Vitamin Green: Public Perception of the Impact of Trees

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Springfield, MA & McKnight-Hill

- Population estimate: 155,032
  - 53% women
  - 26% are children under 18 y.o.
- Diverse background
  - 10% foreign born
  - 38% over age of 5 primarily speak a non-English at home
    - 32% spanish
    - 3% indo-european
- Economically disadvantaged city
  - 30% live in poverty
  - McKnight-Hill Median income: $28,197
12th Most Violent City
In America, according to the FBI’s 2011 Report
2,800 Residents
Were members of the city’s gangs

21% Decrease in Crime
From 2008 to 2014

38% Decrease in Aggravated Assault
From 2008 to 2014
C3 Mason Square
Community Meetings
Interprofessional & Intra-commuinity

All united by one shared neighborhood & one goal

Pros:
Transparency
Open Forum → everyone has a voice
Mutual Respect

Cons:
Not all groups are represented at the meetings, including clinicians
Tree Inequity

McKnight-Hill is classified as an **Environmental Justice Area** by *minority and income level*

- Initial Tree Cover by Neighborhood:
  - McKnight- 11.4%
  - Old Hill- 15.9%
  - Upper Hill- 12%
Health Effects

- A 2019 PHI report states that certain neighborhoods are disproportionately affected by asthma
  - Elementary Students with asthma:
    - Rebecca M Johnson: 22.3%
    - William N. DeBerry: 16.9%
  - Due to higher levels of air pollution
  - AAFA ranked Springfield as most challenging place to live with asthma
2016 BMC Community Health Needs Assessment:
“Climate change is expected to … negatively affect the health of a large number of BMC service area residents… Almost all of Springfield qualifies as an environmental justice population -- low income populations, communities of color, and immigrant [groups] that often experience disproportionate exposure to the impact of natural disasters, climate change and environmental hazards.”
Environmental Health Organizations in Springfield

- Greening the Gateway Cities
- ReGreen Springfield
- Springfield Forestry
- Catalyst for Regional Progress PVPC
- U.S. Forest Service
- U.S. Fish & Wildlife Service
Service to the Community

- Focused on the need to plant more trees in the community - to **improve asthma and pollution rates**.
- Analyzed local asthma rates, spoke with local residents, and examined areas where trees could potentially be planted.
- Conducted a survey with local residents to gather their **general views on trees**.
Survey Results

Legend
1- Negatively        3- Neutral        5- Positively

How do Trees Affect your Mood?

- 1: 7.8%
- 2: 2.0%
- 3: 11.8%
- 4: 25.5%
- 5: 52.9%
**Survey Results**

How do Trees Affect your Physical Well-Being?

- **1** Negatively (11.8%)
- **2** Neutral (2.0%)
- **3** Neutral (17.6%)
- **4** Positively (21.6%)
- **5** Positively (47.1%)

★ Legend

1- Negatively
3- Neutral
5- Positively
Survey Results

How Much do You Think that Trees Lower Energy Costs?

Legend
- 1- Not at all
- 5- Significantly

- 1: 11.8%
- 2: 5.9%
- 3: 23.5%
- 4: 13.7%
- 5: 45.1%
Survey Results

How Concerned are You with Tree-Related Damage?

Legend
1- Not at all
5- Very Concerned

- 1: 23.5%
- 2: 11.8%
- 3: 33.3%
- 4: 11.8%
- 5: 19.6%
Population Health Advocacy
Outdoor Rx

- Collaboration between Appalachian Mountain Club’s (AMC) and Boston’s healthcare providers.

- Outdoors Rx gives healthcare professionals tools for prescribing outdoor activity, including a prescription for the outdoors and a map showing local green spaces for families to explore. The program provides an online resource with ideas for nearby outings and offers local guided programs which are free.

- Funded by grants since 2013 from Blue Cross Blue Shield of Massachusetts, Boston Medical Center, and others.
Leaders, Bring Outdoor Rx to Springfield!

- We need your help! We ask that Baystate Medical Center, which serves a majority of residents in Springfield, **collaborate** with the environmental groups in the area to **encourage & enable** children as well as adults to **actively explore the outdoors** through the foundation of **OutdoorRx**.

- **Funding** on the city, state, & federal levels with **community engagement** by clinicians is necessary for the **health of our community**.
What did we learn?
To Summarize...

- Many local organizations work *behind the scenes* to improve aspects that affect *physical* and *psychological well-being* of the residents of Springfield.

- Interacting with residents has helped provide us a sense of *what they need*, what they are *expecting of their community leaders*, and *how to communicate* with them effectively.

- Similarly, identifying social and environmental injustices that these residents and future patients experience provides us with more *empathy and understanding* as clinicians and enable us to *advocate* for them appropriately.

- The ability to interact *interprofessionally* and observe other interprofessional teams has given us a greater sense of the importance of *cooperativity* and *appreciation* for the skills we each bring to the table.
Our Survey

If you’re interested in exploring our methods & taking our survey for yourself, scan this QR code with your smartphone camera.
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Thanks!

ANY QUESTIONS?