

# Socioeconomic Status and Smoking Cessation:

Neighborhood Context as an Underlying Mechanism

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Smoking is the leading preventable cause of cancer, cardiovascular disease, pulmonary disease, and overall death in the United States. Unfortunately, some populations bear a disproportionate burden of tobacco-related morbidity and death. The most profound tobacco-related disparities are experienced by individuals with low socioeconomic status (SES) as indexed by factors such as education, income, and occupational status.<sup>1</sup> Furthermore, over the last several decades, SES disparities in tobacco use have more than doubled. The association between SES and tobacco-related disparities is explained in part by the fact that economically disadvantaged individuals have lower cessation rates.

Conceptual models describing the individual, community, and policy factors that link SES with tobacco cessation might help guide future research efforts, as well as yield significant implications for interventions at various levels (for example, in pharmacotherapy, community engagement, policy, and access to care). The fundamental hypothesized mechanisms underlying the SES–health relationship include environmental and contextual factors that capture how individuals' health and health behaviors are affected by the communities and neighborhoods in which they live.

Neighborhood contextual factors include constructs such as neighborhood socioeconomics (for example, the proportion of unemployment, poverty, and homeownership), social factors (for example, the perception of social cohesion, social control, vigilance, and crime), and the “built” environment (for example, the density and proximity of tobacco outlets, alcohol outlets, lighting, and green space). Our research has shown that these neighborhood characteristics predict smoking cessation rates. For example, greater neighborhood unemployment and poverty (socioeconomics),<sup>2</sup> lower social cohesion (social factor),<sup>3</sup> and closer residential proximity to tobacco outlets (built environment)<sup>4</sup> are all related to lower cessation rates. Further, these neighborhood contextual constructs all predict cessation over and above the effects of SES on the individual level.

Smoking-cessation interventions typically attempt to motivate, assist, and maintain behavioral change in individuals, and the effect of neighborhood context and other environmental factors is often neglected in such interventions. However, the data to date suggest that smoking cessation is significantly influenced by the communities in which smokers live. Therefore, interventions and policies that influence neighborhood characteristics might help increase smoking cessation, reduce smoking prevalence, and ultimately contribute to the reduction of health inequities.

Perhaps the most direct approach to lessening neighborhood socioeconomic disadvantage is to raise the SES of individuals in the most economically disadvantaged neighborhoods. Future policy initiatives could focus on increasing educational and employment opportunities in lower SES neighborhoods through job-training programs for the unemployed, the creation of jobs in poor neighborhoods, or the promotion of early childhood education and decreased school dropout rates. In regard to neighborhood social factors, the social cohesiveness of neighborhoods might facilitate smoking cessation if specific interventions and policies are inaugurated. For example, increasing community engagement through the organization of community events and participation in shared neighborhood activities can help to build community capacity, trust, and shared social norms. Programs to reduce crime and clean up neighborhoods can also lead to greater perceptions of safety and fewer neighborhood problems—both of which are related to higher cessation rates. Intervention strategies can also target the built environment through public policies that restrict the density and

locations of tobacco outlets or limit tobacco advertising at the point of sale.

In sum, although the prevalence of smoking in the U.S. has declined sharply among the general population, the same rate of decline has not been seen among individuals who have the lowest levels of education, income, and occupational status. Therefore, it is crucial to build and empirically refine comprehensive conceptual models that elucidate pathways between SES and tobacco cessation. Despite the fact that we live in a new age that emphasizes the importance of genetics, it is also vital to underscore the importance of neighborhood contextual factors that influence health behaviors and overall health. Useful conceptual models should facilitate the development and implementation of multifaceted interventions that target both individual and neighborhood factors.<sup>5</sup> Interventional strategies arising from these types of conceptual models can be strengthened further by tailoring them to those groups of people that are most vulnerable.<sup>6</sup> Collectively, intervention efforts at multiple levels show promise as effective public-health strategies for reducing tobacco-related health disparities between socioeconomically advantaged and disadvantaged populations.

## References

1. Businelle MS, Kendzor DE, Reitzel LR, Costello TJ, Cofta-Woerpel L, Li Y, et al. Mechanisms linking socioeconomic status to smoking cessation: a structural equation modeling approach. *Health Psychol* 2010;29(3):262-73.
2. Kendzor DE, Reitzel LR, Mazas CA, Cofta-Woerpel LM, Cao Y, Ji L, et al. Individual- and area-level unemployment influence smoking cessation among African Americans participating in a randomized clinical trial. *Soc Sci Med* 2012; 74(9):1394-401.
3. Reitzel LR, Kendzor DE, Castro Y, Cao Y, Businelle MS, Mazas CA, et al. The relation between social cohesion and smoking cessation among black smokers, and the potential role of psychosocial mediators. *Ann Behav Med* 2013;45(2):249-57.
4. Reitzel LR, Cromley EK, Li Y, Cao Y, Dela Mater R, Mazas CA, et al. The effect of tobacco outlet density and proximity on smoking cessation. *Am J Public Health* 2011;101(2):315-20.
5. Moolchan ET, Fagan P, Fernander AF, Velicer WF, Hayward MD, King G, Clayton RR. Addressing tobacco-related health disparities. *Addiction* 2007;102 Suppl 2:30-42.
6. Irvin Vidrine J, Reitzel LR, Wetter DW. The role of tobacco in cancer health disparities. *Curr Oncol Rep* 2009;11(6):475-81.