Mounting evidence that purely individual-based explanations fail to fully explain persistent disparities in morbidity and mortality has contributed to a surge in research investigating how residential contexts further shape the health of individual residents. Until recently, however, the majority of scholarship in this area measured neighborhood characteristics only once or over just a short window of observation, conflating persons who were recently exposed with those who have – and in the case of many communities of color, are more likely to have – experienced repeated or prolonged residential adversity. Such a conceptualization is inconsistent with most theories of neighborhood effects, which tend to specify mechanisms that imply sustained or age-specific exposures, as well as with a developmental or life course perspective in which experiences earlier in life are posited to have formative and enduring impacts on future outcomes, even when controlling for more contemporaneous determinants. Using data from the 1970 to 2011 waves of the Panel Study of Income Dynamics (PSID) merged with census data on respondents' neighborhoods, this dissertation comprises three interrelated studies examining the effects of prolonged and timing-specific exposures to neighborhood disadvantage throughout childhood and adolescence on health and health inequalities later in life, including self-rated health status, obesity incidence, and early smoking initiation. Neighborhood disadvantage is characterized regularly throughout the child and adolescent life course using a composite index based on the spatial clustering of poverty, unemployment, female-headed households, public assistance receipt, and educational and occupational marginalization. The assumption is that such collective conditions of neighborhoods are concomitant to social and structural resources and opportunities (or the lack thereof) that can, alone or in conjunction with individual- and household-level risk and protective factors, be health promoting or health compromising. Analyses employ marginal structural models with inverse probability of treatment (and censoring) weights to adjust for selection bias without “controlling away” the effects of neighborhood exposures that operate indirectly though the same individual-level covariates that are associated with mobility into and out of different neighborhood contexts. Results indicate that prolonged exposure to neighborhood disadvantage throughout childhood and adolescence is strikingly more common among nonwhite, predominantly African American, respondents and is associated in turn with significantly greater odds of experiencing worse self-rated health as well as obesity in early adulthood. Moreover, contrary to family-level poverty in which experiences during early childhood have been shown to be particularly influential, these analyses suggest that exposure to neighborhood-level deprivation during adolescence may be more detrimental to young adult health than exposure that occurs earlier in life. Nonetheless, the findings for early smoking initiation highlight the potential for differential impacts of neighborhood poverty across different racial/ethnic groups. Overall, however, this dissertation adds support to the growing body of literature suggesting that place-based, developmentally-appropriate, and ongoing investments in the social, economic, institutional, and physical structures of under-resourced communities and communities of color can have long-term benefits for population health and health equity that extend over the life course.