

IS IT TIME TO SAY GOODBYE TO YOUR GAS STOVE?: BARRIERS TO AND RECOMMENDATIONS FOR COOKING METHOD CONVERSION

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Background

- Gas cooking appliances exacerbate climate change and pose public health risks by producing major greenhouse gases and other toxins (see fig. 1)
- However, millions of people in America continue to depend on gas appliances for cooking
- Therefore, further study is needed to understand the low rate of adoption of low or zero cooking appliances

Health Effects of Nitrogen Dioxide (NO₂) in Children

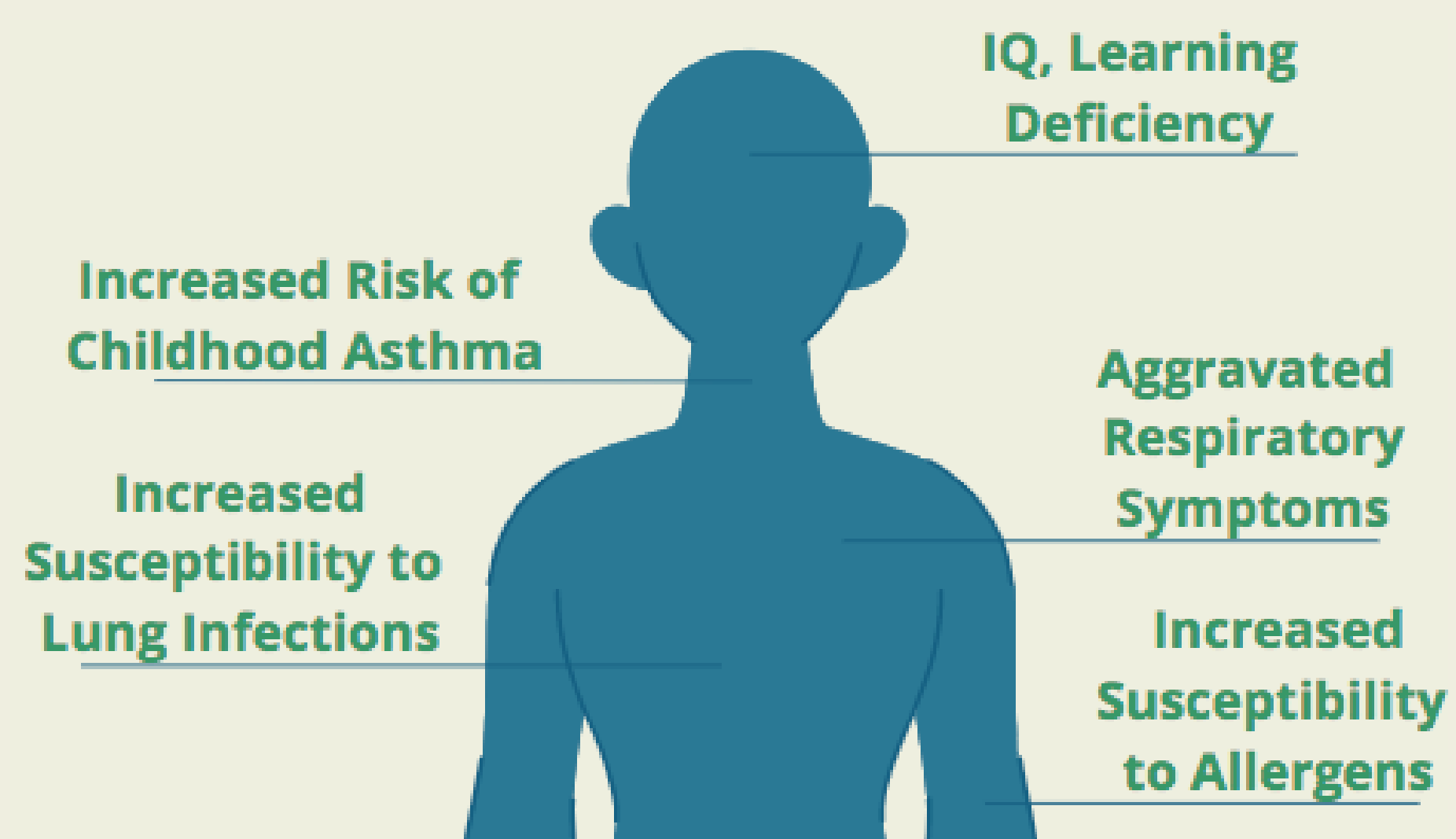


Figure 1. According to Rocky Mountains Institute, NO₂ in household air is associated with adverse health effects on children.

Researchable Question

What are **barriers** to and **recommendations** for conversion to low or zero carbon cooking?

Internship & Methods

- Interned at the Office of King County Executive Dow Constantine to accelerate the cooking method conversion program by enhancing the understanding of the topic



Conducted literature review



Interviewed experts on missing information



Produced assessment paper & outreach materials

Results

Barriers

System-Level

- High Market Cost
- Lack of Indoor Air Quality Regulation

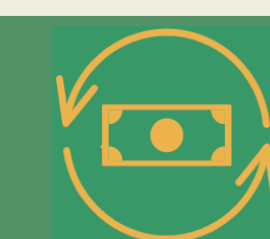
Institution-Level

- Underestimation of GHGs Emissions
- Media Portrayal

Actor-Level

- Technological Challenge
- Financial Burden
- Cultural Pushbacks
- Lack of Public Awareness

Recommendations



Enhanced Funding System

Expand the current rebate systems to accommodate a wider range of audience



Indoor Air Quality Regulations

Establish air quality regulations specifically for indoor air quality



Home Energy Score Program

Mandatory disclosure of unified energy efficiency rating when listing properties



Social Media

Increase civic participation by increasing awareness and introduce available resources



Public Library Programs

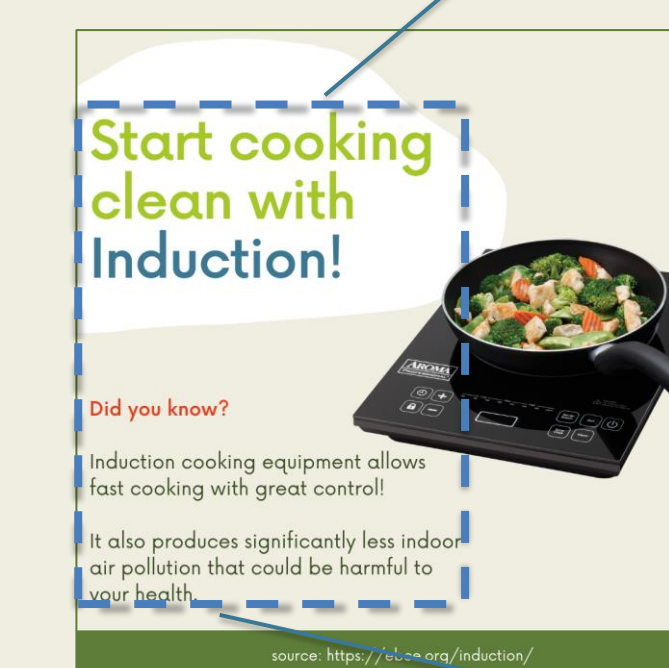
Launch public loan programs to break knowledge barriers and increase awareness

Figure 2. Barriers to and recommendations for conversion to low or zero carbon cooking appliances. The connecting lines indicate which recommendations address the identified levels of barrier.

Takeaways

- Identified barriers exist on system, institution, and actor levels (see fig.2)
- Financial incentives, regulation improvements, and outreach programs (see fig.3) can help overcome the barriers (see fig.2)

Start cooking clean with Induction!



Did you know?

Induction cooking equipment allows fast cooking with great control!

It also produces significantly less indoor air pollution that could be harmful to your health.

Figure 3. Zoomed in sample outreach material created to demonstrate a way to increase public awareness through social media.

Implications

- Conduct further research on existing barriers using practical methodologies to better reflect real-world challenges
- Take environmental justice into consideration on every step of the way

"You always have to ask - Who might this new program leave out?"
— interviewee

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