Most analyses of health disparities are cross-sectional and do not examine the dynamics of health inequality from a life course perspective. In this paper, we extend our previous research on the effects of family background and neighborhood origins on mid-life health to investigate the impacts of the family and neighborhood environment in adulthood on the health of the elderly. We utilize nationally representative longitudinal data spanning 1968-2003 from the Panel Study of Income Dynamics (PSID).

The first objective of this study is to bound the proportion of inequality in late-life health that may be attributed to disparities in neighborhood and family characteristics during early-to-mid adulthood. Instead of beginning the analysis by performing another regression analysis focused on particular neighborhood characteristics, we instead attempt to first assess the potential overall magnitude of the effects of the adult neighborhood environment on later-life health.

This study employs an empirical strategy that largely side-steps the pitfalls of neighborhood studies in confronting the endogeneity of residential location by exploiting unique features of the PSID and adopting an approach that follows Solon et al. (2001) and, more recently, Johnson and Schoeni (2005). Specifically, the initial PSID sample in 1968 was highly clustered with most PSID families having several other sample families living on the same block. This survey design allows us to compare the similarity in late-life health between spouses, versus unrelated individuals who were living in the same narrowly defined neighborhood during their early-mid adulthood years. This approach avoids the difficulty of defining neighborhood quality at the outset, and instead compares spousal correlations with adult neighbor correlations in late-life health, placing an upper bound on the neighborhood influence. The comparison of spousal correlations with adult neighbor correlations in late-life health allows an assessment of the relative magnitudes of the effects of the neighborhood environment in adulthood versus family characteristics in adulthood. The findings are based on the estimation of four-level hierarchical random effects models of health status.

Importance of Neighborhood Origins vs. Contemporaneous Neighborhood Environment
Building on our previous findings of the relative importance of family background and neighborhood origins facilitates the identification of the antecedents of health at mid-life. This analysis provides us with a better understanding of the early risk factors for health decline among older adults.

Our previous estimates of childhood neighbor correlations in early-to-mid life health suggest that disparities in neighborhood background account for 35 percent of the variation in health status among men in mid life. These composite effects emanate from
the direct effects of neighborhood quality during childhood on child health that may carry over into adulthood, as well as indirect effects via the economic mobility process.

We examine self-assessed health status and the onset of health-limiting conditions. We find the adult neighbor correlations in later-life health are 0.25 – 0.28 between ages 50-70. The spousal correlations in adult health status between ages 50-70 is roughly 0.4, while sibling correlations in mid-life health is 0.6. While the adult neighbor correlations are important and substantively significant, they are smaller than the child neighbor correlations in mid-life health, suggesting a potentially more prominent role of neighborhood origins than contemporaneous neighborhood environments in adulthood. Selective mortality is a critical issue for these analyses of later-life health, and we investigate strategies to eliminate the potential for induced selection biases in our estimates, which could lead to an underestimate of the role of neighborhoods if ignored.

A key aspect of the data is that each individual is geocoded to the census block of residence and we utilize detailed information on neighborhood characteristics from respondent self-reports and merged on neighborhood-level variables from the 1970-2000 Decennial Census. The self-reports of housing/neighborhood conditions include: whether live in Public Subsidized Housing; poor neighborhood for children, whether there exist plumbing problems, housing structural problems, security problems, cockroach or rat problems, insulation problems, neighborhood cleanliness problems, overcrowding, noise, or traffic problems, burglary, robbery, assault, drug use, or problems related to having too few police.

One aim of the comparison of the childhood neighbor correlations in adult health with the adult neighbor correlations in health among the elderly is to contribute to our understanding of how neighborhood effects vary over the life cycle. A key to uncovering this issue is analyzing the persistence in neighborhood quality over the life course. We examine the extent of upward and downward residential mobility/instability from childhood through mid-adulthood using PSID geocoded neighborhood information and residential location patterns over 35 years. Residential moves also permit identifying sources of variation over time in neighborhood conditions for the same person that can be related to health. Characterizing the length of exposure to poor neighborhood conditions for different demographic groups shed light on the age-profile of neighborhood effects on later-life health.