
Pursuing Health Equity: Zoning Codes and Public Health

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Health equity can be defined as the absence of disadvantage to individuals and communities in health outcomes, access to health care, and quality of health care regardless of one's race, gender, nationality, age, ethnicity, religion, and socioeconomic status.¹ Health equity concerns those disparities in public health that can be traced to unequal, systemic economic, and social conditions.² Despite significant improvements in the health of the overall population, health inequities in America persist. Racial and ethnic minorities continue to experience higher rates of morbidity and mortality than non-minorities across a range of health issues.³ For example, African-American children with asthma have a seven times greater mortality rate than Non-Hispanic white children with the illness.⁴ While cancer is the second leading cause of death among all populations in the U.S., ethnic minorities are especially burdened with the disease. African-American men, for example, are more than twice as likely as their white counterparts to die of prostate cancer. In addition, 36% of adults with a disability are obese compared to 23% of adults without a disability, and smoking prevalence for people with disabilities is approximately 50% higher than for people without disabilities.⁵ Among the 10 leading causes of mortality in the U.S., minority populations experience the highest rate of death.⁶ The reported reasons for these disparities vary, including individual factors

such as limited access to health care and differences in cultural beliefs, social norms, and socioeconomic status.⁷

Any analysis of how these health disparities arise and how they are perpetuated must include the interplay between individual factors and broader environmental conditions. Research on the connections between health and the environment, specifically the built environment, has shown that the burden of illness is greater on minority and vulnerable populations, and on those of low socioeconomic status.⁸ The high prevalence of noxious land uses and ready availability of tobacco products and inexpensive, unhealthy foods in communities where low-income families and people of color are more likely to live, work, and play provide salient examples of how the built environment can impact health and exacerbate health disparities.

The Role of the Built Environment

The built environment includes those environments that are man-made or -modified, including homes, schools, workplaces, highways, urban sprawl, and various mobile and stationary sources of air pollution. The relationship between community design and health had been known, to a degree, since the time of Hippocrates in ancient Greece and was well established in the 19th century when Frederick Law Olmstead designed Central Park to be the "lungs of the city" and critical

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for physical activity and recreation. Still, despite these examples and despite substantial evidence of how the built environment influences health, for many years the health and built environment relationship went unappreciated. Only recently have planners and civic officials given renewed consideration and awareness to how community design intricacies and urban planning processes can lead to environments that either reduce or exacerbate health inequities.

Disparities in obesity rates provide a striking example. It is well accepted that inequality in obesity and its underlying factors, in particular physical activity and inactivity, contribute greatly to health disparities. Minorities and groups with low socioeconomic status are at highest risk for obesity and most other major non-communicable diseases.⁹ When evaluating obesity rates, African-American adults have a reported 51% greater prevalence than Non-Hispanic whites, and Mexican Americans a 21% greater prevalence.¹⁰ While research has shown that access to community facilities (e.g., YMCA/YWCA, recreational centers, youth organizations, parks), is positively associated with physical activity, only recently have scholars investigated the role that the built environment plays in furthering inequities in physical activity and obesity. Ethnicity and socioeconomic status may contribute to inequitable distribution of a wide range of physical activity and recreational facilities in the United States, which may in turn contribute to ethnic and socioeconomic disparities in physical activity and obesity patterns. This research also supports the premise that understanding built environment factors, such as the possible inequitable distribution of resources (e.g., community facilities and grocery stores), is important for public health advocates pursuing health equity.¹¹ As discussed below, zoning law, a prevalent land use planning tool across the U.S., can be used substantially by public health advocates to address health disparities.

Local Zoning Laws

One opportunity to use the built environment as a tool to address health inequities is through city and county zoning plans. Zoning is not a new device in the public health toolbox. In 1926, the U.S. Supreme Court, in *Village of Euclid v. Ambler Realty Co.*, recognized zoning ordinances as a proper exercise of the state's police power to protect community health and safety, citing the previous case of *Jacobson v. Massachusetts* where public health actions were validated.¹² Many state and county codes and ordinances provide that one purpose of zoning is to promote health and general welfare in determining how land is used and developed.¹³ Zoning codes determine where various categories of land use

may occur, thereby systematically influencing the location of resulting environmental and health impacts. Zoning codes and associated decision-making processes can determine how close people are able to live to business areas, the proximity of daily services to residential districts, and where different types of uses (e.g., industry, retail, housing) may be located.¹⁴

Zoning plans and decisions significantly influence the health of a community.¹⁵ Zoning codes, for example, can affect human exposure to pollution and access to alcohol and fast food.¹⁶ Land use decisions can influence use of transit by promoting transit-oriented development, requiring bicycle parking, and limiting automobile parking. Zoning codes are also determinants of environmental injustice and the distribution of harms and amenities throughout the city and among populations by race and class.¹⁷ These elements form and shape the patterns of daily interaction and can significantly influence health and contribute to health inequities. To effectively address built environment influences on health and health disparities, public health practitioners must have an insight into the policy- and decision-making processes involved in local zoning efforts.¹⁸

The "TransForm Baltimore" project of Baltimore, Maryland is the first rewrite of the city's zoning code in nearly 40 years.¹⁹ It provides a salient and timely example of such a process, and lends insight to three domains for how the built environment influences health: (1) content within the zoning code and processes that may promote or inhibit health; (2) the role health considerations play in zoning decisions; and (3) how the zoning rewrite process encourages or suppresses inclusion of health.

Transform Baltimore: A Case Study

Several public health efforts converged as part of the TransForm Baltimore Project to shape future land uses in Baltimore City. The Public Health Working Group (PHWG), founded by a diverse group public health advocates from the Baltimore City Department of Health and Johns Hopkins Bloomberg School of Public Health, helped bring health considerations into the rewrite. After coordinating meetings between Baltimore City's Department of Planning and the Department of Health, they began by evaluating the scientific literature for built environment influences on health. The PHWG held public meetings, in collaboration with the Baltimore Department of Planning and the Department of Health and evaluated the various drafts of the zoning code, and participated in a media campaign. Together, these efforts helped bring city-wide attention to the links between the zoning rewrite and health issues. This associated research resulted

in a report detailing how zoning influences health and health disparities and included specific recommendations for how zoning codes could best promote health.²⁰ The Baltimore Food Policy Task Force and Office of Sustainability were also catalyzed to pursue initiatives such as promoting access to healthy food and expanding community gardens and urban agriculture throughout the city.²¹

This advocacy work set the stage for a Robert Wood Johnson-funded Health Impact Assessment of TransForm Baltimore, with a focus on how the rewrite would address obesity and crime in the city. This initiative included a review of healthy zoning practices from other cities and planning resources. Among the major findings was that the zoning code text and process pose meaningful opportunities to improve public health and reduce health disparities.²² For example, the purpose statement of the zoning code could more clearly articulate the role of public health in zoning, such as providing the opportunity for all communities to be healthy now and in the future. Walkability and access to daily services could be promoted by allowing more mixed use areas (a combination of retail and residential uses) and design standards such as windows on the first floor of businesses and landscaping that make areas more attractive to pedestrians. Food access could be enhanced by reducing the required lot size for food stores, allowing farmers' markets, community gardens, and urban agriculture throughout the city. Crime could be addressed by limiting the concentration of off-premises alcohol outlets and requiring a conditional use permit for any new mixed-income areas. Residential segregation could be decreased by allowing a greater mix of housing types throughout residential districts and reducing the minimum lot size for detached homes. Specific guidance is needed about how zoning boards and planning commissions determine whether a proposed project promotes health and welfare. Outreach in the rewrite process should include a variety of perspectives by framing zoning for lay citizens and describing how reworking zoning provisions might positively affect the health of their neighborhoods. Finally, public health experts should be included among zoning advisory committees to directly reflect public health perspectives.

Despite these opportunities, there are many challenges for including health considerations in zoning processes. First, the links between zoning and health are complex and non-linear, making it difficult to assess how zoning and health are related. Second, the scope of the Baltimore City zoning rewrite, for example, was focused more on updating the code and preserving neighborhoods.²³ While these goals are not necessarily in conflict with health, an explicit goal of promot-

ing health was not in the rewrite from the beginning. Further, focusing on neighborhood preservation to the exclusion of distressed communities' needs is a missed chance for any city-wide effort, particularly one that could address health disparities. Third, moving public health considerations beyond important but less controversial issues of walkability and access to healthy foods, is difficult.

Fourth, while the city has a majority African-American population, the bulk of the participants in the TransForm Baltimore meetings have been white. The range of voices and needs included in this process and public discussion could be expanded to help ensure a city-wide process that attends to the needs of everyone in the community and works toward the reduction of health disparities,²⁴ though there are legitimate reasons why groups might not want or be able to participate. Fifth, several public health recommendations, such as promoting mixed use, limiting off premise alcohol outlets, expanding mixed-income housing options, and reducing parking requirements, are controversial among some business leaders and neighborhood groups, threatening the likelihood that these suggestions will be included in code or ordinance rewrites without substantial, science-based advocacy work with these communities. Finally, while public health voices have been able to contribute to the TransForm Baltimore process, these voices have no formal decision-making power to transform zoning to address health disparities.²⁵

Conclusion

Zoning and its attendant legal and policy-making processes can be essential tools for public health practitioners addressing community health disparities. Rewrites such as those described in the TransForm Baltimore effort have the potential to influence greatly future urban design and the built environment, as well as the public's health. The more public health researchers and practitioners can build their capacity in understanding the language and practices of urban planning, particularly zoning law, the better they can contribute to such efforts on the community level.

Note

The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the Agency for Toxic Substances and Disease Registry.

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