

**STATE OF CALIFORNIA**  
**TOBACCO EDUCATION AND RESEARCH OVERSIGHT COMMITTEE**

**MEMBERS:**

**Michael Ong, M.D., Ph.D., Chairperson**  
Professor in Residence  
Departments of Medicine & Health Policy  
and Management  
University of California, Los Angeles

**Edith D. Balbach, Ph.D.**  
Professor Emerita of Public Health and  
Family Medicine  
Tufts University

**Mary Baum**  
Senior Program Director  
Social Advocates for Youth (SAY) San  
Diego

**Vicki Bauman**  
Prevention Director III  
Stanislaus County Office of Education

**Primo J. Castro, M.P.A.**  
Director, Government Relations  
American Cancer Society Cancer Action  
Network

**Patricia Etem, M.P.H.**  
Executive Consultant  
CIVIC Communications

**Mariaelena Gonzalez, Ph.D.**  
Assistant Professor of Public Health  
School of Social Sciences, Humanities, and  
Arts  
University of California, Merced

**Jim Keddy**  
Executive Director  
Youth Forward

**Pamela Ling, M.D., M.P.H.**  
Professor  
Department of Medicine  
University of California, San Francisco

**Wendy Max, Ph.D.**  
Professor and Director  
Institute for Health & Aging  
University of California, San Francisco

**Robert Oldham, M.D., M.S.H.A.**  
Public Health Officer and Public Health  
Division Director  
Placer County Department of Health and  
Human Services

**Clardina Soto, Ph.D., M.P.H.**  
Assistant Professor  
University of Southern California

**Mark Starr, D.V.M., M.P.V.M.**  
Deputy Director for Environmental Health  
California Department of Public Health



August 20, 2019

**RE: TEROC supports inclusion of marijuana in smoke-free ordinances and laws**

To Whom it May Concern,

The Tobacco Education and Research Oversight Committee (TEROC) is a legislatively mandated oversight committee that monitors the use of Proposition 99 and Proposition 56 tobacco tax revenues for tobacco control, prevention education, and tobacco-related research in California.<sup>1,2</sup> TEROC advises the California Department of Public Health; the University of California; and the California Department of Education with respect to policy development, integration, and evaluation of tobacco education programs funded by Proposition 99 and Proposition 56. TEROC is also responsible for the development of a master plan for the future implementation of tobacco control and research, and making recommendations to the State Legislature.

Social norms around smoking have also been challenged as a result of the legalization of marijuana. Marijuana is often perceived as less harmful than tobacco. As a result, the general public will typically avoid tobacco secondhand smoke, but many believe that marijuana secondhand smoke is safer.<sup>3</sup> Californians have reported an increase in marijuana secondhand smoke exposure. In the 2018 Online California Adult Tobacco Survey (Online CATS), the percentage of adults ages 18-64 who reported being exposed to marijuana secondhand smoke was approximately 40 percent.<sup>4</sup> It is important for tobacco control programs to make it clear to the public that **smoke is smoke. Both tobacco and marijuana produce secondhand smoke and both are associated with adverse health outcomes.**

Marijuana smoke contains many of the same chemicals and carcinogens as tobacco smoke. Results from laboratory testing under standard conditions have found marijuana secondhand smoke contained more than twice as much tar and ammonia as tobacco smoke, and more than eight times as much hydrogen cyanide.<sup>5</sup> Furthermore, the exposure to marijuana secondhand smoke impairs vessel function for far longer than the exposure to tobacco smoke.<sup>6</sup> A 2016 rat model revealed that similar to tobacco, exposure to marijuana secondhand smoke impairs the ability of arteries to vasodilate. Although the impairment is temporary, repeated exposure leads to long-term impairment.<sup>6</sup>

The legalization of recreational marijuana has begun to challenge enforcement of existing tobacco control policies. In particular, reports from the tobacco control field have noted rollbacks in smoke-free policies in order to allow marijuana smoking in indoor and outdoor venues where smoking is prohibited. **TEROC strongly supports the inclusion of marijuana in smoke-free ordinances and opposes any rollbacks of these restrictions to protect public health from all sources of secondhand smoke and secondhand vape exposure.** There is support for smoke-free places, in the 2018 Online CATS survey, 87 percent of California adults, ages 18-64, agreed that people should be protected from breathing in secondhand marijuana smoke or vapor in public places.

An additional source of concern is the issue of secondhand high exposure. In a 2017 systematic review of 15 human studies, non-smokers exposed to marijuana secondhand smoke reported a secondhand high. The high was stronger when the tetrahydrocannabinol (THC) content was higher. THC or THC metabolites were also found in bodily fluids of non-smokers.<sup>7</sup>

**There is no safe level of secondhand smoke.<sup>8</sup>**

As with tobacco secondhand smoke, ventilation systems do not make marijuana secondhand smoke less harmful. Ventilation systems and the like, may reduce odor but do not mitigate the serious health effects associated with secondhand smoke exposure. Even at low levels, marijuana secondhand smoke can negatively impact the cardiovascular system.<sup>9</sup> The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) expanded their definition of Environmental Tobacco Smoke (ETS) to include marijuana secondhand smoke and emissions produced by electronic smoking devices. ASHRAE further concluded that ventilation systems cannot eliminate ETS.<sup>6,10,11</sup>

Adoption of secondhand smoke policies align with TEROC's 2018-2020 Master Plan, [New Challenges, New Promises for All](#) recommendation to *Protect People and the Environment*. **TEROC encourages local jurisdictions to continue their efforts to protect the health of their communities from all secondhand smoke, including marijuana, and prevent the rollback of smoke-free policies.** TEROC continues to stand with local communities and jurisdictions in their efforts to protect the public health and well-being of California residents.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Ong". The signature is fluid and cursive, with a large, stylized "O" at the end.

Michael Ong, M.D., Ph.D.  
Chairperson

## References

1. Health & Safety Codes §§ 104365-104370.
2. Revenue and Taxation Code § 30130.56(e).
3. Popova L, PhD. Perceived harms and benefits of tobacco, marijuana, and electronic vaporizers among young adults in Colorado: Implications for health education and research. *Addiction* 2016;112(10):1821-1829.
4. California Department of Public Health. *Online California Adult Tobacco Survey, 2018*. Sacramento, CA November 2018.
5. Moir D, et al., . Comparison of Mainstream and Sidestream Marijuana and Tobacco Cigarette Smoke Produced under Two Machine Smoking Conditions. *American Chemical Society*. 2008:494-502.
6. Xiaoyin Wang MRD, MS; Jiangtao Liu, MD; Shilpa Narayan, BS;\* Pooneh Nabavizadeh, MD; Stephenie Le, BA;† Olivia M. Danforth, BS;‡ Kranthi Pinnamaneni, MD; Hilda J. Rodriguez, AS; Emmy Luu, BS; Richard E. Sievers, BS; Suzaynn F. Schick, PhD; Stanton A. Glantz, PhD; Matthew L. Springer, PhD. One Minute of Marijuana Secondhand Smoke Exposure Substantially Impairs Vascular Endothelial Function. *Journal of the American Heart Association*. 2016.
7. Holitzki ea. Health effects of exposure to second- and third-hand marijuana smoke: a systematic review. *CMAJ Open*. 2017.
8. U.S. Department of Health Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General,. In. Atlanta, GA 2006.
9. American Nonsmokers' Rights Foundation. Protecting Nonsmokers from Secondhand Marijuana Smoke. 2018.
10. American Society of Heating Refrigerating and Air-Conditioning Engineers. ASHRAE Position Document on Environmental Tobacco Smoke. 2013.
11. American Society of Heating Refrigerating and Air-Conditioning Engineers. Addenda 2015 Supplement: Ventilation for Acceptable Indoor Air Quality. In:2015.