

**Vancouver Food Strategy:
Capturing Public Perceptions and Readiness**

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Food System Resilience in Vancouver, British Columbia

Vancouver is a west coast seaport city found on the mainland of British Columbia. The northern end of the city is bound by the Burrard Inlet and English Bay and the southern end is bound by the Fraser River (City of Vancouver, 2017). According to a 2016 census, the population is 631, 486 making it the most populated city in British Columbia (Statistics Canada, 2016). In January of 2013 the City of Vancouver approved the Vancouver Food Strategy, which is a plan to create a more sustainable and just food system (City of Vancouver, 2013). For the first time this year UBC's Faculty of Land and Food Systems, in partnership with the City of Vancouver Food Strategy Implementation team, is developing a series of projects focusing on the resilience of Vancouver's food system.

The purpose of this project is to design a survey tool that assesses how prepared Vancouver residents are for an event that disrupts the city's food supplies. The deployment of such a tool will be useful for future resiliency planning, as it will provide insight on how prepared individuals are for a disruption in the food supply as well as identify infrastructure that the public will rely on in the event of a food system disaster. The survey tool will be validated in consultation with community members using mini-focus groups and one-on-one interviews.

Building Resilient Cities

Resiliency is the ability of a system to recover from disruption. Incorporating food system resilience into city planning can help prepare a community to withstand both natural and human induced disasters; a city with a resilient food system will be more prepared to return food supplies to pre-disaster levels in an equitable and efficient manner (Zeuli and Nijhuis, 2017).

Taking a Food System Perspective

There are four general components within a food system: production, processing, distribution, and access (Zeuli and Nijhuis, 2017). Food production includes all activities involved with growing crops and raising livestock for human consumption; food processing encompasses the cleaning, packaging, and processing of food products; food distribution is all processes involved in transporting and delivering food products from processing facilities to points of access; and food access is the availability of food at access points, including grocery stores, restaurants, institutions, and food banks (Zeuli and Nijhuis, 2017). The four components are influenced by the environment within which they exist, and so consideration of surroundings is important when examining food systems (Erickson, 2008).

Resilience and the Public: Why does it Matter?

There is an implicit assumption that a city focused on its own resilience will include the resilience of the city's food system by default; however, research by the Initiative for a Competitive Inner City (ICIC) suggests otherwise (Zeuli and Nijhuis, 2017). The ICIC suggests conducting an assessment of the current state of a city's food system as a means to identify the challenges or strengths unique to that particular city. The ICIC also highlights the benefit of incorporating a food systems perspective into disaster response planning. Utilization of a food systems perspective when emergency planning ensures city resources are allocated toward the infrastructure necessary to facilitate a resilient food system (Zeuli and Nijhuis, 2017).

In the United States, the National Centre for Disaster Preparedness has collected public perceptions of disaster preparedness since 2002 through The American Preparedness Project (Petkova et al., 2016). Petkova et al found this data collection critical to the implementation of sound disaster planning that served the community well (Petkova et al., 2016). A stable, long term disaster strategy could only be effective when the public is confident in the information provided by city officials during times of disaster and assured that the city could adequately respond to their needs (Petkova et al., 2016).

Further research conducted in the US demonstrated that there can be inconsistency between the perceptions of city officials and city residents, with respect to disaster preparation and associated risk (Donahue, Eckel and Wilson, 2013). Donahue, Eckel & Wilson found that for some issues there was general agreement between the two parties, but for others there were significant differences. For example, public officials' opinion of their constituents' level of preparedness differed greatly from how constituents perceived their own preparedness. The findings of this study indicate the disconnect between city officials and residents, emphasizing the importance of reaching out to the public to build a strong trusting relationship between the two groups; this contributes to the creation of an effective disaster response plan for the community.

Objectives

1. Design a survey tool that assesses how prepared Vancouver residents are for a natural or human-induced disaster that disrupts the city's food supply
2. Validate the survey tool, ensuring it accurately captures public perceptions

Methods

1. Design of Survey Research Tool

- Design a survey that will capture public opinion on the following themes:
 - How prepared do Vancouver residents think they are if a disaster were to come?
 - How do residents prefer to receive information regarding disaster risk?
 - Where do residents plan to access food in the event of a disruption to food the supply?

2. Survey Validation

a. Content Validity: Focus Group with Food System Thinkers

- Through our community partner, recruit 6 food systems thinkers from the Vancouver Food Policy Council
- Provide the assembled panel with a draft of the survey research tool
- While conducting a mini focus group, ask the panel to assess the following:
 - Determine if survey questions are an accurate tool for measuring public opinion on food system resilience
 - Determine if the survey includes items that are not relevant or excludes items that should be included

b. Face Validity: Personal Interviews with Non-Food System Professionals

- Identify 6 non-expert individuals in the community via personal networks
- Provide participants with a draft of the survey research tool
- While conducting one-on-one interviews, ask participants to assess the following:
 - Determine if the content of the survey is easily understood
 - Determine if any item on the survey needs clarification or definition
 - Decide if the survey appears to be a valid measure of public perceptions

c. Refine Survey Tool

- Refine survey tool based on feedback from focus group and personal interviews
- Submit the final survey tool to the City of Vancouver for proper distribution and data collection

Ethics: *An electronically signed consent form will be obtained from all survey respondents as well as in-person interviews. All participants will be informed that they have the right to revoke the inclusion of their data into our analysis at anytime before the final submission of the study.*

Outcomes

- Produce a validated research survey that can then be deployed by the City of Vancouver
- Produce an infographic summarizing results from mini-focus groups and interviews (to be completed on November 26).
- Provide a foundation for future researchers who will further investigate public perceptions of food system resilience and disaster risk in Vancouver

References

- City of Vancouver. (2017). Geography. Retrieved from: <http://vancouver.ca/news-calendar/geo.aspx>. [Accessed Oct. 11, 2017].
- City of Vancouver. (2013). What feeds us: Vancouver Food Strategy. Retrieved from <http://vancouver.ca/files/cov/vancouver-food-strategy-final.PDF>. [Accessed Oct. 11, 2017]
- Donahue, A., Eckel, C. and Wilson, R. (2013). Ready or Not? How Citizens and Public Officials Perceive Risk and Preparedness. *The American Review of Public Administration*, 44(4_suppl), pp.89S-111S. Retrieved from: <http://journals.sagepub.com.ezproxy.library.ubc.ca/doi/full/10.1177/0275074013506517>. [Accessed 8 Oct. 2017].
- Erickson, P.J. (2008). Conceptualizing Food Systems for Global Environmental Change Research. *Global Environmental Change*, 18(1), pp. 234-245. Retrieved from: <http://www.sciencedirect.com/science/article/pii/S0959378007000659>. [Accessed Oct 11, 2017].
- Petkova, E., Schlegelmilch, J., Sury, J., Chandler, T., Herrera, C., Bhaskar, S., Sehnert, E., Martinez, S., Marx, S. and Redlener, I. (2016). The American Preparedness Project: Where the US Public Stands in 2015. *National Center for Disaster Preparedness at Columbia University's Earth Institute*, pp.1-41.
- Statistics Canada. (2016). *Focus on Geography Series, 2016 Census*. Retrieved from: <http://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-cma-eng.cfm?GC=933&GK=CMA&LANG=Eng&TOPIC=1>. [Accessed Oct. 11, 2017]
- Zeuli, K. and Nijhuis, A. (2017). The Resilience of America's Food Systems: Evidence from Five Cities. [pdf] Roxbury, MA: *The Initiative for a Competitive Inner City*, pp.1-71. Retrieved from: http://icic.org/wp-content/uploads/2017/01/Rockefeller_ResilientFoodSystems_FINAL_post.pdf?x96880. [Accessed 8 Oct. 2017].