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Economic Research Informing Tobacco Control Policy

Potential Effects of a Ban on the Sale of Flavored Tobacco Products in California*

Summary Highlights

Ending the sale of flavored tobacco products will reduce tobacco use initiation, lead current tobacco users to quit, improve health, and save lives. The policy will result in modest reductions in California's tobacco tax revenues while at the same time lead to significant reductions in health care spending, including MediCal spending, in the state. The public health and economic benefits of this policy are substantial, as detailed below.

Public Health Impact:

- 46,000 smokers (5.6% of menthol smokers) would quit as a result of the policy
- 10,700 premature smoking-caused deaths avoided
- Fewer youth initiating smoking with menthol cigarettes

Fiscal Impact:

- Increase in state revenues because reductions in tobacco excise tax income would be more than offset by MediCal savings and increased economic activity
- $113.7 million decline in cigarette excise tax revenue (7.8% decline)
- $25.9 million decline in other tobacco products excise tax revenue (11.4% decline)
- More than $819 million in annual health care cost savings, including $283.6 million in MediCal savings
- Net increase of 3,322 jobs and $580.8 in California economic activity and associated state and local tax revenues.

The projected health care savings and public health benefits are conservative because they do not include the impact on youth who will not start to smoke as a result of this policy. Preventing California kids from becoming addicted smokers would secure additional millions of dollars in future health care cost savings.

Public Health and Economic Burden of Tobacco Use in California

Tobacco use remains the leading cause of preventable death in the United States, killing more than 480,000 Americans each year, including 40,000 in California. Each year, 6,800 California kids become new regular, daily smokers. Nationally, youth e-cigarette use has reached epidemic proportions, and in California, e-cigarette use among youth has surpassed cigarette smoking. Flavors, including menthol, play a key role in youth use of tobacco products. Tobacco use is known to cause cancer, heart disease and respiratory diseases, among other serious health problems.

In addition to tobacco's impact on health and well-being, tobacco use imposes a considerable financial

toll on the economy. The Centers for Disease Control and Prevention (CDC) estimates that in California, tobacco use costs an estimated $13.3 billion in health care costs each year, including approximately $3.6 billion in state Medicaid expenditures.

These burdens on the state highlight the need to implement evidence-based policies to reduce tobacco use.

Introduction

In recent years, state and local governments in the U.S. have implemented policies banning the sale of flavored tobacco products and/or flavored liquids used in vaping. At the same time, policies banning the sale of flavored tobacco products have been implemented at the national level in a few countries, while a growing number of others have adopted but not yet implemented similar policies. Efforts to evaluate the effects of these policies on prevalence, consumption, and sale of tobacco and vaping products are ongoing and new evidence is rapidly emerging.

A variety of methodological approaches have been applied in efforts to understand the potential and actual impact of a ban on the sale of flavored tobacco and other nicotine products on the use of these products and on overall tobacco product use. These include: asking flavored tobacco product users how they would respond to a ban on the sale of flavored products, experiments that assess tobacco users' choices under different scenarios, including when flavored products are not available; evaluation of the impact of bans on the sale of flavored products in jurisdictions that have implemented these policies; and others. The most relevant evidence comes from Canada, where bans on the sale of menthol cigarettes were implemented in many provinces, beginning with Nova Scotia in May 2015, and culminating with a national ban in October 2017. The research on the potential and actual effects of comprehensive bans on the sale of flavored tobacco and other nicotine products suggests that these policies will reduce the use of the banned products and reduce overall use of tobacco and vaping products. Reductions in use will result from both increases in cessation among flavored product users, as well as reductions in initiation among potential users. At the same time, many continuing users are likely to substitute to non-flavored products, while some will avoid/evade the policy by obtaining flavored products on-line, from jurisdictions where the products remain available, or through illicit vendors.

Modeling the Impact of a Comprehensive Flavor Ban on Tobacco Tax Revenues and Public Health

Key Projections on cigarette consumption:

- Percent of menthol smokers who would quit: 5.6%
- Menthol cigarettes portion of total cigarettes in California: 23.0%
- Percent reduction in overall cigarette consumption from menthol smokers quitting: 1.3%
- Percent reduction in overall cigarette consumption from menthol smokers switching to non-menthol cigarettes or other tobacco products, policy avoidance and evasion: 6.5%
- $325.7 million reduction in pre-tax cigarette sales

Research indicates that the Canadian ban on menthol cigarettes significantly increased smoking cessation among menthol smokers, with cessation rates 50 to 100 percent higher for menthol smokers than for non-menthol smokers following the implementation of the provincial and national bans. Given this range, we estimate that a comprehensive flavor ban will raise the quit rate for menthol smokers by 75 percent relative to that of non-menthol smokers. Given estimates that 7.4 percent of smokers are recent quitters, this implies that almost 5.6 percent of menthol smokers would quit in the short run in response to a ban. Based on data from the 2014/15 Tobacco Use Supplement to the Current Population Survey (TUS-CPS), over one in four smokers (27.2 percent) smoked menthol cigarettes in California. Based on the same TUS-CPS data, menthol smokers in California smoke

fewer cigarettes per month, on average, than non-menthol smokers – 213 cigarettes vs. 266 cigarettes, respectively. Given the prevalence of menthol smoking and lower average cigarette consumption among menthol smokers, menthol cigarettes account for approximately 23.0 percent of total cigarette consumption. Taken together, these data imply that a comprehensive flavor ban in California would reduce overall cigarette consumption by nearly 1.3 percent, given increased cessation among menthol smokers.

Among menthol smokers who continue to smoke after the ban, many will switch to non-menthol cigarettes or other tobacco products, while some will continue to smoke menthol cigarettes. The Canadian data suggest that roughly 70 percent of those who continue to smoke will substitute to non-menthol cigarettes, with the remainder purchasing menthol cigarettes from jurisdictions where they continue to be available and/or from illicit sources, or switching to other tobacco/nicotine products. These data imply a potential reduction in excise tax paid cigarette sales in California due to avoidance and evasion of the ban or switching to other products of 6.5 percent.

Together, overall tax paid cigarette sales in California would fall by 7.8 percent in response to a comprehensive flavor ban, with a corresponding reduction in cigarette excise tax revenues. Given estimated cigarette excise tax revenues of about $1.45 billion in FY2022, this implies a drop of about $113.7 million in cigarette excise tax revenues.

Projecting the impact of a comprehensive flavor ban on use of and tax revenues from other tobacco/nicotine products is more speculative given the limited data available. Using the average share of flavored tobacco product sales for the years from 2011 through 2015 and assuming that the reductions in sales of other flavored tobacco products are of a similar magnitude to the reduction in the sale of menthol cigarettes, we estimate that other tobacco product sales and resulting other tobacco product tax revenues would fall by 11.4 percent in California. Given estimated other tobacco product tax revenues of $228.1 million in FY2022, this implies a reduction in other tobacco product tax revenues of $25.9 million. These estimated reductions in revenues are based on limited data and research evidence and are likely to be imprecise. To some extent, they are likely to overstate the actual declines in revenues as they do not consider the substitution between cigarettes and other tobacco products that might result from a flavor ban and given that at least some tobacco users who quit in response to the ban may eventually relapse and consume non-flavored products. Strengthened enforcement and increased penalties on illicit traders can reduce illegal sales of flavored products and lessen the impact of the flavor ban on tobacco tax revenues.

A comprehensive flavor ban will also improve public health given the reductions in tobacco use that result. As described above, a comprehensive flavor ban will result in almost 5.6 percent more menthol smokers quitting smoking in the short run. Given an estimated 3.0 million adult current smokers in California, over one-quarter of whom smoke menthol cigarettes, this implies that almost 46,000 adults would quit smoking in response, resulting in about 10,700 fewer deaths caused by smoking. In addition, the limited existing evidence suggests that a comprehensive ban would also deter numerous young people from taking up tobacco use, adding to the public health benefits.

The reductions in tobacco use resulting from a comprehensive flavor ban would lead to significant reductions in health care spending, including MediCal spending. Based on recent research by Lightwood and colleagues, the reductions in smoking prevalence resulting from a comprehensive flavor ban would reduce overall health care expenditures in California by an estimated $818.9 million in FY2022. This includes a reduction of $283.6 million in Medicaid spending. These estimates reflect reductions in health spending from smoking cessation and do not include additional savings from reductions in other tobacco use. Moreover, the savings would grow

over time given the longer-term health consequences of tobacco use.

Impact of a Comprehensive Flavor Ban on Jobs and Economic Activity in California

The flavor ban will have an important effect on the total magnitude of economic activities in California most of the money spent on tobacco products is exported from California to tobacco product manufacturers and farmers (80.4%) outside the state and so does not contribute to additional economic activity in California. Only $63.8 million of the $325.7 million no longer spent on flavored tobacco products represents wholesale and retail economic activity in California (Table). The remaining $261.9 million which now leaves California will now contribute to economic activity in California, creating a net increase of 3,322 jobs and $580.8 in economic activity.

Because the money currently spent on tobacco products will shift to other expenditures, there will be no direct net effect of the flavor ban on sales tax revenues.

The increased economic activity will, however, result in increases in tax revenue to the state and localities.

Table. Net Effect of Reduced Tobacco Consumption inside California[a]

	Dollars (millions)	Jobs Multiplier (per $million)	Total Jobs	Economic Activity Multiplier	Total Economic Activity (millions)
Reduction in dollars spent on tobacco (pre-tax)	$325.7				
Of this, amount remaining in California[b]	$63.8	-5.2449[c]	(335)	0.2296[c]	$14.7
Balance which currently is leaving California that will represent new spending in California	$261.9	13.9653[d]	3,657	2.1618 [d]	$566.1
Net change			3,322		$580.8

[a] Department of Commerce's Regional Input-Output Modeling System (RIMS II) multipliers to estimate the effects of changes in expenditures on total employment and total economic activity in California resulting from the reductions in tobacco consumption (RIMS II California Benchmark Series, 2002/2008). These multipliers estimate the total number of jobs created for each million dollars of spending, both direct and indirect, as well as the total amount of economic activity created by the direct and indirect effects of changes in spending on tobacco products. For details, see https://www.bea.gov/resources/methodologies/RIMSII-user-guide.

[b] 19.6% of pre-tax sales (wholesale and retailing activities) from Capehart T. The Changing Tobacco User's Dollar. US Department of Agriculture. TBS- 257-01 October 2004. Available at https://naldc.nal.usda.gov/download/34163/PDF (Accessed 29 Mar 2021).

[c] Difference in jobs/$million between retail trade (RIIMS code 4A0000 excluding agriculture, mining and manufacturing, because these activities related to tobacco products occur outside California), 19.2012, and unweighted average jobs multiplier for all California industries, 13.9653 and corresponding economic output multipliers, 1.9322 and 2.1618.

[d] Unweighted average jobs and economic multipliers for all industries in California.

Suggested Citation

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About Tobacconomics

Tobacconomics is a collaboration of leading researchers who have been studying the economics of tobacco control policy for nearly 30 years. The team is dedicated to helping researchers, advocates and policymakers access the latest and best research about what's working—or not working—to curb tobacco consumption and the impact it has on our economy. As a program of the University of Illinois at Chicago, Tobacconomics is not affiliated with any tobacco manufacturer. Visit www.tobacconomics.org or follow us on Twitter https://twitter.com/Tobacconomics.

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