

## 2023 ELJ Symposium Scholarship

### Trash & Environmental Justice

BURNS McDONNELL, [THE COST OF LITTER & ILLEGAL DUMPING IN PENNSYLVANIA: A STUDY OF NINE CITIES ACROSS THE COMMONWEALTH](#) (2020).

This Study serves to measure the economic impact of litter and illegal dumping on Pennsylvania's communities, an impact that is often overlooked and rarely tracked at the municipal level. It includes insight from nine cities that represent diverse geography, populations, and local engagement on the issues of litter and illegal dumping. Consequently, the findings are likely applicable to many other communities across the Commonwealth.

Max Marin, [Philly Residents Plagued by Illegal Dumping Tell City to Invest in Solutions](#), PHILA. INQUIRER (May 5, 2022).

Philadelphia spends \$48 million per year in abatement. This article highlights how issues with department financing have made enforcement of illegal dumping nearly impossible in the past. While this article states that there is no "long-term fix" to illegal dumping at the moment, Jamie Gauthier, a City Councilmember, argues that investment in trash reduction is necessary because it is also a violence prevention tool. In sum, while the Street Department monitors hundreds of well-known areas for repeated illegal dumping, more needs to be done to prevent repeat short-dumping.

Keisha McCarty, [Streets Department Announces Historic Win Against Illegal Dumping](#), CITY OF PHILA. (Nov. 1, 2022).

Illegal dumping is an ongoing challenge that impacts many cities nationwide. Illegal dumping is not only a crime, but it has a detrimental impact on communities, and it has significant costs. In Philadelphia, the Streets Department spends approximately \$1.5 million annually in cleanup costs, at the taxpayers' expense. This press release highlights that the Streets Department has made a historic move in the battle against illegal dumpers. For the first time-ever an offender was not only caught illegal dumping, but they were held accountable through civil prosecution.

*Dumping of Debris and Short Dumping*, PHILA. § 10-710.

*Penalties*, PHILA. § 10-719

[https://codelibrary.amlegal.com/codes/philadelphia/latest/philadelphia\\_pa/0-0-0-282458#JD\\_10-710](https://codelibrary.amlegal.com/codes/philadelphia/latest/philadelphia_pa/0-0-0-282458#JD_10-710)

These code sections address illegal dumping in Philadelphia and the associated penalties. This new legislation permits the city to hold dumpers responsible for clean-up costs, hold businesses and/or agents assisting or aiding in short-dumping responsible, and has increased the fines for illegal dumping to \$5,000 per offense, which is the penalty per every

single large item dumped. These code sections were amended in 2019 and went into effect on January 5, 2020.

## **Water & Environmental Justice**

David M Konisky, Christopher Reenock & Shannon Conley, [\*Environmental Injustice in Clean Water Act Enforcement: Racial and Income Disparities in Inspection Time\*](#), 16 ENVTL. RESEARCH LETTERS 084020 (2021).

Decades of research has documented that people of color and low-income experience disproportionate environmental burdens, with recent empirical studies showing these burdens are exacerbated by disparities in government regulatory enforcement. Scholars' attention to enforcement disparities as a source of environmental injustice highlights that government behavior may contribute to ongoing inequities in environmental outcomes. To date, studies analyzing enforcement disparities have employed statistical models to either estimate the probability that a federal or state agency performs an enforcement action or the total number of such actions over some duration of time. In this study, we adopt an alternative approach that analyzes the duration of time it takes for government officials to inspect a facility to determine if there is a difference based on the demographics of the host community. Specifically, we study administrative data from state implementation of the U.S. Clean Water Act (CWA), which we couple with demographic information around large, regulated facilities to analyze the relationship between response time and community characteristics. Estimating event history models, we find that state regulators' inspection response time is slower toward noncompliant facilities located in communities that have higher percentages of poor and Hispanic citizens. With respect to Black communities, state regulators' response time to noncompliant facilities is no different than compliant facilities. Collectively, these results indicate that state regulators are not prioritizing CWA facilities that violate performance requirements when they are in environmental justice communities.

PA. DEP'T OF ENVTL. PROTECTION, [ENVIRONMENTAL JUSTICE POLICY REVISION](#).

Pennsylvania DEP's draft EJ Policy includes several sections to expand and improve upon the existing Environmental Justice Public Participation Policy which has been in effect since 2004.

Laurel A. Schaider, Lucien Swetschinski, Christopher Campbell & Ruthann A. Rudel, [\*Environmental Justice and Drinking Water Quality: Are There Socioeconomic Disparities in Nitrate Levels in U.S. Drinking Water?\*](#), 18 ENVTL. HEALTH 3 (2019).

Low-income and minority communities often face disproportionately high pollutant exposures. The lead crisis in Flint, Michigan, has sparked concern about broader socioeconomic disparities in exposures to drinking water contaminants. Nitrate is commonly found in drinking water, especially in agricultural regions, and epidemiological evidence suggests elevated risk of cancer and birth defects at levels below U.S. EPA's drinking water standard (10 mg/L NO<sub>3</sub>-N). However, there have been

no nationwide assessments of socioeconomic disparities in exposures to nitrate or other contaminants in U.S. drinking water. The goals of this study are to identify determinants of nitrate concentrations in U.S. community water systems (CWSs) and to evaluate disparities related to wealth or race/ethnicity.

Press Release, U.S. Env'tl. Protection Agency, [EPA Announces \\$50 Million to Fund Environmental Justice Initiatives Under the American Rescue Plan](#) (June 25, 2021).

EPA will provide \$50 million dollars for Environmental Justice (EJ) initiatives through funds allocated to EPA under the American Rescue Plan (ARP). Congress designated this funding for grants, contracts, and other agency activities that identify and address disproportionate environmental or public health harms and risks in underserved communities through a range of local initiatives.

Amy Vanderwarker, [Water and Environmental Justice](#), in *A TWENTY-FIRST CENTURY U.S. WATER POLICY* 52 (Juliet Christian-Smith & Peter H. Gleick, eds. 2013).

The United States has remarkable water systems, developed over two centuries of technological, institutional, and economic advances. Yet the benefits of those systems have not been felt equally across regions, communities, or populations. And the adverse consequences of inadequate water quality or quantity, and the lack of responsiveness of some water institutions to community input and participation, have helped contribute to the growing environmental justice (EJ) effort to reform water policies based on respect and justice for all, free from discrimination, bias, or inequity. In communities from Detroit to New Orleans, the inner city to the tribal areas, efforts to understand and address EJ issues around water are beginning to take shape.

### **Medical Waste & Environmental Justice**

Elizabeth C. Schenk, Teddie M. Potter, Cara Cook, Katie Huffling, & William E. Rosa, [Nurses Promoting Inclusive, Safe, Resilient, and Sustainable Cities and Communities: Taking Action on COVID-19, Systemic Racism, and Climate Change](#), 121 AM. J. NURS. 66, 66-69 (Jul. 1, 2021).

This article is one in a series in which contributing authors discuss how the United Nations (UN) Sustainable Development Goals (SDGs) are linked to everyday clinical issues; national public health emergencies; and other nursing issues, such as leadership, shared governance, and advocacy. The 2030 Agenda for Sustainable Development, a 15-year plan of action to achieve the goals, was unanimously adopted by all UN member states in September 2015 and took effect on January 1, 2016. The Agenda consists of 17 SDGs addressing social, economic, and environmental determinants of health and 169 associated targets focused on five themes: people, planet, peace, prosperity, and partnership. The SDGs build on the work of the UN Millennium Development Goals, which were in effect from 2000 to 2015. The current article highlights SDG 11—making “cities and human settlements inclusive, safe, resilient and sustainable.”

Jessica Wolff & Elizabeth C. Schenk, [\*Climate-Smart and Climate-Ready Health Systems - the Time is Now\*](#), 4 J. OF CLIMATE CHANGE & HEALTH 100046 (2021).

The science is clear - in order to get to a “Greener, Healthier World by 2030 and avoid the most catastrophic impacts of climate change, we need to cut global emissions in half by 2030 and get to zero emissions by 2050. Health care is on the front line of the climate crisis, dealing with the impacts of extreme weather events and wildfires, and changes in disease prevalence. Yet at the same time, its energy use and material intensive operations have a significant environmental impact. In a 2019 report, Health Care Without Harm estimated that the global health care sector was responsible for 4.4 percent of global net emissions. If the health care sector was a country, it would rank fifth in the world for greenhouse gas emissions. The U.S. health sector makes up 27% of the global health care footprint and the health care sector in the United States is responsible for 8.5% of national emissions.

Jodi D. Sherman, Cassandra Thiel, Andrea MacNeill, Matthew J. Eckelman, Robert Dubrow, Harriet Hopf, Robert Lagasse, Joseph Bialowitz, Anthony Costello, McGain Forbes, Rachel Stancliffe, Paul Anastas, Laura Anderko, Mark Baratz, Stefi Barna, Urvashi Bhatnagar, Jason Burnham, Yizhen Cai, Andy Cassels-Brown, Alexander F.P. Cimprich, Heidi Cole, Lorea Coronado-Garcia, Brett Duane, Gabriella Grisotti, Arthy Hartwell, Varshini Kumar, Ann Kurth, Michael Leapman, Daniel S. Morris, Michael Overcash, Abhijeet G. Parvatker, David Pencheon, Adam Pollard, Bernard Robaire, Karl Rockne, Blair L. Sadler, Beth Schenk, Tushar Sethi, L. Scott Sussman, Jeff Thompson, Janet M. T. Womey, Sten H. Vermund, Daniel Vukelich, Natasha Wasim, Debbie Wilson, Steven B. Young, Julie Zimmerman, & Melissa M. Bilec, [\*The Green Print: Advancement of Environmental Sustainability in Healthcare\*](#), 161 RES., CONSERVATION AND RECYCLING 104882 (2020).

Healthcare is a major emitter of environmental pollutants that adversely affect health. Within the healthcare community, awareness of these effects is low, and recognition of the duty to address them is only beginning to gain traction. Healthcare sustainability science explores dimensions of resource consumption and environmental emissions associated with healthcare activities. This emerging field provides tools and metrics to quantify the unintended consequences of healthcare delivery and evaluate effective approaches that improve patient safety while protecting public health. This narrative review describes the scope of healthcare sustainability research, identifies knowledge gaps, introduces a framework for applications of existing research methods and tools to the healthcare context, and establishes research priorities to improve the environmental performance of healthcare services. The framework was developed through review of the current state of healthcare sustainability science and expert consensus by the Working Group for Environmental Sustainability in Clinical Care. Key recommendations include: development of a comprehensive life cycle inventory database for medical devices and drugs; application of standardized sustainability performance metrics at the clinician, hospital/health system, and national levels; revision of infection control standards driving non-evidence-based uptake of single-use disposable devices; call for increased federal research funding; and formation of a Global Commission on the Advancement of Environmental Sustainability in Healthcare. There is an urgent need for research that

informs policy and practice to address the public health crisis arising from healthcare pollution. A transformational vision is required to align research priorities to achieve a sustainable healthcare system that advances quality, safety and value.

Emma Pennea, Laura Anderko, Caroline Moore, & Ruth McDermott-Levy, *[The Nexus of Climate Change, COVID-19, and Environmental Justice on Children's Health](#)*, 12 J. OF APPLIED RSCH ON CHILD.: INFORMING POL'Y FOR CHILD. AT RISK Article 2. (2021).

Climate change poses a threat to children, who are increasingly vulnerable, depending on adults to protect them from the impacts of these changes including extreme weather events, poor air and water quality and risk to mental health. Children living in poverty carry additional burdens and risks, living in environments that consistently experience poor air and water quality from polluting industries, compounded by the effects of climate change. COVID-19 has placed additional challenges to children's health and increases the complexity of addressing climate change and environmental justice. The intersection between climate change and COVID-19 exacerbates these existing disparities by impacting children's physical and mental health that are a direct product of poverty and structural racism. This article examines the nexus of climate change, COVID-19, and environmental justice that impacts the mental and physical health of children including anxiety, stress, adverse childhood experiences, and depression; increases in violence and aggression; and the effects of air pollution. Public health professionals and health care providers must be aware of national strategies that protect children from environmental health risks and emerging infectious diseases, such as climate change and COVID-19, respectively.

Samantha Newman, What a Waste! An Evaluation of Federal and State Medical and Biohazard Waste Regulations During the Covid-19 Pandemic and Their Impact on Environmental Justice, 34 Vill. Envtl. L.J. 57 (2023). Available at: <https://digitalcommons.law.villanova.edu/elj/vol34/iss1/3>

This Comment discusses both federal and state regulations pertaining to medical and biohazard waste, examines the limitations of weak federal regulations, and analyzes the issues of disparate state discretion under the country's federalist approach. This Comment ultimately explores how disparate state standards and weak federal oversight perpetuate environmental injustices that negatively impact lower-income and minority communities.

### **Video Modules**

Through a collaboration with the University of Cincinnati and MIT, three educational modules were designed to guide community members, regulators, and industry officials through the environmental cleanup process. The modules tell the stories of three environmental cleanups and include lessons learned and strategies that can be used to navigate this difficult process.

The modules highlight the cleanup of asbestos materials in Ambler, PA. The Community Engagement Core at the CEET worked with the Ambler community throughout this cleanup. The modules include interviews with Ambler community members and EPA regulators where they discuss their experience working together and struggles throughout the process.

The videos are accompanied by interactive educational components that help the viewer gain insight into the process. It will take about 3 hours to view all three modules. The modules are available online through [this link](#). You can also access the modules through this webpage ["Lessons Learned on the Road to Environmental Cleanup"](#) that includes more information about this project.