

# HS & PH Hazardous Substances & Public Health

Healthy People in a Healthy Environment

## The Nationwide Environmental Health Nursing Initiative

Seven years ago, the Agency for Toxic Substances and Disease Registry (ATSDR) took the first step in developing an Environmental Health Nursing Initiative. Through this initiative, ATSDR began to act on its knowledge of the vital and broad role nursing professionals play in every area of the health arena to help

protect the public's health. Partners in the Environmental Health Nursing Initiative are now joining together to take the initiative nationwide. The project is designed to increase the competencies of nurses by ensuring that nursing school course curricula include environmental health topics and that educational opportunities are available to practicing nurse professionals. Today, the initiative is sustainable and is a motivating force behind public health action nationwide.



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### What Is the Environmental Health Nursing Initiative's Goal?

To develop a national environmental health nursing strategy that promotes coordination of ongoing efforts, fosters the identification of critical data gaps and research needs, and ensures sustainability through ongoing evaluation.

### What Has Been Accomplished to Date?

- ◆ Thousands of nurses nationwide have received education in environmental nursing.
- ◆ Faculty members at colleges and universities have advanced in their efforts to prepare graduating nurses to recognize environmental health threats and promote preventive strategies to avoid these threats.
- ◆ Health department nurses are now promoting a holistic approach to health and the environment to help protect women, children, and the elderly from environmental hazards.

### What Is Happening Now Nationwide?

- ◆ ATSDR is working with other federal agencies, academic institutions, nursing professional organizations, state and local health

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departments, and grassroots organizations to promote a coordinated strategy to continue building on the current momentum behind this national initiative.

- ◆ Tools and action plans (e.g., distance-learning programs and a listserv) are now being planned or developed to establish a coordinated strategy to advance the 2.2 million nurse professionals in the United States in the environmental health arena.
- ◆ An implementation framework is being constructed to support an environmental health nursing strategy to include education, practice, and research components.

To ensure the success of a national strategy for the Environmental Health Nursing Initiative, available resources and expertise must be utilized and strong, collaborative partnerships must be developed and maintained.

If you would like to be a part of this initiative, please contact ATSDR's Division of Health Education and Promotion at 404-639-6205; fax: 404-639-6208; e-mail: [chr4@cdc.gov](mailto:chr4@cdc.gov); or by mail: ATSDR, 1600 Clifton Road, NE, MS E-42, Atlanta, GA 30333.

### Public Health Nurse (PHN) Pathway for Lead-Poisoned Children

PHNs in the Alameda County Lead Poisoning Prevention Program (ACLPPP), collaborating with nursing faculty at Holy Names College in Oakland, California, have developed a comprehensive nursing service plan (NSP) for case management of lead-poisoned children. The PHN case management pathway features a multidisciplinary approach when children with an elevated blood lead level are identified. Eight nursing diagnoses that focus on individual, family, and community diagnosis guide the PHN along the pathway. In addition to emphasizing access to health care, the NSP involves the environmental and housing teams throughout the process. For more information, contact ACLPPP by telephone at 1-800-BE-LEAD-SAFE, or on the Web site, <http://www.aclppp.org>.

### Partners

Partners in the initiative include federal, state, and local governmental agencies as well as public interest groups. For more information, see the initiative's Web page ([http://www.atsdr.cdc.gov/EHN/2nursing\\_initiative.html](http://www.atsdr.cdc.gov/EHN/2nursing_initiative.html)).

## Agency Support for the Initiative

We are encouraged by the nursing profession's efforts to work on environmental health activities in its areas of practice. Many worthwhile activities have come from the national nursing initiative—activities such as the Howard University *Environmental Health and Nursing* curriculum, the nursing listserv, the nursing satellite broadcast, and this special edition of the *Hazardous Substances and Public Health* newsletter. These efforts could not occur without commitments from and partnerships with the skilled nursing workforce in this nation.

## The Mississippi Delta Project

### History

The Mississippi Delta Region (MDR) is a 219-county strip along the Mississippi River in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee. MDR stretches from southern Illinois to southeastern Louisiana. This area is rich in agricultural production and is also becoming home to corporate farming, petroleum processing, and other related industries. The increase in development has led to concerns about not only the health of people living in the region, but also the lack of environmental health training for health-care professionals in the region.

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To address these concerns, The Howard University College of Nursing, in partnership with the Minority Health Professions Foundation and the Agency for Toxic Substances and Disease Registry, developed *Environmental Health and Nursing [EHN]: The Mississippi Delta Project, a Modular Curriculum*. The curriculum developed out of a 1994 agreement between The Howard University College of Nursing and the Minority Health Professions Foundation for a nursing initiative to increase the focus on environmental health. The goal of the curriculum is to provide a comprehensive instructional guide for faculty and students in associate and bachelor degree nursing programs for incorporating regional-specific environmental health into existing curricula of schools of nursing (1). The curriculum consists of six modules:

- ◆ environmental health of the Mississippi Delta
- ◆ the role of culture, poverty, race, and economic development on environmental health
- ◆ toxicology: major substances affecting the data
- ◆ assessing individual, family, and community responses to toxic substances
- ◆ environmental justice
- ◆ community perspectives: community organization, empowerment, partnering, and education

For more information, see the Howard University Division of Nursing Web site (<http://www.nursing.howard.edu>).

### **Integrating the Curriculum**

According to Dr. Dorothy Powell (Associate Professor and Associate Dean for Nursing, Howard University, Washington, DC, and Project Director, Mississippi Delta Project), the modules are now being used in three places in the Howard University undergraduate nursing program.

- ◆ Last spring much of the community health module content was put into a community health course. This summer the thrust of the community health course was environmental health. Students took exposure histories, surveyed the community, looked at jurisdictional regulations (e.g., emissions standards), interviewed persons in neighborhoods, and evaluated contamination in fish obtained from the Anacostia River in Washington, DC. These

### **ABCs**

The University of Maryland School of Nursing, with support from the U.S. Environmental Protection Agency's Office of Children's Health Protection, is developing "ABCs of School-Based Environmental Health," an initiative to provide school nurses with a quick reference compendium about school environmental health issues. Issues presented will include indoor air quality, drinking water, lead, environmentally preferable products, and pesticides. The compendium will include (a) an overview describing children's special vulnerabilities, and (b) a description of the historical factors that have led to the present state of school buildings. The compendium will also include educational materials for students and parents.

### **A Nurse and an Incinerator (or Two)**

In 1987, Pamela Ortner, BSN, RN, CCM, COHN-S (graduate student in the Occupational Health Nursing program at the University of Michigan) became involved with "Clean Air, Please!," a local community group that was working to close a municipal solid waste incinerator located 250 feet from a middle school and a school for the mentally challenged. She eventually became president of the group. The incinerator was closed in 1988, after 33 years of operation. A recycling program advocated by Clean Air, Please! was started at the site. Now, the 14 communities that sent their garbage to the incinerator (350,000 people) recycle 600 tons a day, which equals the amount that was being incinerated.

Ms. Ortner now works with Health Care Without Harm (HCWH). HCWH has been successful in convincing local hospitals to close their medical waste incinerators and turn instead to recycling and other cleaner alternatives. St. John Oakland Hospital (Madison Heights, Michigan) closed its incinerator in September 2000.

**The number of RNs employed in nursing:**  
**1992—more than 1.8 million**  
**1996—more than 2.1 million**  
**March 2000—more than 2.2 million**

*Data from the National Sample Survey of Registered Nurses 1992, 1996, and 2000 (Rockville [MD]: Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration)*

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activities raised excitement about environmental health as part of what nurses do.

- ◆ Environmental justice was incorporated into an existing course. Justice issues are a large part of health policy, and Dr. Powell believes that no other nursing programs are integrating environmental justice into their curricula.
- ◆ A community-based Nursing I course was developed. Students were instructed to look at the community for potential hazards, to look at differences in communities, and to ask questions about possible exposures as part of an overall picture of the community.

An addendum module (the *Users' Guide to Environmental Health and Nursing* [2]) is now included as part of the curriculum. The guide addresses issues of how to integrate portions of the curriculum without rebuilding nursing school curricula or adding courses. This module shows participants how to identify the pieces of the curriculum that are important to them, then how to evaluate their responses. The evaluation assists participants in determining whether the pieces they identified as important are already in their curricula or related to something already in their curricula. For example, the curriculum could already include pharmacology; toxicology is an extension of pharmacology. The participants then rank their responses and can see how information can move into their curricula without disrupting the current balance. Some pieces of the *EHN* curriculum can substitute for segments already included in participants' curricula. Initial workshops on the *EHN* curriculum did not include this integration module, although it has been incorporated into more recent workshops.

### Outcomes to Date

The curriculum is starting to be used in public health: it has been used to develop training program plans for public health nursing managers, and it will be used in upcoming training in Alaska. In Arkansas, a statewide public health nursing meeting is being planned for May 2001; the meeting will include a track on environmental health. In addition, the curriculum's table of contents provided a guide for building the agenda for a managers' meeting on environmental health.

A graduate-level nursing program in Tennessee is using the curriculum content on environmental assessment for health promotion for family nurse practitioner students. This will help such students understand possible toxicants in areas where they live and work.

The curriculum will also be used to orient newcomers to the Georgia public health system. It will be especially useful for issues in environmental health and factors that facilitate the development of nurses' roles in environmental health.

### Future Directions

Environmental health is not addressed to the extent it ought to be in existing nursing curricula. The relationship between environmental hazards and human health is complex. We must better understand this relationship to be in a position to prevent adverse health effects. For nurses in the 21st century, this is the kind of awareness and problem-solving that is needed: physically being there and working with communities (e.g., providing information on environmental exposures, emissions standards, and environmental justice). All of these elements are within the scope of nursing. In addition to changes in nursing school curricula, information must be disseminated through a variety of other media.

Copies of the module and the guide are available on request from The Howard University College of Pharmacy, Nursing, and Allied Health Sciences; Division of Nursing; 501 Bryant Street, NW; Washington, DC 20059.

### References

1. Howard University, Division of Nursing; Agency for Toxic Substances and Disease Registry; and Minority Health Professions Foundation. 1999. *Environmental health and nursing: the Mississippi Delta Project, a modular curriculum*. Atlanta: US Department of Health and Human Services.
2. Howard University, Division of Nursing; Agency for Toxic Substances and Disease Registry; and Minority Health Professions Foundation. 2000. *Users' guide to environmental health and nursing*. Washington (DC): Howard University, Division of Nursing, College of Pharmacy, Nursing, and Allied Health Sciences.





## The Road Ahead: Onward, Upward, and Negotiating the Bumps

Patricia Butterfield, PhD, RN, Associate Professor, College of Nursing, Montana State University-Bozeman, and Robert Wood Johnson Executive Nurse Fellow

The year 2000 finds environmental health and nursing at a crossroads—moving from the margins of clinical nursing into a recognized part of comprehensive health care. For those of us who have worked on efforts to expand the nursing profession's ability to address environmental health problems, it is a particularly rewarding time. We are beginning to see the fruits of our labor, and many of us are receiving requests to present at nursing conferences or provide input for curriculum revisions. From my vantage point, here's where we are and where we're heading.

### Efforts To Reduce Local Health Problems

Nurses are acting to prevent and minimize health problems in children and adults exposed to environmental hazards such as pesticide misapplications, groundwater contaminants, and lead. We are also discerning environmental triggers of asthma. These efforts have primarily occurred through regional networks of nurses working in public health and school settings. Most projects to date have been developed as extensions of existing community-based programs. Instead of creating stand-alone environmental health programs, most of the current efforts take an existing program that already has a strong nursing presence—like Head Start or the Women, Infants, and Children Supplemental Nutrition Program (WIC)—and expand patient services to include environmental health assessment and screening. This approach works well because it capitalizes on nurses' existing expertise, builds capacity in clinical settings, and keeps nurses in familiar territory.

### Getting A Few More Hours in Nursing Curricula

Progress has been made within nursing education on curriculum design and integration. The Institute of

Medicine competencies (1) have given a clear road map for nursing education, and many nursing programs are developing environmental health case studies for their undergraduate and graduate students. Increased attention to environmental health has resulted from faculty access to the Web sites of the Agency for Toxic Substances and Disease Registry (ATSDR), the U.S. Environmental Protection Agency, and academic health sciences centers. Easy access to material safety data sheets information and ATSDR's *Case Studies in Environmental Medicine* has enabled students to incorporate environmental health actions into nursing care plans and community assessment projects. Finally, environmental health topics are now being addressed in classes other than public health nursing, so that faculty members who teach pediatric, chronic illness, and psychiatric nursing are beginning to consider environmental health as it applies to their scope of clinical practice.

### Looking Down the Road

Several obstacles must be overcome if we are to move to the next level of integration. As always, opportunities for the nursing profession are hidden within these obstacles; they include the following:

- ◆ Document exposure history data on all patients and revise chart forms to include environmental exposure data. The Pew Environmental Health Commission recently released a report emphasizing the need for a national tracking system so that health problems that may be due to environmental factors can be systematically examined. One of the key recommendations in the Pew report was for increased documentation of exposures, and this is an area where nurses can make a remarkable contribution to public health. More nurses are charting environmental information on health history forms, but it is time to emphasize the importance of having all nurses in all clinical settings document basic exposures on all patients. ATSDR sponsored the development of a mnemonic called "I PREPARE" (this issue, p. 10). The mnemonic cues health providers to ask about and chart key environmental exposures; it is a good idea for busy health providers, who need quick reference materials. By revising clinical history forms to include exposure history data, and by charting exposures, nurses can

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## Kelly Air Force Base and Public Health Activities

### Background

Bexar County, Texas, is home to Kelly Air Force Base (AFB). Approximately 7 miles southwest of downtown San Antonio, Kelly AFB has been an aircraft repair, operations, maintenance, and logistics facility. The 700-acre base has operated continuously since 1916. Kelly AFB later became one of the Air Force's major logistical support centers, providing support to U.S. armed forces in Korea and Vietnam. During Desert Storm, the base was also a major military staging area.

In 1996, the Agency for Toxic Substances and Disease Registry (ATSDR) was petitioned by the late Senator Tejada to investigate potential health effects in neighborhoods north and southeast of Kelly AFB. Community groups expressed concern about their health and about possible exposures to environmental contaminants. Residents have voiced concerns for the past 25 years—since federal and state regulatory agencies first adopted stronger antipollution regulations. These stronger regulations coincided with the first identification of areas of contamination inside the fence line at the base. In 1989, those problems surfaced outside the fence line in the first identifiable evidence that a plume of contamination (primarily composed of perchloroethene, trichloroethene, dichloroethene, and vinyl chloride) had extended beyond base boundaries. The Air Force hired a consultant, who, in conjunction with the San Antonio Metropolitan Health District, performed the first health assessment of this scope in San Antonio. The site highlights the need to educate health-care professionals about environmental hazards and the potential for human health impacts resulting from these hazards.

### Community Involvement

The entire city of San Antonio is involved with the Kelly AFB story. The *San Antonio Express-News*, the local newspaper, ran a series of articles on the site cleanup issues and the extent of contamination surrounding the base

([www.mysanantonio.com/expressnews/kelly](http://www.mysanantonio.com/expressnews/kelly)). Environmental and neighborhood activists (the Community for Environmental Justice), residents, and state and federal governmental agencies (i.e., the Texas Natural Resource Conservation Commission, the Texas Department of Health, the U.S. Environmental Protection Agency, ATSDR, and the Department of Defense) are all involved in the cleanup and contamination issues at the base.

These and other concerns at Kelly AFB have been discussed at many community meetings. The Air Force convened a local Restoration Advisory Board to advise on community concerns and strategies to aid in the cleanup. Currently, a series of public education

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### Community Survey

The University of Maryland School of Nursing has developed a descriptive survey that will be administered to community members in Avis, Pennsylvania. Community members, who are concerned about their drinking water quality, contacted the school and asked for assistance. The purpose of the survey is to determine possible relationships between water use and adverse health outcomes. The objectives of this project are to assess the level of community concern with water quality issues, explore the possible relationship between water use and morbidity, and identify educational needs of community members in relation to alternative sources of water selected.

### Initiative for Children's Environmental Health

The University of Maryland School of Nursing, in cooperation with the American Nurses Foundation and the American Nurses Association (ANA), is developing an initiative to increase nurses' knowledge and understanding of the environmental health risks facing children. The primary mechanism to accomplish this task will be the implementation of continuing education programs and preconference training sessions. Journal articles and continuing education modules related to children's special vulnerabilities to environmental hazards will be developed and published in *The American Nurse*, as well as on the ANA's continuing education Web site (<http://www.ana.org/ce/cewhatis.htm>). The initiative is funded by the U.S. Environmental Protection Agency's Office of Children's Health Protection.

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forums are being held to solicit input from residents on their concerns: health, cleanup options, property values, extent of contamination, and timelines being followed by regulatory agencies. Understandably, health has emerged as one of the residents' top concerns.

## Needs of Health-Care Providers

*Nursing, Health, and the Environment (1)* reports that health-care providers are increasingly being asked to respond to questions and address situations where environmental health impacts are an issue with the clients and population they serve.



The *Nursing, Health, and the Environment (1)* findings are mirrored in the Kelly AFB site. Among the community concerns cited were the need for understandable information on the Kelly AFB site and its potential impact on personal health. Residents also expressed concern about the lack of local health-care provider ability to address their environmental health problems.

Nurses are the largest component of the health profession; therefore, they play an important role in mitigating exposures and educating consumers about environmental hazards and health. Nurses are often approached with questions that patients do not want to ask their physicians.

## Outcomes

According to Sam Sanchez (Environmental Health Administrator, San Antonio Metropolitan Health District), the district continues to take the lead role in bringing answers to the community. Specific education outreach activities aimed at nurses, physicians, and community residents continue. In 1998, the district collaborated with a nurse health educator from the ATSDR Division of Health Education and Promotion to conduct several environmental health seminars.

In the community, public health action plans and community education activities are ongoing. The national nursing strategy effort continues, and

physicians are networking and participating in further education on environmental health issues. Health department nurses, school nurses, nursing organizations, and faculty members of nursing schools are developing plans for implementing the knowledge and skills obtained in workshops into nursing opportunities. The importance of taking an exposure history continues to be stressed.

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## Ongoing Support for Nursing and Environmental Health Initiatives

The University of Maryland School of Nursing is now being supported by the Kellogg Foundation, the Bauman Foundation, the National Environmental Education and Training Foundation, and the U.S. Environmental Protection Agency to continue a wide array of nursing and environmental health initiatives. These initiatives include faculty development in the Southern United States, and day-long workshops with nursing subspecialty organizations such as the National Association of School Nurses, the American College of Nurse-Midwives, and the Nursing Organization Leadership Forum. The forum represents over 80 nursing subspecialty organizations. For more information on these projects, visit the University of Maryland School of Nursing Web site at <http://enviRN.umaryland.edu>.

## Grant for Field Experiences

Eight senior nursing students from Georgetown University School of Nursing and Health Studies are involved with an Association of Schools of Public Health/Bureau of Health Professions grant to increase environmental health field experiences for Bachelor of Science in Nursing students. One focus this semester has been food safety. The students conducted interviews in a local school program after a foodborne outbreak, and contributed child-targeted bilingual food safety education information for an existing Web site.

## Pollution Prevention Kit

Suan Wilburn, RN, MS, an occupational and environmental staff member at the American Nurses Association (ANA), has helped to create the ANA Pollution Prevention Kit, an excellent primer on pollutants that nurses can use to educate themselves and their patients. The primer is, in part, a response to the 1997 Pollution Prevention Resolution of the ANA.



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On October 27, 2000, the San Antonio Metropolitan Health District and ATSDR held a nurse education seminar for public health nurses who will be working on an environmental health screening project funded through ATSDR. Training on assessing environmental health issues and taking an exposure history is also being developed. Kelly AFB and the activities surrounding the cleanup and contamination issues highlight the fact that local public health departments must take the lead in tackling these issues. Local public health infrastructure is necessary; if such infrastructure is not established, it hampers effectiveness in activities. State and federal governments can help local governments develop the capacity to deal with these issues so that problems get resolved.

### Impact

According to Mr. Sanchez, the Environmental Health Screening Project has the potential to significantly alter the delivery of health care services in a large portion of San Antonio. Awareness of the importance of training nurses in environmental health has been heightened.

### Reference

1. Institute of Medicine. 1995. Nursing, health, and the environment. Washington (DC): National Academy of Sciences.

## Toolbox

To respond to the national nursing interest and motivation, the Agency for Toxic Substances and Disease Registry (ATSDR) is developing an environmental health nursing toolbox to facilitate implementation of environmental health principles in nursing curriculum and public health practice. The toolbox is being developed with a regional-specific approach to incorporate issues unique to each region of the country. Issues such as life span, growth and development, health behaviors, cultural practices, and exposure will be developed in case studies, advocacy and policy guidelines, visual aids, checklists, and resources based on environmental health science and nursing practice.

This project is being coordinated by the Association of Occupational and Environmental Clinics through a cooperative agreement with ATSDR. The toolbox will include nursing input and participation from all areas of practice. The tools are national in scope and will be adaptable for use with other disciplines working in environmental health.

### Nursing and the Environment: Advocacy for A Healthy Community

*Never doubt that a small group of thoughtful, committed individuals can change the world, in fact, it's the only thing that ever has.—Margaret Mead*

The impact of even one nurse's environmental advocacy efforts cannot be underestimated. Recently, Laura Anderko, RN, PhD (Assistant Professor, Northern Illinois University, DeKalb, Illinois) collaborated with a local citizen group and spoke as an expert witness at several meetings to halt the commencement of a housing development planned for property formerly used as an illegal hazardous waste site. Eighteen months later a victory was achieved: No ground-breaking would be permitted on the property until a letter indicating "no further remediation" was received from the U.S. Environmental Protection Agency (EPA). This decision was made despite a great deal of political pressure from the mayor and the builder's attorney to go forward with the development as originally planned. Consultations with representatives from the regional and state EPA offices, the Sierra Club, the Agency for Toxic Substances and Disease Registry, county government offices, and the county health department were instrumental in acquiring more detailed information about the dumping. Dr. Anderko reports that success lies in collaboration and perseverance.

### Health Care Without Harm

Charlotte Brody, RN, BSN, is the codirector of the international Health Care Without Harm (HCWH) campaign, a coalition-based campaign with over 290 organizational members, including the American Nurses Association. Nurses are playing a key role in this campaign. The campaign has had a series of victories in changing the ways in which the health-care industry purchases materials; manages its waste; eliminates mercury and latex; and minimizes the exposure of health professionals, patients, and community members to hazardous chemicals. For more information about the international campaign, visit the HCWH Web site at <http://noharm.org>.





## Distance-Learning Mechanisms at Work

Environmental Health: A Nursing Opportunity (A Public Health Training Network Satellite Broadcast) was broadcast on August 10, 2000. This broadcast was the third distance-learning effort to educate nurses in environmental health as part of the Agency for Toxic Substances and Disease Registry's (ATSDR's) nationwide environmental health nursing initiative. The August 10 satellite broadcast was part of the foundation for a more integrated approach in information dissemination and for national coordination of the nursing initiative efforts to develop the capacity of all nurses to respond to environmental health issues in their communities and areas of nursing practice. The first two broadcasts (in Montana and Mississippi) were site specific. The August broadcast was the first preventive approach.

As a mechanism for training and development, distance learning is cost-effective and accessible. Time commitment is minimal, travel is not necessary, and broadcasts are available via television and/or the Internet. The August broadcast increased outreach by twenty-fold with one program: 2,163 registrants represented 48 states and Canada. The primary presenters were Patricia Butterfield (Associate Professor, Montana State University, Bozeman, Montana) and Grace Paranzino (Assistant Professor, MCP Hahnemann University School of Medicine, Philadelphia, Pennsylvania). According to postbroadcast evaluations, most participants were nurses. Other participants included pharmacists, physicians, and veterinarians.

Topics for the broadcast included epidemiology for nurses in environmental health, environmental epidemiology, Native American perspectives, environmental justice, the role and involvement of nurses in environmental health, and methyl parathion contamination in Mississippi.

Approximately 110 videos will be distributed to those who requested copies. The broadcast can be viewed by videotape (send an e-mail to [ATSDR-nurse@cdc.gov](mailto:ATSDR-nurse@cdc.gov)) or on the Web site (<http://www.cdc.gov/phtn/envhealth/nursing.htm>). The broadcast has been viewed via the Web site about 300 times.

***“[I] suggest a follow-up presentation on environmental data collection (for nurses) and the legal process; e.g., chain of command, chain of evidence/authority.”***

***“[I am] always looking for more learning to help the public health nurses.”***

***“As a CE coordinator I greatly admire this wonderful system of delivering continuing education.”***

***“These programs are very useful for our staff and community participants.”***

### Medical Monitoring at Bunker Hill

Nurses in Montana are working with the Agency for Toxic Substances and Disease Registry to initiate a new medical monitoring program. A population previously exposed to lead by mining activities will be screened for hypertension and renal disease. Nurses are key players in the administrative, screening, and education aspects of this environmental health program. For more information, call 1-877-201-4264.

***The number of currently licensed RNs:***  
***1992—more than 2.2 million***  
***1996—more than 2.5 million***  
***March 2000—more than 2.6 million***

*Data from the National Sample Survey of Registered Nurses 1992, 1996, and 2000 (Rockville [MD]: Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration)*



## Environmental Health Nursing Listserv

The environmental health nursing listserv was created to provide nurses a forum to discuss emerging topics in environmental health and nursing and to pose questions regarding environmental health.

The listserv includes information such as announcements relevant to environmental health and nursing, including conferences; new educational materials (books, curriculum, and videos); continuing education programs; funding Request for Proposals; federal and state initiatives, regulations, and policies; resources (Web sites and organizations); and experiences and helpful tips for addressing environmental health issues in your practice setting.

Follow these instructions to subscribe:

- ◆ Send an e-mail message to [listserv@listserv.cdc.gov](mailto:listserv@listserv.cdc.gov). Do not type anything into the subject line on your e-mail message, and do not use an automated signature line in your e-mail message
- ◆ In the text or message area type the following:  
*subscribe environmental-health-nursing*  
*First name Last name* (example: *subscribe environmental-health-nursing Tom Jones*)

Questions or problems? Contact Cherryll Ranger by telephone (1-888-42-ATSDR or 404-639-6205) or by e-mail ([chr4@cdc.gov](mailto:chr4@cdc.gov)).

The listserv currently has almost 300 subscribers, including nurses and other health professionals in the private sector, public health institutions, and other organizations.

### Environmental Health and Nursing on the Web

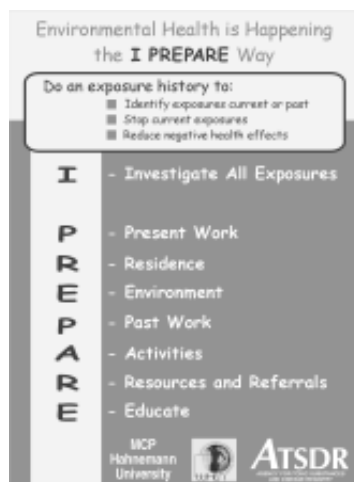
EnviRN (<http://enviRN.umaryland.edu>) was developed and is maintained by the University of Maryland School of Nursing through funding from the Kellogg Foundation and the National Environmental Educational and Training Foundation. This Web-based resource on environmental health and nursing supports nursing faculty who are seeking to integrate environmental health into nursing curricula.

The Basic Concepts link addresses the fundamentals of environmental health, including video, PowerPoint, and curriculum materials. The Assessment link helps nurses investigate the impact of environmental hazards on health. Nurses can look up facts about specific hazards, view graduate student projects on environmental health, view digitized videos of environmental health conferences, and link to a wealth of resources organized by content.

The EnviRN Web site includes a chat room (under the Forum link), a Resources link, an Intervention link, and much more. The site also links to other important efforts to educate and inform nurses—efforts such as the Agency for Toxic Substances and Disease Registry (ATSDR) Web page for nurses and the ATSDR Webcast, “Environmental Health and Nursing.” This dynamic resource is the nurses’ gateway to technical, consumer, and educational information on the Web.

### Nurse Education on the Safe Drinking Water Act

In response to an invitation from the Bauman Foundation, the University of Maryland School of Nursing has developed a pilot project to educate nurses in Maryland and New Jersey about the Safe Drinking Water Act. The initiative seeks to prepare nurses to understand the key elements of the Safe Drinking Water Act, understand the special vulnerabilities that their patients may have to biologic and chemical contaminants found in their drinking water, advise patients on appropriate actions to ensure drinking water safety, and collaborate with advocates for safer drinking water.



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- improve the quality and quantity of environmental exposure data throughout the nation.
- ◆ Create or modify patient reimbursement codes to include environmental health problems. Health care is quantified using current procedure terminology (CPT) or other codes to bill for care. Nursing care is often an invisible piece of outpatient and public health care because it is integrated into other services, which are then billed as medical services. It is important to revise or develop an appropriate set of codes for environmental health services delivered by nursing personnel. Good program evaluation requires solid data, and we need to have service codes that accurately reflect nursing care for environmental health problems.
  - ◆ Document evidence of suspected disease clusters and provide training for nurses so that the information they collect can be used by public health professionals to address citizens' concerns about suspected disease clusters. Because of our presence in schools, homes, clinics, and worksites, nurses are aware of local health concerns and can assist in disease surveillance. We can be more effective in preventing environmental health incidents if we know how and where to report potential disease clusters. To do this, nurses need to learn more about collecting meaningful and unbiased data for use in cluster investigations.
  - ◆ Enhance risk communication skills within the nursing profession. Nurses are experts in translating technical health information into clear and concise guidelines. This expertise comes through our daily work in explaining medication regimes and treatment procedures in a way that is clear and practical for patients. We need to extend these communication skills further into the realm of environmental risk communication. Several highly qualified nurses are designated as risk communication experts within their own states, but we need to strengthen nursing capacity in this area. During and after environmental health incidents, effective risk communication skills are needed to keep members of the public updated, informed, and provided with scientifically accurate information addressing environmental health concerns.

Nurses are taking leadership roles in initiatives addressing asthma, pediatric lead exposure, and exposure to organic solvents. We are also working on the front line of programs designed to reduce environmental risks for vulnerable groups such as children, immunosuppressed adults, and the frail elderly. Regional networks of nurses

are working together and with other health professionals to initiate primary prevention programs through local and state health departments. ATSDR has assumed national leadership in mobilizing and strengthening nursing's capacity in environmental health and has worked to "connect the dots" among groups of nurses across the country. It is a long and winding road, but we are off to a good start. All new health initiatives encounter bumps along the way, but I am confident that we can improve the nation's health by focusing on the road ahead.

## Reference

1. Institute of Medicine. 1995. Nursing, health, and environment. Washington (DC): National Academy of Sciences.



## Celebrate National Nurses Week May 6–12, 2000

"Nurses are the True Spirit of Caring" is this year's theme for National Nurses Week. National Nurses Week begins May 6 and ends on May 12, Florence Nightingale's birthday. May 6 is National RN Recognition Day and, since 1998, May 8 has been designated as National Student Nurses Day.

**Note: Although National Nurses Week is celebrated on the same days each year, this is the theme for the 2001 National Nurses Week.**

**The Bureau of Labor Statistics lists nursing as one of the top 40 growth jobs for the next 10 years.**



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