

## **Module V: Environmental Justice**

Dorothy L. Powell, EdD, RN, FAAN

### **Competency Statement**

The learner will understand the concepts and principles of environmental equity and justice and be able to identify instances of environmental injustice in local communities and states within the Mississippi Delta Region (MDR). Further, the learner will understand federal, state, and local resources and initiatives concerned with environmental justice and processes of empowering impacted communities to respond to circumstances of environmental exposure and/or potential exposure. Moreover, this module addresses competency III, advocacy, ethics, and risk communication, as well as competency IV, legislation and regulation, which are described in Nursing, Health and the Environment (Pope et al., 1995).

### **Rationale**

Minorities and low-income communities face a much higher level of environmental exposure and risk than the majority population, especially in the areas of hazardous waste exposure, disposal, transport, and containment. As a result, these communities bear a disproportionate share of the nation's air, water, and waste contamination problems (Gaylord, 1993).

The 219 county MDR with its high concentration of transportation routes, petrochemical industries, toxic waste sites, and high dependency on streams and other water

tributaries for food makes it a region disproportionately vulnerable to environmental pollution. There are some 144 National Priorities List (NPL) sites in the MDR (Mississippi Delta Project, 1995). NPL sites are hazardous waste sites classified as the most serious and targeted for long-term federal action. The region, historically and currently, has a disproportionate number of ethnic minority and poor people whose prevalence and risks for diseases and poor health related to environmental contamination exceeds those for the general population (Westra & Wenz, 1995). Nelson-Knuckles et al. (1997) report that mortality data (1990-1992) showed that overall mortality rates due to cancer were approximately 11 percent higher in Delta counties when compared to non-Delta states, and about 5 percent higher than in non-Delta counties in Delta states. To reverse this trend in poor and minority communities, the concerted efforts of government, industry, community residents, institutions of higher education, and health care providers are needed.

Nurses have an historical role and acceptance in communities, especially low income and under served communities. Thus, nurses are in a privileged position to work with and assist community residents to become empowered with the knowledge and strategies to respond to actual and potential threats to their health and well being from environmental toxin exposure.

### **Objectives**

Upon completion of this module, the learner will be able to:

1. Define concepts and terms and relate examples of environmental equity and justice.
2. Describe historical trends and events that were antecedent to the environmental justice movement.
3. Identify federal, regional, state, and local resources and initiatives dedicated to addressing issues of environmental justice.
4. Discuss the role potential of the nurse as an advocate in addressing environmental exposure issues.

## Vocabulary

Agency for Toxic Substances and Disease Registry (ATSDR)  
 Environmental equity  
 Environmental justice  
 Environmental Protection Agency (EPA)  
 Environmental racism  
 Exposure–related attributes  
 Susceptibility–related attributes

## Course Content

### 1.1 Differentiate among the concepts of environmental equity, environmental justice, and environmental racism

Environmental equity (EE) and environmental justice (EJ) have similar meanings, but the former refers to the distribution of environmental risks across population groups, while the latter involves the application of fair strategies and processes in the resolution of inequality. More specifically, environmental

justice means the fair treatment and meaningful involvement of all people, regardless of race, ethnicity, culture, income or educational level, with respect to the development, implementation and enforcement of environmental laws, regulations, and policies (CDC, Office of the Associate Director for Minority Health, 1995). The goal of the Environmental Protection Agency (EPA) is that all communities are equally protected from environmental contamination, especially low income and minority communities where political influence and resources may be limited for preventing the creation of hazardous situations. The EJ movement is a response to the reality that historically low income and minority populations suffered disproportionately from the adverse effects of pollution and other environmental risks (Report to the President on Executive Order 12898, 1995).

Another term, environmental racism (ER), has been used to denote the unequal exposure to toxic substances in minority communities and whether this resulted from deliberate discriminatory actions. It also means, according to Rev. Benjamin E. Chavis, Ex-Chairman of the NAACP, “racial discrimination in environmental policy making and enforcement of regulation and laws” (Bullard, 1994).

Environmental Justice facilitates the “fair treatment and meaningful involvement of all people regardless of race, ethnicity, culture, income, or educational level, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (Gaylord, 1993).

## **1.2 Relate examples of environmental inequity and environmental injustice**

Despite EPA's position stressing that environmental protection should be applied fairly, examples of environmental inequity and injustice reflect that poor and minority communities have higher exposure rates and higher incidences of disease and poor health related to environmental contamination than the population as a whole (Nelson-Knuckles et al., 1997). For instance:

- # low income African American children have higher levels of lead in their blood;
- # low income and minority groups are more likely to live near landfills, incinerators, and hazardous waste treatment facilities;
- # sewage systems serving many inner cities are inadequate to handle storm run off, resulting in raw sewage in local streams creating a health hazard;
- # in Louisiana's "Cancer Alley," there are 10 major industrial facilities, a power plant, and 25 hazardous waste sites within 10 miles of a fresh water lake which nourishes the area;
- # between 1990 and 1992, the age-adjusted mortality rates for all causes and races in the MDR were about 10 to 15 percent higher compared to non-Delta counties in Delta states and the other 43 states in the nation (Nelson-Knuckles et al., 1997).

Heitgerd et al. (1995) and the U.S. General Accounting Office (GAO, 1995) provide

additional evidence nationwide that minority populations are more likely to live near hazardous waste sites than non-minority groups within the same county.

These statistics document a population of people disproportionately impacted by environmental hazards. Federal, state, local, and grassroots actions are needed to correct these apparent inequities.

### **Learning Activity**

Read the article by Gaylord (1993). "Environmental equity and empowerment," found in Appendix A.

Take a walking or driving tour through a poor and a high income community to identify obvious instances of environmental pollution. Compare and contrast your findings, determining if there are examples of inequities.

Elders or long term residents in communities are excellent sources of oral histories. Identify a source of pollution in a community and explore its origin and course from a historical perspective through discussions with a long term community resident. Try to determine if environmental justice issues were involved. Be prepared to share your findings with other students from different communities.

## **1.3 Discuss factors that contribute to increased environmental susceptibility and equity issues among low income and minority populations**

One might question why low income and ethnic

minorities are more susceptible to exposure from environmental pollutants and the adverse health sequence associated with exposure than other segments of the population.

Environmental racism occurs when toxic hazards are located among non-whites even though whites are responsible for producing them (Westra and Wenz, 1995). The 1987 study of the environment by the United Church of Christ revealed that “the proportion of minority members in communities with commercial hazardous waste facilities is double that of communities without such facilities.” More recent data continue to show a significantly higher percentage of minority populations living near NPL sites in comparison to other sites (Center for Policy Alternatives, 1994), and that “people of color today are even more likely than whites to live in communities with commercial hazardous waste facilities than they were a decade ago”(Heitgerd, 1995).

EPA (Environmental Equity, 1992, vol.2, pp. 4) explains this phenomenon, in part, through exposure and susceptibility related attributes. Exposure related attributes are those attributes pertaining to proximity to sources of exposure, occupation, and diet. A person’s activity pattern is an important determinant of environmental exposure. The proximity of one’s residence to a waste site; how much contaminated food is consumed, e.g., fish from polluted water or food from contaminated soil; the amount of lead exposure in housing and work settings; the extent to which pesticide exposure occurs in farming; and the extent to which exhaust fumes are inhaled in unventilated versus ventilated environments, are all exposure

related attributes. These circumstances are more related to situations of poverty than non-poverty (EPA, 1992, vol.2, pp. 9-12).

Susceptibility related attributes (EPA, 1992, pp. 4) are those attributes pertaining to genetic predisposition, age, gender, class and ethnicity. Although poverty and life style explain much of the difference in exposure and health impact among population groups, there remains a substantial amount of difference, which, until recently, was thought to be explained by race and ethnicity. Kreiger et al. (1993) document that regardless of socioeconomic position, birth outcomes for black women are worse than birth outcomes for white women at every economic level. This was true even among the most highly educated black women, a discovery indicating the need for further study with sensitive frameworks and methodologies.

Blacks and Hispanics are generally poorer, are less educated, have higher rates of unemployment, less likely to be covered by health insurance, and less likely to own their own homes than whites (EPA, 1992). Although there have been some gains in level of education, and an increasingly large middle class population among minority groups in recent years, 32% of African Americans and 27% of Hispanics are below the poverty level (U.S. Department of Commerce, 1990).

Data from Nelson-Knuckles et al., (1997) show that in the MDR, mortality rates for all causes and races are 10 to 15 percent higher than in non-Delta counties in Delta states and non-Delta states.

## Learning Activity

Continue to explore the community identified in the learning activity for sub-objective 1.2 and determine if there is evidence of illnesses related to environmental pollution. By talking with community residents and/or by observation, determine if there is an unusual number of residents with a health problem related to environmental exposure. Determine what exposure related attributes and susceptibility to related attributes they have in common. How close do they live to a source of pollution? How much time do they spend in close proximity to a source of pollution? What life styles are practiced which might increase exposure (diet, food sources, food preparation)? What health care practices are typical?

### 2.1 Explain some of the early evidence of environmental exposure to disease causing environmental toxins in low income and minority populations

During the late 1960s and early 1970s, evidence emerged about the relationship between environmental contamination, the growth in manufacturing, and the incidence of chronic illness. In the southern states, textiles, coal, tobacco, rubber, and industrial chemicals were among the chief manufactured products that placed workers and residents at risk. While these industries raised the standard of living for many poor and under served residents, they exposed them to high levels of chemical waste in unregulated industrial plants and mines. Health conditions such as cancer and black

lung disease were on the rise and related to evidence of uncontrolled environmental pollution. There was evidence of the relationship between black lung disease and coal mining as early as 1949, but generally denied by industrialists, the medical community, and insurance companies (Hughes, 1978). Other pollutants known to place workers at risk included kepone in the waters of Virginia, cotton dust in the air of cotton gins and textile factories in North Carolina, and chemical run-off from photographic plants in Tennessee (Hughes, 1978). Not only were workers exposed but the general population was placed at risk by exhaust of the particular aforementioned pollutants into the environment. Some of the laxity in manufacturing standards was related to lack of knowledge and research. Other evidence demonstrates that manufacturers deliberately failed to act on known information about the relationship of contaminants and disease causation (Hughes, 1978). Growing evidence in the dangers of the work place resulted in Congress passing the Occupational Safety and Health Act of 1970 and established the Occupational Safety and Health Agency (OSHA) to enforce its provisions for national occupational safety and health standards.

Classic descriptions of poverty, environmental exposure and inadequate access to health care are chronicled in a 1978 edition of Southern Exposure: Sick for Justice. Poor and under-served people in the South were especially vulnerable to the lack of standards for the control of environmental pollutants (pp. 3, 72, 84) Pesticides used in agriculture resulted in the deposit of harmful chemicals in the soil and

ground water. For years to come, these chemicals would affect the health of those who tilled the soil, ate foods grown in the soil and consumed fish from the streams nourished by contaminated ground water and surface run-off (EPA, 1992, pp. 10-14). Poor health and inadequate access to health care related to insufficient health care professionals in communities, were special problems for a poor and segregated society. Thus, the growing response to environmental injustices and the need for community based health care clinics for minority populations emerged simultaneously and as part of the civil rights movement. Consequently, these two related issues became special concerns of black churches in the south, the same body out of which the civil rights movement developed (Hughes, 1978, pp. 72-74, 83, 85-87).

### **Learning Activity**

Review old newspaper articles available in the public library to determine if there is an industry in your community that has a history of emitting pollutants into the environment. Another approach might be to search the Internet by zip codes to determine if there is a Superfund site in your community. (See Module I, Appendix B.) Investigate if there were environmental justice issues involved and what they were. Discuss with community leaders the extent to which the community was involved in establishing the industry. What was the nature of the decision making process in siting the plant? Were there community reactions to the proposed siting? What occurred?

What evidence is there in your community that

there were or there are currently organized activities against sitings of hazardous waste facilities or against existing sources of contamination?

Explore the current usage of pesticides within your community. How are pesticides currently being used in the home, school and workplace environment. What mechanisms are in place for the safe use and storage of these pesticides? Describe nursing prevention activities for your community involving the use of pesticides.

Identify commercial products, such as insecticides used in your home. Read the labels to determine the active ingredients and research their risks. What are the potential dangers to family members because of the use of these commercial products?

For farmers it is said that home is the worksite. Discuss what this statement means and the potential for health risks related to occupational exposures to pesticides for the farmer. How might the family be at risk to pesticide exposures?

++For students interested in in-depth analysis, make arrangements to review articles of incorporation of the industry at the local courthouse. Look for evidence of requirements to protect the public from environmentally harmful releases from the industry and/or requirements to provide a safe work environment. Are there provisions made for the public living near the industry? What are they?

Research the health outcomes of the affected

community by systematically reviewing death statistics for a minimum period of five years before and after the siting of the plant.

## **2.2. Trace the evolution of the environmental justice movement**

Early federal efforts to clean up the environment date back to the 1970s, including the creation of the Environmental Protection Agency in 1970. Through EPA efforts, many forms of air pollution were reduced, surface water systems improved and progress made in the management of hazardous wastes. Despite the efforts to reduce environmental and health threats, inequities persisted. A *National Law Journal* investigation (Lavelle, 1992) found that EPA was slower to clean up waste sites in minority communities and that it took longer for minority communities to be placed on the NPL than white communities. Moreover, minority and poor communities were more likely to receive less protection against pollution, as evidenced by slow placement on the NPL, than were affluent communities (Hinds, 1993). Federal policies allowed, in a disproportionate number of cases, for hazardous waste to be buried in rural settings, in areas with low population density, and in low income communities. There was increasing evidence that sites were chosen based on racially influenced motivations. In 1971, the Council on Environmental Quality (CEQ) found that the quality of the environment was inversely related to race and income. (EPA, June, 1992). To specifically respond to such instances of inequity, the EPA established the Office of

Environmental Justice in 1992.

One of the earliest examples (1967) of an organized response to environmental injustice came in the form of a protest by African American students against a garbage dump in Houston, Texas. During the 1980s, hundreds of grassroots and community action groups brought attention to the environmental problems facing disadvantaged communities. Some landmark examples include the following:

- (a) 1967 - A riot by college students at predominately black Texas Southern University in Houston, following the drowning of an 8-year old girl at a garbage dump (Bullard, 1994, p.3).
- (b) 1968 - Martin Luther King campaigned for better working conditions for garbage workers in Memphis (Bullard, 1994, p.4).
- (c) 1980 - Congress established the Superfund Program, administered by EPA, to provide resources, primarily acquired from taxes on chemical and petroleum companies, to clean up hazardous waste sites.
- (d) 1982 - Numerous demonstrations by civil and states-rights activists occurred against the siting of a PCB landfill in Warren County, N.C. Over 500 protesters were jailed (EPA, 1995a).
- (e) 1983 - A General Accounting Office study found that three out of the four largest operating hazardous waste sites were located in the southern U.S. in African American communities (EPA, 1992).
- (f) 1985 - The first African American

environmental organization was founded, the Center for Environment, Commerce, and Energy.

- (g) 1985 - The National Council of Churches' Eco-Justice working group began addressing environmental issues.
- (h) 1987 - The United Church of Christ's Commission on Racial Justice released a nationwide study, Toxic Waste and Race in the United States, on the demographics of people living near hazardous waste sites. The study found that communities with waste facilities had sufficiently larger racial minority populations (EPA, 1995a).
- (i) 1990 - The Agency for Toxic Substances and Disease Registry (ATSDR), sponsored a Minority Health Conference on Environmental Contamination.
- (j) 1992 - The EPA created the Office of Environmental Justice. See Appendix B for "EPA's Role in Environmental Justice," 1994.
- (k) 1992 - Jesus People Against Pollution (JPAP) was founded to lobby actively for lifetime health benefits for communities suffering from environmental exposure.

There is evidence of continuing fear and concern by residents living near the landmark Warren County, N.C., site which ignited national focus on environmental injustices. This is documented in the October, 1997 issue of Closing the Gap, a newsletter from the Office of Minority Health (see Appendix C).

## Learning Activity

Review and discuss the time line for the environmental justice movement found in Appendix D. Relate events to federal initiatives.

++Engage in a group research project to determine the relationship between actual or potential sitings of hazardous waste facilities in your community or region which occurred during the last 30–40 years and current environmental health problems.

### 3.1 Describe several recent federal initiatives which direct federal policies and practices to rectify situations of environmental injustice

In 1993, several pieces of legislation were introduced in Congress to promote environmental justice. These included the Environmental Justice Act of 1993; The Environmental Equal Rights Act of 1993; The Environmental Health Equity Information Act of 1993; and the Waste Export and Import Prohibition Act (1993). Pressure to address the issue of unequal environmental protection resulted in enactment of an Executive Order signed on February 11, 1994 by President Bill Clinton. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations." The order causes federal agencies to make the achievement of environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental health effects of their programs, policies, and activities on minority

populations and low income populations, and allowing all portions of those populations a meaningful opportunity to participate in the development of, compliance with, and enforcement of federal laws, regulations and policies, affecting human health and the environment regardless of race, color, national origin, or income. (See Appendix E for Report to the President on Executive Order 12898.)

The development of federal strategies to implement the Executive Order was mandated for each federal agency. These strategies emphasized the processes which would be implemented by the federal government to ensure reduction in the incidence of environmental inequity.

These environmental strategies specifically focused on:

- (a) Community outreach and partnerships to encourage public participation models, including environmental education by partnering academic institutions, including historically Black Colleges and Universities (HBCUs), Tribal Colleges and Hispanic institutions.
- (b) Technical assistance focusing on improving assistance to low income and minority communities.
- (c) Training personnel in regions and states to design programs sensitive to the needs of communities that reflect the input of grassroots and other groups.
- (d) Management accountability to improve mechanisms that provide monitoring and feedback to communities on

environmental initiatives.

- (e) Public participation in facility siting and permitting to ensure greater community control and protection of facilities placed in their regions and neighborhoods (EPA, 1995b, p.6-9).

Westra and Wenz (1995) relate five principles, lessons from the civil rights movement, as critical provisions of laws to protect against environmental injustice. The five principles constitute a template demonstrating the existence of unjust and unfair conditions and defining them as illegal. The authors contend that these principles should be applied under law, before operating permits are granted for landfills, incinerators, smelters, refineries, and chemical plants.

These principles include:

- the right to protection,
- prevention of harm (the elimination of threats before harm occurs),
- shifting the burden of proof to intended operator (proving harm, discrimination, or effect),
- obviating proof of intent to discriminate (it is almost impossible to prove that someone intentionally discriminated, thus it is desirable to prove disproportionate impact), and
- targeting resources to redress inequities.

Westra and Wenz's (1995) principles seek to protect vulnerable communities from intentional and non-intentional harmful acts by others who imprudently, indiscriminately, and unjustly place

environmental hazards in communities.

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 or Title III of the Superfund Amendments, establishes that “citizens have a right to know about toxic chemicals stored or released by facilities in their environment” (American Public Health Association, 1997). This act resulted in the Toxic Release Inventory which is the basis of making data available to communities.

### **Learning Activity**

Contact the regional office of the EPA for your state and determine what strategies and practices are specifically carried out in your region to inform the public and protect them from inequitable sources of environmental pollution. Are there outreach strategies? How are communities organized to have input on environmental decisions? What evidence exists in your own community that EPA strategies are practiced? EPA Regional Office addresses and telephone numbers are found in Appendix B.

Determine if the Right- to-Know Act operates in your community. Identify a facility (i.e. factory, hospital, photographic plant, petrochemical plant, etc.), toxic waste site, or some other site believed to store or emit chemicals into the environment. Contact your local or state environmental protection office to determine (1) what chemicals are housed or released; (2) how are chemicals at the facility to be disposed; and (3) what are the potential threats to the environment?

### **3.2 Describe the role of the National**

### **Environmental Justice Advisory Council (NEJAC)**

The Environmental Justice Strategies (EPA, 1995b), include an expectation that community representatives be involved in the development of any proposed state or local initiatives that affect the environment. Community representatives should include members of affected communities; state, local, and tribal governments; environmental groups; and business people. To facilitate the development of strategies and oversight for these processes, NEJAC was established in 1994 to bring together community, governmental, and business constituencies to “reinvent solutions to environmental justice problems.” NEJAC, a federal advisory committee, provides independent advice, consultation, and recommendations to the administrator of EPA on environmental issues.

### **3.3 Describe the Delta Project as an example of a collaborative partnership approach to addressing EJ issues in the MDR**

In 1990, the Lower Mississippi Delta Development Commission issued a landmark report, The Delta Initiative: Realizing the Potential, produced under the leadership of then Governor Bill Clinton of Arkansas. Along with Executive Order 12898, the report gave impetus and support to environmental justice issues in the MDR.

One federal strategy, The Mississippi Delta Project (May 1995), grew out of an interagency collaboration of ATSDR, CDC,

National Institutes of Health, EPA, the Minority Health Professions Foundation, and MDR state agencies and community based organizations. The Project's goal is to demonstrate that partnerships between government, academia, private sector organizations, and community residents can

- (1) identify hazards in high-risk communities,
- (2) evaluate public impact,
- (3) increase health care in the region, and
- (4) engage HBCUs and other academic institutions to increase environmental awareness in communities at risk (Mississippi Delta Project, 1995).

See Appendix F for a Prospectus of the Mississippi Delta Project.

### **3.4 Identify specific examples of state and local legislative initiatives in the MDR to address environmental injustice**

Various agencies have enacted legislation in an attempt to recognize, assess, and remedy the unequal impact of environmental contamination. Highlights of selected legislation in Delta states follow with full descriptions in Appendix G.

- (1) *Arkansas: Act 1263 (1993)*  
An act providing environmental equity when siting high impact solid waste management facilities. It prohibits construction of solid waste facilities within 12 miles of an existing facility.
- (2) *Louisiana: Act 767 (1993).*  
This act prohibits discharging chemical

waste into publicly owned treatment facilities, thus controlling water pollution.

- (3) *Tennessee: House Joint Resolution No. 146 (1993).* A resolution concerning public health and environmental protection. It outlines a hypothetical Environmental Justice Act of 1994 to ensure that significant adverse effects associated with environmental pollution in Tennessee are distributed equitably (Hacker, 1994). See Appendix G.

### **Learning Activity**

Contact your state legislature and seek copies of any environmental justice legislation proposed or passed in your state. Share this with classmates.

++Working in groups, select a topic for further exploration of environmental legislation issues from the Environmental and Occupational Legislation Worksheet in Appendix H. Develop a poster that describes the legislation. Provide examples of how it is being implemented in your state and potential nursing roles.

#### **4.1 Define advocacy as a nursing role**

In its publication, Nursing, Health, & Environment, the Institutes of Medicine (IOM), in 1995, identified advocacy as a nursing competency. In effect, the IOM concluded that a commonly held nursing role is that of patient advocate, or one who acts on behalf and in the interest of one another who lacks the necessary

ability to seek the desired outcome on his or her own behalf. Nursing advocacy often entails bringing particular patient needs to the attention of the physician. A broader understanding of advocacy is essential as nurses become increasingly involved in prevention oriented practices.

#### **4.2 Differentiate between case advocacy and class advocacy**

Case advocacy involves actions taken on behalf of an individual patient. Class advocacy involves actions aimed at changing conditions that are detrimental to populations of people. This is also known as policy level advocacy and goes beyond the health care system to include such activities as lobbying, use of media, mediation, expert testimony, and community organization (Pope et al., 1995, pp.5-6).

#### **4.3 Describe common class advocacy techniques and strategies**

Lobbying is engaging in acts aimed at influencing and promoting legislation and/or encouraging the enforcement of laws, rules, and regulations. This may take the form of letter writing, face to face meetings with legislators or their staff, formal and informal social interaction, and other such activities.

Use of media is drawing the attention of print or visual media to instances of injustices. The media is perhaps the most powerful influence on public opinion.

Mediation is the act of arbitrating opposing

opinions of persons or groups of persons for the purpose of facilitating resolution of their differences. This may take, for instance, the form of promoting problem solving of an issue between plant management and community residents, such as releasing foul and possibly harmful exhaust fumes into the residents' neighborhood. (Consult Appendix I for references on mediating.)

Expert testimony involves instances during which the nurse gives evidence out of his or her professional knowledge and scope of responsibilities about the impact or implications of some phenomena, such as

situations of contamination on health and related matters.

Community organizing involves bringing together and organizing the efforts of broad cross sections of community residents in solving problems. See Module VI for details.

Program development involves organizing and instituting educational programs in response to identified community needs.

Coalition building involves the bringing together of citizen groups, professional groups, and other sympathetic constituencies and supporters to partner around a common interest or concern.

Other helpful advocacy skills include public speaking and evaluation research.

## Learning Activity

Review your local newspaper, television news reports, and other communication networks in your community to determine examples of class advocacy. Some student initiated examples may be readily apparent on your campus.

### **4.4 Characterize approaches to class advocacy and related strategies available to nurses to influence environmental equity and abate situations of injustice**

Ward (1995) described three major approaches to social change: collaboration, campaign, and contest. A collaborative approach places the nurse in planning and advisory committee roles where citizens and authorities work cooperatively toward agreed upon goals. A campaign approach engages the nurse in lobbying or providing public information efforts in support of a position which is in the interest of affected residents and communities that does not agree with opposition on the matter or issues to be remedied. The contest approach involves actions such as picketing and is designed to force action on a community problem.

### **4.5 Identify steps and actions that a nurse or group of nurses might take to address a specific community-based environmental health problem**

The principles of class advocacy, partnering, and community empowerment, when applied to

the familiar steps of the nursing process, provide the nurse with a framework for intervening in community-based environmental health problems. Class advocacy strategies may be used as nursing interventions in responding to identified needs. A case study is found in Appendix J which can be used as an exercise. Assessing the problem or concern, analyzing the data, diagnosing the issue, planning for intervention with objectives and specific strategies, implementing the strategies, and evaluating the outcomes are all parts of the logical systematic process through which nurses can address environmental issues for and with communities.

Improving the environment so that residents of at-risk communities may enjoy a higher quality of health and well being must be an important and essential goal of all health professionals. Nursing is in a position to provide leadership and expertise for accomplishing this goal. Therefore, there is a need for nurses to expand their understanding and competency in environmental health and to acquire effective skills for working with communities. For additional information about how to assess and work with communities, refer to Module IV; Assessing Individual, Family, and Community Response to Toxic Substances and Module VI; Community Perspectives as related to Community Organization, Empowerment, Partnering and Education.

## Learning Activity

Using the case study, “Lewistown: Posted No Dumping,” found in Appendix J, determine the actions a nurse or group of nurses might take in

bringing attention and correction to an environmental health problem.

#### **4.6 Analyze the ethical dilemmas and risks nurses may encounter in exercising class advocacy strategies**

Nurses may find ethical dilemmas when practicing class advocacy versus case advocacy because it means taking sides on an issue, experiencing potential conflict with the establishment, becoming political or partisan, demonstrating conflicting loyalties, and possibly engaging in acts of civil disobedience. It means influencing social institutions as opposed to securing a service for an individual. It sometimes may mean taking a position contrary to the practices and profit potential of an employer.

#### **Learning Activity**

Interview a nurse in your community who is known to be active in social and/or environmental issues. Determine the ethical dilemmas she faces, if any, because of her actions.

Debate the issue of class advocacy. Divide students into two teams of four each. Engage in a debate about whether nurses should engage in class advocacy activities; to what extent; with what audiences; and for what causes? One side should take a strong pro-advocacy position and the other side should take a traditional position limited to case advocacy situations.

#### **Teaching Methods**

A variety of methods might be used to achieve the individual objectives. Lecture, discussion, readings, or combinations of these are appropriate approaches for conveying the content. Most objectives list learning activities to demonstrate application of the content contained in the module. Using these will make the learning experience productive, especially meaningful, and relevant to the local setting. There are several learning activities coded with “++”. These are more difficult activities and most appropriate for seniors students in baccalaureate programs or those interested in extensive research projects.

#### **Evaluation**

Evaluation of students’ learning of module materials is dependent on the manner in which the module or module sections are used in the curriculum. Standards for satisfactory attainment of the learning activities should be set by the instructor. Some evaluation activities might include examinations and quizzes, papers, nursing care plans, debates, and other indicators that reflect knowledge and understanding.

#### **References**

American Public Health Association (1997). Community-based environmental health: Assembling the evidence and coordinating the plan. CE Institute No. 1, Nov. 8, 1997, p. 81.

Bullard, R.D. (Ed.) (1994). Unequal protection: environmental justice and communities of color.

San Francisco: Sierra Club Books.

Centers for Disease Control and Prevention, Office of the Associate Director for Minority Health (1995). Minority health is the health of the nation. Atlanta, GA: CDC.

DOC (1990). Bureau of census. Statistical abstract of the United States 1990. 11<sup>th</sup> edition. Washington, D.C.: U.S. Department of Commerce (DOC).

Environmental Protection Agency (EPA) (1992). Environmental equity: reducing risk for all communities. Vol 1 and 2. Washington, DC: Office of Solid waste and Emergency Response.

EPA. (1994). Serving a diverse society: EPA's role in environmental justice. (EPA Publication No.200-F-93-001). Washington, DC: U.S. Environmental Protection Agency.

EPA. (1995a). Environmental justice 1994 annual report: Focusing on environmental protection for all people. (EPA Publication No. 200-R-95-003). Washington, DC: U.S. Environmental Protection Agency.

EPA. (1995b). Environmental justice fact sheet: environmental justice at EPA. (EPA Publication No. 200-F-95-012). Washington, D.C.: U.S. Environmental Protection Agency.

GAO. (1995). Demographics of people living near waste facilities. General Accounting Office, Washington, D.C.

Gaylord, C.E. (1993). Environmental equity

and empowerment.. In Patriots Magazine, Black History 1993 Commemorative Edition: Silver Spring, MD.

Goldman, B.A. & Fitton, L. (1994). Toxic Wastes and Race Revisited. Center for Policy Alternatives, Washington, D.C.

Hacker, B. (1994). Environmental justice: Legislation in the states. Washington, D.C.: Center for Policy Alternatives.

Heitgerd, J., Burg, J. & Strickland, H. (1995). A geographic information systems approach to estimating and assessing National Priorities List site demographics: racial and Hispanic origin composition, International Journal of Occupational Medicine and Toxicology, 95 (4), 343-63.

Hird, J.A. (1993). Environmental policy and equity: The case of superfund. Journal of Policy Analysis Management 12(2):323-343.

Hughes, C. (1978). Southern Exposure: Sick for Justice. Institute for Southern Studies. Durham, NC. Vol. 6. (2), 22-39, 59-65, 73-6, 95-102.

Krieger, N., Rowley, D., Herman, A., Phillips, A. & Phillips, M.T.(1993). Racism, sexism, and social class: Implications for studies of health, disease, and well-being, American Journal of Preventive Medicine, 93. (9) Supplement 6, 82-122.

Lancaster, Mix, Welch (1996). Mediation, Homepage [on-line] Available: <http://www.ndrg.com>

Lavelle, M. (1992). The minority equation. National Law Journal, 21:S2.

Levine, R., Epelbaum, M., Nelson-Knuckles, B., Meltzer, A., Pellet, H. & Knuckles, M.E. (1997a). Preliminary mortality and morbidity profile of the Mississippi Delta Region. Unpublished manuscript, Nashville, TN: Meharry Medical College, Division of Preventive Medicine.

Levine, R., Epelbaum, M., Nelson-Knuckles, B., Meltzer, A., Pellet, H. & Knuckles, M.E. (1997b). A sociodemographic and health profile of the Mississippi Delta Region. Unpublished manuscript, Nashville, TN: Meharry Medical College Division of Preventive Medicine.

Lower Mississippi Delta Commission Final Report (1990). The Delta initiatives: Realizing the dream ... Fulfilling the potential. Final report of the LMDC. Joint hearing before the Sub-Committee on Economic Development of the Commission on Public Works and Transportation and the Subcommittee on Economic Stabilization of the Committee on Banking, Finance and Urban Affairs. House of Representatives, 101 Congress, Second Session, May 16, 1990.

Meadows, M. (1997). Environmental Injustice? Landfill prompts concern in North Carolina. In Closing the Gap, October 1997. Atlanta, GA: U.S. Department of Health and Human Services.

Mississippi Delta Project: Health and environment prospectus. (1995). Atlanta, GA.:

U.S. Department of Health and Human Services.

Nelson-Knuckles, B., Epelbaum, M., Knuckles, M. E. & Hubbard, M., M.S. (1997). Mississippi delta project: Health and environment. Unpublished manuscript,

Nashville, TN. Meharry Medical College, Division of Environmental Health.

Pope, A.M., Synder, M. A. & Mood, L.H. (Eds.) (1995). Nursing, health, and environment: Strengthening the relationship to improve the public's health. Washington, DC.: National Academy Press.

Principles of environmental justice. (1991). First National People of Color Environmental Leadership Summit. Washington, DC.

Report to the President on Executive Order 12898. (1995). Federal actions to address environmental justice in minority populations and low income populations. Washington, DC.

United Church of Christ Commission for Racial Justice (1987). Toxic wastes and race in the United States: A national study of the racial and socio-economic characteristics of communities with hazards waste sites. New York: United Church of Christ (From American Journal of Public Health, 87 (5), 731.

Ward, R.W. (Ed.) (1995). Environmental justice in Louisiana: An overview of the Louisiana department of environmental quality's environmental justice program. Baton Rouge, LA: The Louisiana Department of

Environmental Quality.

Westra, L. & Wenz, P. (1995). Faces of environmental racism: confronting issues of global justice. Lanham, MD: Rowman and Littlefield Publishers, Inc.

### **Additional Readings**

Anderton, D., Anderson, A., Oakes, J. & Fraser, M. (1994). Environmental equity: the demographics of dumping, Demography (94) 31:229-48.

Been, V. (1994). Locally undesirable land uses in minority neighborhoods: Disproportionate siting or market dynamics?, Yale Law Journal (94) 103: 1383-423.

Bullard, R.D. (1990). Dumping in dixie: race, class, and environmental quality. Boulder, CO: Westview Press, 139.

Congressional Research Service (1991). Summaries of environmental laws administered by the environmental protection agency. Washington, DC: The Library of Congress.

Johnson, B.L., William, R., Harris, C. (Eds.) (1992). National minority health conference: focus on environmental contamination. Princeton, NJ: Princeton Scientific Publishing.



**Appendix A: Environmental Equity and Empowerment, an article by Dr. Clarice E. Gaylord**

This document can be found at the [Environmental Justice](#) page of EnviroSense at the Environmental Protection Agency website.



**Appendix B:       Serving a Diverse Society: EPA’s Role in Environmental Justice**

This document can be found at the [National Environmental Publications Information](#) page at the Environmental Protection Agency website.



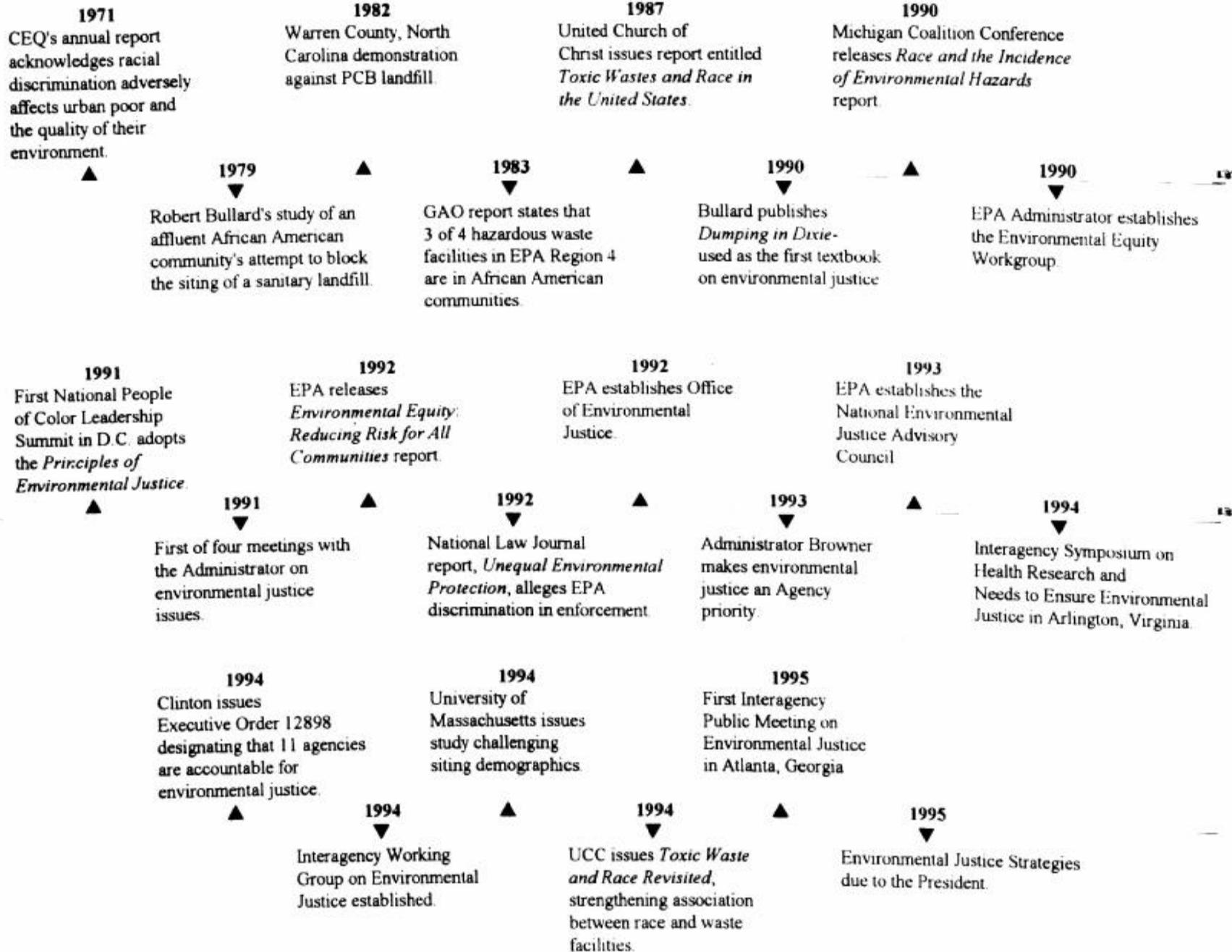
**Appendix C: Environmental Injustice? Landfill Prompts Concern in North Carolina**

This document can be found at the [Closing the Gap](#) page at the Office of Minority Health website.



**Appendix D: Major Events of the Environmental Justice Movement**

## MAJOR EVENTS OF THE ENVIRONMENTAL JUSTICE MOVEMENT





**Appendix E: Executive Order 12898**

This document can be found at the [National Environmental Publications Information](#) page at the Environmental Protection Agency website.



**Appendix F: Mississippi Delta Project: Health and Environment  
Prospectus**

This document can be found at the [ATSDR Mississippi Delta Project](#) page on the Agency for Toxic Substances and Disease Registry website.



**Appendix G: Environmental Justice: Legislation in the States**

This document can be found at the [Environmental Justice](#) section of EnviroSense at the Environmental Protection Agency website.



**Appendix H: Environmental and Occupational Legislation Worksheet**

<b>Laws and Regulations</b>	<b>Description of Laws and Regulations</b>	<b>Nursing roles for involvement</b>
Clean Air, and Water		
Environmental Justice Acts		
Disposal of Waste		
Right to Know Community and Worker		
Occupational Disease Reporting		
Other		



## **Appendix I: Notes on Mediation**

This document can be found on the [Mediation](#) section of the Alternative Dispute Resolution Home Page.



## **Appendix J: Case Study Lewistown: Posted No Dumping**

Lewistown, the county seat of Carol County (in a MDR state), is a poor rural community of fewer than 8,000 residents, most of whom are African American and low income whites. The vestiges of a slave mentality characterize the county, where illiteracy rates are appallingly high and participation in the political process minimal. Most young people who have the opportunity to leave Lewistown, do so, and do not return to contribute to the uplift of the county.

In 1972, a local company, Henri Chemical, situated in the heart of the black community, was sold to Oldmond Brothers Chemical, a company with plants and ties throughout the south and known to have several federal contracts. The Lewistown facility began operating with the approval of town officials, although no official permit was issued for nearly 22 months. Residents around the plant had no idea what was being manufactured. However, they were becoming increasingly concerned as they observed high rates of skin diseases, respiratory problems, cancer, and miscarriages. They were also dismayed by failure of grass and crops to grow and were puzzled as to why the ground would spontaneously ignite and burn. Late in 1974, there was a major fish kill and hundreds of heads of cattle died. During 1975, there was a massive explosion at the plant that spread fumes and particles throughout the county. Following this series of catastrophes, the plant was abandoned in 1976. Between 1976 and 1980, the area was flooded three times, further spreading the pollutants throughout the community. The local swimming pool was closed by the city and cemented over when children began having headaches and skin rashes, although there was never an official reason given. The EPA and Oldmond Brothers took Henri Chemical to court. The court ordered the firm to cleanup the apparent contamination. Henri Chemical hired local contractors to dispose of the toxic chemicals; however, they failed to warn the community of the potential dangers of the chemicals and the impact of removing them.

When chemicals were noted oozing from the ground, the extensive problems of Carol County were again brought to the attention of the Environmental Protection Agency. Lewistown was declared a National Priorities or Superfund Site in 1984, making it eligible for massive clean up. The EPA found scores of toxic substances improperly stored and/or evident at the site. Oldmond Brothers, filed a claim against Henri and the EPA resulting in a ruling to clean up the waste. Lewistown, later brought in local workers, who were ill trained to excavate and clean up the area around the plant. Interestingly, residents of the affected community were not employed to aid in the clean up, nor were they involved in any way in the planning for the removal of the dangerous substances. The highly volatile substances were placed in containers and dumped on leased land throughout Carol County, neighboring counties, and states. These sites are readily recognizable, say community residents, by the “NO Dumping” signs.

Residents of the affected communities perceived that the chemicals were improperly handled, and that a much broader area was exposed to the dangerous toxins during clean up than prior to it. Community residents worried that there was little control or official supervision of the

cleanup, and that some local officials possibly were knowingly aware of breeches in standard “clean-up” procedures.

Concern for the community and the health of its residents led a young woman activist to found Christians Against Pollution (CAP), a grass roots group with the mission of advocating for proper site cleanup and health care and relocation for residents as may be deemed necessary. Despite being severely maligned and threatened, CAP struggles to gain national attention for the plight of Carol County, lobby local and state officials, and appeal to religious and civic groups for assistance. Although some 10 years have passed since Carol County was placed on the National Priorities List (NPL), remedies for the poor and disadvantaged residents of Lewistown have not occurred.

#### Study Questions and Exercises:

1. Dating back to the take over of Henri Chemicals by Oldmond Brothers, cite violations of environmental justice principles.
2. What were the responsibilities of local and state officials?
3. What actions could the community have taken early in the process? What barriers interfered with the community having greater influence?
4. How can CAP and other community groups be assisted in making their plight more widely understood? How can their lobbying and self help strategies be strengthened?
5. What does it specifically mean for the community to be on the NPL?
6. What possible coalitions could be formed to increase federal and state responsiveness to the community in ways consistent with the provisions of being designated on the NPL?
7. Develop a nursing action plan in which the role of nurse as advocate, facilitator, and collaborator are highlighted.