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Distance From Home to the Nearest Tobacco Outlet May Not Reflect the True Accessibility

To the Editor In their Original Investigation in a recent issue of *JAMA Internal Medicine*, Pulakka et al¹ examined the association between walking distance from home to the nearest tobacco outlet and smoking cessation and relapse. We noticed several limitations that should be considered.

First, Pulakka et al¹ simply used the distance but did not consider the walkability² of the neighborhoods, including the street connectivity, land use mix, and residential density. A neighborhood with higher street connectivity, for example, has higher accessibility to tobacco outlets than a neighborhood with lower street connectivity, providing that the walking distance from home to the tobacco outlet is the same between the 2 neighborhoods. Land use mix and residential density also contribute to the accessibility to the tobacco outlet. Therefore, measuring the distance from home to the tobacco outlet alone may not reflect the true accessibility. Second, assessment of smoking behavior in this study has also raised concerns that some nonregular smokers may have been misclassified as if they have quit smoking. Third, walking distance from home to the nearest tobacco outlet was the focus of this study, but the individuals' functional capacity (eg, walking ability) and transportation preference (eg, whether the individuals walk or use other means of transportation within the neighborhood) were not addressed. For example, riding a bicycle for 1 km and walking for 1 km require different energy expenditure and may affect their motivation to go to the tobacco outlet. Fourth, the perceived distance to the nearest tobacco outlet should have been addressed, as the perceived environment may have stronger impact on behaviors than the actual environment.³

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In Reply In large-scale epidemiological studies such as ours,¹ measurement of the exposure and outcome is seldom error-free or even with the highest possible precision. Frank and colleagues² have developed a walkability index using parcel-level information and validated this measure through travel surveys in 2 regions of the United States in 2010. Their walkability index is a composite index including residential density, retail floor area ratio, intersection density, and land use mix, and it was designed to be related to transportation preference.² Such data were not available for our study, which was conducted in Finland and covered a time period from 2003 to 2013. Similarly, although self-reported smoking is a strong predictor of a range of smoking-related health outcomes,³ some misreporting is still possible and ideally assessment of cotinine concentrations would have complemented self-reports to add precision to the assessment of smoking status. In our study,¹ only self-reported data on smoking were available. Furthermore, we could not assess walking ability of the participants or individual differences in perceiving the distance to the nearest tobacco outlet.

It is important to consider whether these limitations are a serious threat to the validity of our study. We compared smoking behaviors using a within-individual analysis of participants who lived nearer tobacco outlets at one point in time and further away at another time point. In this design, the participants were their own controls, and therefore the observed within-individual increase in quitting among smokers when the distance from home to the nearest tobacco outlet increased is unlikely to be owing to between-individual differences in reporting style, walking ability, transportation preferences, or differences in ways of perceiving distance. Thus, we would consider lack of data on these characteristics an implausible source of major bias in our study. More generally, most of the measurement issues raised by the authors are presumably nondifferential with respect to smoking status—they probably attenuated the true associations.

Lee and colleagues also argued that lack of data on subjective perception of the distance to the nearest tobacco outlet was a limitation. Such perceptions are undoubtedly an important focus in psychologically oriented research, but our study¹ sought to find more objective evidence that will facilitate design of smoking-related interventions and policy. In that respect, the geographic information system-assessed distance to the nearest tobacco outlet, which was our exposure, seems a more useful intervention target. This assessment was based on street networks.

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Advancing the Health of Lesbian, Gay, and Bisexual Adults

To the Editor In an Original Investigation in a recent issue of *JAMA Internal Medicine*, Gonzalez et al,¹ using national health surveillance data, observed that lesbian, gay, and bisexual (LGB) adults experience health disparities that warrant clinician attention. These findings were described, incorrectly, as “the first to capture the disparity in a population-based sample rather than a convenience or clinic-based sample.”^{2(p1352)} In fact, these effects have been well documented, both in the United States³ and elsewhere,⁴ in population-based studies published in the scientific literature.

It is time to use this knowledge to implement changes in clinical services and research. Although many US health surveillance systems measure sexual orientation, this is not yet integrated in our electronic health records or public health reporting systems. Furthermore, these data systems are not designed to explain why these differences exist nor how systems should be redesigned to respond to the patient-centered needs of LGB individuals. To advance the health of the LGB population, science must build on what is known and move with the proper protections to collect sexual orientation data as a necessary aspect of health care services.

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In Reply We thank Cochran et al for their insightful comments, and we agree that our study¹ on health disparities in the lesbian, gay, and bisexual (LGB) population adds to the mounting body of evidence that people who identify as LGB experience worse health outcomes compared with their heterosexual peers, potentially due to the stressors that LGB people face as a result of interpersonal and structural discrimination. As Cochran and Mays have previously noted, “research on LGB populations is still in its infancy,”² compared with health disparities research on racial and ethnic minority populations. Other researchers have also noted that the work to resolve health disparities in the LGB population has barely begun.³ Our study helps broaden the knowledge base on LGB health disparities to the readers of *JAMA Internal Medicine*, as it is imperative for clinicians to understand, accept, and address the health needs of LGB and transgender (LGBT) patients. We encourage *JAMA Internal Medicine* to continue publishing important findings documenting LGBT health disparities and best practices for eliminating those disparities. Doing so will help health care providers implement positive changes in their practice. Meanwhile, recent developments at the National Institutes of Health will help build the research capacity for LGBT health. Specifically, the National Institute of Minority Health recently designated sexual and gender minorities as a health disparity population for research purposes.⁴ This designation will broaden funding opportunities and research on LGBT populations, among other sexual and gender minorities. We commend these efforts and encourage high-impact journals, like *JAMA Internal Medicine*, to continue reporting new discoveries and advancements in LGBT health.

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