



## **Environmental Justice CSU Justice Roundtable Series**

### **EJCSU Roundtable Brief #6: Health Justice for All**

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*This brief is based on the Environmental Justice Roundtable Series hosted by the Environmental Justice Working Group (formerly EJCSU), which is supported by CSU's School of Global Environmental Sustainability's (SoGES) as one of its Global Challenges Research Teams (GCRT). The series began on February 12, 2015. For more information about EJCSU, please visit their website at: (<http://environmentaljustice.colostate.edu/>)*

*This document is part of a series of roundtable briefs highlighting how environmental justice is conceptualized, discussed, researched, and put into practice locally, regionally, and globally. The purpose of these briefs is to highlight the variety of contexts within which environmental equity and justice (EEJ) frameworks are imperative. In particular, the goal is to emphasize the transdisciplinary nature of EEJ, highlighting common themes and differences of interpretation and application that emerge in the EJ community at Colorado State University and among additional colleagues in our network. This particular roundtable brief is focused on issues of EEJ in public health.*

## Table of Contents

<b>Title Page .....</b>	<b>1</b>
<b>Table of Contents .....</b>	<b>2</b>
<b>Event Announcement.....</b>	<b>3</b>
<b>Executive Summary.....</b>	<b>4</b>
<b>Event and Panelist Introduction .....</b>	<b>5</b>
<b>Open Discussion .....</b>	<b>11</b>



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ENVIRONMENTAL  
SUSTAINABILITY  
Colorado State University



ENVIRONMENTAL  
JUSTICE CSU

# HEALTH JUSTICE FOR ALL

*Free and open to the public*

## ROUNDTABLE DISCUSSION



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This Health Justice Roundtable is the fifth of the roundtable series hosted by Environmental Justice CSU. Future roundtables will explore equity and justice across a range of issue areas including the climate, energy, and biodiversity and ecosystems. These informal roundtables are intended to facilitate the formation of transdisciplinary teams that can produce innovative research and teaching on environmental equity and justice.

Tuesday  
**DEC 8, 2015**

3pm - 5pm

108 Johnson Hall, Montreal Room

[sustainability.colostate.edu/events/health-justice](http://sustainability.colostate.edu/events/health-justice)

Hosted by Environmental Justice CSU,  
a School of Global Environmental Sustainability  
Global Challenges Research Team



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SUSTAINABILITY

Colorado State University

## **Executive Summary**

“Health Justice for All” was the sixth event in the Roundtable Series hosted by Environmental Justice CSU (EJCSU), a working group supported by the School of Global Environmental Sustainability (SoGES). The event featured four panelists, including: Dr. Jennifer Peel (Environmental and Radiological Health Sciences), Dr. Sheryl Magzamen (Environmental and Radiological Health Sciences), Dr. Stephanie Malin (Sociology) and Dr. Colleen Duncan (Microbiology, Immunology and Pathology). Dimitris Stevis (Political Science) facilitated the roundtable.

The panelists led the roundtable discussion through topics related to public and occupational health as it intersects with environmental justice. The roundtable began with each panelist introducing their diverse backgrounds, research interests, and professional experience. Their areas of expertise included epidemiology, energy development, community-based research, and wildlife research. Jennifer Peel is an epidemiologist whose primary research focuses on outdoor air pollution and the subsequent health effects associated with different types of air pollution. Sheryl Magzamen researches the patterns and distribution of health risks among various populations, specializing in environmental exposures and chronic diseases among children. Stephanie Malin is a natural resource and environmental sociologist whose current research focuses on environmental justice, health, and quality of life outcomes in communities hosting extractive industries such as oil and gas or uranium production. Colleen Duncan is a trained epidemiologist, who continued on to study veterinary pathology and now focuses on wildlife health.

After the panelists finished their introductions, the event moved to an open discussion where all attendees were able to contribute to the conversation. Attendees included students, Colorado State University faculty, Fort Collins business owners, and community members. Each attendee drew from their personal experience and knowledge on health and environmental justice.

Broad topics of the roundtable discussion included perceptions of risk, the role of industry and economics in health policy, and equity in public and occupational health. Specific topics included contested illness, procedural justice, and the various framings of health risks and outcomes. The audience talked about both local and global scale issues, from West Nile prevention methods in Fort Collins to cleaner cooking and heating stoves in developing countries. The dialogue was multidisciplinary in nature and included subjects such as animal health, sociological/structural perspectives, human health, economics, political science, and culture.

In general, there was agreement among attendees that a broader, more holistic view of health is needed in related policy and scientific discussions. This new perspective should acknowledge larger factors that may be contributing to health risks. This can include sociodemographic characteristics, structural inequities, changing environments specifically due to climate change, and the influence of industry on policy and decision-making. Attendees also agreed that finding solutions to health injustices requires working with impacted communities in order to recognize and learn from their perceptions of risks and benefits. Finally, attendees noted that it is also important to recognize issues of scale and that responses to health risks can have both short-term and long-term impacts; both should be taken into consideration when responding to health concerns.

### **Event and Panelist Introduction**

The sixth roundtable event took place on December 8, 2015, in the Montreal Room in Johnson Hall at Colorado State University. Drs. Jennifer Peel (Environmental and Radiological Health Sciences), Sheryl Magzamen (Environmental and Radiological Health Sciences), Stephanie Malin (Sociology) and Colleen Duncan (Microbiology, Immunology and Pathology) led the roundtable with comments about the role of environmental justice in their research on human and animal health. The roundtable was attended by an additional 14 people, including Colorado State faculty, graduate and undergraduate students, and Fort Collins community members. Dimitris Stevis began the discussion by introducing the EJCSU members and asking those in attendance to introduce themselves. Dimitris went on to explain that the purpose of the roundtable discussions is for participants to have open dialogue, with the overarching goal being to discuss environmental justice in various context.

### **Jennifer Peel—Department of Environmental and Radiological Health Sciences, CSU**

Jennifer Peel opened as the first panelist, describing her areas of interest and how they relate to environmental justice. Jennifer is an epidemiologist and her primary research focuses on outdoor and household air pollution and the subsequent health effects related to various types of air pollution. More specifically, Jennifer researches the association of outdoor air pollution and hospital admissions or adverse pregnancy outcomes such as low birth weights and premature births. She also evaluates the impact of cleaner burning stoves on exposure and health outcomes in lower-income countries.

Jennifer also conducts research on biomass cook stoves, which she explained has numerous implications for environmental justice. She illustrates this using India as an example:

*“Three billion people in the world use open fires and very poorly burning, low efficiency stoves for either their cooking and heating needs...and this combustion emits extremely high levels of indoor air pollution and in many regions of the world. This type of burning also leads to outdoor air pollution and as we know, air pollution does not adhere to country borders and so this air pollution has global implications There are also implications in terms of climate change. You know, most of the processes that lead to high air pollution levels lead to high emissions of carbon dioxide as well, and so it's really linked with climate change for most of these regions... The issue here, most of these three billion people who use these types of burning are the poorest in the world.”*

Jennifer also does research related to secondhand smoke exposure, specifically in children, and health risks. Jennifer ended by presenting her current research project with Stephanie Malin on oil and gas (O&G) development throughout Colorado communities and subclinical health indicators related to quality of life and stress impacts from living in close proximity to O&G activity.

[\*\*To see more about Jennifer’s work, check out her profile on the College of Veterinary Medicine and Biomedical Sciences page here.\*\*](#)

### **Sheryl Magzamen—Department of Environmental and Radiological Health Sciences, CSU**

The second panelist, Sheryl Magzamen, began with a discussion of her first job in health policy in California in 1998. She recounted that California had just passed a statewide smoking ban in restaurants and bars, which was revolutionary at the time. As Sheryl discussed the passage of the smoking ban and recounted that it exemplified a common battle seen in her field – the battle between public health and industry.

Next, Sheryl discussed her research related to inventory health and social impacts. She is specifically interested in identifying patterns among populations that tend to suffer the most health risks and understanding the distribution of those risks. Throughout her discussion, Sheryl highlighted the role of politics in public health decisions and the detrimental and inequitable influences this can have on public health policy. Sheryl mentioned how these patterns influenced her decision to become an epidemiologist and to conduct research at the intersection of epidemiology and environmental justice. She explained:

*“What I’ve really been trying to understand is the relative contribution of social factors in environmental factors and disease. And, unfortunately epidemiology has the reputation of focusing on disease and not health, but that is actually slowly changing...If you have an urban community where everything is wrong, where there’s little access to healthcare, there’s poor built environment, where there’s high levels of environmental exposure to toxins, to air pollution, to lead, to industrial waste. Where do you put your resources to solve the problem? That is kind of a fascinating question, because one of the issues in epidemiology is this idea of identifiability, and if a lot of these neighborhoods, like the ones we see studied for the childhood asthma, have all these problems... How do you figure out what’s the drivers of these issues?... That’s where a lot of my research has been in trying to understand the relative contribution of social factors versus environmental factors.”*

Sheryl discussed how she had been able to expand her research to assess health risks associated with wildfires in the Western U.S. while at Colorado State University. These projects focus on comparing the risks of biogenic exposures, such as wildfire air pollution, to anthropogenic exposures, such as traffic related air pollution, to understand the impacts they have on human health.

Finally, Sheryl discussed how her work in impacted communities has environmental justice implications. She explained that pushback to exposing industry related health risks is experienced in many communities. More specifically, she referenced the tension between public health concerns, culture, and economic needs. Sheryl provided an example:

*“We were working with a community in Seattle to look at diesel exposures related to the poor of Seattle, and all the goods transportation that goes around with the trucks and the trains which are all diesel powered that kind of serve and the poor [inaudible], and cut through these neighborhoods, and we wanted to show what the disparities were in diesel levels throughout the neighborhoods. And a homeowner came up to us and said, "I don't think I want to know this, because when I go and try to sell my house, someone's going to look at this map and say, 'Oh, I don't want to live there, that's a high diesel level.'" And I think we know from the economic literature that [this] does influence how much a house is worth, how much a bunch of properties are worth based off what they are exposed to. You know, I try to feel like I do good work, and like I can do good, but sometimes I think thinking about the ramifications of some of our research has negative impacts on community. We generally think that information is*

*good...but depending on who uses that information...and I don't know if I have the tools and resources to fully balance the needs to promote help, which I think is part of our jobs as epidemiologists, with the needs of the community members to protect their wellbeing and investments that are not only health, but are kind of beyond in terms of what they value and want to maintain about their lifestyle and neighborhoods."*

[To see more about Sheryl's work, check out her profile on the College of Veterinary Medicine and Biomedical Sciences page here.](#)

### **Stephane Malin – Department of Sociology, CSU & Colorado School of Public Health**

Stephanie Malin, the third panelist, is a natural resource and environmental sociologist who studies the "way in which ecological systems and social systems interact." Stephanie explained that she focuses on the meso-level or the "*middle level in between households and small groups, and your macro level state, national and international policies*".

Stephanie's research primarily focuses on energy development within various communities, how these activities are related to larger political economic policies, and related environmental justice and health outcomes. She focuses on questions of procedural equity, including analyses of the how and what information is presented to community members about the risks associated with energy development. Her graduate work and continuing research focused on Superfund sites related to nuclear energy production in Utah, and she used this as a case to illustrate inequities in environmental health outcomes, as well as historical and structural health inequities related to contaminated sites.

Stephanie discussed her findings with regards to community mobilization while working with community members in her research sites. Stephanie explained how academics often think about environmental justice in progressive ways and essentially romanticize the concept, but highlighted how the most valid understandings of these perspectives emerge from work that is grounded in community based data collection. After all, she explained, people's views of environmental justice can be very divergent based on the political and economic systems within which they are embedded. It is important to enter into these communities and speak with community members in order to understand their perspectives on energy development from more grounded and intersectional standpoints. These frames can affect how community members think of and respond to harm related to energy development. Stephanie recounted:

*“A lot of the rural communities that I go into, and when I talk to [people], there’s a sharp divergence there between people who are progressive, people who might be looking at something like the reinvigoration of the uranium industry as a risky thing...because of these legacies of public health issues like lung cancer and lung problems, birth defects, our lack of real understanding about the impacts of radiation on communities long term, both ecological and social systems in those communities. Yet even with all those question marks and unaddressed legacies, there is a strong contingent of people that have lived in these communities that really support the industry, not just for its economic input in the community, but also because a lot of social and cultural factors. And because people think about the wealth embedded in their environment as one of the few ways they can combat very real, very persistent poverty in their communities, which mainly are spatially isolated... All of those complex issues, I think, can get really lost when we aren’t in these communities talking to people. And we’re at a point in time where I think we’re making some extremely important decisions about energy policy... If we don’t really understand how people are reacting to this, I think we can inspire a lot of anger in these communities when we ignore some of these other ideas that are really valid and have a lot to do with some of those economic constraints that are much more immediate... So, my view of environmental justice is pretty complex... I do recognize the impacts of the political-economic system we’re embedded in. I recognize why people think making market-based decisions is the most rational choice, but try to also point out the, maybe the long term impacts of thinking like that, right, and how we need to be concerned with things like multi-generational sustainability, and social sustainability, and we want to talk about any sort of renewable energy.”*

Essentially, it is necessary to recognize how the political and economic systems that we operate in can influence people’s perceptions of energy development, even when there are concerns about sustainability and long-term health effects. Dependence on risky boom-bust prone economies can remain tempting and locally supported, in other words. Stephanie concluded by explaining how her current research focus is on perceptions of health and illness among community members impacted by environmental injustice and how that relates to other definitions of health and illness that have been legitimated by our economic and political systems.

**[To see more about Stephanie’s work, check out her profile on the College of Liberal Arts page here.](#)**

**Colleen Duncan—Department of Microbiology, Immunology and Pathology, CSU**

Colleen Duncan, the fourth and last panelist, is a veterinarian who has been trained as an epidemiologist. During the time of the roundtable, Colleen was on sabbatical working with the Canadian Wildlife Agency studying animal hazards. She explained how animals have traditionally been examined as a food source or potential risk for zoonotic diseases instead of from a place of concern about animal health and wellbeing. Instead of looking at animals as “hazards” or “cost-effective food sources”, Colleen argues that we need to re-conceptualize the way we look at wildlife health. More specifically, we need to take into consideration how animals are a product of their environment and how they, thus, display and are deeply impacted by environmental health and contaminated sites. She explains:

*“If you are going to try and preserve or promote animal health, you really cannot separate the environmental component from that. So we are looking at modernized definitions of health, which is talking about capacity, and talking about resilience and not truly just talking about what is absent...The other thing I have come to realize that health is really a social construct.”*

Colleen encouraged a more modernized definition of health, one which talks about capacity and resilience rather than what is wrong or missing. Colleen highlighted the large influence that biodiversity and the treatment of animals more generally have on global issues, including nutrition, land use, and maintaining healthy ecosystems. Additionally, Colleen discussed how the changing environment is a major threat to wildlife health. Therefore, she argued, animals should be included in environmental justice discussions and that environmental justice should also incorporate concerns of ecological justice. She stressed the importance of bringing animal health professionals to the table in order to develop more sustainable multi-disciplinary solutions. She also highlighted the need to better integrate the topic of environmental justice into the animal health community. This could help veterinarians understand the broader impacts of their work.

**[To see more about Colleen’s work, check out her profile on the Veterinary Diagnostic Laboratories page here.](#)**

## **Open Discussion**

The overarching theme of the open discussion includes how political and social constructs affect health and perceptions of risk. Within this overarching theme, the discussion centered around risk, procedural justice, advocacy, economics, and occupational health.

Discussions of risk included perceptions of risk and the short and long term effects of risks. Colleen used Fort Collins' response to the West Nile threat (i.e. spraying) as an example of how responses to health risks are often reactionary and do not consider cumulative and long term effects. For example, this response does not take into account the impacts on public health, pollinators, or other bystanders. Colleen then discussed the role of news outlets and media and how they sensationalize certain health risks without looking at the larger picture. Sheryl added to the West Nile virus example to explain how perceptions of risk are influenced by what is viewed as within and outside of human control. She used the comparison of influenza and Ebola to better illustrate this. Despite the greater rates of risk and even death caused by the flu compared to Ebola, there is often greater public concern about Ebola because there is no vaccination to prevent it.

Dale, a roundtable attendee, also discussed risk and how society tends to examine risk in the short term, rather than consider long term effects of policy choices. Jan, another attendee, added to this discussion of risk by describing the risk assumed by mining communities. She explained that while these communities are aware of the risk associated with mining operations (i.e. lung cancer, explosions, etc.), many community members will fight against policy changes because of culture, short term financial gain, and fear of the unknown. In other words, the short term gains and known health risks are more accepted by some communities than risks associated with future uncertainty. Rose, a roundtable attendee, added to this by asking why society is able to think long-term when it comes to insurance or college funds but not when it comes to climate or environment related problems.

Procedural justice and its implications for public health were also discussed. Procedural justice focuses on the decision making aspects of environmental justice, the choices we make about land use, zoning, and other community planning issues over time. This matters for EJ because the environmental equity hinges on the ability of all stakeholders to have an equal seat at the table, to have access to opportunities to authentically participate in making decisions or policies, and to have free access to transparent and useful information about the issues or decisions being debated. But, as Dimitris highlighted in this portion of the open discussion, having information does not always lead to just outcomes. He illustrated this by discussing the Oil Chemical and Atomic Workers Union and their efforts to establish OSHA. While workers in

various industries had the right to know the risks associated with their work, it did not transfer power or change processes used in energy development because the opportunity to meaningfully participate in policy changes were blocked. As such, realizing only certain aspects of procedural justice may not lead to substantive justice. Stephanie added to the discussion by highlighting how scale becomes important when discussing procedural justice. Specifically, she referred to the mandatory public comment period for federal projects that will have environmental justice impacts. While mechanisms for public comment create spaces for procedural equity, they can be wasted or empty; the scale is too large for people to have meaningful conversation or, more frequently, public comments are not meaningfully considered when making land use policies.

Stephanie also discussed how she believes laissez-faire economics plays too large a role in shaping environmental justice and public health policy debates. Instead, we should consider a triple bottom line, taking into account the social, environmental, and economic costs of our actions and responses to risk. She further explained how a hyper-focus on economics has been one of the causes of the health and environmental issues we face today. The lack of financial stability has led community members to fight to keep energy development or industries in their communities. When people lack social safety nets such as insurance, or retirement funds, they are willing to work jobs that are more detrimental to their personal health and their environments. She encouraged individuals to move away from the reductionist cost-benefit analysis and to also take into account the externalities and non-monetary costs and benefits of these decisions. Stacia added that the way economics is framed in the conversation can also be part of the problem. Dimitris pointed out that it is a choice to use economic tools to make decisions and that recognizing that this is a political and social choice can help understand why those choices are made and help to recognize other tools may be available.

Colleen brought up the question of science versus advocacy in open discussion. She highlighted the tension between science and advocacy and challenged the belief that advocacy can “muddy the waters” or “soften the science”. She asserted that when scholars choose to research certain phenomena they are in a sense advocates because they are approaching questions that need to be solved. Dimitris responded that a perceived shift towards “advocacy” can affect things like funding for research.

Jennifer referenced her research on biking and air pollution to explain how she believes a shift has been occurring as more information is provided. More specifically, a greater number of people are becoming engaged and want to know health risks associated with various activities. They are also willing to work with academics to find solutions—which can be considered advocacy. Several participants from the audience contributed to this discussion, including Rose

Lew, who shares her experience being trained in public health. Rose felt that part of her responsibility being trained in public health was to create conditions where people can be healthy which, at times, requires advocacy. [This is an ongoing debate and discussion for EJ CSU, and we have hosted other speakers, such as Kristin Shrader-Frechette, to continue this lively discussion.]

The last subtheme focused on questions related to occupational health as it relates to public health and environmental justice. Stacia Ryder asked how occupational health and public health intersect and how we can prevent occupational health from being overlooked in broader health discussions. Jennifer referred to workers as the “canaries in the coal mine” and talked about the challenges that are experienced when trying to make changes in the occupational health context compared to public health context. Sheryl discussed the ways in which occupational health is more complicated because occupation is often seen as a choice. This simplistic perspective overlooks externalities that may prevent individuals from changing occupations. Again, multi-scalar and intersecting variables emerged as key and complex aspects of occupational health.

The attribution of blame in occupational health was also discussed. Stephanie highlighted how society often blames CEOs and other individuals in leadership roles for problems that stem from an industrial culture that has accompanied our systems of industrial capitalism. Instead of individualizing systemic problems, we should examine and criticize – and find solutions to realize environmental justice – at the level of systems and structures.

Finally, the conversation turned to the built environments and how that intersects with environmental justice and public health. EJCSU closed by inviting attendees to continue the conversation about intersectional environmental justice issues at the next roundtable event which was to be held on May 4, 2016.