This study is the first to investigate neighborhood clustering of a personality trait - cynical hostility (a sense of mistrust of others amplified by suspicious antagonism.) Cynical hostility increases physiological reactivity by influencing appraisal and coping when stressful events occur and that has been well established as a predictor of cardiovascular disease, inflammation, and all-cause mortality. The analysis examines the associations of a variety of neighborhood physical and social conditions (especially ambient stressors) with individual cynical hostility, controlling for individual sociodemographics. Data are from the Chicago Community Adult Health Survey, a clustered population-based study of 3105 adults. Variation by neighborhood in cynical hostility is larger than variation of other selected health outcomes, which are commonly studied using ecological methods or for other personality measures. Controlling for neighborhood context reduces the black/white cynical hostility disparity by one-third. A measure of neighborhood ambient stressors (notably noise) significantly predicts cynical hostility, even after individual characteristics are controlled, and the effect size is larger than for other contextual predictors. Health-related psychosocial and personality traits may both cluster in and be influenced by contemporaneous neighborhoods rather than mere exogenous results of genes or early life conditions. Healthrelevant psychosocial characteristics may also mediate effects of neighborhood deleterious physical conditions, thereby influencing downstream health outcomes and social disparities therein. Because residential location and neighborhood physical conditions are both modifiable, research on how ambient stressors influence health psychology may be particularly fruitful for health policy and practice.