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Comment: Environmental Racism and Public Health

Equity and justice have emerged as central issues in environmental health policy in this decade,¹ although the debate is far from new. This change in agenda has been prompted, in part, by hundreds of grassroots organizations and community action groups that have focused attention on the environmental problems facing disadvantaged communities.

The environmental movement of the 1960s and 1970s was dominated by the White middle class.² It succeeded in building an impressive political base for environmental reform and regulatory relief. However, it failed to address charges that poor and minority communities are dumping grounds for environmental hazards.

The environmental justice movement of the 1980s and 1990s initially focused on claims that race and poverty are involved in the siting of undesirable facilities.³ Today, the charge has broadened to include all issues of environmental degradation. Communities are demanding stronger participation in decisions that affect their health and homes.

In February 1994, President Clinton signed Executive Order 12 898, which requires all federal agencies to develop comprehensive strategies for achieving environmental justice. As a result, increased agency staff and more research funds have been allocated to address local environmental concerns. The US Environmental Protection Agency (EPA) created the Office of Environmental Equity to coordinate agency activities and provide technical assistance. Dr Kenneth Olden, the director of the National Institute of Environmental Health Sciences, has made his agency more responsive to the needs of environmentally degraded communities.

"Environmental racism" is a charge leveled by many communities of color, as they draw the lines in defense of their embattled environments. Sexton et al.⁴ prefer the terms "environmental equity" or "environmental justice" to "environ-

mental racism." These concepts extend concern to "the underlying principle that fairness and equity are inherent in society's efforts to protect the health of all citizens from the adverse effects of environmental agents."^{4(p686)} Greenberg⁵ further distinguishes between two forms of equity. Outcome equity requires balanced spatial and temporal distribution of benefits and burdens. Process equity requires application of equitable environmental, health, physical, legal, economic, and political criteria to arrive at environmental policy.

These distinctions, while useful, are inadequate to protect the public's health, especially for the most vulnerable among us. They also fail to recognize that racism pervades US society and that environmental protection is not immune.

In this issue of the *Journal*, Mapel et al.⁶ document "environmental (in)justice" against Native American miners in at least three ways. First, the authors demonstrate a disparate burden of nonmalignant respiratory disease among them. Second, Mapel et al. observe ethnic differences in the spirometric criteria used to predict lung function, differences not being taken into account in the current standards. And third, they find prevailing compensation procedures for mining-related disease to be biased against Native Americans.

Here, it seems clear, deliberate discrimination on the basis of race has contributed to an undue burden of respiratory disease among Native American uranium miners. "Dog holes," as the earliest mines were known, were infamous for their lack of ventilation and poor working conditions. Local men were recruited to work in the mines, which were often located on Native American reservations.⁷

Environmental racism has parallels in other public health spheres and needs to be confronted. Prominent public health professionals have recently been maligned by Dr. Satel for proposing social

solutions to public health problems. In particular, the fire has been directed against initiatives to advance the health of minorities and other disadvantaged groups.^{8,9} These attacks, either disingenuous or ill informed, fail to recognize the historic understanding that societies shape patterns of disease.¹⁰⁻¹²

To discount racism as a potential contributor to disparities in health by race and ethnicity is to ignore well-established social history, not to mention the experience of many afflicted persons. Denial serves to perpetuate inequity. It also forecloses studies of racism focusing specifically on ill health and premature mortality.

Sorting out the health effects of racism is no simple task. The relationships between race, ethnicity, social class, segregation, discrimination, and patterns of disease are complex.¹³⁻¹⁵ The research problems are thorny and difficult to assess, especially in data collected for other purposes. These difficulties have not and should not keep rigorous, compassionate, and creative public health researchers from trying.¹⁶⁻²⁰ Indeed, the gaps in rates of morbidity and mortality between African Americans and White Americans (which not only persist^{21,22} but grow wider²³) demand that we do no less. Public health has a fundamental role in preventing disease and a secure and legitimate role in helping to formulate policies and initiate programs toward that end. Engagement should be no less vigorous than on any other health initiative.

The core of the problem surely lies in the racial segregation that continues to afflict most urban and other communities in the United States. A number of reports support the commonplace observation that disadvantaged locales bear a disproportionate share of environmental hazards.^{3,24,25} A widely cited, if hotly con-

Editor's Note. See related article by Mapel et al. (p 833) in this issue.

tested, study was published by the Commission for Racial Justice of the United Church of Christ.²⁵ Zip code areas containing one hazardous waste site had, on average, 24% people of color, compared with 12% in areas without a hazardous waste site. Zip code areas containing either (1) two or more facilities or (2) one of the five largest hazardous waste landfills in the nation had, on average, 38% people of color.

The experience of West Harlem, a largely African-American and Latino community, is a cogent illustration. The Clean Water Act barred the dumping of raw sewage into the Hudson River. New York City responded by constructing the enormous North River Water Pollution Control Plant on West Harlem's waterfront. The decision was political, not scientific. Developers had managed to block construction at an earlier site in a diverse, more affluent community downstream from West Harlem.^{2,26} The West Harlem community united in outrage at the foul odors and emissions from the plant once it became operational, but it could not be shut down. Any resident of West Harlem will endorse this experience as a case of environmental racism. So do we.

Besides low-income people and racial and ethnic minorities, other groups have been victims of environmentally unjust policies and practices.^{27,28} Multiple and often greater exposures affect workers in hazardous occupations.^{6,29} At the same time, susceptibility to environmental insults is greatest among other vulnerable populations: the young,³⁰ the old, the immunocompromised, and the infirm.²⁹

Environmental health researchers need to consider all populations threatened by environmental hazards, deprived or not. Legislation to protect health and the environment must win broad-based support if it is to avoid being perceived as serving narrow interests.³¹ Nonetheless, this broader conceptual range does not remove racism from the social and economic equation. It is hard to overlook the historic contribution of redlining to the decline of major urban centers. Indeed, present-day siting and zoning decisions still place people of color under environmental siege.

Lead provides a compelling example. According to Max Weintraub of the National Safety Council, Washington DC, African-American children are four times more likely than White children to have elevated blood lead levels and seven

times more likely to require medical evaluation for lead poisoning (letter, *Am J Public Health*, in press). These differences are largely due to housing and other environmental factors. Such exposures are direct consequences of the extreme residential segregation of African-American communities in old and poor neighborhoods.³² Leaded paint in deteriorated housing and emissions from heavy traffic combine with poverty, limited access to health care, poor nutrition, and pica to raise blood lead levels in African-American children. Severe neurologic impairment and death are now rare, but subtle cognitive effects that often go unnoticed persist. Some believe that lead may even contribute to the disproportionately high numbers of African-American youth in New York City's special education classes,² an explanation that lies within the realm of possibility.

How, then, to best protect the public from environmental health risks? First, rigorous studies are required to fully address the distribution of environmental hazards by locality and their relationships with suspected health risks. Careful attention needs to be given to which populations are at risk, the hazards assessed, the geographic areas compared, and the epidemiologic and statistical methods applied in the research.⁵ Especially promising are advanced mapping capabilities available in geographic information systems. These can incorporate data on both environmental exposures and disease outcomes and can relate both kinds of data in spatial analyses.

Second, appropriate environmental interventions need to take account of the social and cultural dimensions of affected communities. Alliances at the local level are more likely to result in the effective remedy of recognized or discovered hazards as well as in continued protection.³³ Funds are necessary to carry out such studies. The EPA and the National Institute of Environmental Health Sciences, as well as state and local health departments, have begun to support community-driven research, but more sustained funding is needed.

Third, careful monitoring of specific environmental hazards and exposures as well as overall surveillance of potential health risks is required.³⁴ Goals such as the more equitable distribution of undesirable and desirable environmental features must be formulated with community participation. The extent of progress when new policies are implemented needs to be evaluated and broadly reported. Here,

occupational surveillance can serve as a useful model for environmental surveillance.³⁵

Finally, the environmental justice movement can profit from the experience of past public health campaigns that have successfully intervened in a broad way against identified hazards. As in the antismoking crusade, the key is to set about building a public health initiative in a conscious and purposeful way.³⁶

Unprecedented attacks on environmental legislation by the 104th Congress provoked a backlash by an American public unwilling to dismantle two and a half decades of progress towards environmental protection. Stronger safeguards are now being proposed: for example, the EPA recently announced stricter air-quality standards for small particulate matter and ozone.

Environmentalists have often been cast by the spokespersons for heavy industry as a threat to jobs and profits. Today, the country at large understands that environmentalism is not merely the preserve of a privileged elite protecting their open spaces. Instead, urban and rural grassroots organizations, established environmental groups, and government agencies are assembling in force to address local environmental concerns. Environmental activists provide their communities with materials and data to help them make informed choices with regard to environmental policies. As public health campaigns have often demonstrated, when people are informed, action follows.

Environmental concerns have always been inextricably tied to public health and development. Many exposures are broad in scope. The interventions to address them require public health policy and action. Already hazards exist for which community and even national action will not suffice to protect public health. International cooperation is necessary to deal with marine dumping, deforestation, burning of fossil fuels and, the thinning of the ozone layer.^{37,38} Thus, when global solutions need to be found, environmental issues enter the domain of foreign policy.

As momentum builds, all levels of the environmental justice movement must engage with public policy, work with government agencies, and advocate for legislation and regulation as needed.³⁶ In this way, progress towards "environmental justice"³⁹ might be sustained, not only

through the current administration but beyond. □

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Topics for Our Times: Affirmative Action and Women's Health

This past November, the California Civil Rights Initiative, Proposition 209, was approved by California voters. Although its proponents describe it as antidiscriminatory, the text of the measure explicitly bans outreach and remedial and recruitment efforts to help minority and female students with math, science, and entry to higher education. It also threatens to bar women from a range of occupations in ways that hark back to the era prior to passage of the Civil Rights Act of 1964.

Despite its equally threatening assaults on opportunity for both women and minorities, advocates of Proposition 209 tried to enlist women (implicitly as Whites) and to depict the opposition as minority (implicitly as males). Such dichotomies are not only politically divisive but also spurious; the categories are neither mutually exclusive nor homogeneous—a woman may also be a member of a minority group. The term "minority woman," in turn, comprises a range of

experiences. Too often, even the proponents of affirmative action restrict advocacy primarily to one group. It is necessary to understand the diversity and specificity of both gender and ethnic status to assess the implications of affirmative action for women's health.

Broadly speaking, affirmative action has two general goals—social justice and efficacy. The former assumes that because of past and present experiences of discrimination the playing field is not level for