Introduction

Box. Census Variables in the Area Deprivation Index

<table>
<thead>
<tr>
<th>Domain</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>% Population aged 25 years or older with less than 9 years of education</td>
</tr>
<tr>
<td></td>
<td>% Population aged 25 years or older with at least a high school diploma</td>
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<tr>
<td></td>
<td>% Employed population 16 years or older in white-collar occupations</td>
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<tr>
<td>Income/employment</td>
<td>Median family income in US dollars</td>
</tr>
<tr>
<td></td>
<td>Income disparity</td>
</tr>
<tr>
<td></td>
<td>% Families below federal poverty level</td>
</tr>
<tr>
<td></td>
<td>% Population below 150% of federal poverty level</td>
</tr>
<tr>
<td></td>
<td>% Citizen labor force population aged 16 years or older who are unemployed</td>
</tr>
<tr>
<td>Housing</td>
<td>Median home value in US dollars</td>
</tr>
<tr>
<td></td>
<td>Median gross rent in US dollars</td>
</tr>
<tr>
<td></td>
<td>Median monthly mortgage in US dollars</td>
</tr>
<tr>
<td></td>
<td>% Owner-occupied housing units</td>
</tr>
<tr>
<td></td>
<td>% Remotely located housing units</td>
</tr>
<tr>
<td>Household characteristics</td>
<td>% Single-parent households with children younger than 18</td>
</tr>
<tr>
<td></td>
<td>% Households without a motor vehicle</td>
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<tr>
<td></td>
<td>% Households without a telephone</td>
</tr>
<tr>
<td></td>
<td>% Households with more than 1 person per room</td>
</tr>
</tbody>
</table>

Figure 1: This figure lists the 17 factors that the Area Deprivation Index (ADI) score is based on. From: Centers for Disease Control and Prevention

Methods

- A retrospective chart review was performed on cancer survivors from the Treatment After Cancer and Late Effects Clinic (TACLE Clinic) at Children’s Hospital New Orleans (CHNOLA) and deceased cancer patients from the CHNOLA Pathology Department. It is important to note that patients are only eligible to be seen in the TACLE clinic if they are at least two years from completion of therapy for cancer or five years from diagnosis.
- A multi-variable logistic regression model was performed to analyze the data collected.
- The following variables were collected from the records: Race, Ethnicity, Parish, Cancer Type, and ADI Score.
- ADI was calculated by inputting the subjects’ full home address into a website titled Neighborhood Atlas. (https://www.neighborhoodatlas.medicine.wisc.edu/mapping).

Results

Figure 2: This figure depicts how the Neighborhood Atlas appears on a computer screen.

Discussion

- The purpose of this retrospective study is to determine if a correlation exists between pediatric cancer survivorship and ADI.
- Figures 3A and 4A depict a parish in Louisiana that includes individuals described as both most and least deprived, which further illustrates the significance of using an ADI score.
- These figures are accounting for two separate individuals who live three blocks apart, proving that a health disparity exists between cancer survival and neighborhood deprivation.
- ADI does not account for race, ethnicity, and cancer type.
- I considered these factors in my analysis and found no significant correlation.
- I assigned each address to its Parish to see if Rural versus Suburban/Urbans played a role.
- It was determined that this also had no significance.
- Louisiana has a unique population, where some parishes are labeled as Acadian.
- I compared Acadian versus Non-Acadian Parishes and found no significance in cancer survival.

Future Directions

- A proactive study with this current cohort to determine which individuals have access to healthcare.
- This is significant because there may be a correlation to neighborhood deprivation and access to care.
- Using a different study cohort, to look at the likelihood of a cancer survivor developing a second cancer or experiencing relapse in comparison to their ADI Score.
- We did not explore this question on our current study cohort because the patients in the TACLE Clinic are far along their recovery journey and unlikely to experience relapse or second cancers.

Conclusions

- We did not explore this question on our current study cohort because the patients in the TACLE Clinic are far along their recovery journey and unlikely to experience relapse or second cancers.

References

- This work was funded by the Louisiana Cancer Research Center (LCRC). This work was completed through the guidance and support of the Tsien Lab.