

Commentary

#CapTheCrossBronx: Grassroots Advocacy & Public Health Research to Secure Federal Funding for Reimagining the Cross Bronx Expressway

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The Cross Bronx Expressway (CBE) forms a scar through The Bronx. It devastated diverse communities when built in the 1950s and continues to negatively impact the health of Bronx residents through air pollution, noise pollution, and community disruption. In this Policy and Practice report, we discuss how a study on the cost-effectiveness of placing deck parks on the CBE published in the *American Journal of Public Health* (2018) became an important tool for a grass-roots campaign to secure federal funding.

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(1) Intervention, Implementation, Place, and Time:

After a decades-long struggle that pitted people living in The Bronx against the infamous city planner Robert Moses, the Cross Bronx Expressway (CBE) opened in the 1970s. The construction itself directly displaced over 60,000 residents with many of the surrounding residents also fleeing, leaving empty buildings behind them.^{[1](p.98)} Crime skyrocketed and landlords began to burn their buildings as property values plummeted, leaving entire regions of the South Bronx in the rubble.^{[1](p.101)} While immigrants and minority communities have worked to revitalize the South Bronx, a large swath of the borough is still impacted by air pollution, noise pollution, and lingering economic devastation today.

A 2018 study in the *American Journal of Public Health* examined the cost-effectiveness of capping the Cross Bronx Expressway (CBE) with deck parks. The study showed that building parks over portions of the highway that are below ground level would save both money and lives.^[2] That paper became an important advocacy tool for Loving The Bronx, an environmental justice grass-roots organization with strong connections to community and policymakers. With Loving The Bronx, we built a coalition of elected officials, community leaders, urban designers, and public health practitioners. Once the Bipartisan Infrastructure Law seemed likely to pass, this advocacy was taken seriously and the plan to build deck parks on the CBE gained momentum.

Columbia University's School of Public Health and Graduate School of Architecture, Policy, and Planning subsequently led a studio to create design and architectural solutions that centered on public health. Students at The Albert Einstein College of Medicine created print and digital materials to raise the profile of CBE advocacy efforts within The Bronx's largest hospital system. The Urban Design Forum, the Government of the Netherlands, and international media sources helped bolster the effort.

The Bipartisan Infrastructure Law did not specifically mention the Cross Bronx Expressway.^[3] However, thanks to the efforts of community leaders and local elected officials, Senate Majority Leader, Chuck Schumer made funding the project a priority. A \$2m Transportation's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant was ultimately awarded to New York City to evaluate the project, paving the way to larger-scale federal funding to build deck parks in the future.

(2) Evaluation and Adverse Effects:

The RAISE grant funded a feasibility study, which is being led by the NYC Department of City Planning, NYC Department of Transportation, New York State Department of Transportation, and NYC Department of Health and Mental Hygiene. They are partnering with local communities to "find ways to lessen public health impacts of the CBE and connect the communities that are divided by it today." The goals of the study are to "improve quality of life for residents, create new public open space, improve safety on local streets and along the corridor, [and] more sustainably manage cross Bronx traffic."^[3]

To complete the feasibility study, it is critical to not only set up evaluation tools for measuring noise and air pollution, but also to build models that provide feedback to the community. Using these models, it

becomes possible to inform community members as to how a given idea will impact the health of the community, thereby assisting community members with decision-making.

While community input is central to its success, perhaps the greatest danger in engaging in lengthy deliberation to re-imagining the CBE is that it might delay the implementation of air quality and noise mitigation efforts. Since delays can cost lives, one idea is to first construct composite caps rapidly offsite and to install electrostatic filtration systems. In doing so, it is possible to quickly mitigate the public health threat while allowing time to develop a sustainable plan for designing greenspace and other forms of infrastructure around the needs of the community and with community input across the 6.5 miles of the CBE.



Figure 1. Nilka Martell, Founder/Director of Loving The Bronx, speaking at a Press Conference in November 2021, announcing RAISE Grant Funding. Nilka is flanked by Karines Reyes, NYS Assembly; Senate Majority Leader, Chuck Schumer; US Congressman, Ritchie Torres (left to right) photo: Ed Garcia Conde, Welcome2theBronx.com

(3) Sustainability:

Because the grant specifically requires that all voices be heard, the hope is that the process of mitigating the health effects of the CBE will be designed from the ground up to ensure a sustainable, long-term plan for development. This may be the best way to ensure that resources are optimally allocated to affordable housing, community centers, and other needs that are specific to the demography and geography of each community along the CBE. Loving The Bronx has served as a central point-of-contact that links together community-based organizations and elected officials.

(4) Public Health Significance:

The 6.5-mile interstate highway sacrificed public transportation and pedestrian mobility in the borough in favor of automobiles and freight. The highway bisected one of the city's most racially and religiously diverse neighborhoods.^{[4](p.150)} In the aftermath of the fires and crime that began shortly after the completion of the CBE, some neighborhoods had few buildings left standing.

The deck caps will not only dampen noise, but they will likely be designed with air filtration units. Once the caps are in place, it is likely that most communities will choose to build greenspace on them, though some may build sports facilities, affordable housing, or community centers on the new land created on top of the CBE.

Critically, air filtration should improve air quality in the Bronx, alongside the quality of life for those most proximate to the expressway (**Figure 2**). The CBE releases significant amounts of toxic fumes and pollutants that degrade air quality. PM 2.5, NOx, and SO2 not only contribute to the highest rates of asthma in the nation, but also to heart disease, cancer, and lung disease, which are among the leading causes of death.^[5]

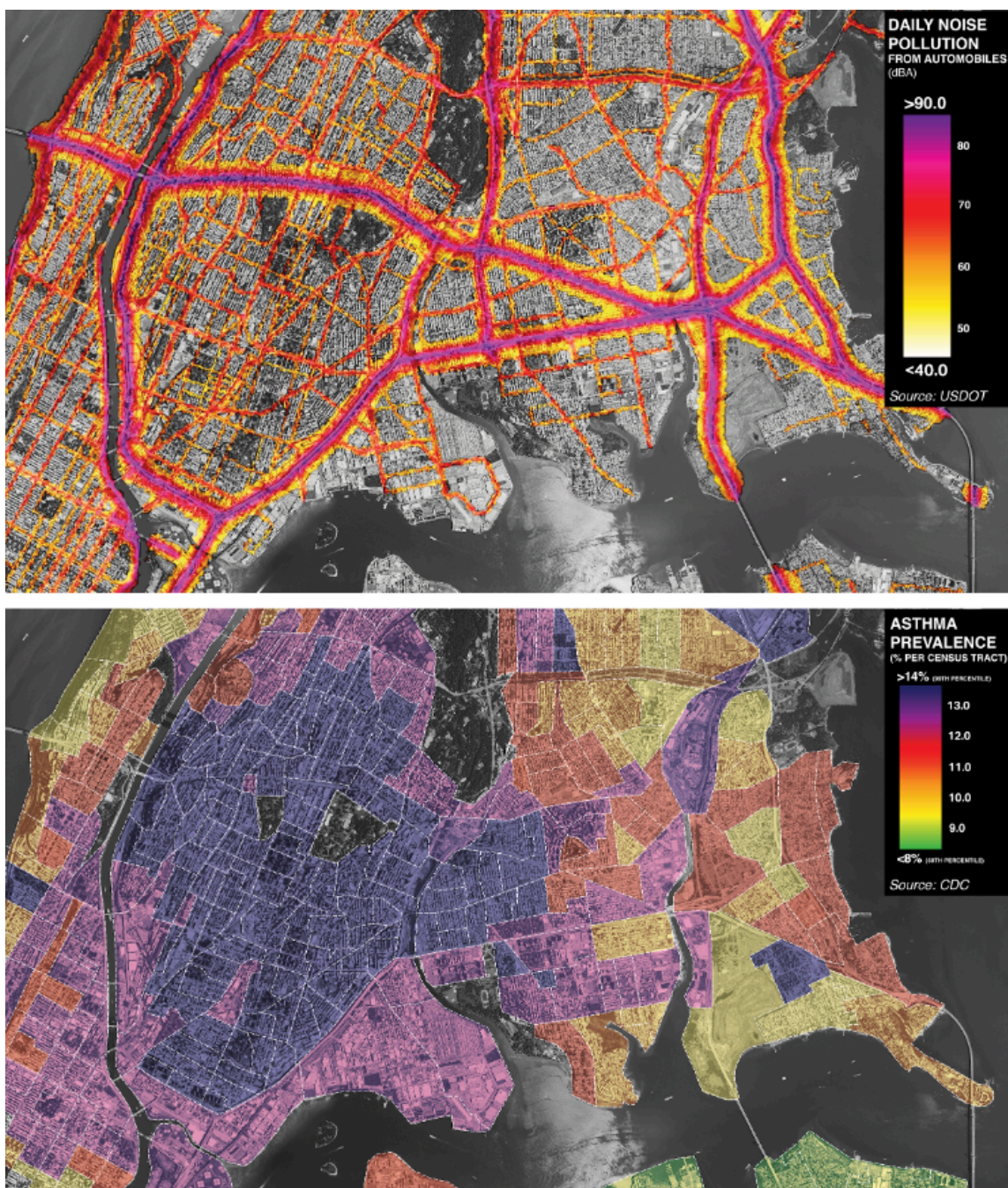


Figure 2. Noise Pollution & Asthma Prevalence in the Bronx

Image generated by Segregation By Design using data from the CDC and USDOT

(5) Conclusion

Our study shows how a research paper in the *American Journal of Public Health* helped catalyze community efforts to erase a major threat to the health and well-being of hundreds of thousands of

residents living in neighborhoods bordering the Cross Bronx Expressway.

References

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