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THE PERSONAL HEALTH-POVERTY CONNECTION: A CASE STUDY OF SCHENECTADY, NY

Abstract:

The importance of personal health cannot be overstated. Without good health earning a good income is difficult. As a result, personal health is often linked to poverty. Further exacerbating the connection is that the poor spend a higher percentage of their income on healthcare. This health-poverty link leads to poor health outcomes and health issues such as respiratory diseases, lead poisoning, physical injuries, and mental health issues, to name just a few. Therefore, the relationship between poverty and personal health illustrates the socioeconomic disparities that exist. This paper examines the connection between poverty and personal health in the City of Schenectady, New York. Primary data collected from surveys are used to examine the poverty and personal health connection for Section 8 public housing residents and applicants, residents living in lower-income neighborhoods, and residents living in middle-class neighborhoods. Data are analyzed as subgroups and as an aggregate to determine the connection between the poverty and personal health. The paper concludes with a discussion of potential public policies that can be implemented to reduce personal health problems of the poor to achieve better health outcomes.

Keywords:

Health Outcomes

Poverty

JEL Classification: I14, I18, I30

1 Introduction

Schenectady, New York, USA is in the midst of a housing crisis, with a very old housing stock, an overabundance of obsolete houses and major demographic changes that involve increasing levels of poverty, the predominance of housing code violations in low-income census tracts, and a rate of abandonment that is thought to be nearly 10% of all housing units. Housing quality is a major factor in personal health as people spend the majority of their time indoors. Part of the housing quality-personal health dynamic is housing instability and insecurity.

Housing instability and insecurity has traditionally been defined as having the following attributes:

- High costs relative to income;
- Poor quality housing;
- Unstable neighborhoods with high residency turnover;
- Overcrowding;
- Homelessness;
- Having made multiple moves in the past 12 months;
- Getting behind on rent or getting evicted or foreclosed on in the past 12 months.

These attributes have been correlated to several societal woes, especially poverty, education, and public health (Newman, 2008; Hood, 2005; Burrige and Ormandy, 2007). Schenectady is thought to suffer from a shortage of sustainable housing. Furthermore, this shortage is believed to cause public health issues, and is thought to be highly correlated to the extreme poverty in the city. However, there is no documentation to substantiate these claims.

Housing instability has been shown to be correlated to public health problems. Research has shown that unstable housing conditions increase the likelihood of mental health problems and depression (Popkin, et al., 2016), exposure to trauma and violence (Burrige and Ormandy, 2007), victimization, and social exclusion (Hood, 2005; Leopold, 2012). The extent of these problems is also unknown.

The issue of quality housing is complex, as one must bring together all the pieces of housing instability and insecurity, poverty, education, and public health together. This paper presents the data on part of this dynamic, examining how poverty and personal health are connected to housing. As a result of the data presented, public policy recommendations are presented to improve housing quality for lower-income households that will lead to improved health outcomes.

The rest of the paper is as follows. Section 2 presents the survey questions and results. The paper concludes in Section 3 with a brief discussion of the results..

2 Survey Methodology

A survey of 540 residents in Schenectady, New York was conducted to obtain data on the housing stock in the city and to understand how housing is related to economic opportunity, personal health, transience, and educational opportunity. Surveys of public health and housing have proven to be an effective manner to obtain information on the subject (Roderick, Victor, and Connelly, 1991). Two population groups were targeted. The first group targeted were applicants for Section 8 housing for the Schenectady Municipal Housing Authority. This housing is for low income households in order to provide quality affordable housing. The second group were low to moderate income households within the city. The purpose of targeting these population groups

was to understand the impediments for people in acquiring sustainable housing. Furthermore, surveying these two groups allows for a balanced analysis to examine if lower income households face different housing and health issues than other city residents.

Of the 540 surveys, 210 were completed by Section 8 applicants for public housing and 330 were completed by other households throughout the city. The average age of the respondents was nearly 46 years and they have lived in Schenectady for 19.6 years. Over 68% of the respondents have an annual household income of less than \$20,000. The average rent paid per household is \$886 and the average utility bill paid per month is \$245. The average age of the building that the respondents live in is more than 105 years.

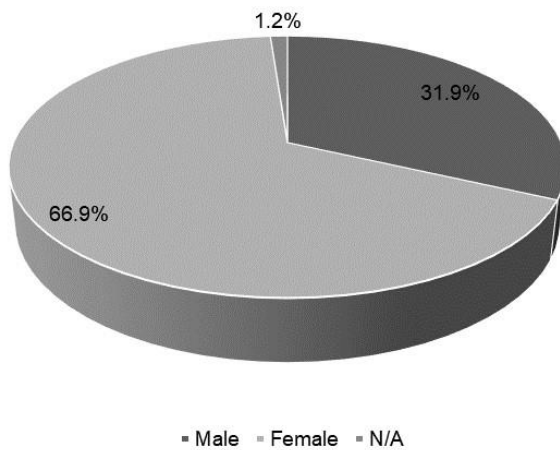
Table 1. Average Age, Time Lived in Schenectady, and Housing Costs and Characteristics.

Average Age (Years)	45.83
Average time lived in Schenectady (Years)	19.56
Average time lived in current neighborhood (years)	10.3
Average Rent (\$)	886.27
Average Utility Bill (\$)	244.82
Average age of building lived in (Years)	105.42

Surveys were taken throughout all parts of Schenectady except for the GE Realty Plot which is the high-income neighborhood in the city.

Nearly 68% of respondents were women and 32% were men (Figure 1).

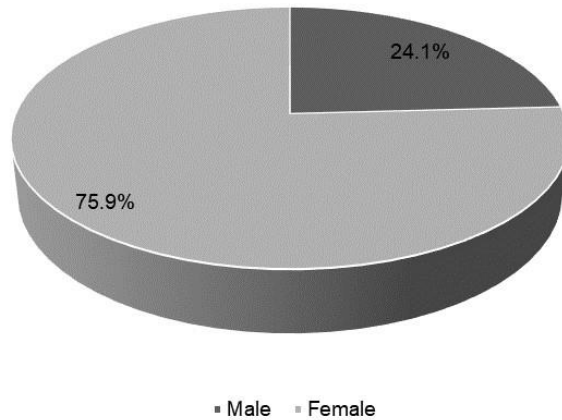
Figure 1: Gender breakdown of survey respondents



Source: Own processing of data

However, in contrast, most of the respondents living in public housing (Figure 2) are female (75.9%).

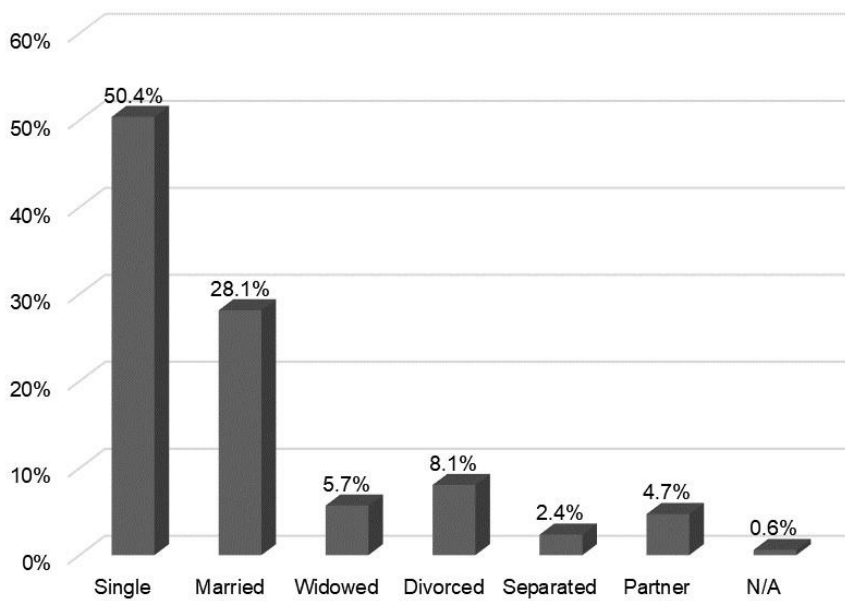
Figure 2: Gender breakdown of survey respondents living in public housing



Source: Own processing of data

Over 50% of respondents are single and 28% are married (Figure 3).

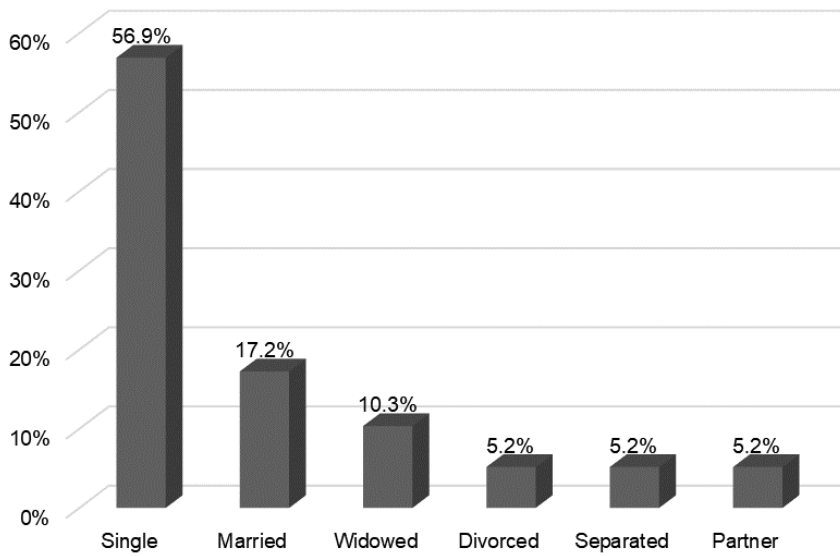
Figure 3: Marital status of survey respondents



Source: Own processing of data

More individuals in public housing are single, widowed, and separated in comparison (Figure 4).

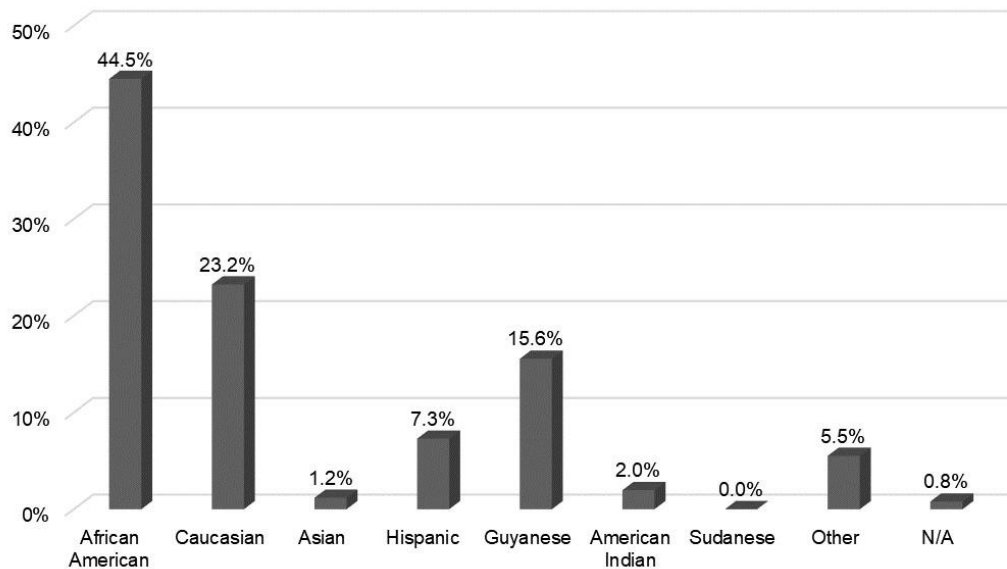
Figure 4: Marital status of survey respondents living in public housing



Source: Own processing of data

Nearly 45% of respondents are African-American, 23% Caucasian, nearly 16% are Guyanese, and 7% Hispanic (Figure 5).

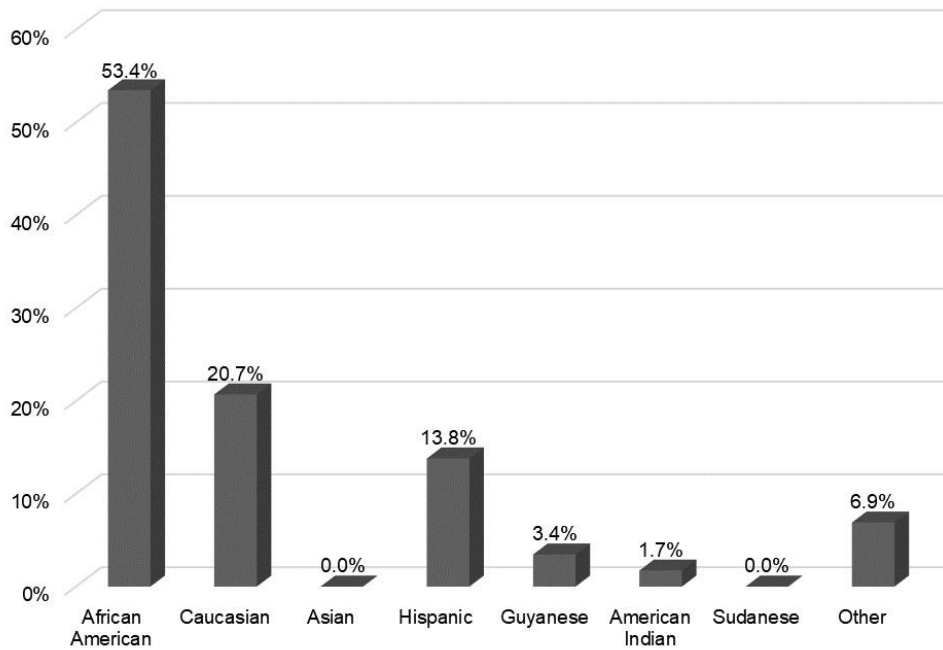
Figure 5: Racial breakdown of survey respondents



Source: Own processing of data

A larger percentage of respondents living in public housing (Figure 6) are African-American (53.4%) and Hispanic (13.8%).

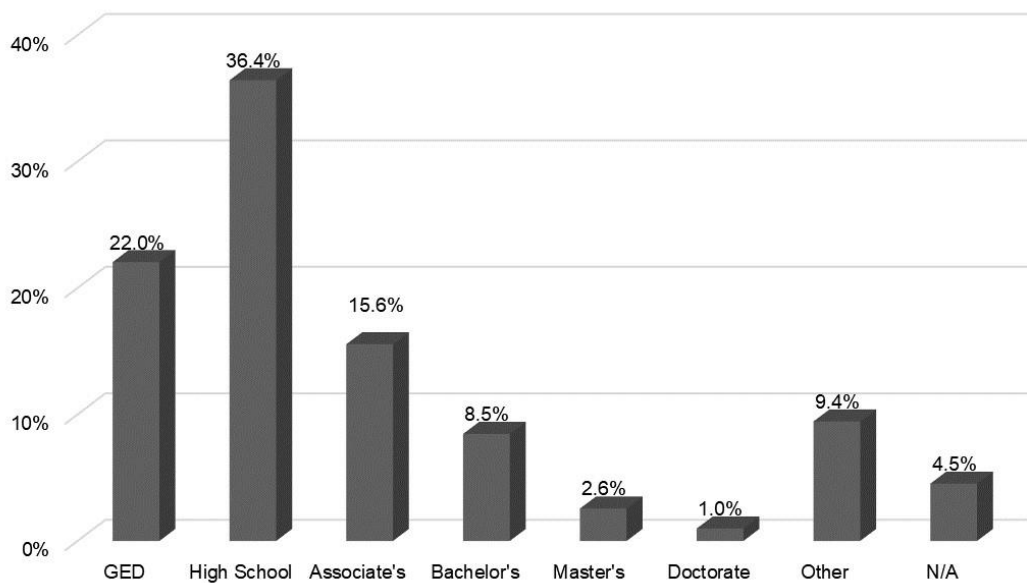
Figure 6: Racial breakdown of survey respondents living in public housing



Source: Own processing of data

As for education, approximately 68% of respondents have a high school degree (36.4%), GED (22.0%), or other (9.4%) which is less than a high school degree (Figure 7).

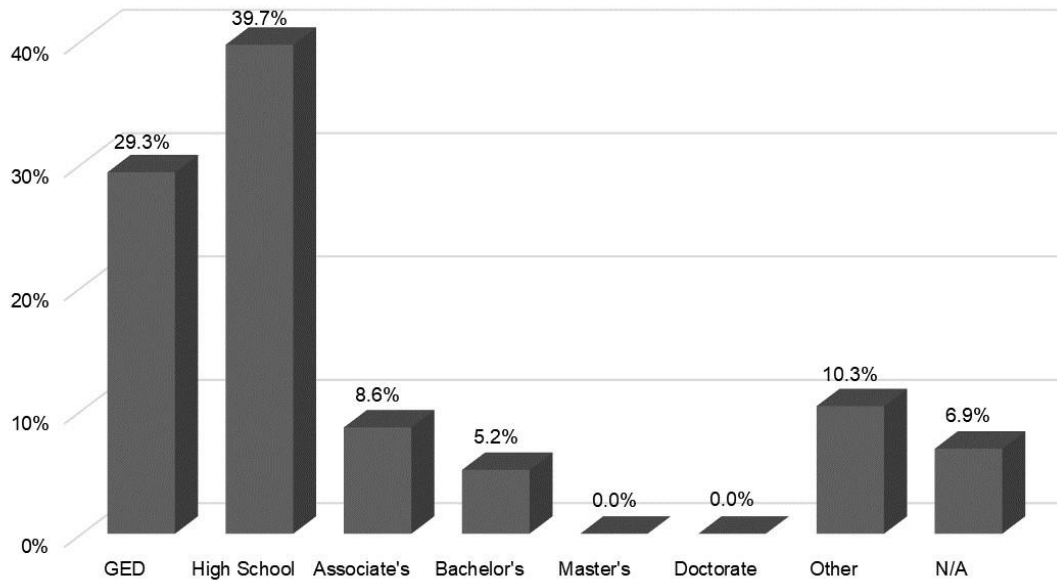
Figure 7: Educational levels of survey respondents



Source: Own processing of data

As might be expected, less respondents living in public housing have a higher educational attainment than a High School Diploma (Figure 8).

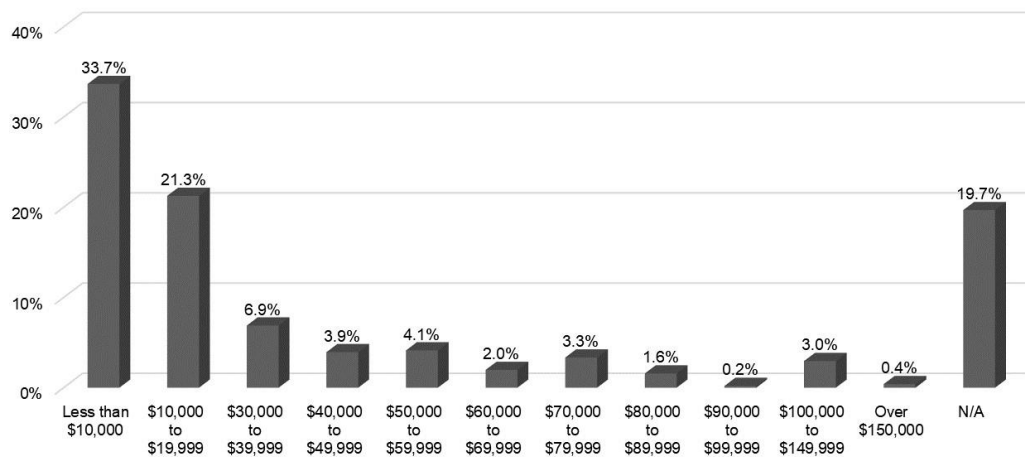
Figure 8: Educational levels of survey respondents living in public housing



Source: Own processing of data

Corresponding to the educational attainment of respondents, annual household incomes are low. Slightly more than 55% of respondents have an annual household income of less than \$20,000 (Figure 9).

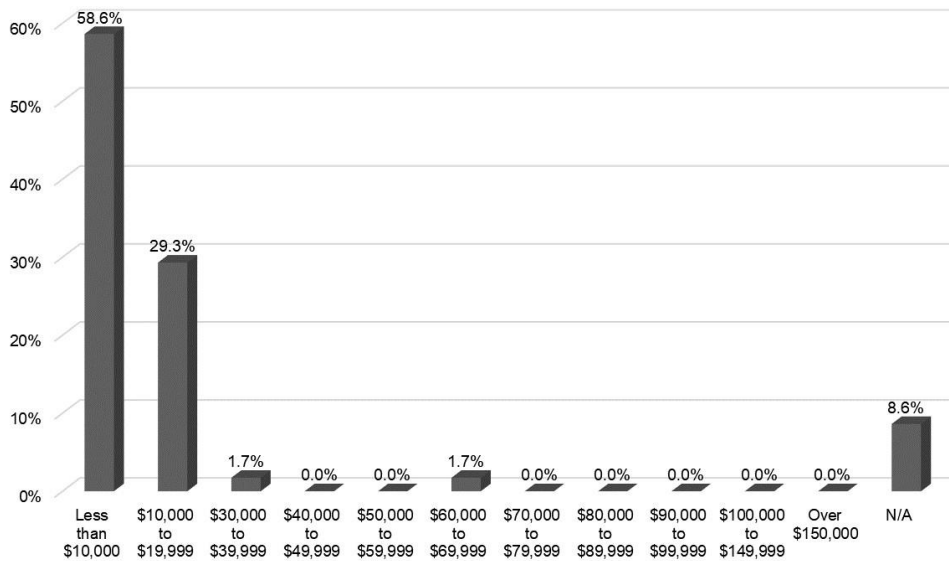
Figure 9: Annual household income of survey respondents



Source: Own processing of data

As expected, the household income of individuals living in public housing is much lower. Almost 88% of public housing respondents have an income of less than \$20,000 (Figure 10).

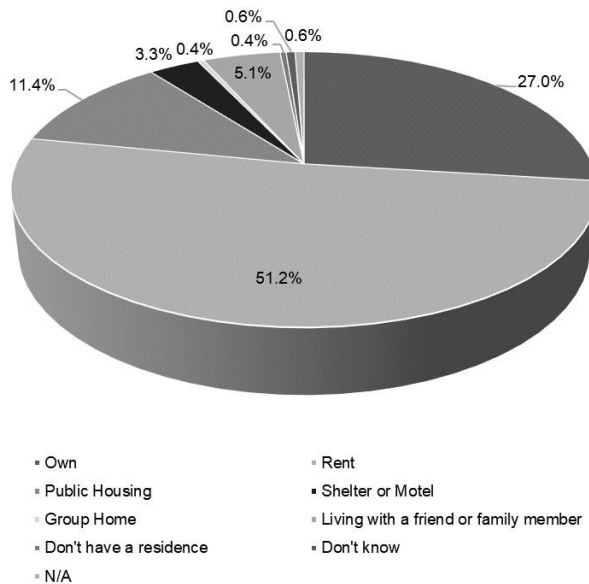
Figure 10: Annual household income of survey respondents living in public housing



Source: Own processing of data

Most of the survey-takers rent (51.2%), while 27.0% are homeowners (Figure 11).

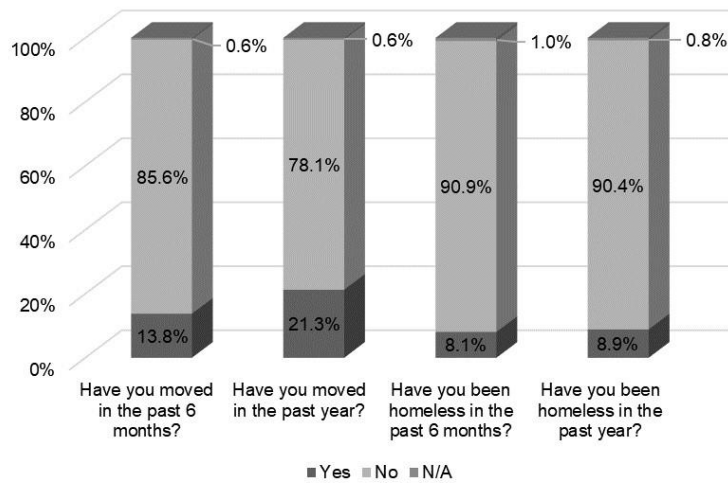
Figure 11: Current housing status of respondents



Source: Own processing of data

Housing instability is higher for people in the general sample (Figures 12 and 13).

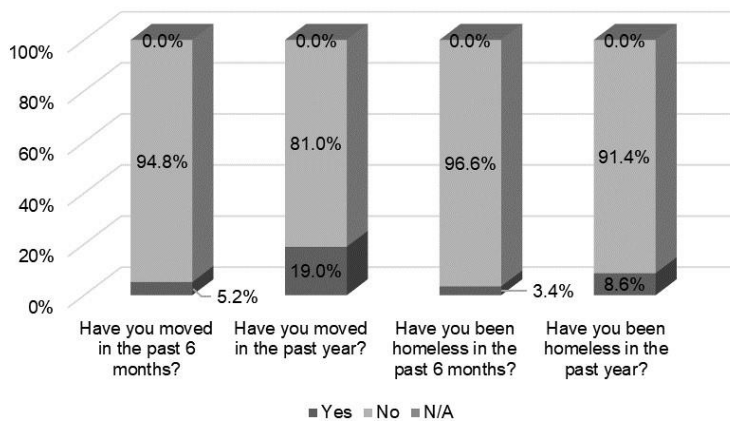
Figure 12: Housing instability of survey respondents



Source: Own processing of data

As shown by the data, approximately 21% of all respondents and 19% in public housing have moved in the past year. This indicator can be a measure of poverty as lower-income households will consistently move to avoid rent or eviction. As a result, these individuals will be relegated to housing with poorer living conditions, leading to worse health outcomes.

Figure 13: Housing instability of survey respondents living in public housing

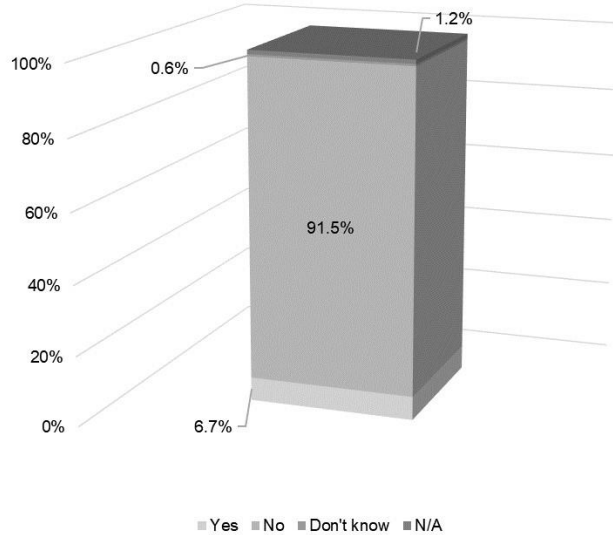


Source: Own processing of data

One of the most important, but often overlooked, aspects to both housing and healthcare is a language barrier (Leopold, 2012; Crowley, 2003). Often the technical language of healthcare is difficult for people to understand. Combine foreign language barriers with the technical nature of the communication, people have a difficult time understanding what the healthcare provider is telling them. Unfortunately, most of the time, people do not let their healthcare provider know that

they do not understand because they are embarrassed. Almost 7% of the respondents feel that language keeps them from communicating with a health care provider (Figure 14). Therefore, providing communication assistance is key to improving health outcomes.

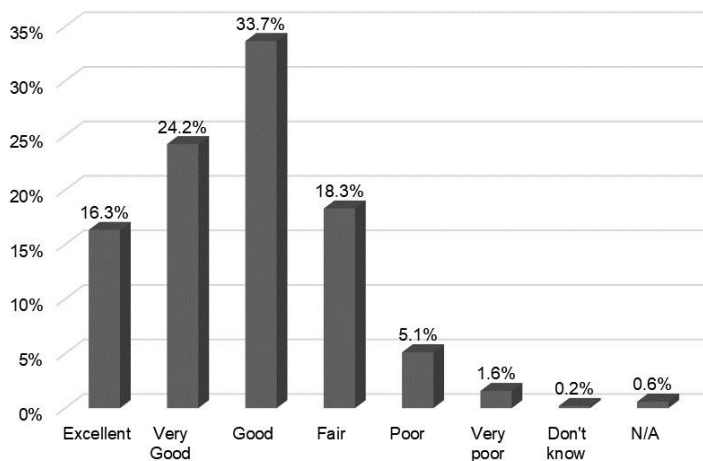
Figure 14: Language as barrier to healthcare



Source: Own processing of data

Asking about self-reported health measures help predict the mortality for respondents and serve as a global measure of health status (Kuhn, Rahman, and Menken, 2006; Wu, et al., 2013). When asked to report on their own health (Figure 15), 74% of respondents said their health is good (34%), very good (24%), or excellent (16%). Only 7% stated that their health was poor (5%) or very poor (2%).

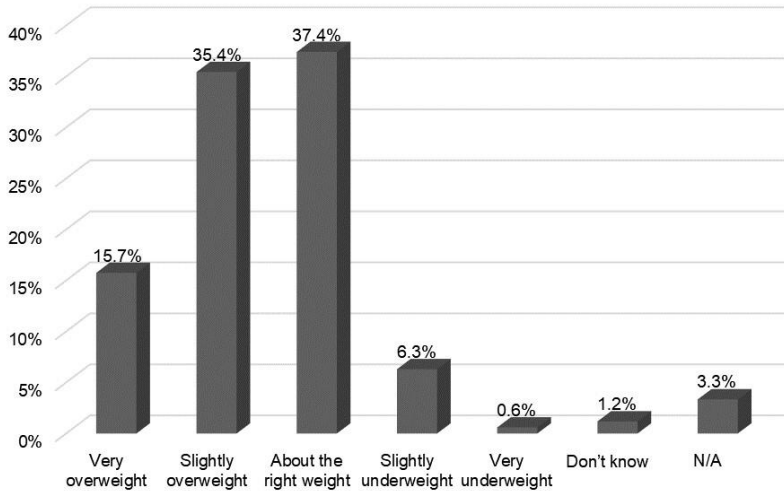
Figure 15: Current self-reported health condition of respondents



Source: Own processing of data

Respondents were also asked about their weight (Figure 16). Approximately 51% of respondents stated that they are slightly overweight (35%) or very overweight (16%). Roughly 44% stated that they are about the right weight (37%), slightly underweight (6%), or very underweight (1%).

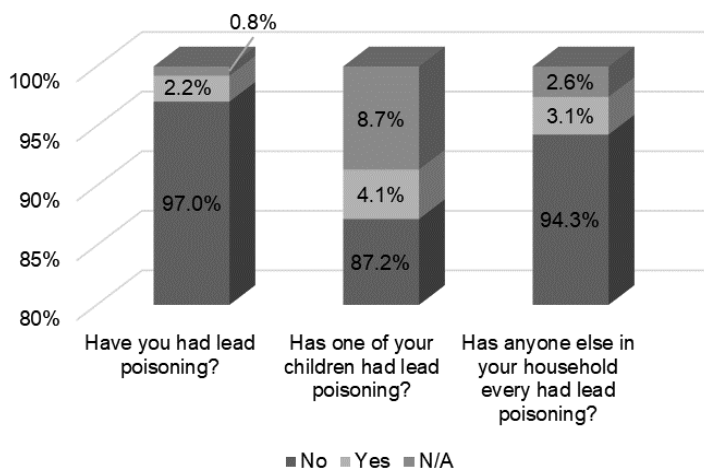
Figure 16: Current self-reported weight



Source: Own processing of data

Given the age of many of the housing structures in the city, lead poisoning is a major concern. Lead poison can lead to numerous health issues such as reduced mental functioning, seizures, and gastrointestinal issues (Hood, 2005; Breyse, et al., 2004). Only 2% of respondents claimed to have had lead poisoning, but 4% of children have been poisoned by lead and 3% of other members in the household have been poisoned by lead (Figure 17).

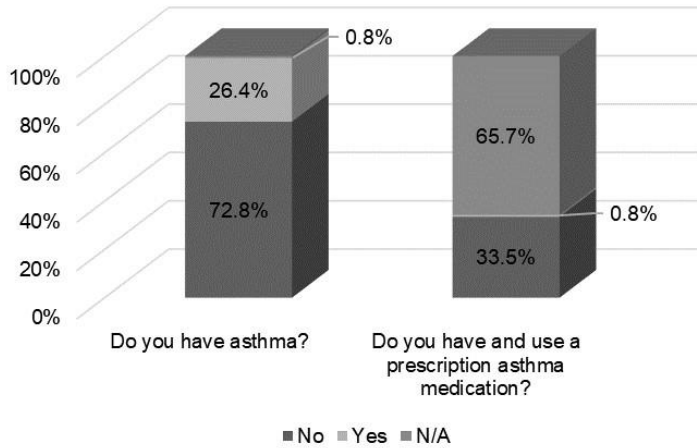
Figure 17: Lead Poisoning in Your Household



Source: Own processing of data

Asthma and indoor air quality are also a concern. Poor housing quality is often associated with bad indoor air quality (Hood, 2005; Newman, 2008; Breyse et al., 2004).

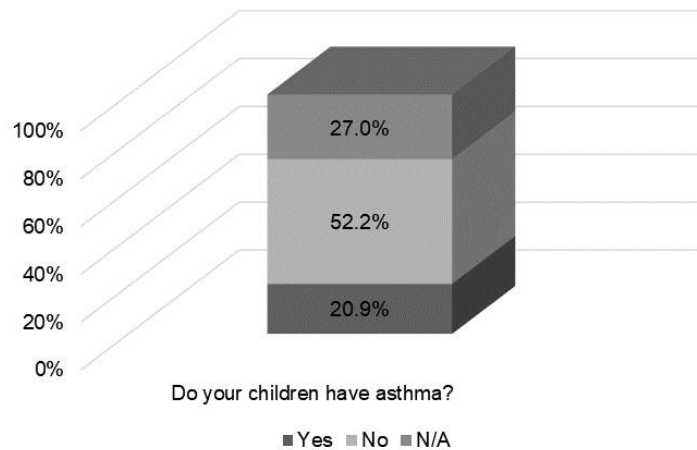
Figure 18: Personal asthma



Source: Own processing of data

Twenty-seven percent of respondents claim to have asthma, but only less than 1% have and use prescription medication for their condition (Figure 18). As for their children, 21% of respondents claim their children have asthma (Figure 19).

Figure 19: Children asthma

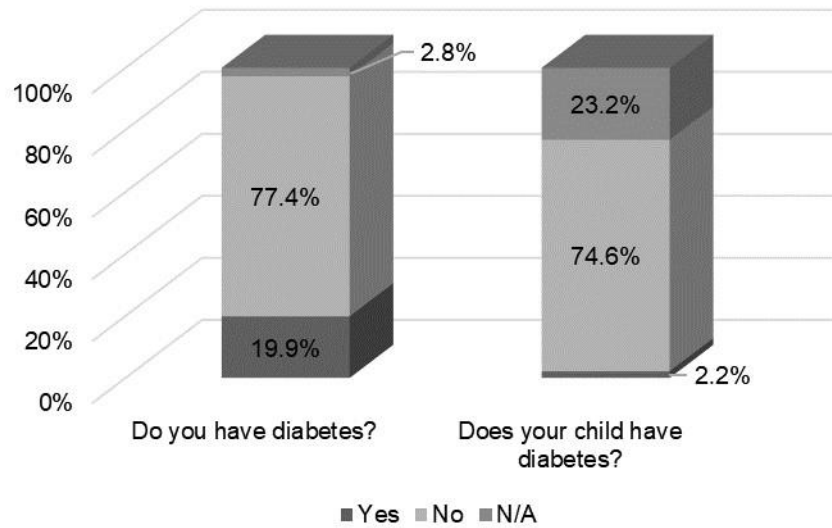


Source: Own processing of data

Diabetes for lower income individuals is typically higher than the average because healthy food is generally more expensive than less nutritious, high fructose food (Hood, 2005; Read and Tsvetkova, 2012). The disease is related to lower quality housing because the greater the share spent on housing the less money an individual will have for quality food. When asked

about diabetes, 20% of respondents claimed to have diabetes and 3% said their child has diabetes (Figure 20). The most common diabetes reported is Type II.

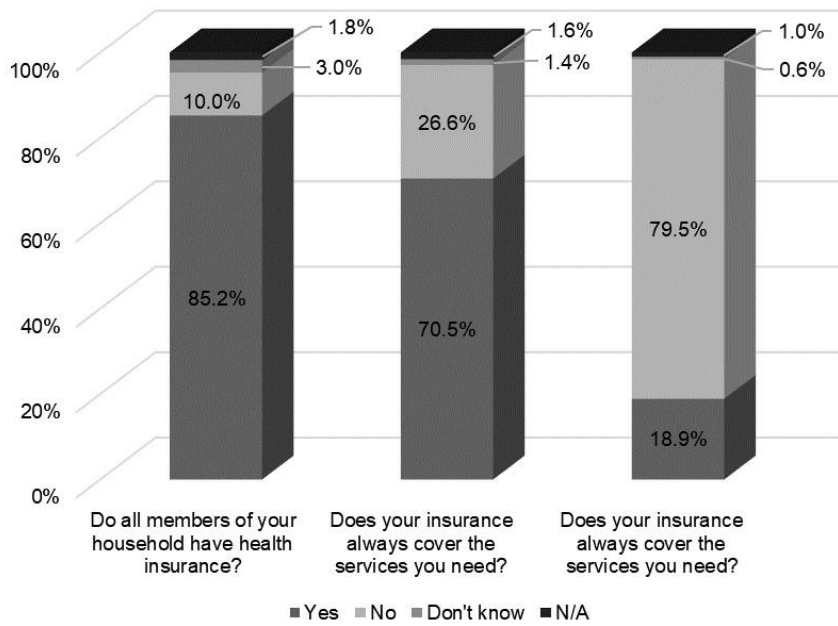
Figure 20: Diabetes



Source: Own processing of data

Health insurance is very important for maintaining health. The poor often do not have insurance or adequate insurance to cover their healthcare needs (Chaskin, 2013). Eighty-five percent of respondents stated that their household has health insurance, 71% claim that this insurance covers all their needs, and only 19% said that in the past year they have not had health insurance (Figure 21).

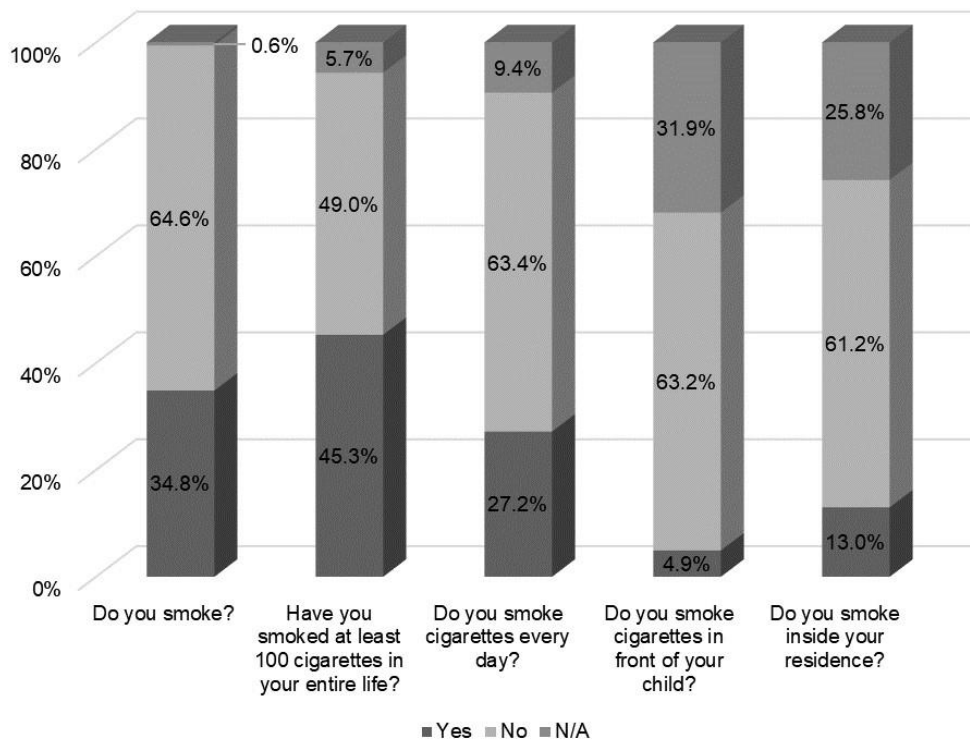
Figure 21: Health insurance coverage



Source: Own processing of data

Cigarette smoking is a health hazard that harms the individual but also family members that he or she may be smoking near (Breysse, et al., 2004; Mason, Wheeler, and Brown, 2015; Jacobs, Kelly, and Sobolewski, 2007). Thirty-five percent of respondents smoke, 45% of those have smoked at least 100 cigarettes during their lifetime, 27% smoke every day, 5% smoke in front of their child, and 13% smoke inside their residence (Figure 22).

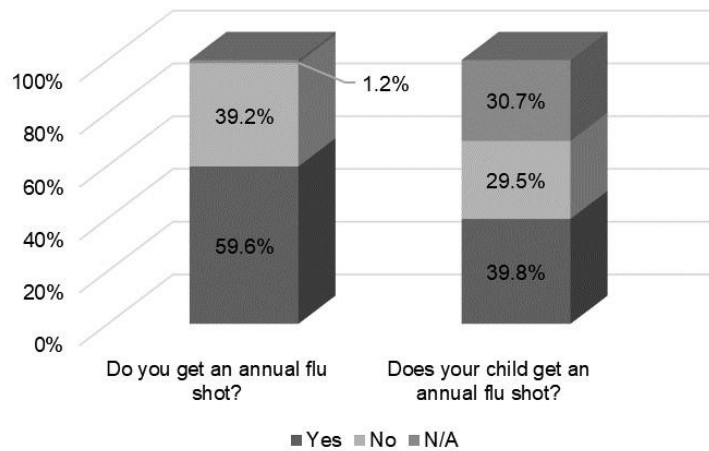
Figure 22: Smoking behavior



Source: Own processing of data

Respondents were also asked if they receive the flu shot (Figure 23).

This question was asked because it illustrates the responsibility an individual takes in promoting their own health and the health of their family and is also a proxy for insurance and access to healthcare. Approximately 60% of respondents and 40% of their children receive an annual flu shot.

Figure 23: Annual flu shot

Source: Own processing of data

3 Discussion

The data from the surveys show a large disparity in housing, income and health amongst the respondents. Not surprisingly, the results show the correlation between education, poverty, and housing. However, the interaction between those three variables and health is an added dimension. The data illustrates just how important housing is to personal health. Should policy makers want to address public health issues for the impoverished, a financially sustainable method would be to address their housing.

Some examples of potential public policy follow. First, policy makers could require mixed-income development where a percentage of apartments in a new housing development are reserved for lower-income individuals and households. This requirement would not only ensure quality housing for lower-income households but would also integrate various income groups which is beneficial for all parties. Second, policy makers should reconsider any subsidy programs that are location biased. For example, subsidizing house reconstruction in natural disaster zones should be rethought to encourage housing developments in safer locations. Third, housing policy must include safety provisions for requiring safe, running water, lead-based paint or asbestos removal, and fire extinguishing apparatus. These provisions will reduce the negative health repercussions associated with old and/or poorly maintained housing stock. Lastly, policy makers should provide financial and legal assistance for residents. Mortgage and rental contracts can be difficult for some people to understand, as evidenced by the housing crisis of 2008. Providing this assistance will ensure that people are not taken advantage of or get into agreements or disclosures which they cannot meet.

This paper has provided insight into the connection between health and poverty, while incorporating a third variable of housing. Housing is an important link to personal health as the data presented in this paper illustrates. Poverty is the link because without monetary funds, people cannot afford safe, quality housing that will not cause health issues. To improve public health, a focus should be on improving the living conditions of the impoverished. Future work will

examine a deeper relationship of the interactions between education, housing, poverty, and health. Regression analyses and a more layered statistical examination of the responses will be conducted. However, the findings of this paper are important because they show just how related poverty, personal health, and housing are.

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