Why History? Explanation and Accountability

See also Krieger et al., p. 1046.

That the places we live, work, and play matter for individual and population health across the human life course is both incredibly consequential and relatively uncontested in modern social epidemiology. In a keynote address at the 2019 GEOMED meeting, Ana Diez Roux—an early proponent of applying the sociological neighborhood effects framework to the descriptive and explanatory tasks of epidemiology—summarized four evolving stages of conceptual thinking in the place and population health scholarship since the 1990s[1]: (1) places are context for health, (2) places are causes of health, (3) places are effect modifiers or reinforcers of individual or social health–relevant processes, and (4) places are components of complex systems that dynamically produce and distribute experiences, exposures, and opportunities, which give rise to socially structured patterns of population health.

This progression toward increasingly complex and dynamic thinking about relations between places and population health is evident in the growth and evolution of research examining how residential locale affects reproductive and perinatal health outcomes. In this issue of *AJPH*, Krieger et al. (p. 1046) make an important contribution to this body of research by asking whether the historical process of mortgage redlining in specific New York City neighborhoods predicts the risk for preterm birth among women residing in those neighborhoods and delivering liveborn, singleton infants in 2013 through 2017. By contrast to much of the neighborhood effects research focusing on temporally proximate or contemporary exposures and outcomes, Krieger et al. use the 1938 maps created by the federally sponsored Home Owners Loan Corporation (HOLC) of investment "risk" guiding mortgage lenders as predictive exposures. These maps—where "hazardous" neighborhoods are outlined in red giving rise to the term "redlining"—codified the racialized government policy of public investment in White and middle-class communities and disinvestment in neighborhoods with Black, Puerto Rican, or foreign-born residents. Anyone doubting the explicit racialized motivation underpinning the map categories should peruse the comments and notes abstracted from the original maps as summarized in Table B of Krieger et al. (available as a supplement to the online version of their article at http://www.ajph.org).

The inclusion of 1938 mortgage lending policy is not evoked in this study as a direct experience or exposure for women who are not giving birth until the second decade of the 21st century. Instead, Krieger et al. posit that this historical fact (the HOLC maps and their role in guiding mortgage lending) stands as an influential node in the spatiotemporally dynamic urban ecology of populations and places. The authors find modest empirical evidence that the 1938 HOLC categories predicted contemporary risk for preterm birth, independent of important individual demographic, socioeconomic, and health risk factors. These findings have implications for how we interpret cross-sectional analysis of geographic variation in health, how we conceive of the social causes of health and health disparities, and consequently what kinds of public health actions might plausibly disrupt the status quo of health inequity.

SPATIAL STRATIFICATION AND HEALTH

Residential racial and economic segregation may be a fundamental determinant of inequities in population health outcomes, and there is evidence across multiple studies that, especially for Black women, residing in a region with more rather than less residential segregation is associated with increased risk for poor pregnancy outcomes, including preterm birth. Unfortunately, too much of the segregation–health research treats residential segregation as a point-in-time static marker of spatial stratification, rather than as a dynamic spatial sorting process that continues to reproduce social and physical separation along lines of race, ethnicity, class, or nativity.

In introducing an interdisciplinary compendium on residential inequality, a group of demographers and sociologists argued that there are three complementary and dynamic processes of spatial stratification—locational attainment, residential mobility, and neighborhood change—that collectively produce a fourth spatial stratification pattern, segregation.[2] The inclusion of historical neighborhood processes by Krieger et al. names and makes explicit one potential driver of neighborhood change, historical mortgage redlining. But the constrained access to invested capital for some populations could also

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differentially influence the short- and long-term mobility and residential attainment of residents by race and class. In other words, the finding in this study that 1938 HOLC categories are strongly correlated with contemporary neighborhood poverty and racialized economic segregation highlights the dependence on preceding conditions in shaping the experiences and opportunities of populations. Although not formally a mediation analysis, it is interesting that the association between HOLC category and preterm birth is most attenuated with control for contemporary racialized segregation.

WHAT DOES HISTORY ADD?

Perhaps for some, the identification of a historical neighborhood indicator as a predictor for a contemporary health outcome is an academic curiosity: interesting but not particularly actionable given that racialized lending practices have theoretically been outlawed by the Fair Housing Act of 1968, and it is presumably the contemporary neighborhood conditions that most directly affect population health outcomes, including preterm birth. However this perspective that history is only in the past dangerously risks missing the value added from seeing contemporary health as part of a process rather than a current, static, and isolated event or state of being.[3]

In some instances, history is simply replayed in nearly its original form. For example, Mendez et al.[4] provided evidence that contemporary redlining persists and also predicts preterm birth. They use loan application data from 1999 to 2004 collected as part of the Home Mortgage Disclosure Act to characterize neighborhood-specific racial disparities in mortgage loan disposition in Philadelphia, Pennsylvania, finding evidence of persistent lending discrimination with differential effect by race and place. The findings of Krieger et al. are consistent with those of Mendez et al., and the simultaneous use of historical and contemporary measures of lending discrimination could be a future research direction.

History also provides critical explanation of how and why population health is as we find it today. Rather than lacking in actionable insight, historical processes are useful because of their potential to inform public health action. For example, in other work, Krieger et al.[5] illustrated how the abolition of Jim Crow laws improved the health of Black infants in the South, highlighting the role of social movements as a means for addressing inequity. Research on the relation between the spatially varying legacy of slavery and the pace of reduction in heart disease mortality in Southern counties emphasized the important imprint of history on the current-day social and political institutions of places.[6] Collectively, these findings suggest that historically naïve public health disease-prevention efforts that do not account for the spatial and historical contingencies patterning health may fail to address root causes of health and health inequity. History provides critical explanation but also helps hold accountable actors, decisions, and processes continually shaping health and life chances. AJPH

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CONFLICTS OF INTEREST

The author has no conflicts of interest to declare.

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