely to be aware of childhood lead poisoning, according to Ms. Vodehnal.

Lowell, Massachusetts, Develops Culturally Sensitive Outreach

The Southeast Asian population of Lowell, Massachusetts, is approximately 20,000 out of a total estimated population of 100,000. Because of the age and condition of housing in the area, young children in Lowell are at high risk of being lead poisoned. Historically, language and cultural barriers had prevented local lead poisoning prevention programs from following many lead-poisoned Southeast Asian children. In 1991, the Massachusetts Department of Health developed a lead poisoning prevention project with CDC funding to educate Cambodian, Laotian, and Vietnamese families.

"Many [community members] had limited or no spoken or literacy skills in English, limited literacy skills in their native languages, and came from traditional health beliefs with little or nothing in common with those of the West," says Ravuth Yin. To address the literacy issue, most of the community lead education focused on nonprint media. A simple script about lead poisoning and its prevention was developed and aired for 4 months on the weekly "Voice of Cambodia" radio show. The project's health educator was interviewed about lead poisoning and its prevention on a Cambodian cable television show.

Additional training tools were developed for presentation in Cambodian, Laotian, and Vietnamese. Bilingual brochures were written and adapted for the three languages and cultures. In addition, an existing slide lecture on lead poisoning and its prevention was adapted to make it more comprehensible to Southeast Asian families. The lecture was presented in adult "English as a Second Language" classes and at bilingual parents' meetings.

Lynchburg, Virginia, Offers Hands-on Education

In addition to plenary sessions and workshops, the Lead Education Conference also offered a forum for information exchange with approximately 30 exhibitors, representing a cross-section of federal agencies, nonprofit and community organizations, and CDC grantees. Exhibits ranged from comprehensive initiatives such as the National Lead Information Center Hotline (1-800-LEAD-FYI) and Clearinghouse (1-800-424-LEAD) to specific tools and techniques in lead education such as the Lynchburg Health Department's *Where's the Lead? House*. (See photograph next page.)

The *Where's the Lead? House* is a walk-through exhibit for children ages 3 and older. The house is "child size," constructed from eight 4' x 4' hinged panels. The house features four learning centers: Three teach identification of lead hazards and a fourth teaches prevention of lead poisoning. According to health educator April Reed, "Adults accompanying children through the exhibit also learn the basics of lead poisoning prevention."

Where's the Lead? House

- The tour begins with a box outside the entrance filled with potting soil, which resembles dirt containing paint chips. Children are told how playing in dirt containing lead-based paint can make them sick if they get it in their mouths.

- The second stop teaches children about the dangers of leaded dust on windowsills and furniture and lead in food and dishes. Their hands are stamped with invisible ink and a black light is used to make the ink appear.

- The third stop is a wall of simulated lead-based paint at which children learn about lead-based paint chips and not to put them in their mouths.

- The tour ends at the fourth stop, a sink, at which the importance of regular handwashing is stressed. Children wash their hands to remove the invisible ink, and the black light is used to show how the ink "dust" disappears when washed. A bucket and mop are also used to teach the importance of regular cleaning to prevent lead poisoning.

For more information about the National Childhood Lead Poisoning Prevention Education Conference, please contact Niki Keiser, National Center for Environmental Health, Centers for Disease Control and Prevention, 1600 Clifton Road, NE, Mailstop F42, Atlanta, Georgia 30333; telephone (404) 488-7330.

DHHS Announces Awards To Support Health Services in Minority Communities

Multicultural projects in a dozen minority communities in 1994 may offer valuable insights into the implementation of health care reform, namely in the area of preventive health care. To extend access to health services to members of racial and ethnic minority communities, the U.S. Department of Health and Human Services (DHHS) awarded $600,000 in November 1993 to 12 community-based organizations. Recipients of the 1-year, $50,000 grants for bilingual and bicultural health services are listed in Table 1. (See table, next page.)

"Finding a health care provider who understands one's own language and culture can pose some of the most serious barriers to good health care. This is particularly so for newly arrived immigrants, refugees, and some native peoples," says DHHS Secretary Donna E. Shalala. "The organizations receiving these grants will teach us important lessons about expanding primary and preventive health care in a multicultural society."

According to U.S. Census data for 1990, nearly 32 million Americans, or 14% of the U.S. population, speak a language other than English at home. Some 14 million reported that they speak English less than "very well."

"These projects will reach out to vulnerable groups of people who frequently have been unable to gain access to health care services."

–Philip R. Lee, M.D.

The 12 projects, which are located in 10 states and the District of Columbia, will assist people whose principal languages include Spanish, Khmer (Cambodian), Chinese, Hmong, Laotian, Mien, Samoan, Tagalog, Vietnamese, Choctaw, Cherokee, and Hawaiian.

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"These projects will reach out to vulnerable groups of people who frequently have been unable to gain access to health care services," says Philip R. Lee, MD, Assistant Secretary for Health and head of the Public Health Service. "Individual language projects are targeting indigent children, developmentally disabled children, the elderly, women of childbearing age and their families, minority gay and bisexual men, immigrants, and refugees as among those facing language barriers."

Funded by the Public Health Service's Office of Minority Health, the projects will develop and test cultural orientation and training programs for physicians, nurses and other professionals; outreach of case managers to the racial and ethnic communities being served; counseling, mentoring, and support group programs for limited-English-speaking clients; improvements in translation and interpreting services; and school health curricula.

For more information on the DHHS grant program, contact Blake Crawford, Public Health Service; telephone (301) 443-5224.

From The States...
Connecticut: Community Health Education In Stratford

In the spring of 1993, 2,3,7,8-tetrochlorodibenzo-p-dioxin was discovered on the grounds of a brake manufacturing plant in Stratford; the subsequent public health advisory triggered a massive investigation to assess the extent of the contamination because waste from the plant had been disposed of throughout the town (See map, page 5.) In response to community concerns about the ongoing investigation, the town of Stratford put in motion several successful communication initiatives to offer assurances that progress in the cleanup is being made and to inform residents' about potential health effects.

Community health education activities are sponsored by a group of concerned local volunteer residents.

Table 1. DHHS Community-Based Grant Recipients

Arizona	Concilio Latino de Salud Inc., Phoenix
California	Cambodian Association of America, Long Beach Asian Americans for Community Involvement of Santa Clara County Inc., San Jose
Connecticut	Hispanic Health Council Inc., Hartford
District of Columbia	Mary's Center for Maternal and Child Care Inc., Washington, D.C.
Hawaii	Kalihi Palama Health Center, Honolulu
Mississippi	Mississippi Band of Choctaw Indians, Philadelphia
New Jersey	Puerto Rican Organization for Community Education and Economic Development Inc., Elizabeth
Oklahoma	Cherokee Nation, Tahlequah
Texas	Dallas Multicultural Alliance, Dallas
Washington	Asian Counseling and Referral Service, Seattle
Wisconsin	Wausau Area Hmong Mutual Association Inc., Wausau

Raymark, the successor to Raybestos-Manhatten Inc., operated from 1919 to 1989 producing brakes, clutch parts, and other products that resulted in waste containing asbestos, polychlorinated biphenyls (PCBs), and lead. These hazardous waste byproducts were disposed of in a series of on-site lagoons, which were often dredged, and the sludge material was given to Stratford residents for use as fill.

In May 1993, ATSDR issued a public health advisory for eight public areas contaminated with waste from the former Raymark Industries Inc. facility. In the months that followed, the U.S. Environmental Protection Agency (EPA) and the Connecticut Department of Environmental Protection (DEP) began testing more than 500 properties for possible contamination.

The Stratford Health Department, DEP, Stratford Citizens' Advisory Council (SCAC), Stratford Medical Advisory Group, Connecticut Department of Public Health and Addicition Services (DPHAS), EPA, and ATSDR are now working together to inform residents living in Stratford about the potential health hazards of several sites associated with Raymark Industries Inc. The facility and related sites were recently proposed for inclusion on the Superfund National Priorities List (NPL). The NPL identifies sites that EPA decides may represent a long-term threat to the public health or the environment.

Community education and involvement activities conducted in Stratford have included a lead screening clinic and a community health fair. Other initiatives involve holding regular local meetings and producing print materials. For example, the town of Stratford, in collaboration with the aforementioned agencies, began publishing a 4-page newsletter, the *Stratford Environmental Update.*

"The *Stratford Environmental Update* is used to inform residents about the EPA remediation process at the sites and to educate residents about hazardous substances found at the sites," says Andrea Boissevain, an environmental consultant and Stratford project coordinator. "Each issue of the newsletter highlights a hazardous substance and educates residents how to lower their risks of health effects associated with exposure to hazardous substances. For example, included in one of the newsletters was a lead prevention diet, advising residents to consume foods with calcium, iron, zinc, and vitamin C to reduce the risk of physical lead absorption," she says.

More than 22,000 copies of the newsletter are distributed within the town of Stratford. According to Ms. Boissevain, "The newsletters are mailed to people on the tax assessor's list and are distributed at central locations in shopping malls and apartment complexes."

Other successful communication venues in Stratford have been the neighborhood forums. "Establishing neighborhood forums gives residents and government agencies a means to exchange information more smoothly," says Ms. Boissevain. "Instead of holding large public meetings, we initiated small neighborhood forums where residents living near one of the sites can gather in small groups to discuss the site. The

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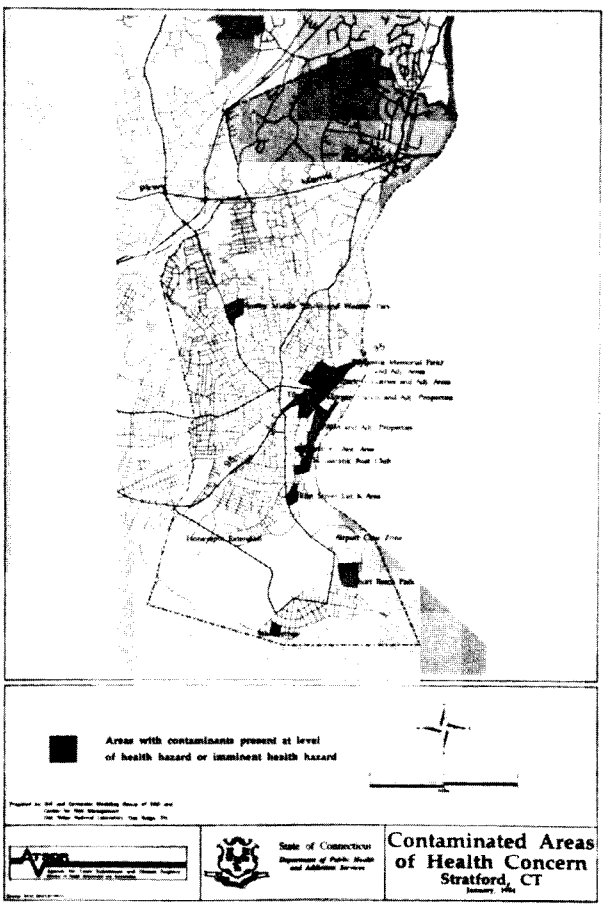

Map of Stratford sites.

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meetings begin with a brief overview of the site, and then the press has 15 minutes to ask questions. The rest of the time is allotted for the residents living in the contaminated area to ask questions."

Approximately 15 to 20 people participate in each forum. "This works much better than having a roomful of people all trying to speak at once with limited time," adds Ms. Boissevain.

Other community health education activities are sponsored by SCAC, a group of concerned local volunteer residents working to bring about long-term solutions to the town's hazardous waste problem. Every other Wednesday night, SCAC holds a meeting for all Stratford residents who wish to attend. The group also has compiled an information packet in conjunction with the Stratford Public Health Department about the town's problem. These packets are made available at many public places including the library, post office, video store, and health department.

For more information about Stratford, contact Andrea Boissevain, Stratford Health Department, 2730 Main Street, Stratford, Connecticut; telephone (203) 385-4090; fax (203) 381-2048.

From The States...
Colorado: Cancer Study of Rocky Flats Workers Is Underway

In one of the first studies of its kind in the United States, Colorado health officials are exploring the relationship between cancer incidence among workers at the Rocky Flats nuclear facility and exposure to both radioactive materials and chemicals. The study, which began October 1, 1993, is being conducted by the Colorado Department of Health with funding from the National Institute for Occupational Safety and Health (NIOSH), a part of the Centers for Disease Control and Prevention (CDC).

COLORADO DEPARTMENT OF HEALTH

"During the first year of the study, we will speak to workers, union representatives, plant management, medical personnel, and independent scientists to identify the types of exposure workers have had to potential cancer-causing materials," explains Amy Johnson, MPH, an epidemiologist in the Colorado Health Department's Disease Control and Environmental Epidemiology Division. "This information will be used to develop a scientific study design that will form the basis for the workers' cancer study," she says.

The Colorado Department of Health received $500,000 from NIOSH, which conducts research on worker health and safety issues, to start the first year of research on cancer incidence and worker mortality. The entire study is projected to take 5 years and cost an estimated $2.5 million.

Ms. Johnson, who is directing the study with co-principal investigators from the Colorado Department of Health and the University of Colorado Health Sciences Center, has been managing a dosimetry study to reevaluate cumulative doses to workers from exposure to radioactive materials at the Rocky Flats Plant.

The study's co-principal investigators are Norma C. Morin, PhD, MPH, project manager of the Colorado Department of Health's Rocky Flats health studies, and James Ruttenber, MD, PhD, associate professor of preventive medicine at the University of Colorado School of Medicine.

Dr. Morin oversees ongoing research into the potential off-site health impacts of releases from the Rocky Flats Plant on nearby communities. She has previously worked on breast and skin cancer screening and control programs.

"We are especially pleased to begin this study on cancer incidence among workers now, because extensive downsizing of the Rocky Flats Plant workforce would make it very difficult in the future. Both workers and state health officials have wanted to have this research done for some time," says Dr. Morin.

Dr. Ruttenber served as a medical epidemiologist at CDC for 10 years and has worked extensively on assessing health risks at a number of U.S. Department

of Energy facilities. He is currently conducting a study on the risks of childhood leukemia from parental exposure to ionizing radiation.

According to Dr. Ruttenber, health risks to workers at Rocky Flats have been evaluated through several previous epidemiologic studies and disease surveillance programs. In 1987, Dr. Gregg Wilkinson, formerly with Los Alamos National Laboratories (LANL) and now with the University of Texas, Galveston, conducted a study that suggested higher rates of specific cancers among Rocky Flats workers exposed to plutonium. Dr. Ruttenber said the relationship needs further study with improved measures of occupational exposure and disease.

The Rocky Flats Plant currently employs nearly 6,500 workers; the study will also involve previous workers and retirees. In addition to worker interviews, the researchers will use cancer incidence data from the Colorado Central Cancer Registry located at the Colorado Department of Health, as well as extensive data already collected from Rocky Flats workers by LANL in New Mexico.

Dr. Wilkinson and LANL researchers will serve as consultants on the study because of their extensive technical and historical knowledge of the Rocky Flats workforce. They have published the results of several studies in scientific journals.

For more information on the cancer incidence study, contact Amy Johnson, MPH, Project Director, Disease Control and Environmental Epidemiology Division, Colorado Department of Health, 4300 Cherry Creek Drive South, Denver, Colorado 80222; telephone (303) 692-2636.

Explaining *Technical Topics* in Nontechnical Terms

What is risk? What is environmental risk? What is human health risk, and why does it exist? For interested citizens living near Rocky Flats in Colorado, the answers to these and other scientific questions are found in a series of papers called *Technical Topics*, produced by the Colorado Department of Health. The series was created to explain the research design, methods, and terminology used in health studies related to potential off-site health effects of the Rocky Flats nuclear weapons plant northwest of Denver, Colorado. The papers are written in nontechnical language and include several illustrations. Titles in the *Technical Topics* series are the following:

- Risk to Human Health and the Environment;
- Source Term Estimates;
- Exposure Pathways;
- Uncertainty in Analyzing Health Risks;
- Verifying Historical Data;
- Quality Assurance for the Health Studies;
- Movement of Contaminated Groundwater at Rocky Flats;
- Estimating Releases for Unmonitored Sources;
- Research on Adverse Health Effects Related to Rocky Flats; and
- Assessing Health Risks from Nuclear Facilities: Epidemiology and Risk Assessment.

Norma C. Morin, PhD, MPH, is project manager of Colorado's Rocky Flats health studies. For a set of 10 topic papers, contact Ann Lockhart, MSS, senior public information officer, Disease Control and Environmental Epidemiology Division, Colorado Department of Health, 4300 Cherry Creek Drive South, Denver, Colorado 80222-1530; telephone (303) 692-2640; fax (303) 782-0188.

In future issues of *Hazardous Substances and Public Health. . .*

- ✓ **Conference Report of *Symposium on Health Research and Needs To Ensure Environmental Justice***
- ✓ **Pesticides and Migrant Health**
- ✓ **Use of Race, Ethnicity in Public Health Surveillance**

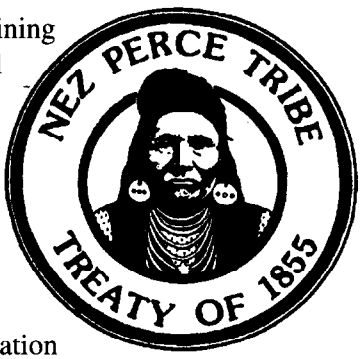
From the Tribes...
Nez Perce: Developing Print Materials for Health Care Providers and Their Patients

The presence of mercury, uranium, nitrates, dioxins, polychlorinated biphenyls (PCBs), and other contaminants in the environment of American Indians poses a threat both to health and to traditional lifestyles. These problems will continue because reservations are increasingly considered as potential disposal sites for solid waste, industrial sludge, and nuclear waste. In addition, health professionals' lack of awareness of environmental health factors remains an obstacle to prevention, recognition, and treatment of environmentally related disease.

The Nez Perce Tribe is an example of an American Indian community concerned about the effects of hazardous waste. When representatives of Nez Perce met with officials from ATSDR and the Indian Health Service (IHS) in the summer of 1993 in Lapwai, Idaho, a number of environmental health issues were discussed. These included pesticide and industrial chemical exposures, emergency response, development and enforcement of policy and standards, and health professional training.

To make information and training available to tribal health professionals and others in the community, the Nez Perce Tribe submitted an application for cooperative agreement funding to ATSDR. The application, entitled "Toxic Waste: What Are the Risks?," was reviewed and funded by ATSDR in September 1993. This funding will assist the Nez Perce Office of Environmental Restoration and Waste Management in developing and disseminating educational materials for tribal members and local health care providers. Topics to be featured include potential health effects, prevention, screening, and diagnosis and treatment of injury or disease related to possible environmental exposures from nearby hazardous waste sites.

The Nez Perce Office of Environmental Restoration and Waste Management also plans to assist medical providers in educating patients who have health concerns related to hazardous substance exposure. Project managers will develop and distribute a "user-friendly" patient handbook, containing information about actual risks, the effects of exposure, and lifestyle changes to reduce risk. Treatments available—if exposure leads to a related illness—will be discussed, as well as sources for more information and a comprehensive bibliography. Project managers will rely on an advisory panel to assist both in developing the handbook and in suggesting appropriate evaluation strategies.



For more information, please contact Chris Rosheim, DDS, MPH, health education specialist, ATSDR, 1600 Clifton Road, Mailstop E33, Atlanta, Georgia 30333; telephone (404) 639-6205; fax (404) 639-6207.

Report Examines State of Asian Pacific America into the 21st Century

From 1970 to 1990, the U.S. Asian Pacific American population grew tremendously, doubling each decade from 1.5 million in 1970 to 3.7 million in 1980 to 7.3 million in 1990. The Asian Pacific American population is projected to reach about 20 million by the year 2020. This growing population is made up of nearly 30 major ethnic groups. To examine the cultural, social, and economic implications of these demographic changes, the Asian Pacific American Public Policy Institute of Leadership Education for Asian Pacifics Inc. (LEAP) initiated a project to forecast the Asian Pacific American population in 2020. The project has resulted in a book entitled, *The State of Asian Pacific America: A Public Policy Report—Policy Issues to the Year 2020.*

Published jointly by the LEAP Asian Pacific American Public Policy Institute and the UCLA Asian American Studies Center, the book describes the Asian-American population and covers many issues that are shared by all U.S. citizens, including adequate health care, attention to the elderly, and education. Other

issues tie Asian Pacific Americans with the interests of other minority groups, including access to employment opportunities; political, cultural, and media representation; and the increase in racial bias and violations of civil rights. Contributors to the book include policy experts drawn from universities and community institutions throughout the nation. Highlights from *The State of Asian Pacific America* include the following:

IMMIGRATION: Predictions for 2020 show that more than half of the Asian Pacific American population—Chinese, Koreans, Asian Indians, Filipinos, and Vietnamese— will be foreign born. This holds true for every group except Japanese Americans.

POPULATION: Southeast Asian refugees originally from Cambodia, Laos, Vietnam, and minority populations such as the Hmong from Laos comprise the majority of Asians living below the poverty level in the United States. Among all nations, the United States has settled the largest number of Southeast Asian refugees.

LABOR: Over the next three decades, the Asian Pacific American labor force will triple to nearly 10 million. Among males, 11% make less than $6 per hour and 20% make less than $15,000 annually. Among females, 18% are in lower hourly wage categories and 37% have low annual earnings.

EMPOWERMENT: In 1992, the bilingual provision of the Voting Rights Act of 1965 was extended for 15 years. Los Angeles will provide multilingual assistance in six languages: English, Spanish, Chinese, Tagalog, Japanese, and Vietnamese.

HEALTH: Mainstream medicine does not emphasize comprehensive health care services such as mental health, family planning, and nutrition counseling. Expansion of educational and health promotion and disease prevention programs targeted to limited-English proficiency populations is needed.

EDUCATION: K-12 educational policy revolves around curriculum issues, school climate, teacher training and recruitment, language issues, support services, ethnic representation on local school boards, and parental involvement and empowerment. Yet, assessment policies, placement, promotion, and graduation based on standardized testing pose problems because of linguistic barriers and cultural biases.

For more information on *The State of Asian Pacific America: A Public Policy Report—Policy Issues to the Year 2020*, contact, 327 East Second Street, Suite 226, Los Angeles, California 90012-4210; telephone (213) 485-1422; fax (213) 485-0050.

Environmental Justice Resources

Studies have shown that environmental and workplace hazards have had a disproportionate impact on historically underrepresented and at-risk populations. Since publication in 1987 of the United Church of Christ report, *Toxic Wastes and Race in the United States*, several federal agencies and community leaders have been working together to define a health research agenda for ensuring environmental justice. Below is a partial listing of several participants in the process and print resources on the issue of environmental justice.

Federal agencies

Agency for Toxic Substances and Disease Registry (ATSDR), Office of the Assistant Administrator, 1600 Clifton Road, NE, Mailstop E28, Atlanta, Georgia 30333; telephone (404) 636-0566.

Centers for Disease Control and Prevention (CDC), Office of Minority Health, 1600 Clifton Road, NE, Mailstop D39, Atlanta, Georgia 30333; telephone (404) 639-3703.

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National Institute of Environmental Health Sciences (NIEHS), Office of the Director, Building 31, Room B1 CO2, 9000 Rockville Pike, Bethesda, Maryland 20892; telephone (301) 496-3511.

U.S. Environmental Protection Agency (EPA), Office of Environmental Justice, 401 M Street, SW (3103), Washington, DC 20460; telephone (202) 260-6357 or toll free 1-800-962-6215.

Networks

Southwest Network for Economic and Environmental Justice (SNEEJ), 211 10th Street, SW, Albuquerque, New Mexico 87102; telephone (505) 247-8832. Contact: Richard Moore.

Northeast Environmental Justice Network, c/o Bronx Voter Participation Project, telephone (718) 365-5071. Contact: Nina Laboy, Gwyn Smalls, or Americo Casiano.

Urban Habitat Program, Earth Island Institute, 300 Broadway, San Francisco, California 94133; telephone (415) 788-3666 or (415) 547-1794.

Youth Projects

Dolphin Defenders, c/o Dignity House, 812 North Union Boulevard, St. Louis, Missouri 63108; telephone (314) 361-8400. Contact: Neil Andre.

East Bay Conservation Corps Project YES, 1021 3rd Street, Oakland, California 94610; telephone (510) 891-3900. Contact: Kathleen Michaels.

African American

Center for Environment, Commerce, and Energy, 317 Pennsylvania Avenue, SE, Washington, DC 20003; telephone (202) 543-3939.

United Church of Christ Commission on Racial Justice, 700 Prospect Avenue, 8th Floor, Cleveland, Ohio 44115; telephone (216) 736-2100.

Mothers of East L.A., 924 South Mott Street, Los Angeles, California 90023; telephone (213) 263-8191.

Asian American

Asian Pacific Environmental Network, 1221 Preservation Park Way, 2nd Floor, Oakland, California 94612; telephone (510) 834-8920; fax (510) 834-8926. Contact: Peggy Saika, executive director.

Labor Occupational Health Program, Center for Occupational and Environmental Health, University of California, 2515 Channing Way, Berkeley, California 94720; telephone (510) 643-7594. Contact: Pam Tau Lee, labor coordinator.

New York Asian Pacific Environmental Network for Environmental Justice, 202 West 82nd Street, New York, New York 10024. Contact: Deling Wong.

FISHING: *Southbay Anglers for Environmental Rights (SAFER),* c/o Citizens for a Better Environment, 501 2nd Street, Suite 305, San Francisco, California 94107; telephone (415) 243-8373; fax (415) 243-8980. Contact: Wendall Chin.

LEAD POISONING: *San Francisco Coalition to Prevent Childhood Lead Poisoning,* 1525 Grant Avenue, San Francisco, California 94133; telephone (415) 984-1458. Contact: Rev. Norman Fong.

RADIATION: *National Committee for Radiation Victims*, 905 Malcolm Drive, Silver Spring, Maryland 20901. Contact: Leimomi Apoliona-Brown.

Hispanic American

El Pueblo para El Aire y Agua Limpio (People for Clean Air and Water), P.O. Box 387, Kettleman City, California 93239; telephone (209) 386-5339 or (209) 386-9645.

National Coalition of Hispanic Health and Human Service Organizations (COSSMHO), 1030 15th Street, NW, Suite 1053, Washington, DC 20005; telephone (202) 371-2100.

Hispano Network, YMCA Greater Lawrence, Lawrence Street, Lawrence, Massachusetts 01840; telephone (508) 682-5215.

Native American

American Indian Health Care Association (AIHCA), 245 East Sixth Street, Suite 499, St. Paul, Minnesota 55101; telephone (612) 293-0233.

National Congress of American Indians (NCAI), 900 Pennsylvania Avenue, SE, Washington, DC 20003; telephone (303) 447-8760.

Americans for Indian Opportunity (AIO), 3508 Garfield Street, NW, Washington, DC 20007; telephone (202) 338-8809. Contact: LaDonna Harris, executive director.

References

Several of these organizations publish newsletters, including *The African American Environmentalist* by the Center for Environment, Commerce, and Energy and *Race, Poverty, and the Environment* by the Urban Habitat Program, Earth Island Institute. Other environmental justice resources are listed below.

People of Color Environmental Groups Directory, compiled by Dr. Robert Bullard of the University of California at Riverside. The directory lists organizations by state. For more information or to order a copy, contact Communications Department, Charles Stewart Mott Foundation, 1200 Mott Foundation Building, Flint, Michigan 45802-1851; telephone (313) 238-1851.

Environmental Protection—Has It Been Fair?, EPA Journal, March/April 1992. The entire issue of the *Journal* focuses on environmental justice. Articles by Dr. Robert Bullard, Paul Mohai and Bunyan Bryant, Ivetta Perfecto, and Baldemar Velasquez are featured. For copies of the issue or for more information, contact the Editor, *EPA Journal*, A-107, Waterside Mall, 401 M Street, SW, Washington, DC 20460.

ANNOUNCEMENTS

The Atlanta Symposium on Risk and Health Communication

A growing number of health and environmental risks have captured public attention in recent years. These risks have placed new requirements and demands on federal, state, and local agencies for good risk communication. Faced with the task of communicating these risks, government agencies and private organizations encounter a host of problems, such as how to address the public's concerns and convey technical information meaningfully, how to deal with conflicting risk perceptions and include the public in risk management, and how to reach specific groups at risk. This symposium is an opportunity for nationally recognized experts to present their recent findings and experiences.

Sponsors ...
The series of 1-hour evening sessions is being sponsored by the Agency for Toxic Substances and Disease Registry (ATSDR), the Consortium for Negotiation and Conflict Resolution and the Schools of Public Policy, Literature, Communication, and Culture and International Affairs at the Georgia Institute of Technology (GA Tech), and the Center for Health Risk Communication in the School of Public Health at Emory University.

Intended Audience ...
The symposium provides a forum for public and private sector practitioners and researchers to explore contemporary research, programs, and information on emerging trends, issues, and research needs related to effective health and risk communication practices. The goal of the symposium is to promote an open dialogue and exchange of information and ideas about strategies for integrating the practice and theory of health and risk communication.

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Following is a list of dates, speakers, and topics:

- July 13, 1994, Judy Auer Shaw, MA, assistant to the director, New Jersey Department of Environmental Protection and Energy. *Risk Management Teams: State and Local Cooperation To Protect Public Health in Urban Coastal Communities.* Location: ATSDR, 5 PM.
- September 29, 1994, Caron Chess, MA, director, Center for Environmental Communications, Rutgers University. *Building Credibility from the Inside: Organizational Factors and Risk Communication.* Location: Turner Conference Center, 5 PM.
- November 16, 1994, Elaine Vaughan, PhD, associate professor, Department of Psychology and Social Behavior, School of Social Ecology, University of California, Irvine. *Communicating About Environmental Risk in Diverse Communities.* Location: GA Tech, 5 PM.
- January 18, 1995, Elaine Bratic Arkin, health communications consultant, Washington, DC. *Health and Risk Communication: How To Produce Messages That Work.* Location: ATSDR, 5 PM.

For more information, please contact Tim Tinker, ATSDR, 1600 Clifton Road, NE, Mailstop E33, Atlanta, Georgia 30333; telephone (404) 639-6206; fax (404) 639-6208.

Health Studies Available to the Public

Environmental health scientists at ATSDR conduct health studies at various Superfund sites nationwide to evaluate the health effects of hazardous substances on exposed populations. The following health studies are available to the public through the National Technical Information Service (NTIS):

Mortality Study of a Population in the Vicinity of the Union Chemical Company—South Hope, Maine (June 1993) NTIS no. PB93-193126. Cost $17.50 (paperback) plus $3 shipping and handling.

Blood Lead Screening Project—Coffeyville, Kansas (August 1993) NTIS no. PB93-218543. Cost $27 (paperback) plus $3 shipping and handling.

A Retrospective Study of American Indian First Responders Exposed to the 1980 Russett Chemical Company Fire—Fort Hall Indian Reservation, Fort Hall, Idaho (August 1993) NTIS no. PB93-218345. Cost $17.50 (paperback) plus $3 shipping and handling.

Study of Symptom and Disease Prevalence Caldwell Systems Inc. Hazardous Waste Incinerator—Caldwell County, North Carolina (September 1993) NTIS no. PB93-231041. Cost $27 (paperback) plus $3 shipping and handling.

The Rocky Mountain Arsenal Pilot Exposure Study. Part I: Analysis of Exposure to Arsenic and Mercury—Colorado Department of Health (September 1993) NTIS no. PB93-231033. Cost $44.50 (paperback) plus $3 shipping and handling.

To order these health studies and others prepared by ATSDR, contact NTIS, Sills Building, 5285 Port Royal Road, Springfield, Virginia 22151; telephone (703) 487-4650; fax (703) 321-8547. For more information on health studies activities, contact Sharon Campolucci, deputy director, Division of Health Studies, ATSDR, 1600 Clifton Road, NE, Mailstop E31, Atlanta, Georgia 30333; telephone (404) 639-6200.

International Congress on the Health and Ecological Effects of Hazardous Waste To Be Held in 1995

The Agency for Toxic Substances and Disease Registry announces the *International Congress on the Health and Ecological Effects of Hazardous Waste,* June 5-8,

1995, in Atlanta, Georgia. The purpose of this conference is to exchange findings, ideas, and recommendations related to the human health effects of exposure to hazardous waste. The Congress will provide an opportunity for internationally recognized scientific experts from various technical disciplines (biomedical and environmental scientists, epidemiologists, physicians, risk assessors, and toxicologists) to evaluate and disseminate state-of-the-art information concerning the human health effects associated with exposure to hazardous waste. The intended audience is health scientists, epidemiologists, and toxicologists from both government and academia; clinical and public health physicians working in environmental and occupational health; health educators; public health administrators and policymakers; industrial health, safety, and management personnel; and professional environmentalists.

For more information, please contact John S. Andrews, Jr., MD, MPH, associate administrator for science, Agency for Toxic Substances and Disease Registry, 1600 Clifton Road, NE, Mailstop E28, Atlanta, Georgia 30333; telephone (404) 639-0708; fax (404) 639-0586; Internet JSA1@ATSOAA1. EM.CDC.GOV.

Call for Papers

Ethnicity and Disease, an international, interdisciplinary journal devoted to the study of population difference in disease patterns, announces a special issue on racism and health. Articles may be either theoretical or empirical, including historical, ethnographic, comparative, experimental, or methodologic studies. The journal is especially interested in publishing empirical articles that examine the extent to which the experience of racism and ethnic discrimination adversely affects physical and mental health. Suitable articles can include, but are not limited to, health consequences of actual or perceived discrimination, economic and noneconomic effects of discrimination, the social and psychological mechanisms and processes by which racism affects health status, the strategies used by oppressed groups to cope with and confront racism, methodological issues in the measurement of racism, and the factors that mitigate or intensify the pathogenic effects of racism.

Authors should follow the standard manuscript submission procedures for *Ethnicity and Disease* as stated in the "Guidelines for Contributors" in each issue. Submissions should be approximately 30 typed, double-spaced pages including references, tables, and figures. Send three copies of the manuscript to the Special Issue Editor, *Ethnicity and Disease*, 1448 East 52nd Street, Suite 360, Chicago, Illinois 60615.

All papers will be evaluated using the *Ethnicity and Disease* standard peer review process. The deadline for submission is May 16, 1994. Questions concerning the special issue or the appropriateness of a particular manuscript may be addressed to Dr. David R. Williams, University of Michigan, Institute for Social Research, P.O. Box 1248, Ann Arbor, Michigan 48106-1248; telephone (313) 936-0649.

Courses

Harvard Short Course

The Harvard School of Public Health is offering the following short course in the area of nuclear safety and radiation protection and environmental management.

Environmental Radiation Surveillance, May 16-20, 1994. This course is for individuals concerned with environmental radiation and radioactivity measurements and studies. Discussion items include radiation standards (regulatory and recommended), radiation health effects, environmental surveillance program design, environmental radioactivity transport and modeling, and environmental assessment.

For more information about this and other available courses, contact Kathryn Lord, Harvard School of Public Health, 677 Huntington Avenue, Boston, Massachusetts 02115; telephone (617) 432-1171; fax (617) 432-1969.

University of North Carolina

The University of North Carolina Occupational Safety and Health Education Resource Center in Chapel Hill, North Carolina, is offering the following training opportunities in the summer of 1994.

Continued

Continued from page 13

Safety and Health Training for Hazardous Waste Site Personnel (HST 24 - HST 40), June 13-17, 1994. These courses will provide 24 and 40 hours of intensive classroom instruction and hands-on training, fulfilling OSHA requirements (29 CFR 1910.120) as mandated under the Superfund Amendments and Reauthorization Act of 1986 (SARA). Students may register for either option. The 24-hour training consists of 3 days of lectures, discussion, classroom demonstrations, and small group exercises. The 40-hour training includes the 24-hour course plus an additional 16 hours of lectures, demonstrations, and hands-on training.

Emergency Response to Hazardous Materials, June 27-July 1, 1994. This course will address various aspects of emergency response to hazardous chemical incidents. OSHA regulation 29 CFR 1910.120 (q) will be emphasized.

For more information about these and other available courses, contact the Occupational Safety and Health Education Resource Center, University of North Carolina, 109 Conner Drive, Suite 1101, Chapel Hill, North Carolina 27514; telephone (919) 962-2101; fax (919) 966-7579.

Tufts University

The New England Epidemiology Institute will sponsor a 3-week summer program in epidemiology at Tufts University in Medford, Massachusetts, July 11-19, 1994. The program includes methodologic, statistical, and substantive courses intended for those seeking an introduction to modern epidemiologic concepts as well as those desiring a review of recent developments in epidemiologic thinking.

Participants may also choose to attend a 1- or 2-week session. The 2-week course includes Theory and Practice of Epidemiology (introductory and advanced levels), Basic Biostatistics, Regression Methods in Epidemiology, Survival Analysis, Genetic Epidemiology, Nutritional Epidemiology, Epidemiology in Developing Countries, and Clinical Research. The 1-week session will offer Introduction to Epidemiology, Conducting Epidemiologic Research, Pharmacoepidemiology, Epidemiologic Research in Women's Health, Biology and Epidemiology of Cancer, Epidemiology in Public Health Practice, Perinatal Epidemiology, and Occupational Epidemiology.

Registrants may receive graduate degree credit or continuing education credits from Tufts University, Continuing Medical Education (AMA Category 1) through Tufts Medical School, or Certification Maintenance from the American Industrial Hygiene Association.

For more information, please contact The New England Epidemiology Institute, Department PA-HSPH, One Newton Executive Park, Newton Lower Falls, Massachusetts 02162-1450; telephone (617) 244-1200; fax (617) 244-9669.

University of Utah

The Rocky Mountain Center for Occupational and Environmental Medicine at the University of Utah, Salt Lake City, is offering the following training opportunities.

Occupational Illness and Injury: Tools and Topics for the Frontline Provider, May 18, 1994. This 1-day course is for primary care providers who also provide care for work-related illnesses and injuries. The course will address basic issues in occupational health care and will present information on leading topics of current interest.

Industrial Audiometric Technician's Certification Course, May 25-27, 1994. This is a 2½-day course for personnel involved in the performance and interpretation of audiometric testing. The first day is a refresher course for those who are already certified.

Asbestos Abatement for Contractors and Supervisors, June 14-17, 1994. This 4-day course is for persons involved in removing asbestos-containing materials or supervising abatement projects in accordance with EPA, state, and local regulations. (The course also meets requirements for workers and project designers under AHERA.)

For more information about these and other courses, contact the Rocky Mountain Center of Occupational and Environmental Health, Department of Family and Preventive Medicine, Building 512, Salt Lake City, Utah 84112; telephone (801) 581-5710.

Delaware Health and Social Services
Division of Public Health

POSITION VACANCIES

PUBLIC HEALTH ADMINISTRATOR

The Public Health Administrator will manage Delaware's newly established Environmental Health Evaluation and Risk Communication Branch. Based in Dover, Delaware, this senior position will lead a program designed to provide health consultation, risk communication, public health assessment, and epidemiologic studies of environmental hazards in Delaware. The candidate must have experience in a management position with respect to a program that assesses the impact of hazardous substances on the public health. Knowledge and experience in epidemiology and toxicology is preferred.

Starting salary range: $39,394 – $52,525

ENVIRONMENTAL EPIDEMIOLOGIST

The position will coordinate and investigate environmental health concerns within Delaware. The candidate must have experience in environmental epidemiology study, design, implementation, and analysis. The person will be based in Dover, Delaware, within the newly established Environmental Health Evaluation and Risk Communication Branch.

Starting salary range: $32,156 – $42,875

For applications, phone the Applicant Services Office at (302) 577-4690. For questions about the position, contact Paul Silverman, DrPH, at (302) 739-3033.

AA/EEO employer

CALENDAR

MAY

May 12-14, 1994: **National Conference on Psychology and Women's Health,** Washington, DC. *Contact:* Nancy Felipe Russo, PhD, Arizona State University, Tempe, Arizona 85287-1104; telephone (602) 965-0380; fax (602) 953-2693.

May 15-18, 1994: **Medical Library Association 94th Annual Meeting,** San Antonio, Texas. *Contact:* Medical Library Association Inc., Suite 300, Six North Michigan Avenue, Chicago, Illinois 60602; telephone (312) 419-9094; fax (312) 419-8950.

May 16-18, 1994: **Alliance To End Childhood Lead Poisoning—Building A Lead-Safe Future,** Washington, DC. *Contact:* Don Ryan, Alliance to End Childhood Lead Poisoning, 227 Massachusetts Avenue, NE, Suite 200, Washington, DC 20002; telephone (202) 543-1147; fax (202) 543-4466.

JUNE

June 18-22, 1994: **National Environmental Health Association,** Fort Worth, Texas. *Contact:* Donna Izlar, NEHA, 720 South Colorado Boulevard, Suite 970, South Tower, Denver, Colorado 80222; telephone (303) 756-9090; fax (303) 691-9490.

June 26-29, 1994: **The 21st Annual International Health Conference of the National Council for International Health,** Arlington, Virginia. *Contact:* Regina O'Hare, NCIH, 1701 K Street, NW, Suite 600, Washington, DC 20006; telephone (202) 833-5900; fax (202) 833-0075.

JULY

July 24-27, 1994: **99th Annual Convention and Scientific Assembly of the National Medical Association,** Orlando, Florida. *Contact*: NMA, 1012 Tenth Street, NW, Washington, DC 20001-4492; telephone (202) 347-1895; fax (202) 842-3293.

hazardous substances & Public Health

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