

Existing Technology and Government Programs for Detecting Cannabis/THC Impairment

With the expansion of medical and adult-use cannabis laws, there have been several innovative efforts to increase the detection and enforcement of cannabis-related impaired driving. There are a growing number of promising technological innovations and government programs that have emerged in recent years to address this issue—particularly following Canada’s adoption of a national adult-use cannabis law in 2018.

Several jurisdictions are currently using new technology that detect for THC using government-approved oral fluid testing devices, and there is emerging technology in California that would provide law enforcement with a so-called “marijuana breathalyzer.” These technologies and a select number of thought-leading government programs provide useful models that other states can replicate.

Michigan’s Oral Fluid Roadside Analysis Pilot Program

In 2016, the Michigan Legislature adopted Public Act 243, which established an oral fluid roadside testing pilot program in five Michigan counties. Under this program, certified Drug Recognition Experts (DREs) have the authority to request oral fluid samples from drivers who exhibit signs of drug impairment. DREs then test these samples for the presence of substances (including THC) using the Alere DDS2 system and—if a second sample is voluntarily provided—the Quantisal system.¹ Based upon the initial results of this pilot program, the Michigan Legislature allocated an additional \$626,000 in 2018 to expand this pilot program statewide.² Additional information on this pilot program can be accessed via the Michigan State Police’s [official report](#) on the program that was released in February 2019.

Canada’s Advancement of Drug Impairment Testing Devices under C-46

In 2018, lawmakers in the Parliament of Canada enacted Bill C-46, which overhauled the country’s policy framework for detecting and enforcing impaired driving. Under this legislation, police officers have the authority to conduct roadside impairment tests using oral fluid drug testing devices. All impairment testing devices must first receive the approval of the Attorney General of Canada.³ To date, the Canadian Government has approved the Dräger DrugTest 5000 to test for THC, and the Attorney General is close to approving a new device called SoToxa after the country’s independent committee of forensic toxicologists recommended its approval in 2019.⁴ Both devices are used for conducting roadside tests of oral fluid samples. Additional information on the major advancements Canada has made on roadside drug impairment testing can be accessed via [The Canadian Society of Forensic Science’s Drugs and Driving Committee](#).

Technological Progress towards a THC Breathalyzer Test in California

Over the past several years, a California-based company called Hound Labs has been developing a so-called “marijuana breathalyzer” that can detect both the presence and amount of THC in an individual’s breath. This technology has undergone clinical trials at the University of California San Francisco (UCSF), and the results of these UCSF trials are currently under peer review. Representatives at Hound Labs have stated that their breathalyzer technology could be ready for deployment by the end of 2019. This technology would be a breakthrough for both cannabis policy and law enforcement since it would provide police officers with a fast and reliable method for testing for cannabis impairment.⁵

Endnotes

¹ Michigan State Police. *Oral Fluid Roadside Analysis Pilot Program*, February 2019

https://www.michigan.gov/documents/msp/Oral_Fluid_Report_646833_7.pdf.

² Kathleen Gray. "Police Want to Extend Program to Test Drivers for Marijuana in Michigan," in *Detroit Free Press*, February 27, 2019 <https://www.freep.com/story/news/politics/2019/02/27/marijuana-test-impairment-michigan-state-police/3008230002/>.

³ Parliament of Canada. *Legislative Summary of Bill C-46*, July 2018.

https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/LegislativeSummaries/421C46E

⁴ Rachel Aiello. "Feds Set to Approve Second Roadside Drug Detection Device," in *CTV News*, April 25, 2019

<https://www.ctvnews.ca/politics/feds-set-to-approve-second-roadside-drug-detection-device-1.4394549>; and

Government of Canada, Department of Justice. *Canada Gazette, Part I, Volume 153, Number 16: Order Amending the Approved Drug Screening Equipment Order*, April 2019 <http://www.gazette.gc.ca/rp-pr/p1/2019/2019-04-20/html/reg4-eng.html>.

⁵ Felicia Gans. "Calif. Company Offers Answers to Impaired Driving with Marijuana Breathalyzer," in *The Boston Globe*, April 26, 2019

<https://www.bostonglobe.com/news/marijuana/2019/04/26/calif-company-offers-answers-impaired-driving-with-marijuana-breathalyzer/fkCcRvtdQzyVeDZXWMua8l/story.html>.