



FOUNDATION FOR  
ADVANCING ALCOHOL  
RESPONSIBILITY

August 23, 2019

The Honorable Frank Pallone, Jr.  
Chairman  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, D.C. 20515

Dear Chairman Pallone:

Thank you once again for the opportunity to testify at the July 24, 2019 hearing on Legislation to Make Cars in America Safer and for your longstanding leadership to improve safety on our nation's roadways. I am following up as requested to the questions from The Honorable Michael C. Burgess, M.D. (R-TX):

Question 1. I understand there is technology being developed to accurately detect alcohol-impaired driving through breath- and touch-based systems called the Driver Alcohol Detection System for Safety, or DADSS. Has there been any research on technology that will perform the same assessment of drug-impaired drivers?

Answer: The following information was provided to Responsibility.org from the DADSS Program in order to provide a response to this question: The DADSS Program remains focused on commercializing vehicle-integrated alcohol detection sensors/systems to reduce alcohol-impaired crashes and the associated deaths and injuries. The DADSS technologies use spectroscopy to detect and quantify ethyl alcohol - the intoxicating agent in beverage alcohol. With additional research, DADSS technologies might be adapted to detect, and possibly quantify tetrahydrocannabinol ("THC") - the principal psychoactive constituent of cannabis; opioids; or other substances of interest. Some current DADSS inventions regarding how to package multiple lasers in a small enclosure, power and thermal management of the lasers, etc., likely would transfer to other applications."

Question 2. Often alcohol and drugs are present together when an impaired driver takes to the road. Do you believe there is technology that can be developed to assess the presence of both drugs and alcohol and accurately determine acuity level for operation of a vehicle?

Answer: New tools and technology for law enforcement are on the horizon. Some are in development and others are being piloted in the U.S. and utilized internationally.

**Oral fluid testing.** This technology tests for the most commonly used categories of drugs (e.g., cannabis (THC), amphetamines, cocaine, methamphetamines, opiates, benzodiazepines, and methadone) and provides a positive or negative reading for each substance. Oral fluid tests are quick and easy to use, minimally invasive, have a short detection window, and provide a sample proximate to the time of driving. Officers can combine BAC test results with oral fluid tests if they suspect that the individual has consumed substances other than alcohol.

Oral fluid devices are useful screening tools, but positive results are not proof of impairment. The tests use cutoff levels to determine presence and they should only be used to assist officers in establishing probable cause - not the sole reason for arrest. Test results combined with officer observations of impairment are necessary to build an impaired driving case. Oral fluid technology has been piloted in numerous jurisdictions across the country and a statewide pilot in Michigan will begin this fall. Australia has used oral fluid testing for more than a decade and Canada authorized the use of oral fluid devices in 2018.

**Breath testing technology for drugs.** To detect THC as close to the time of driving as possible, researchers and private companies are exploring breath testing technology for drugs: <https://ndaa.org/wp-content/uploads/BTL-v25-n2.pdf>.

At least two companies have patents for cannabis breathalyzers. One company claims to have a device with dual testing functions meaning that it could detect the presence of cannabis and alcohol. Breath testing for cannabis is also meant to be used in an on-site, screening capacity. The manufacturers claim their devices have short detection windows (2-3 hours). This technology cannot identify individuals who are impaired by cannabis, but it can identify individuals who have the drug present in their bodies (or are under the influence of THC). More research is needed including independent validation studies and pilot programs. Experts believe it will take at least 5 years before these devices can be deployed.

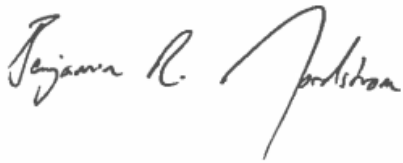
**To date, there remains no defined or scientifically valid impairment standard for different drug categories.** Until an impairment standard for drugs is established, these devices will only be useful in identifying individuals who have recently ingested drugs. Law enforcement officers will need to identify and document signs and symptoms of impairment which, combined with chemical test results, would form the basis of a drug-impaired driving case.

We urge Congress to continue to support research initiatives that focus on accurate detection of the presence of drugs. If an impairment standard for drugs cannot be developed (and forensic toxicologists believe it may be impossible) law enforcement officers must have tools at their disposal that will aid them in DUI investigations. The combination of specialized law enforcement training to identify signs and symptoms of drug impairment combined with effective detection technology at the time of a traffic stop can be used to establish strong impaired driving cases.

NHTSA should evaluate the viability of oral fluid technology and establish minimum guidelines for device certification. In addition, appropriations should be made to develop and test emerging technologies such as cannabis breathalyzers and transdermal devices.

If we can be of further assistance to you, please do not hesitate to contact Brandy Axdahl, Senior Vice President of Responsibility Initiatives at [brandy.axdahl@responsibility.org](mailto:brandy.axdahl@responsibility.org) or 202-277-6233. Thank you for your leadership.

Best regards,

A handwritten signature in black ink, reading "Benjamin R. Nordstrom". The signature is fluid and cursive, with the first name "Benjamin" and last name "Nordstrom" clearly legible.

Benjamin Nordstrom, M.D., Ph.D.

Executive Director

Cc: The Honorable Greg Walden  
Ranking Member  
Committee on Energy and Commerce

The Honorable Jan Schakowsky  
Chairwoman  
Subcommittee on Consumer Protection and Commerce

The Honorable Cathy McMorris Rodgers  
Ranking Member  
Subcommittee on Consumer Protection and Commerce