

Clean Up Crown Heights Environmental Stewardship Event Report

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Introduction

A qualitative analysis of interview data revealed that litter is the environmental issue deemed most urgent by the Central Brooklyn community (Table 1), specifically its contribution to the expansion of the rat population and effects on quality of life (Krystosik et al., 2020).

Unmanaged roadside waste provides food and ample breeding sites for rats and other disease vectors (Krystosik et al., 2020). Vectors like these are responsible for the spread of diseases like salmonella, cholera, plague, hantavirus, Leptospirosis, zika, and lyme (CDC, 2021).

Project Description

For my master plan, I am using an altered community-based social marketing (CBSM) approach to identify barriers to community access to environmental justice services and organizations in Central Brooklyn. To connect the Central Brooklyn community with organizations addressing the issue of litter, I decided to host a clean up event and partnered with Clean Up Crown Heights (CUCH). CUCH was formed in response to the COVID-19 sanitation budget cuts in New York City.

The event included a six block clean up, a series of social media posts (Figure 1), a lesson on waste management (Figure 2), and a walking inquiry lesson around rats and plastic waste. The audience we hoped to engage were Central Brooklyn residents, centered in Crown Heights.

I walked participants through a typical waste management cycle as run by DSNY. We discussed degradation and what happens to litter when it isn't collected. I then laid out a length of yarn and established it as a timeline ranging from 1 week to 500 years. Participants placed laminated images of litter on the timeline depending on how long they imagined it would take to degrade. Once complete, I reordered the items and shared the degradation time.

We departed on our route following CUCH's safety guidelines. After engaging a sample of six participants on the issues of litter degradation and rat ecology, I embedded a series of informal assessment questions into our conversation and kept track of participant responses. I asked participants to determine whether a piece of litter was recyclable, to identify a rat breeding or feeding site, and to rate their likelihood of attending a future stewardship event (Table 2).

SMART Goals

- ✓ Involve 1 (+) community organization partners in order to ensure that community action and stewardship are just and equitable and utilize their networks and capabilities.
- ✓ Engage 25 (+) community members and neighbors in street clean event.
- ✗ Interview 5 (+) community members by the end of the event to use for qualitative review and podcast episodes.

Outcomes

Table 1
Interviewee Identified Issues from First Round of Thematic Coding

Interviewee	Issue(s) Identified	Explicit Concern	Descriptive Language
Bus Driver	Air; Litter	Health; Rats	"I feel like I'm huffing exhaust and rat p'ss."
Cashier	Litter	Finances; Rats	"People avoid my corner until the bags are picked up."
Artist	Food; Litter	Rats	"It feels unsafe...like the bags are pulsing with [rats]."
Community Board Member	Air; Litter	Health; Rats	"We get calls every day ... [rats are] a plague."
Organizer	Air; Food; Justice; Litter	Finances; Health; Rats	"They're contaminating the gardens, it's an issue of food justice."
Mutual Aid Member	Food; Justice; Litter	Health	"They're coming out in broad daylight, going after our deliveries."

Table 2
Stewardship Event Participant Learning and Behavior Outcomes

Participant	Recyclable (Correct/Incorrect)	Rat Site Identified (Correct/Incorrect)	Future Event Attendance (Unlikely (1) - Definitely (4))
#1	Correct	Incorrect	4
#2	Correct	Correct	4
#3	Correct	Incorrect	3
#4	Incorrect	Incorrect	3
#5	Correct	Correct	2
#6	Correct	Correct	4

Figure 1
Stewardship Event Social Series Clean Up Crown Heights Instagram



Note: Left: An aging water bottle with grey beard and walker representing the approx. 450 years it takes to break down. Middle: A plastic bag with an "I Voted" sticker representing the 20 years it takes to break down. Right: A cigarette butt with a backpack and first day of school sign representing the 10 years it takes to break down. Post captions were formatted to say: "By the time your _____ decomposes, it would be _____. Join us at the clean up this Wednesday, July 14th to learn about what happens to your trash after it's gone."

Works Cited

- Centers for Disease Control and Prevention. (2010, July 29). Rodents. Centers for Disease Control and Prevention. <https://www.cdc.gov/rodents/index.html>.
- Krystosik, A., Njoroge, G., Odhiambo, L., Forsyth, J. E., Mutuku, F., & LaBeaud, A. D. (2020). Solid wastes provide Breeding Sites, Burrows, and food for Biological disease vectors, and Urban Zoonotic Reservoirs: A call to action for Solutions-Based Research. *Frontiers in Public Health*, 7. <https://doi.org/10.3389/fpubh.2019.00405>
- Stern, P. C., & Dietz, T. (1999). A Value-Belief-Norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6 (2), 81-97.
- van Vugt, M., Griskevicius, V., & Schultz, P. (2014). Naturally Green: Harnessing Stone Age Psychological Biases to Foster Environmental Behavior. *Social Issues and Policy Review*, 8(1), 1-32.

Outcomes

A total of 31 people participated in the clean up event and collected 25 40-gallon garbage bags of litter and one 30-gallon bag of recyclables.

Five of six (83%) participants answered the recycling question correctly and three of six (50%) answered the rat question correctly. Participants rated their likelihood of attending future events at an average of 3.3 (between likely and definitely). These responses provided me with an opportunity to quantify the success of the event.

Discussion

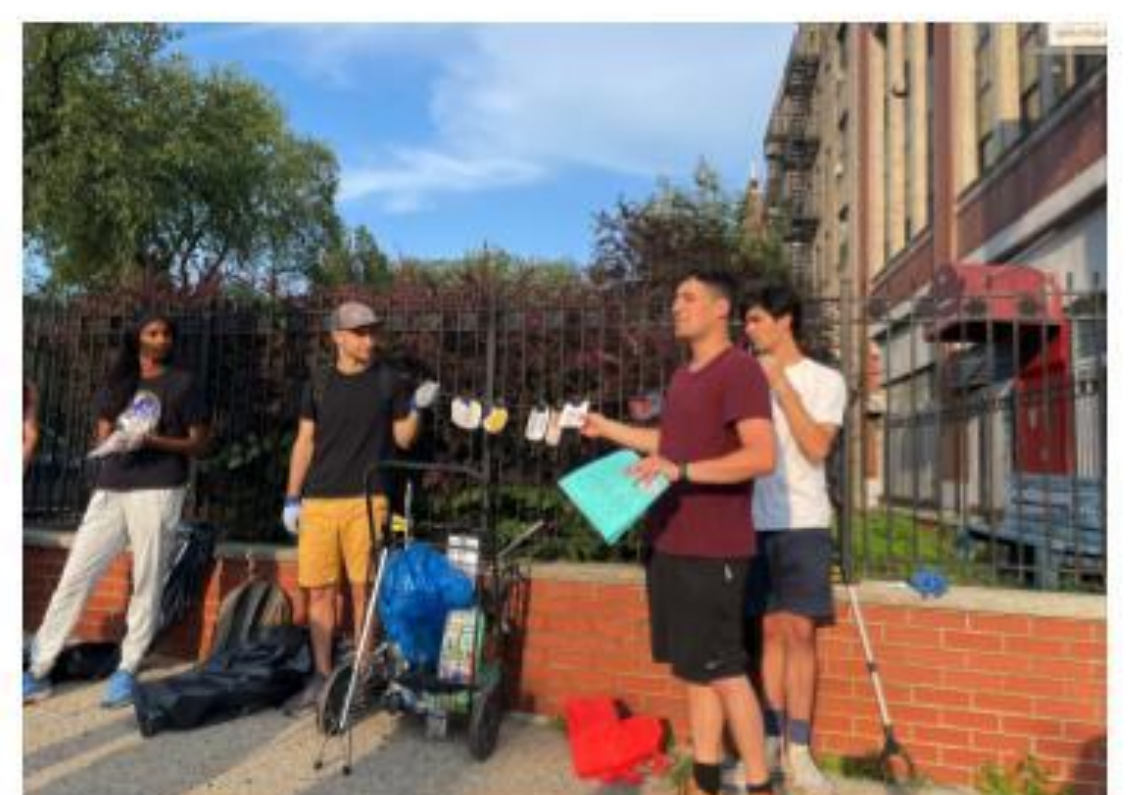
The success of this event provides evidence for my master plan approach of amplifying the profile and work of existing organizations as a strategy to overcome lack of community access to environmental justice services. CUCH leadership was confident that the social series and education component increased the turnout and, therefore, the total litter cleaned. The informal assessment revealed that participants were engaged and likely to attend another event.

I missed my goal of interviewing 5 (+) participants as I was occupied with logistics and the street noise was too loud to record. In the future, I would set out to focus on the event itself and recruit interviewees for future recordings.

Impact on Stewardship

By adding a lesson and walking inquiry to the clean up format, we provided essential context to the participants' action and the litter they were discarding. With a better understanding of the process of waste management and degradation, participants appeared more thorough because they knew that their actions would directly restore health and value to their community. This is supported by both the Value-Belief-Norm Theory (VBN) and the Stone Age Bias (SAB). (Stern & Dietz, 1999; van Vugt, Griskevicius, & Schultz, 2014).

Figure 2
Stewardship Event Waste Degredation Lesson



Note: Two participants hold up fully completed timeline as crowd considers common litter item degradation.

Acknowledgements