

Senior Seminar (SOC 47000- 01, 02) Blackford County Concerned Citizens, Hartford City, IN

Composing a Public Health Plan for Hartford City

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INTRODUCTION

At the start of 2022, faculty from Purdue University West Lafayette and Fort Wayne began to collaborate with Blackford County Concerned Citizens (BCCC) to address health concerns regarding legacy pollution in Hartford City, Indiana. Indiana State Department of Health data from 1998-2012 indicated that Blackford County's age-adjusted cancer rate for that period was 6% higher than the state average. Clusters were identified for bladder, thyroid and colon cancers. Given the industrial history of the area, BCCC wanted to investigate the health impacts of environmental exposure to carcinogens. Following the principles of Community-Based Participatory Research (CBPR), we have involved community members in every step of our research in order to make sure the outcome of the study is appropriate and beneficial for residents of Blackford County (O'Fallon and Deary 2002). Based upon analysis of qualitative data gathered from field research in 2022, students from Senior Seminar (SOC 4700- 01, 02) worked with Purdue faculty to draft a public health plan that will be the basis for further collaboration with residents from Blackford County to address key concerns. Issues include, but are not limited to, pollution and needles in the park. Recommendations include increased street sweeping in targeted neighborhoods and a public presentation by the water department to address misinformation about water quality. Magnetic needle rollers will be provided to the Parks Department. According to the American Planning Association, most local government comprehensive public health plans focus on active living but fail to address how social and environmental factors can affect a range of public health factors (Ricklen, Klein, and Musiol 2012: 19). Our public health plan is designed to address environmental health factors and to complement efforts of other local public health groups.

TIMELINE OF DRAFT FEEDBACK AND COLLABORATION

1. SOC 47000 Students write the draft by March 17th
2. West Lafayette faculty review and edit the draft by March 24th
3. Community Leaders provide feedback at the April 1st meeting
4. Community provides feedback at the May 6th meeting
5. Independent review of the draft by Hoosier Environmental Council

OBJECTIVES

- Involving community members as much as possible
- Identifying issues raised in qualitative and quantitative data
- Sorting issues already being addressed by collaborators from those addressed by our team
- Identifying relevant stakeholders
- Involving stakeholders in the draft
- Addressing public misinformation
- Drafting the public health plan in a way that everyone can read

REFERENCES

- [1] Frank, Indra. 2011. "Cancer Rates are Higher Than Expected," *Blackford County Concerned Citizens* Vol. 1, Issue 2.
- [2] O'Fallon, Liam R. and Allen Deary. 2002. "Community-Based Participatory Research as a Tool to Advance Environmental Health Sciences" *Environmental Health Perspectives* 110(Suppl. 2): 155-159.
- [3] Ricklen, Anna, William Klein, and Erin Musiol. 2012. "Healthy Planning: an Evaluation of Comprehensive and Sustainable Plans Addressing Public Health. *Chicago: American Planning Association.*

METHODOLOGY

1. We convened a meeting on Feb. 19th, 2022 during which community members contributed to development of the online survey with Purdue faculty.
2. We shifted from snowball sampling to door-to-door field research using iPad in real time
3. We systematically canvassed all neighborhoods in Hartford City from May to December 2022 for online survey participation.
4. We gathered 267 responses to the open-ended questions in the questionnaire; 80 participants gave additional dust, water, soil, urine, and toenail clipping samples at a later appointment to be tested by Purdue West Lafayette faculty.
5. Our sample falls within an estimated 95% confidence level for the 2020 Census population size of 6,068 with a 6.5% margin of error.
6. We analyzed the qualitative and quantitative data from the questionnaire responses to identify key concerns within the community
7. A few additional concerns were identified from conversations with residents

RESULTS AND ANALYSIS



Issue	% of Respondents Mentioning Issue (n=267)
Cancer	39.70%
Water	30.71%
Drugs	23.60%
Ground Pollution	12.73%
Obesity	11.24%
Air Pollution	10.86%
Smoking	8.99%
Mental Health	8.61%
Cognitive Health	4.87%
COVID-19	3.75%
Respiratory Health	2.25%

RECOMMENDATIONS AND ANTICIPATED IMPACTS

- Timely and effective street sweeping in neighborhoods identified to have higher levels of heavy metals in fugitive dust
- Plant green walls in neighborhoods with polluted fugitive dust to mitigate air pollution
- That the water department address misinformation about water quality as part of their community engagement activities
- Increase the availability of ways to dispose of trash for impoverished residents to reduce trash problems
- That park officials use magnetic needle sweepers to sweep parks for discarded needles
- That county level officials apply for state funding to develop a integrated emergency notification plan with both municipalities
- If implemented, we anticipate that residents will use the parks more frequently, that they will be better informed of emergency alerts and notifications, and that residents will be exposed to less polluted fugitive dust
- Increased park usage by removing the fear of needles



Victoria Hoffman, Feb. 17th, 2022



Sherrie Steiner, Summer 2022

REFLECTION AND CONCLUSION

- Public memory of past projects was a pressure to redirect our involvement with the community away from the public health focus. Past projects had utilized a legal approach to address off-site environmental pollution. When this study shifted to a public health approach, BCCC solicited members from the public health sector to join their board but were unable to recruit such volunteers.
- The majority of the students who are enrolled in the Senior Seminar class are online students, making collaboration for drafting the public health plan difficult. To address this issue, weekly zoom meetings were conducted to make sure everyone was on track and had the most up-to-date information regarding the study.
- Our next steps are to involve community leaders representing the county (e.g., the Sheriff and commissioners), and the Hartford City Water Department, Parks Department, and Public Works Department, and the mayors from Hartford City and Montpelier as stakeholders responsible for the issues raised by their citizens. This is consistent with how to implement the principles of community-based research.
- The final draft will be independently reviewed by Dr. Indra Frank, Director of Environmental Health and Water Policy at Hoosier Environmental Council.

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