

Invited Commentary

The Case for a Concerted Push to Reduce Place-Based Disparities in Smoking-Related Cancers

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In this issue of *JAMA Internal Medicine*, Lortet-Tieulent and colleagues¹ demonstrate the grim consequences of state-level disparities in smoking prevalence. They identify substantial disparities in the smoking-attributable cancer mortality among US states. As the authors suggest, it is likely

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that only a small amount of the variation in smoking-attributable cancer mortality is due to differences in population demographic characteristics among states. Rather, most of the disparity in state smoking-attributable cancer mortality is driven by the inequitable distribution of strong tobacco control policies across states and the uneven level of funding for state tobacco control programs.

To illustrate, we compared state policies by level of smoking-attributable cancer mortality in the 10 states with the highest and lowest rates (Table). Results confirmed weaker policy environments in the 10 states with the highest rate—substantially lower cigarette excise taxes, no comprehensive smoke-free policies, triple the rate of preemption of tobacco control policies, and modest program spending.

With the disparities in cancer mortality that Lortet-Tieulent and colleagues¹ identified, the 10 states with these highest rates could be considered a priority population, akin to other vulnerable or high-risk groups that are defined by age, income, race, sexual orientation, or geography (eg, rural). States comprising this group are Kentucky, Arkansas, Tennessee, West Virginia, Louisiana, Alaska, Missouri, Alabama, Oklahoma, and Nevada.

Centers for Disease Control and Prevention (CDC) investigators reviewed states' progress on implementing tobacco control policies and concluded that there has been a "Big Stall," such that progress toward increasing cigarette excise taxes and promoting smoke-free air policies has recently stagnated.³ Given the lag between reduction in smoking prevalence and smoking-attributable cancer mortality, the Big Stall raises con-

cerns that the disparities among states will worsen before they improve. The cure for the chronic condition that characterizes the Big Stall is evidence-based policy intervention.^{4,5} Since 1965, tobacco control efforts have prevented 8 million premature deaths in the United States.⁴ Many examples of the positive impact of state tobacco control programs exist. For example, in California, a 1989 tax increase coupled with progressive smoke-free air laws and a well-funded media campaign produced substantial declines in smoking prevalence, cigarette consumption, health care costs, and lung cancer incidence.⁶ However, California is 1 of 3 states (including Missouri and North Dakota) that has not increased its cigarette tax in this century (although there is a \$2.00 tax increase on the November 2016 ballot). A stagnant, low cigarette tax threatens to erode health gains and cost savings and could undermine future progress toward health equity. Thus, there may be multiple definitions of "stalled states."

What will reduce smoking-attributable cancer mortality and eliminate disparities among states? The solution requires more resources and political will to address the major obstacles facing stalled states. Obstinate state legislatures must invest more than the 2.4% of the \$24 billion that states raised from tobacco excise taxes and Master Settlement Agreement payments⁴ from tobacco companies. Many of the stalled states are in the southeastern United States, where tobacco has traditionally been grown and manufactured, and others are in areas with historically little investment for public health or tobacco control.

One partial remedy to state inaction is policy innovation at local levels. For example, after New York City raised the cigarette excise tax from \$0.08 to \$1.50, banned smoking in bars and restaurants, and offered free nicotine replacement patches in 2002 through 2003, the city observed an 11% relative decrease in smoking prevalence, equivalent to approximately 140 000 fewer smokers.⁷

Table. State Tobacco Control Policies^a by Level of Smoking-Attributable Cancer Mortality

| Smoking-Attributable Cancer Mortality ^b | Mean Proportion of Smoking-Attributable Cancer Mortality, % ^b | Mean State Cigarette Excise Tax, 2016, \$ | No. (%) | | Mean Tobacco Control Expenditures, 2016, \$ Millions (% of CDC-Recommended Level) ² |
|--|--|---|---|---|--|
| | | | Comprehensive Smoke-Free Air Laws, 2016 | State Has Preemption for Smoke-Free Air, Tobacco Advertising, or Youth Access, 2016 | |
| Highest 10 states ^c | 32.16 | 0.97 | 0 (0) | 6 (60) | 7.32 (23.4) |
| Middle 31 ^d | 28.61 | 1.74 | 20 (65) | 21 (68) | 7.31 (18.9) |
| Lowest 10 states ^e | 25.42 | 1.91 | 8 (80) | 2 (20) | 16.5 (33.1) |

Abbreviation: CDC, Centers for Disease Control and Prevention.

^a Source: State Tobacco Activities Tracking and Evaluation (STATE) system (<http://www.cdc.gov/STATESystem/>).

^b Categories were defined by smoking-attributable mortality for both sexes.¹

^c Highest 10 states are Kentucky, Arkansas, Tennessee, West Virginia, Louisiana,

Alaska, Missouri, Alabama, Oklahoma, and Nevada.

^d Includes District of Columbia.

^e Lowest 10 states are Utah, California, Colorado, Hawaii, New York, Idaho, Minnesota, New Jersey, Texas, and North Dakota.

Tobacco industry interference contributes to the Big Stall by eroding legislative and public support for evidence-based tobacco control policies. There have been 16 ballot initiatives to increase cigarette taxes in US states over the past 20 years, with a worse record since 2006 (2 wins, 5 losses) than in the prior 10 years (8 wins, 1 loss). Reversing this trend requires more resources to monitor the industry and its front groups, investment in message-framing research to promote evidence-based policies, and mining social media and other data for lessons learned from the failures to promote policy change. Finally, the newly emerging field of implementation science can provide new and effective approaches to the translation, dissemination, implementation, and sustainability of evidence-based tobacco control policies.

What is the role for federal organizations when there are such great disparities among states? Perhaps federal organizations can tailor their efforts to propel stalled states. For example, the CDC could redirect greater tobacco control program funding to states with greater smoking-attributable mortality to close the gap. Similarly, the CDC could target more funds for quitlines and air more media spots in states with greatest need. Although this would in effect reward those states that have done less, greater progress is needed in stalled states. Perhaps the CDC should reward states making the greatest gains in reducing disparities. Using an opposite strategy, the federal government could withhold funding from states with weak tobacco policies, similar to the way that the federal government compelled states to raise the minimum legal drinking age to 21 years. There are precedents for this approach. Under the

current Synar program, the federal government may withhold millions in substance abuse block grant funding from states that do not reduce their rate of illegal tobacco sales to minors to less than 20%.

Federal, state, and local policies are needed to reduce both place-based disparities among states and disparities by race/ethnicity and income. Notably, smoking-attributable cancer mortality was highest among non-Hispanic blacks,¹ who smoke menthol cigarettes disproportionately, which provides more evidence for the US Food and Drug Administration to include menthol in its regulation of flavored tobacco products. The Food and Drug Administration could also reduce smoking prevalence by implementing nicotine reduction in cigarettes, but it is likely that its impact will be across the board and maintain existing disparities. Considering the greater price sensitivity of African-American and low-income smokers, efforts to increase excise taxes and implement nontax approaches (eg, minimum price policies, banning price promotions and/or coupons) should be priority strategies given their proequity impact on disparities.⁸ Organizations such as the Campaign for Tobacco-Free Kids, the Truth Initiative, voluntary health agencies, and the Robert Wood Johnson Foundation could fund initiatives for high-risk states. In addition, continued funding for the National Cancer Institute's State and Community Tobacco Control Initiative could benefit stalled states. More than ever, evidence-based policy changes are needed to "unstuck" stalled states and to eliminate disparities in smoking prevalence and the burdens of tobacco-related disease and mortality.

ARTICLE INFORMATION

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