

Community and environmental justice in the East Palestine Train Derailment

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Take-away

environmental disasters will continue to occur

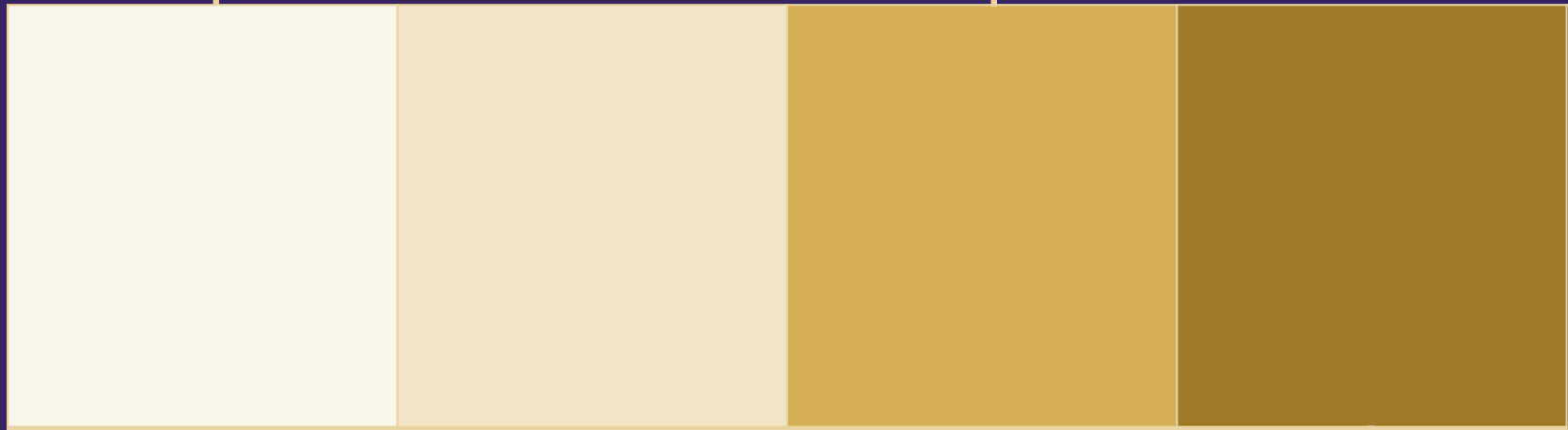
to protect health and to create structural change

research must center the affected community



Environmental
justice

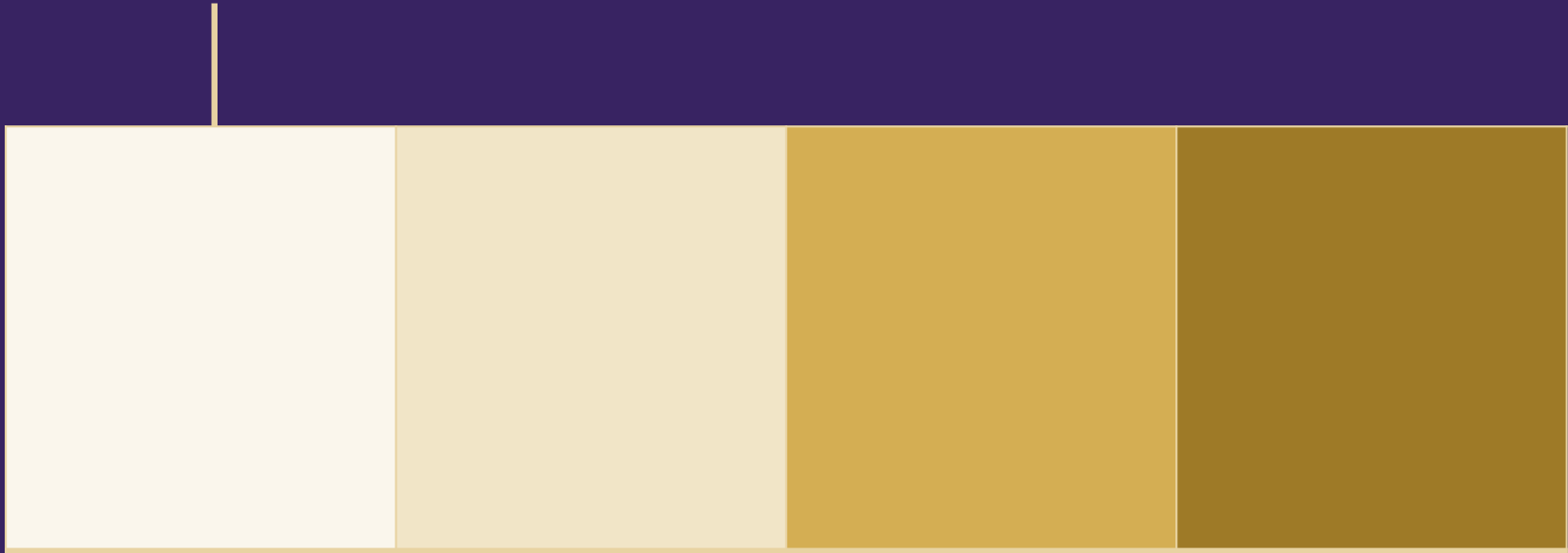
Lessons from
Aliso Canyon



Stakeholder
engagement

A path forward

Environmental
justice



Double jeopardy

Socioeconomic disadvantage and
disproportionate environmental exposures

Morello-Frosch R, Jesdale BM. Separate and unequal: residential segregation and estimated cancer risks associated with ambient air toxics in U.S. metropolitan areas. Environ Health Perspect 2006;114(3):386-93.

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Environmental injustice

- > Where one population avoids hazards from a practice that negatively impacts the environment of another population**

Evans 2002; Kelly-Reif & Wing 2016



Exposure assessment matters for EJ

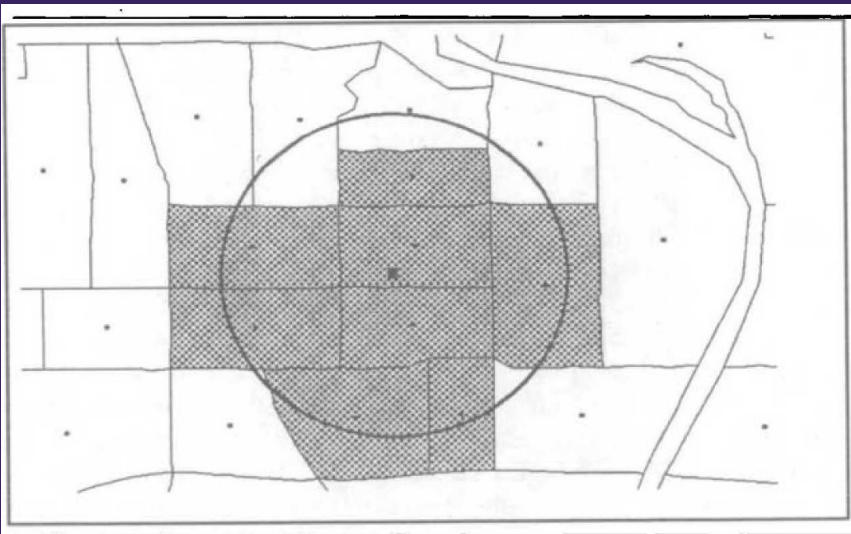


Figure 3. Circular buffer using the centroid containment method.

BUFFER

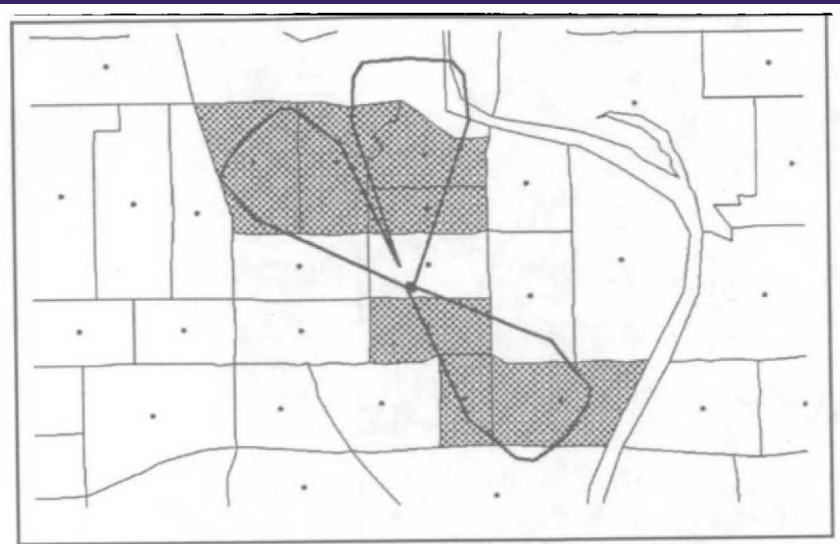
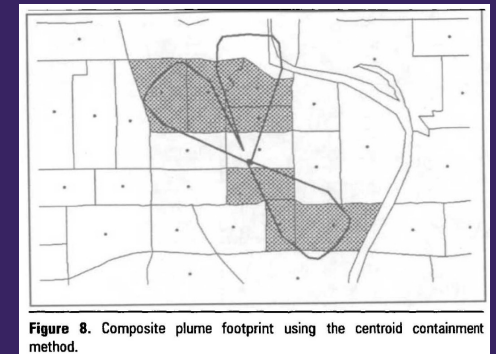
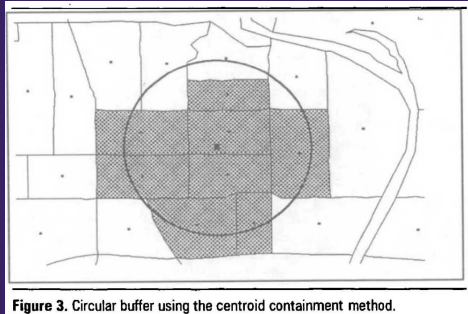


Figure 8. Composite plume footprint using the centroid containment method.

PLUME

Buffer vs. plume

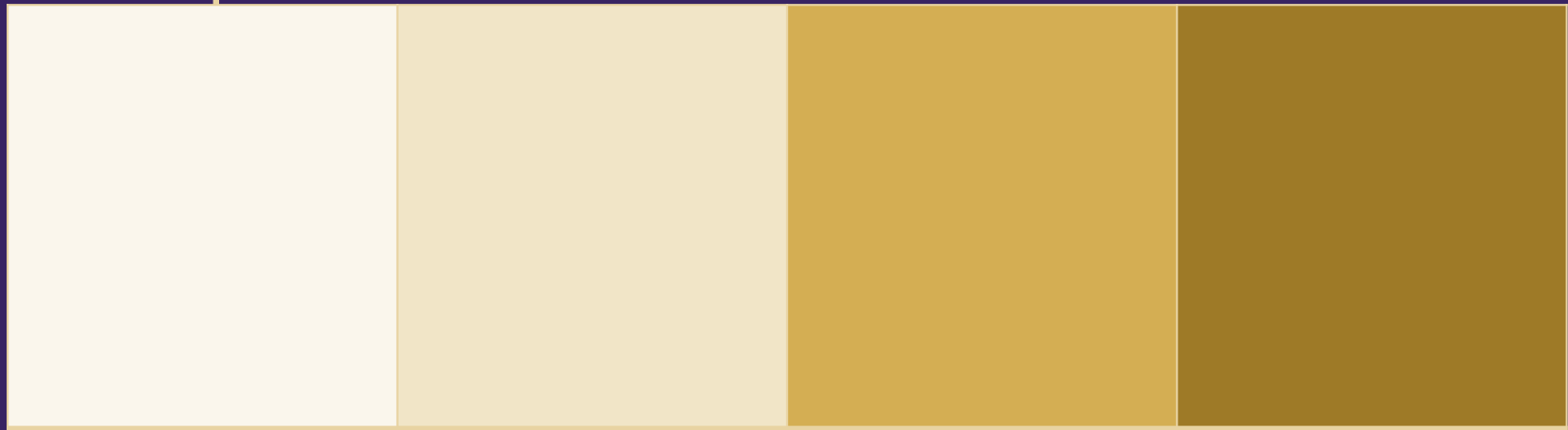


	Buffer			Plume		
	Inside	Outside	Difference	Inside	Outside	Difference
Below poverty	20%	8%	12%	28%	12%	16%

12% higher prevalence of poverty among the exposed group

16% higher prevalence of poverty among the exposed group

Environmental
justice

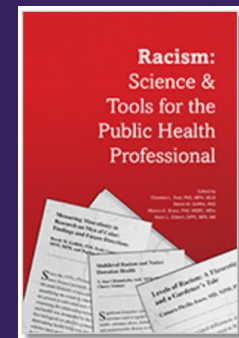


Stakeholder
engagement

Stakeholder engagement

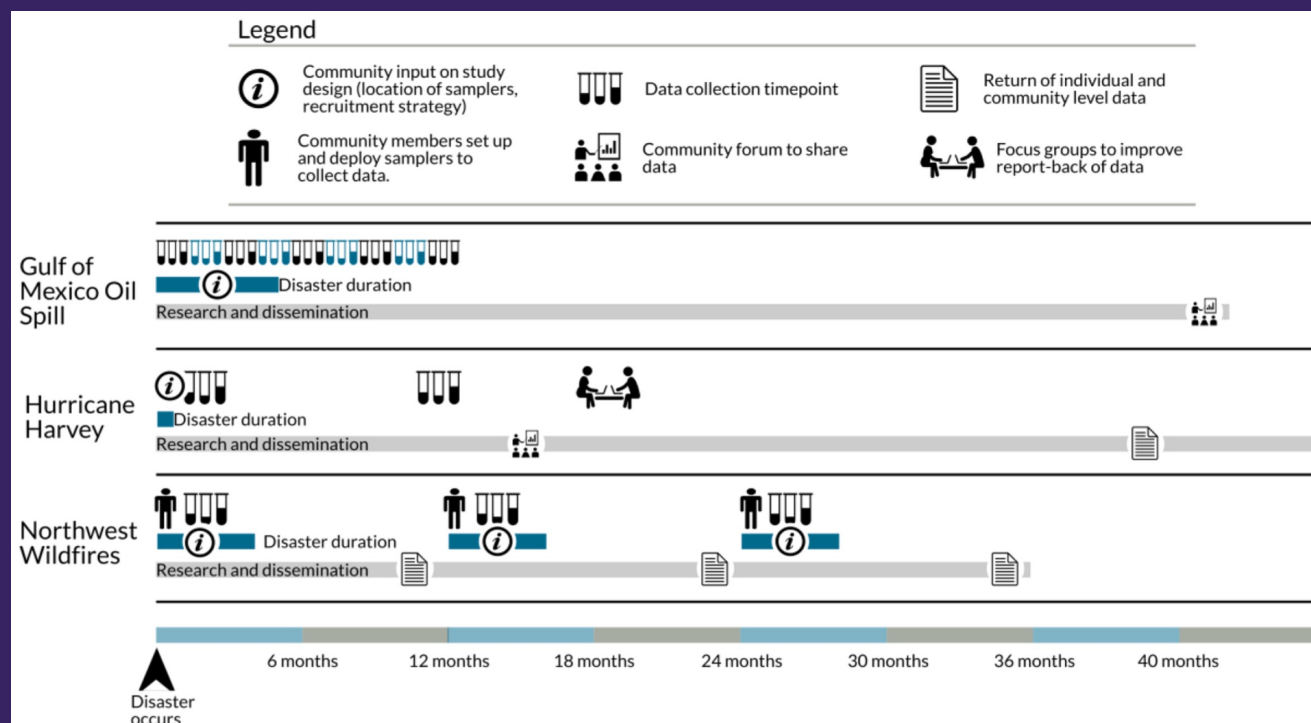
Community engaged research

- > Engagement is key to increase role of communities
- > Those with lived experience have vast knowledge



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Stakeholder engagement

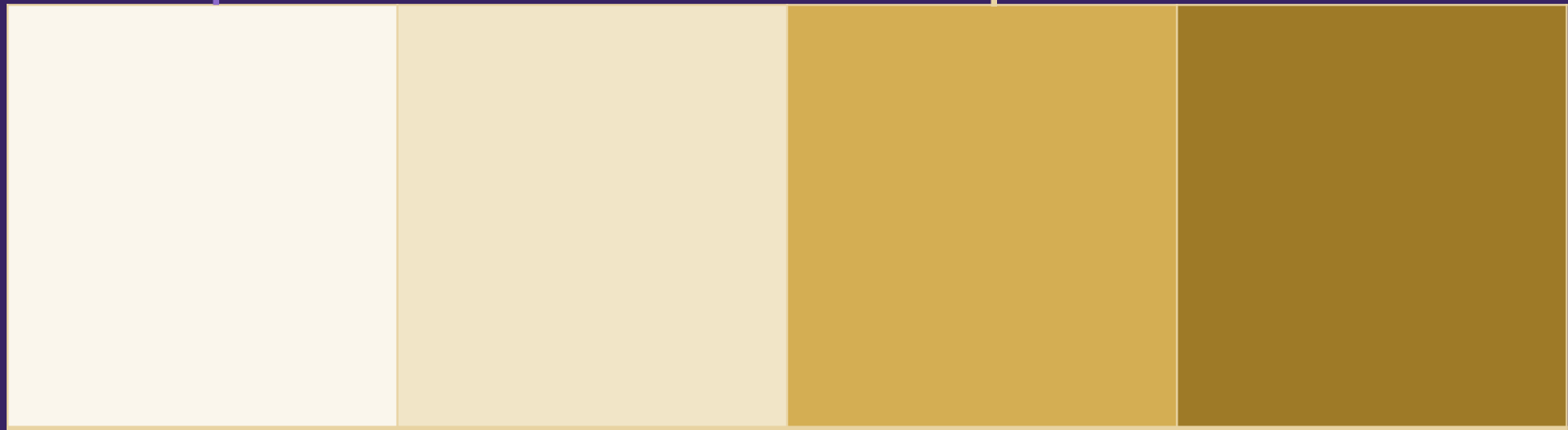


Rohlman et al. 2022 Citiz Sci

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Environmental
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Lessons from
Aliso Canyon



Stakeholder
engagement

Aliso Canyon Disaster

Largest gas leak in US history

- > Leak spanned Oct 2015 – Feb 2016
- > CA Public Health began air monitoring in in November, expanded it in January
- > Feb-April: 300+ households report ill health
- > Aug 2018: \$119.5 million settlement
- > \$25 million for a health study



Infrared image of Aliso Canyon – NYTimes

Community Advisory Group

- > Comprised of members of the Porter Ranch Community affected by the disaster
- > Two-fold: provide feedback and report back to community
- > Scientific Oversight Committee (government/academic) also assembled



Community Advisory Group

Requests

- > A degree of control in the Public Health study
- > Publicly-available timeline, map, data registry
- > Investigation of a set of health outcomes
- > Communication in multiple ways: social media, email, text, posting



UCLA's Health Study & Community Advisory Board

- > Generated a Community Stakeholder Communication Plan as part of larger study



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A path forward

Centering communities

- > Multiple ways to effectively engage community members
- > Sustained follow-up
- > Local knowledge informing research questions increases chances of structural change



Thank you for your time

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