Searching for the Fountain of Ute: Childhood Neighborhoods and Longevity in Utah

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**Objectives:** To assess the association between your place of residence during childhood and your risk of mortality as an adult? **Methods:** We analyze sex-specific mortality rates in individuals younger than 18 in 1940. US Census-defined areas, called enumeration districts, are used to represent neighborhoods. The mortality follow-up period is from 1940 to the present. This study combines data in the Utah Population Database linked to the 1940 US Census of Utah. This is an innovative way of using demographic, socioeconomic, and spatial data to examine adult mortality differentials mortality in Utah. The sample sizes for the children age 18 or younger was 72,884 females and 76,099 males. We used both Fixed Effects and Random Effects Cox models to analyze the sex-specific adult mortality rate differences between neighborhoods/census enumeration districts (EDs). **Results:** Whether using random effects or fixed effects models while controlling for covariates, childhood neighborhoods still significantly effect adult mortality risk. The covariates include age in 1940, whether they affiliated with the Church of Jesus Christ of the Latter-day Saints, whether foreign born, whether they lived on a farm in 1940, socioeconomic status of the head of the household (Nam-Powers score), education level, and number of siblings. **Conclusions:** Combining administrative databases to analyze adult mortality risk based on childhood while protecting individual privacy and confidentiality can be achieved and allow for long-term mortality follow-up. We found that when controlling for individual and familial factors, childhood neighborhoods still contribute to adult mortality risk. Different neighborhoods within Utah can be identified using this approach in order to more efficiently isolate beneficial characteristics and possible reasons for neighborhood inequalities in mortality risk. Further research should also analyze why certain individuals overcome the increased mortality risk associated with living in more hazardous neighborhoods. This data can be used for important local, state, and federal policy changes to improve health within the community.