

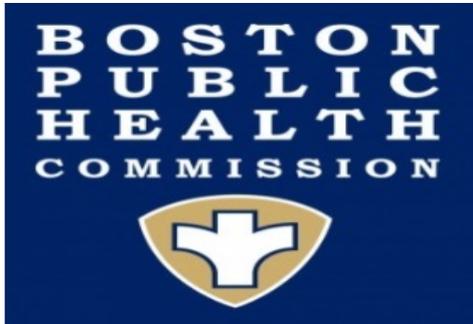
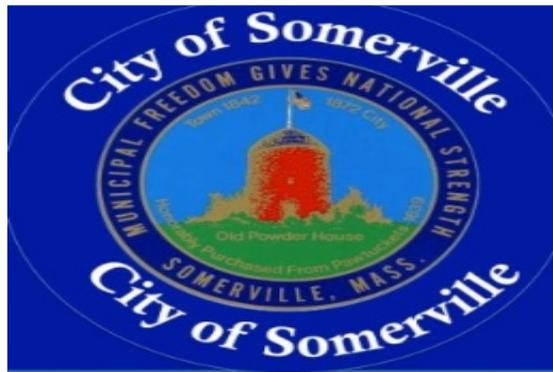


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CAFEH-Kresge overview & TRAP Health Impacts

Doug Brugge
Professor

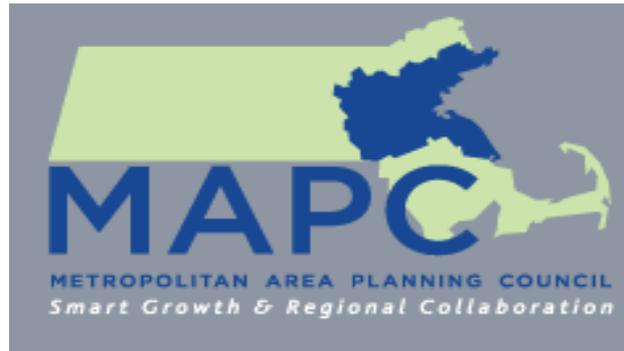
Department of Public Health and Community
Medicine



Boston Chinatown
Neighborhood Center, Inc.
波士頓華埠社區中心



HARVARD
School of Public Health



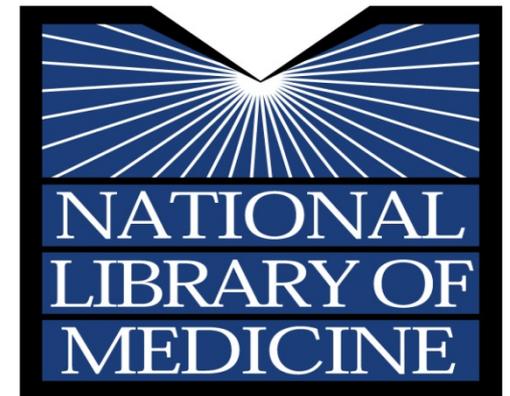
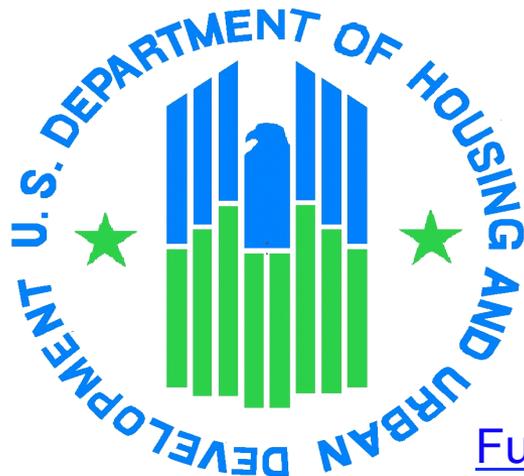


*Tufts Community
Research Center*



National Heart, Lung,
and Blood Institute

THE KRESGE FOUNDATION



Funded by:

NIEHS ES015462; NHLBI CA148612; HUD MALHH0194-09; EPA
EP 01720301 0; EPA STAR EP 017310 01 0 RE O Scholar Award

Community-based Participatory Research Approach

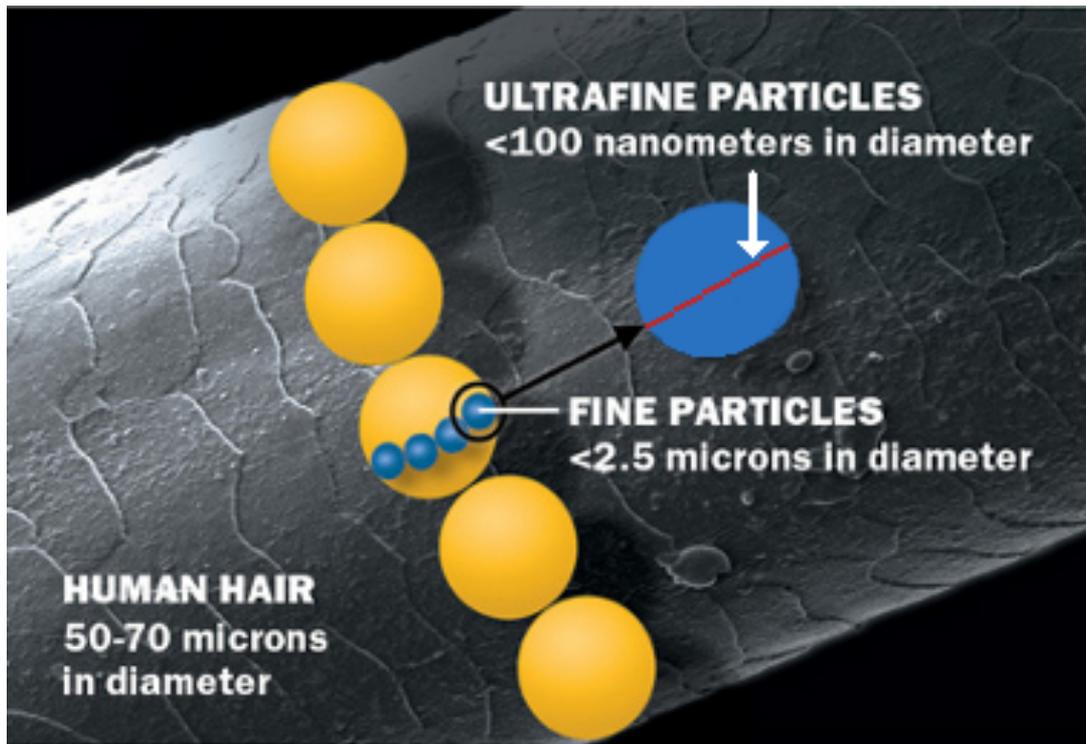


Community engagement
Capacity building
Rigorous science
Policy and practice



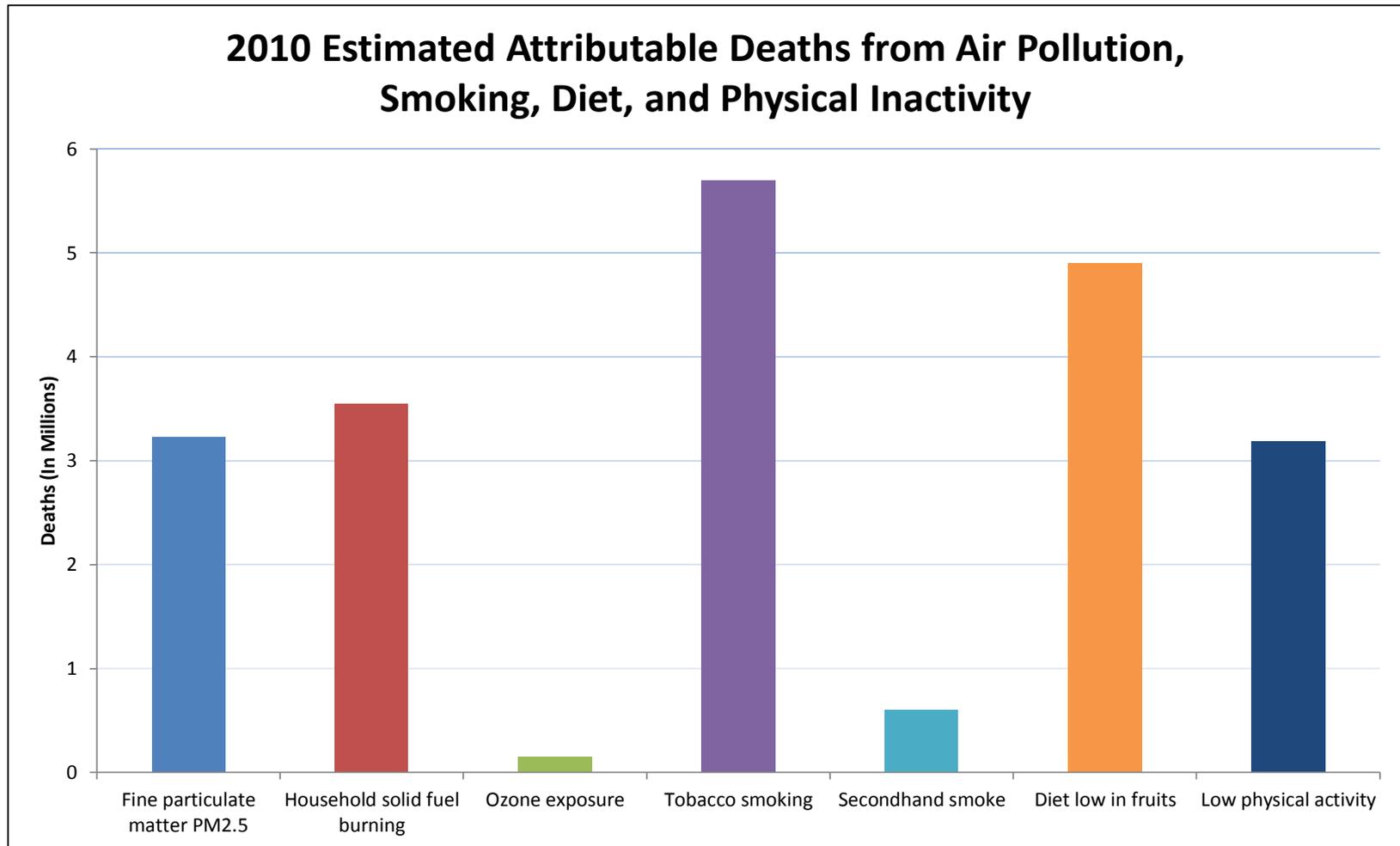
Ambient Particulate Matter (PM_{2.5})

Particle diameter < 2.5 μm
micrometers



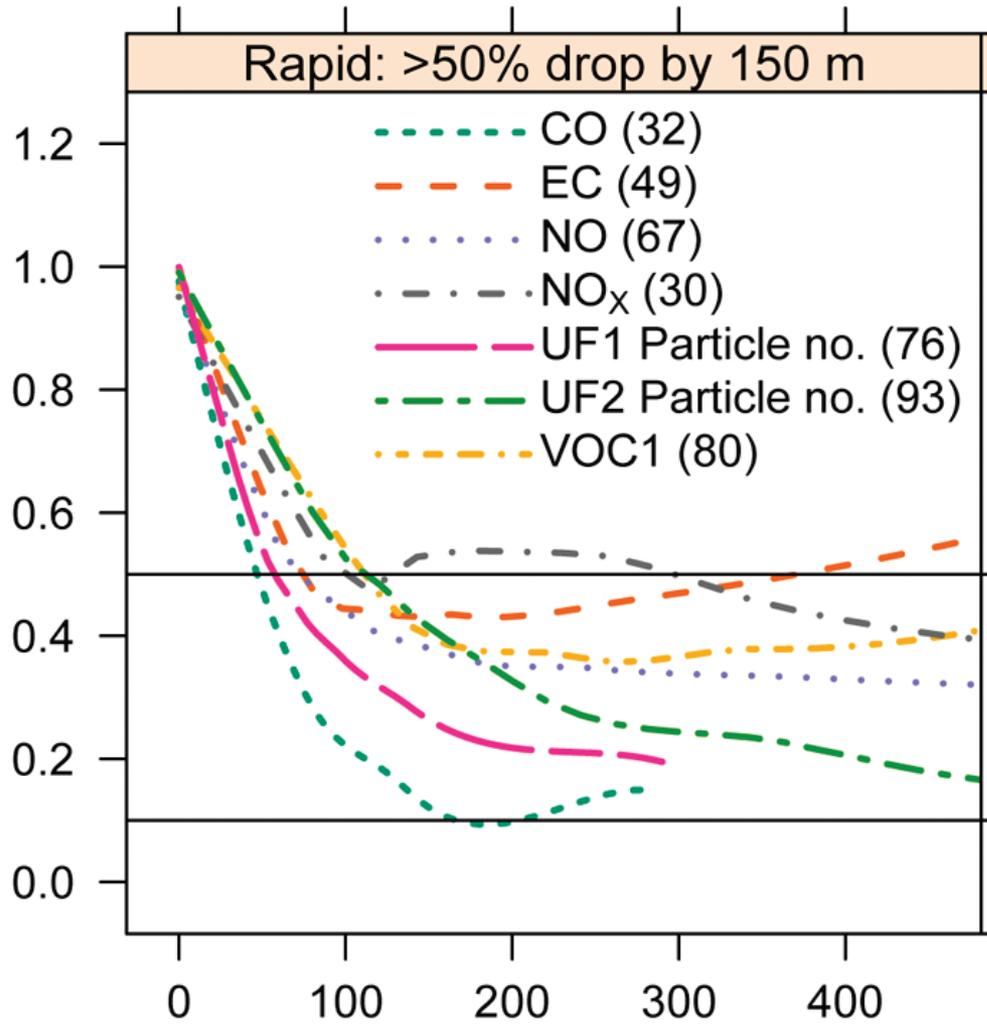
- Lower respiratory infections
- Lung cancers
- IHD
- Cerebrovascular disease
- COPD

Global Burden of Disease 2010



Lim et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; 380: 2224–60.

Pollutant concentration normalized to edge



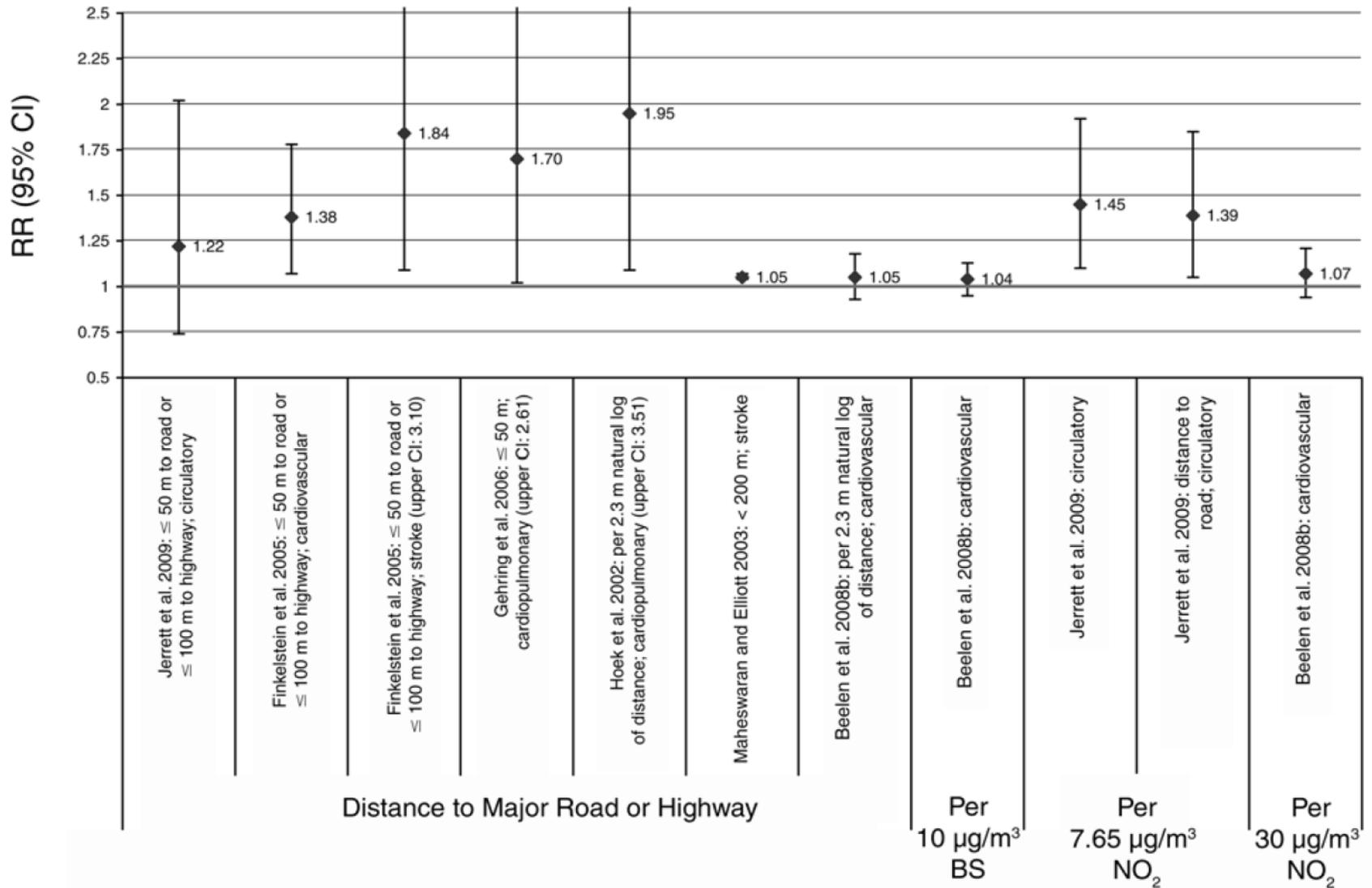
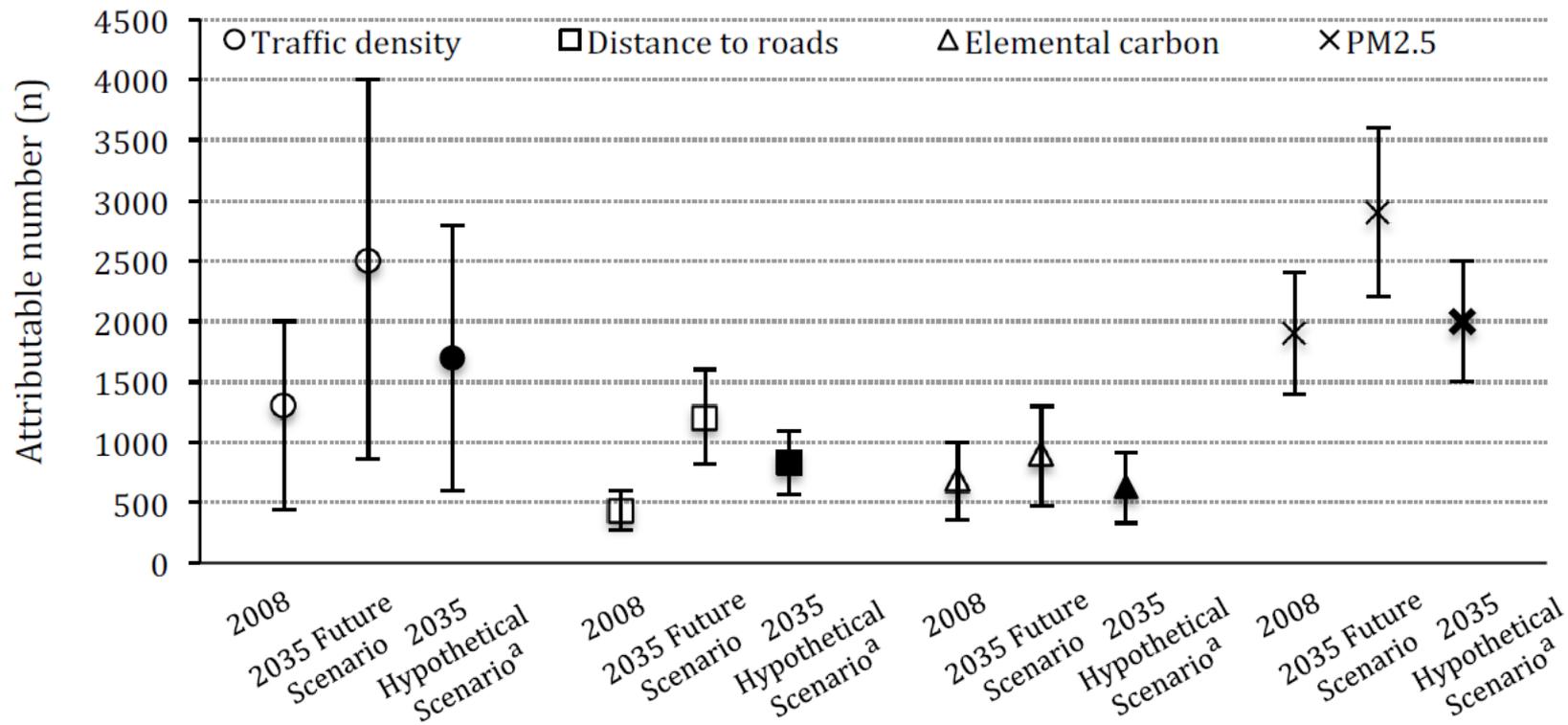


Figure 4.3. Studies of long-term exposure to traffic pollution and cardiovascular and cardiopulmonary mortality (by exposure metric). See Table 4.5 for data. Vertical lines indicate 95% confidence intervals.



Community Assessment of Freeway Exposure and Health (CAFEH)



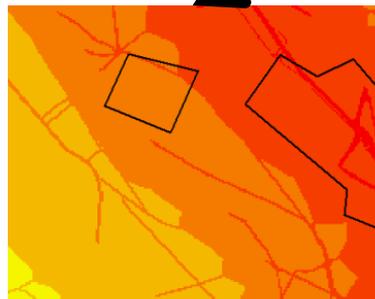
Mobile Monitoring
on 162 days



704 surveys



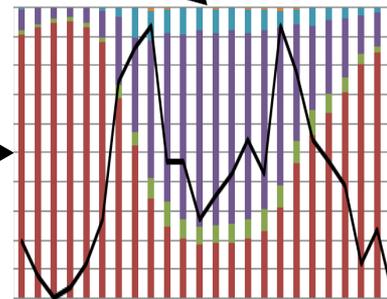
451 clinic visits



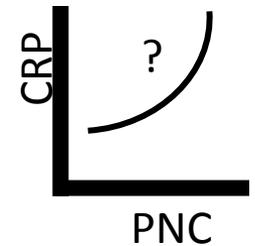
PNC Models



Ambient
residential PNC

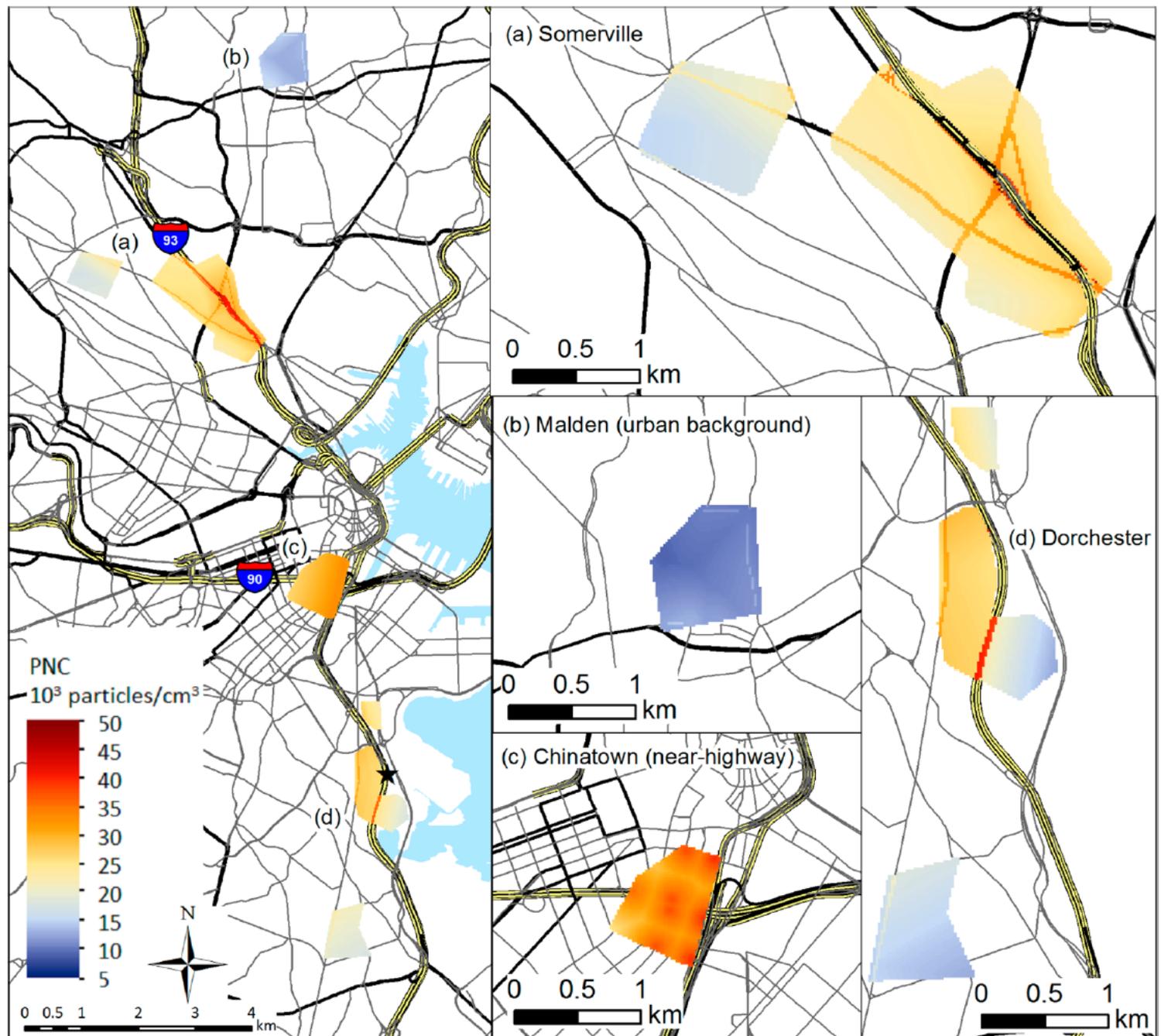


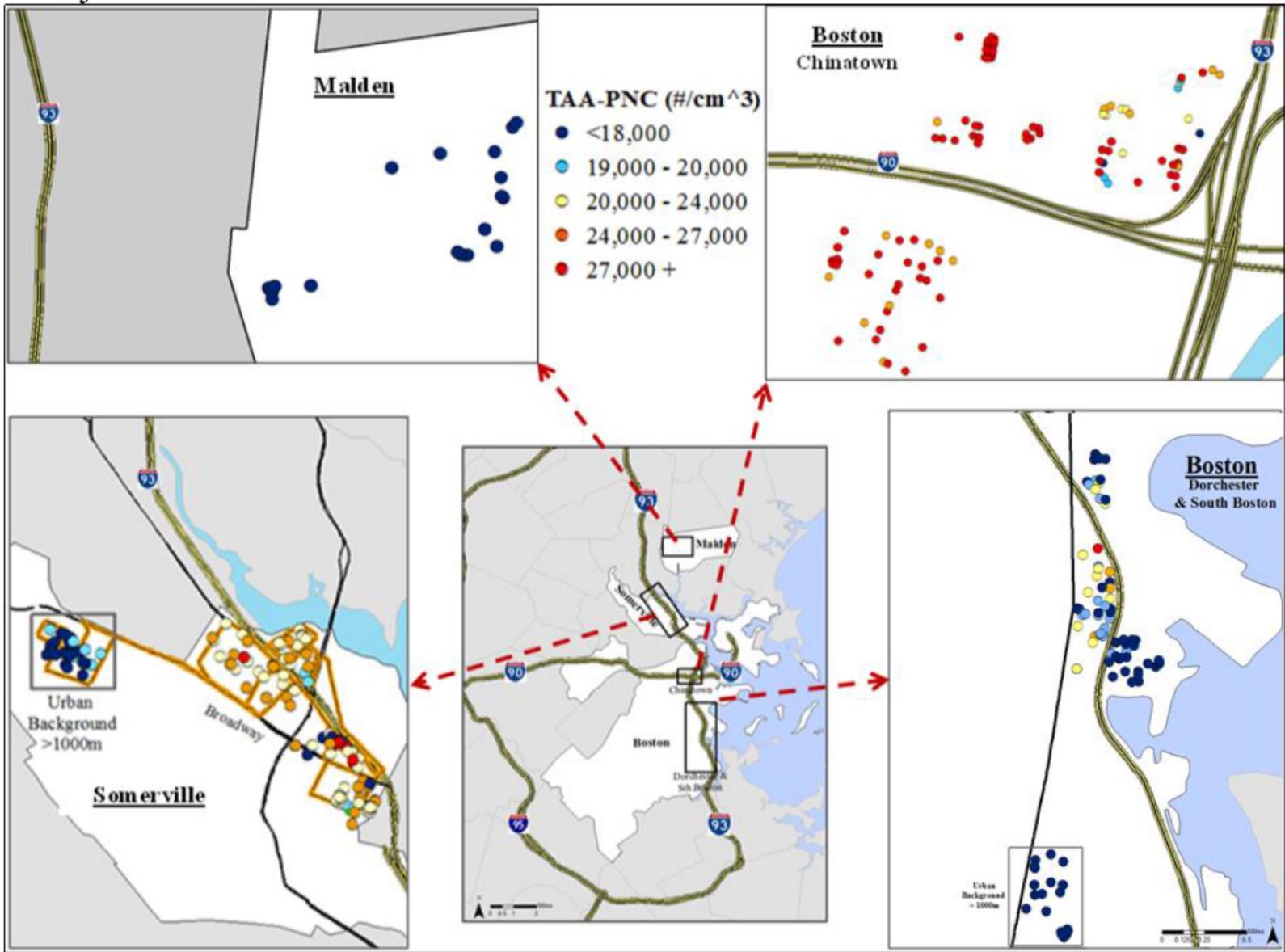
Time-activity
adjustment

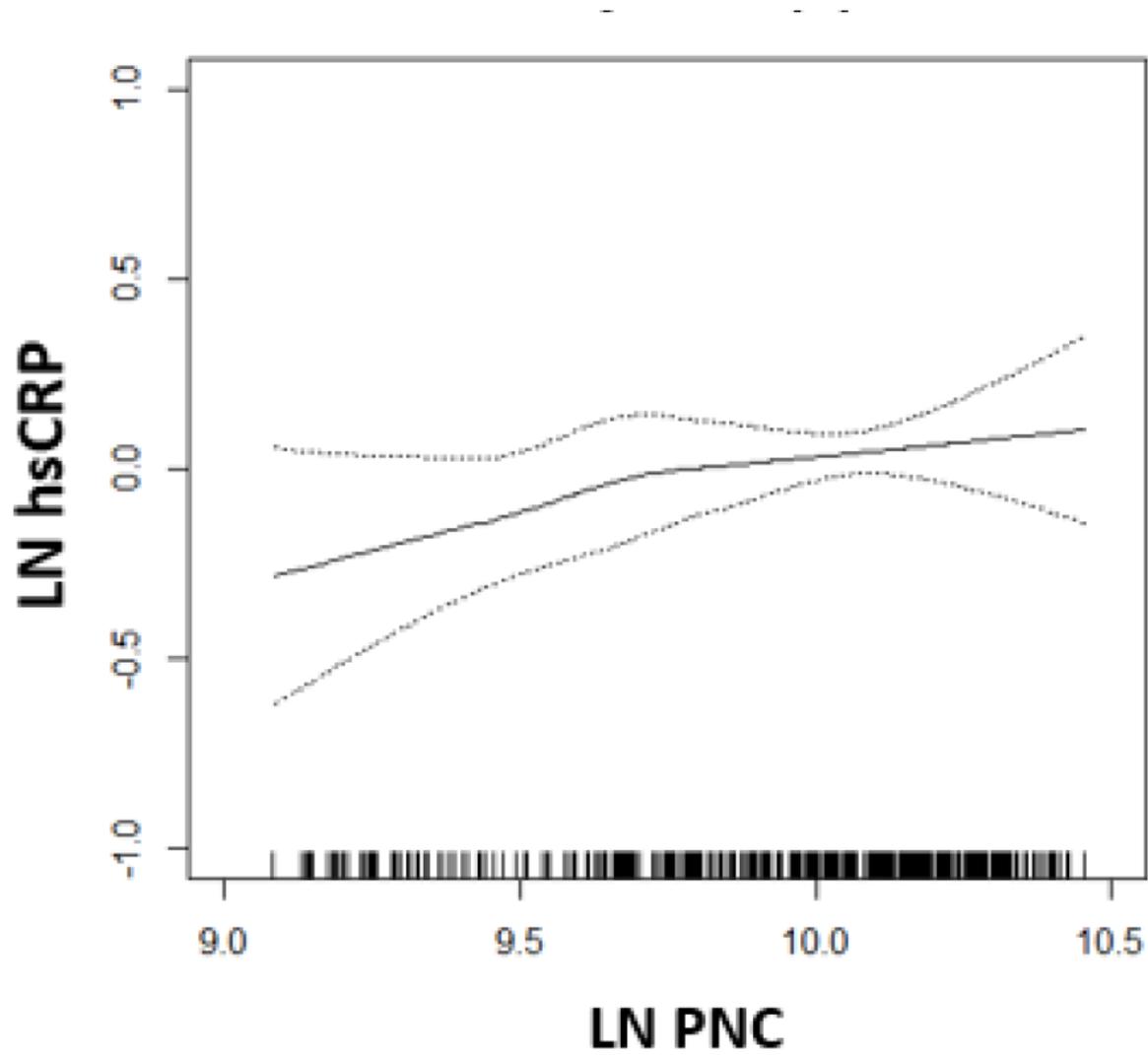


Association?

Patton AP,
Zamore W,
Naumova EN,
Levy JI, Brugge
D, Durant
JL *Environmental
Science and
Technology*
(2015).

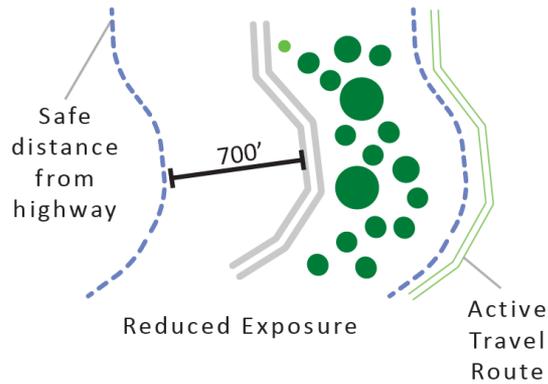






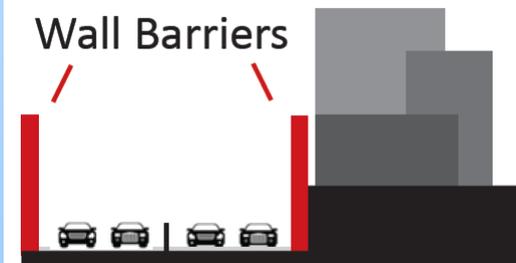
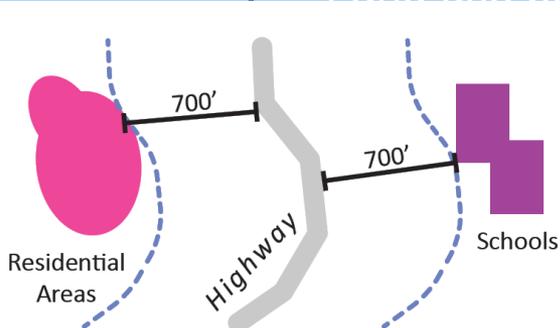
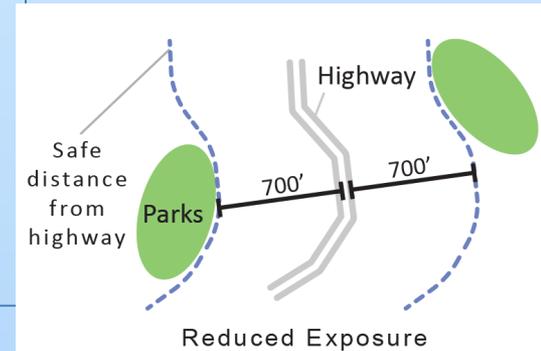
Summary of Air Pollution Reduction Tactics

By Allison Patton



Effectiveness

Location	Good	Moderate	Inconclusive
On-Site	<ul style="list-style-type: none"> Filtration Air intake location Sound proofing 	<ul style="list-style-type: none"> Healthy placement of buildings and parking structures Trees and Plantings 	<ul style="list-style-type: none"> Healthy vegetables
Off-Site	<ul style="list-style-type: none"> Park locations Land use buffers 	<ul style="list-style-type: none"> Built or vegetative barriers Active travel locations Decking over highways 	



Section View

Academic & Community Resources | Community Assessment of Freeway Exposure and Health - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://sites.tufts.edu/cafeh/resources-and-links/academic-resources/ AOL Search

Most Visited Tufts University Tufts Webmail Tufts Infoboard DSI NIH-CSR <span id="P... International Confere... Dropbox - Log in - Sim...

Academic & Community Resources | ...

WELCOME TO CAFEH ▾ PROJECT DESCRIPTIONS ▾ PUBLICATIONS NEWS MEDIA

LINKS & RESOURCES ▾

Academic Resources

Tufts University Department of Public Health and Community Medicine

The Department of Public Health and Community Medicine is distinguished by a strong faculty with a broad multidisciplinary approach to public health and clinical issues. Click the following link for more information: [Tufts Department of Public Health and Community Medicine](#)

Tufts University Department of Civil and Environmental Engineering

Tufts' Civil and Environmental Engineering department educates engineering students to become leaders in solving society's problems in the 21st century. Click the following link for more information: [Tufts Department of Civil and Environmental Engineering](#)

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<http://sites.tufts.edu/cafeh/>



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