**Week 4 Reflection: Questions and analytical approaches**

It was good to practice how to design the neighborhood-level analysis in class, and I learned that the possible questions and analyses vary by different key stakeholders even if they are working on the same problem (e.g., COVID-19). I was also able to reflect on what types of research questions I have for my own work for assessing public health benefits of Chicago’s Large Lot Program.

For the structure and function of neighborhoods, I have multiple questions as below:

* First, I would like to attempt to understand demographic aspects of the high-vacancy urban neighborhoods in Chicago, such as age, race, income, and educational background; these are basic information, but how would this demographic data in vacant urban neighborhoods be different from general Chicago’s populations? (Q1)
* Secondly, how might demographic data be related to urban vacancy rates? (Q2) How “vacant” are these neighborhoods? (Q3) Were there any visible neighborhood changes in terms of vacancy rates and greening after Chicago’s Large Lot program? (Q4)
* Third, how “healthy” are these neighborhoods with high vacancy rates compared to other neighborhoods with lower vacancy rates? (Q5) Are there any significant relationships between vacancy rates and the neighborhood’s health? (Q6)
* Lastly, were there any improvements in the neighborhood’s health and well-being after implementing the Large Lot Program? (Q7)

To respond to the Q1, Q2, and Q3, the descriptive analysis and simple regression analysis can be useful in examining the differences between high-vacancy neighborhoods and general neighborhoods in Chicago. Previous studies suggest that high-vacancy neighborhoods tend to be predominantly African-American, lower-income, less-educated communities.

The Q4 may need to be more specifically developed since “neighborhood changes” can be examined in various ways. In the context of urban greening, I can look at data associated with vegetation cover, public parkland, street trees, and vegetation cover as the indicators of the effects of urban greening. Nassauer & Raskin’s (2014) cues to care indicators also have been used as indicators of landscape care. The visual assessment of measuring landscape change (e.g., by using Google Earth and Google Maps) would be useful for answering the Q4.

Considering that previous research has been already conducted to answer the aforementioned questions (e.g., Gobster et al., 2020), I would be more interested in answering the health-related questions (Q5, Q6, and Q7). The possible measurement and scales for neighborhood’s health and well-being may include neighborhood’s perceptions of safety, stress levels, social cohesion, perceptions of neighborhood physical disorder, and social connectedness. As analytical tools, using a map for each measurement and comparing the map with another map with vacancy rates would be effective to show health issues in vacant lots. Path analysis is another way to investigate the relationships between these variables. Yet, Q7 will be a tricky one to answer, as data I can get may not be comparable with past data. In this regard, analytical approaches will largely depend on data availability.