DUI/DRUG OFFENSE ENFORCEMENT CHALLENGES

Report of Act 158 of 2016

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EXECUTIVE DIRECTOR'S ADVISORY NOTE:

Millions of Americans currently take one form of prescription drugs or another on a daily basis. Many of these individuals also operate motor vehicles on our highways while these drugs are still within their system. Correspondingly, there are many individuals who drive their vehicles after having an alcoholic beverage. This is legal…**unless the effects of the drug impair your ability to safely operate a motor vehicle**.

The mere presence of a substance in a driver's system, whether alcohol (if percentage is less than what is legally allowed) or drugs, legally prescribed or illegal by statute, does not prove that they are too impaired to drive. Such presence is **just one indicator of possible impairment** that a police officer may wish to consider.

Before an officer even gets to the point of identifying an impairing substance, she must observe other suggestive indicators, such as the odor of alcohol, physical condition of a driver's eyes, a slurring of speech, or an unsteady stance. The officer will then gather additional data by way of what is commonly referred to as the "field sobriety test." If these preliminary tests indicate a sufficient level of impairment, the officer can then request the person provides a "breath test."

Often times the results of this test will not indicate the presence of alcohol **despite the other obvious indicators of physical impairment**. Unfortunately, there are **no legislatively authorized test** t**o confirm the obvious…that the driver's impairment is likely the result of the influence of drugs**.

This is not to say that diagnostic tests are not available. Two such tests have undergone scientific field validation in Vermont. Additionally, it is important to note that the oral fluid test is subject to substantiation by confirmatory testing in a lab setting.

Executive Summary

This report identifies the significant challenges facing law enforcement, state's attorneys, and the judiciary when dealing with cases of drug-impaired driving, especially in **fatal motor vehicle crashes**.

These developments require us to examine and assess the effectiveness of our impaired driving laws as they relate to cases where drug use by a driver is suspected. The legislature must determine whether Vermont's law enforcement possess the necessary tools to investigate suspected cases of drugged driving.

Act 158 of the 2016 Legislative Session requires a committee of reporters, headed by the Executive Director of the Vermont States Attorneys, and various other designees, to:

> **[S]tudy challenges in the enforcement of DUI drug offenses, including the lack of a rapid roadside tool such as a preliminary screening test of saliva to detect drugs other than alcohol, and shall identify recommended improvements in the processes used to detect, arrest, and process drug-impaired drivers and to the laws that govern these processes.**

2016, No. 158, § 83.

These roadside tools are needed to help our state combat the extremely serious problem of impaired driving; especially in light of the increased number of impaired driving caused by the influence of drugs.

DRUGGED DRIVING

An alarming consequence of our nation's opioid crisis has been the ever-increasing number of individuals who drive a vehicle while under the influence of a drug; often, in combination with alcohol. This conduct has had catastrophic results on the lives of countless number of people and families across the country. Even a small state like Vermont has been unable to escape the often-fatal outcome of impaired driving while under the influence of drugs or alcohol (individually, or in combination.)

During the period of January 1, 2016 through September 30, 2016, drugs, alone, or in combination with alcohol, were attributable to crashes that resulted in 13 fatalities. In that same period, there were a number of other fatalities where the state was unable to determine whether drugs played a role because law enforcement was unable to obtain evidentiary material.

2016 Fatal Crashes Where Driver Impaired by Type and Month

Month	A-N/D-Y	A-Y/D-N	A-Y/D-unk	A-Y/D-Y	N	unk	Grand Total
January	1			1	1		3
February	1	1					2
March		3			3		6
April		2			4		6
May	2	2		1	4		9
June	2	1					3
July			1	1		2	4
August		1	1	2		1	5
September		1	1	1		3	5
October						4	4
Grand Total	**6**	**10**	**3**	**7**	**12**	**10**	**48**

A-N / D-Y (negative for alcohol, positive for drugs)

A-Y / D -N (positive for alcohol, negative for drugs)

A-Y/D-unk (positive for alcohol, drugs unknown)

A-Y/D-Y (positive for alcohol, positive for drugs)

N (negative for alcohol, negative for drugs)

Unk (unknown for alcohol, unknown for drugs)

A criticism often used by opponents to evidentiary testing of impaired drivers is that the mere presence of a drug or alcohol in a driver's system is not sufficient to prove the impairment. That statement, while true in the technical sense, overlooks the fact that in many motor vehicle fatality cases, especially those where the driver is killed, there is no method available to confirm that the crash was caused by the substances discovered. Instead, as in a court of law, these statistics should be weighed as evidence, just as the crash itself must be weighed as evidence. So, while it may be impossible to conclude that drugs or alcohol were the lone cause, their presence permits consideration of whether they were a contributing factor to the crash.

IMPAIRED DRIVING RESOURCES

Currently, when a police officer reasonably suspects that an individual is impaired she may stop that vehicle to investigate further. During the initial interaction, the officer has two tools at her disposal to determine whether the driver was impaired. They are: 1) the ***Field Sobriety Tests***—a series of elementary physical and mental tests that check for certain ophthalmologic responses, visual and mental acuity, balance and motor skills; and, 2) a ***Roadside Breath Test***--a portable hand-held device called a "breathalyzer" measures the amount of alcohol present. While the *Field Sobriety Tests* may provide evidence of impairment by way of alcohol or drugs (or combination), the *Breath Tests* can only document the amount of alcohol in a suspected impaired driver's system, not drugs. Therein lies the problem.

DUI Drug Charges Filed in Vermont, FY 2014 - FY 2016

	Fiscal Year		
Offense	2014	2015	2016 (through Oct. 13, 2016)
DUI #1-DRUG OR BOTH	146	156	206
DUI #1-DRUG OR BOTH/FATAL	0	0	3
DUI #1-DRUG OR BOTH/INJURY	2	1	0
DUI #2-DRUG OR BOTH	30	26	31
DUI #3-DRUG OR BOTH	5	9	10
DUI #4 OR SUBSEQUENT-DRUG OR BOTH	0	6	6
Total	183	198	256

RESOURCE CHALLENGES

Roadside oral fluid testing devices that screen saliva for the most commonly abused drugs are commercially available, and are currently being tested in other states. Vermont has yet to enact enabling legislation for this impaired driving resource. Its approval is believed to be critical in order to combat the ever-increasing number of drug impaired drivers on Vermont's roads.

The resources currently available in Vermont's challenge to curb the potentially lethal activity of driving while under the influence of alcohol or a drug have their own limitations, as is discussed below.

The Preliminary Breath Test:

The most common instrument available to help identify impaired driving has been the Preliminary Breath Test, commonly known as the "breathalyzer." Police officers use preliminary breath tests at the scene of a traffic stop or automobile accident to determine whether there is the presence of alcohol in a driver's system. If the test reveals a certain percentage of alcohol in the driver's system then an evidentiary test is available at a static location, most office an area police headquarters. While these instruments have played, and continue to play, a significant role in the identification and prosecution of individuals who were driving while impaired, **they are limited to the detection of alcohol**.

Drug Recognition and Evaluation Officers:

The Vermont **Drug Evaluation & Classification Program** (DECP) currently maintains 40 certified **Drug Recognition and Evaluation** officers (DREs), who are certified law enforcement officers from state, county and municipal law enforcement agencies located throughout the State of Vermont specifically trained to identify signs of drug impairment. The DECP has conducted over 1,250 enforcement evaluations since 2005. DREs are available on an "on-call" basis that currently utilizes the VT Alert system.

The DRE evaluation process is conducted in a controlled setting, typically at a police station or hospital. Among other information, the DRE evaluation looks at multiple physical characteristics present in the driver, including their physical coordination and dexterity, their vital signs, (pulse, blood pressure and body temperature), and the movement of their eyes. The exam lasts for approximately 45 – 60 minutes, and may be followed by a blood sample.

After stopping and arresting a driver suspected to be impaired by a drug, law enforcement agencies may request a DRE using the Williston PSAP, which locates the nearest DRE(s). Often times there is a significant physical distance between the location of the requesting officer and the DRE. As a result, the DRE is unable to make it to the scene in a timely fashion. Time in these situations is extremely important due to the physiology of substance elimination from the bloodstream of a suspected impaired driver.

In 2015, DREs were requested to perform evaluations in 248 separate cases. In 19 of those cases there were either no DRE available or the distance was too great to have been able to properly assist in the investigation.

Vermont Forensic Laboratory:

Currently, the Vermont Forensic Laboratory (VFL) is without the proper and necessary resources to conduct blood-drug tests or, to confirm an oral fluids test. The reason for this shortfall is the lack of adequate space and certified personnel to perform such tests.

Blood data is often used in the prosecution of crimes, especially DUI/Drug cases, however, it has almost become cost prohibitive due to its expense. Currently, prosecutors must send blood samples to **NMS Laboratory in Pennsylvania** for analysis due to VFL's inability to conduct the tests.

While federal funds cover the testing expense for cases involving a local DRE officer, there is significant cost of presenting blood drug testing results, and if the DRE officer has not been involved in the investigation all the expense is borne by Vermont agencies.

This problem is exacerbated when the case is brought to trial and the lab technician is called as an expert witness. Therefore, for all DUI Drugs cases involving blood drug testing, the State's Attorneys must incur significant costs to secure the testimony of the expert witness (which includes costs of travel and lodging, in addition to the expert witness fees).

Expert witness fees and costs are typically estimated to be $5,000 to $10,000 for each drugged driving prosecution involving blood test results. Furthermore, prosecutions require hearings on various issues in addition to the trial, those costs can be substantially greater. There are additional practical considerations, such as the logistics of the expert's travel and scheduling arrangements.

The current model of blood drug testing is unsustainable due to the costs. Experience shows that for misdemeanor drugged driving prosecutions, the costs for expert witness often **overwhelm the limited financial resources of the State's Attorney's offices**. These cases are often settled for a reduced charge, not because the evidence was not there, but because it was financially impossible to present all of the evidence.

Vermont prosecutors need a system for prosecution of drugged driving cases that runs parallel to the system that has long been established for drunk driving cases. To be effective, a streamlined, in-state testing model that is supported by expert witnesses who are employed by the VFL is necessary. The groundwork for such a system is already in place, given the professional and expert staff at the VFL.

The House and Senate Institutions Committees have recognized the problem of adequate space and have funded an expansion of the VFL. Governor's Highway Safety Program has offered funds to purchase the new instrumentation and relevant equipment/supplies that are needed. However, the

laboratory will require additional staff to analyze samples and offer expert testimony. Unfortunately, it appears that the project is not scheduled to begin until the summer of 2017. And, it is likely that the full certification process will not be complete until 2018.

By all accounts the drugged driving problem in the State of Vermont will continue to grow. Without an effective and financially viable system to evaluate blood samples and arrange for expert testimony, this problem will grow unchecked by the legal system**, undermining the safety of the public**. A very likely scenario is that impaired drivers may not be held responsible for their actions because of inadequate resources and insufficient funds to assure their prosecution. Regrettably, this may also lead to an increased number of crashes resulting in bodily injury and deaths in the State of Vermont.

SUPPORT FOR ORAL FLUID TESTING

Oral fluid screening devices provide initial quantification of results immediately. They are non-invasive, and, they possess the degree of **sensitivity** (positive when the substance is present) to be useful in detection, and the **specificity** (negative result if the substance is not present) of an ideal roadside screening system.[1] The same sample used to obtain the initial screening results is available for subsequent validation using confirmation techniques.

Obtaining results at the roadside using devices which provide immediate semi-quantitative results reduces the need for more invasive sampling of blood or urine[2], and effectively eliminates the need for expensive collection facilities. The witnessing of sample procurement requires no gender specificity.

Currently there are several portable screening devices on the market. In 2014, the **Center for Forensic Science Research & Education** evaluated several. Two of the devices have been subject to sufficient field experience to justify introduction to the Vermont Law Enforcement community. Both involve use of **Lateral Flow Immunoassay** technology which can detect six to seven drug categories at the roadside, and include interfaces for and electronic readout and printing capabilities. These are the **Dräger DT5000** and the **Alere DDS2**.[3]

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[1] See the definitions below for the technical definitions of sensitivity and specificity as used in these contexts.

[2] When screening involves urine, adding water or another person's urine to urine samples collected reduces the concentration of the substance(s) of interest and invalidates results. For this reason, obtaining urine samples requires specific facilities and witnessing protocols to reduce the risk of the results being affected intentionally by dilution or substitution with another person's urine. Oral fluids are less subject to adulteration or substitution. A validated saliva collection device (swab) is placed in between the cheek and the gums, where it collects a sample of filtered fresh saliva. Since saliva is produced continuously, dilution can only occur if the person drinks while the sample is collected. Substitution of the saliva for the saliva of another person would be highly unlikely in a roadside situation involving a drugged driving investigation, in so far as the collection device is not handled by the subject and the collection can be witnessed. Furthermore, and more importantly, because substance(s) do not remain in oral fluids as long as they do in urine, saliva is more useful in determination of recent use of substance(s) that may contribute to impairment of driving skills.

[3] Both devices have been used in multiple pilot studies across the country, including Vermont in 2015.

In 2015, a Vermont based study was conducted of the oral fluid testing devices mentioned above. The study was the subject of a final report issued by **Dr. Barry K. Logan of NMS Labs**. The report examined the performance of the Drager and Allere testing instruments. It concluded that:

> The results were consistent with other similar previously reported studies, showing sensitivity (the ability to produce confirmable results) of approximately 60% with success rates as high as 100% for some drug categories. Some drugs especially the benzodiazepines still present a challenge for these drug platforms, but the most commonly encountered drugs – cannabinoids and cocaine – are well detected and confirmed. False positive rates were less than 1% on the DDT5000, and less than 4% on the DDS2. Accuracy for both field testing instruments was greater than 90%.

SCIENCE OF ORAL FLUID TESTING

Relevant terms:

False Negative: A positive finding from the confirmatory test not predicted by the field test.

False Positive: A positive finding from the field test not confirmed by the confirmatory test.

Sensitivity: Proportion of subjects who subsequently test positive in a confirmatory test whose positive status was correctly predicted by the field test.

Specificity: Proportion of subjects who subsequently test negative in a confirmatory test whose negative status was correctly predicted by the field test.

Accuracy: Overall proportion of subjects whose drug status as determined by a subsequent confirmatory test was correctly predicted by the field test.

The **Oral Fluid Test** is a device that detects the presence of **classes of drugs** (e.g. opiates, benzodiazepines, stimulants, Cannabis, benzodiazepine, among others) rather than individual specific drugs. It is a corroborative test in situations where a trained police officer has made observations of cognitive and psychomotor impairment, suspected to have resulted from substance use other than alcohol.

The technical principle on which screening is based is immunoassay, the same principle which has been used for decades in urine drug screening. The **Dräger® Drug Test 5000** (**DDT5000)** and the **Alere® DDS2 Mobile Test System (DDS2)** are screening instruments designed to utilize the immunoassay technique to identify the presence of members of classes of substance(s).

In clinical settings, screening is usually conducted using urine screening devices that change color in the presence of substances above a specific quantity per volume of urine (concentration). The person executing and interpreting the results simply notes the presence or absence of the color change.

The principal that results in the color change is a technique developed in 1971. Immunoassays utilize antibodies which bind with the antigens of certain drugs. It is called the "lock-and-key model." Once the match is made between the antigen and the antibody, a positive result shown, usually as a color change. Oral fluids screening involves the same principle, but as the screening is executed using a device that can sense the amount of change, the results are can be reported as having been positive above a specific quantitative amount.

Standardization of the Oral Fluids acquisition platforms:

Contemporary Oral Fluid sampling involves the use of a saliva collection device which collects approximately 1 mL of Oral Fluid and stores that saliva sample in a tube containing 3 mL of a stabilizing buffer solution. The device is then provided a sample of the saliva to the screening device, using an integrated cassette. The available devices for collecting Oral Fluids samples were described in "Drug Testing in Oral Fluid—Evaluation of Sample Collection Devices". **(**Kaarina Langel**,** et. al. Journal of analytic Toxicology Volume 32, Issue 6 Pp. 393-401. These devices are not uniform with regards to volume of Oral Fluid obtained nor the stability of the sample over time.

For evidentiary, as opposed to roadside screening, the Immunalysis Quantisal™ device is the platform currently favored for oral fluids testing. The saliva buffered with Quantisal and the sample quantity is sufficient to allow immediate analysis of a portion of the sample and allows subsequent confirmation testing of the same sample at a later date.

Reliability of Results From Oral Fluid Testing Devices

Sensitivity:

The history of oral fluid testing for detection of driving under the influence of substances has been summarized by Alain G. Verstraete in Forensic Science International (June 10, 2005 Volume 150, Issues 2-3, Pages 143–150). In general it is true that the currently available devices are both sensitive and specific for detection of substances surveyed. The sensitivity with regards to screening for Cannabis and benzodiazepines was low but has improved. Since that time, progress in increased sensitivity for detection of benzodiazepines and cannabinoids has been made, and increased sensitivity reliability of the devices available for detection of benzodiazepine and Cannabis has been demonstrated.

Specificity:

Although false negatives (negative result in the presences of a substance) are undesirable in screening settings, false positives (positive result in the absence of the substance) represent a greater concern in judicial or law enforcement processes. In a recent study, **false positive rates were less than 1% on the DDT5000, and less than 4% on the DDS2.** It should again be emphasized again that the roadside testing of oral fluids is only one step in the investigation process, and confirmatory laboratory-based testing, using chromatographic and mass spectrometric methods is necessary to validate the identity and precisely quantify the amount of substance(s) present. Given these levels of specificity, both the DDT5000 and the DDS2 are helpful to the officer's determination of probable cause to arrest.

Vermont Oral Fluid Drug Testing Study 2015.
The full-length version of the publication is appended to this report.

JUDICIAL CONSIDERATION

The Vermont Supreme Court has determined that the roadside testing of breath to screen for suspected alcohol impairment is a reasonable investigatory method when the officer reasonably suspects that a driver may be impaired. It wrote:

> PBTs are common tools in the investigatory kit officers use to ascertain whether probable cause exists to believe that an individual has been driving under the influence of alcohol. PBTs are "quick and minimally intrusive" yet "perform a valuable function as a screening device" to detect drunk driving. *State v. Orvis,* 143 Vt. 388, 391, 465 A.2d 1361, 1362 (1983). This investigative step is completed quickly. The relatively limited intrusion into a suspect's privacy is outweighed by the important public-safety need to identify and remove drunk drivers from the roads. See *State v. Martin,* 145 Vt. 562, 568, 496 A.2d 442, 447 (1985) (citing *South Dakota v. Neville,* 459 U.S. 553, 558, 103 S.Ct. 916, 74 L.Ed.2d 748 (1983) (noting the "serious threat posed to public safety" by drunk drivers on public highways)). ***We thus find it reasonable, under both the Fourth Amendment and Article 11, for an officer to administer a PBT to a suspect if she can point to specific, articulable facts indicating that an individual has been driving under the influence of alcohol***. *State v. McGuigan*, 2008 VT 111, ¶ 14 (emphasis added).

The Court has stated the existence of legislation approving the use of roadside breath testing supported their position that such tests were constitutional, and was:

> "[R]eflected in 23 V.S.A. § 1203(f), in which the Legislature specifically stated that a law-enforcement officer may request that a driver take a PBT when the officer has "reason to believe" that the driver has been operating his vehicle while under the influence." *State v. McGuigan*, 2008 VT 111, Fn. 1.

Saliva testing is functionally identical to breath testing in that it only requires the insertion of a small plastic swab to collect the sample, and, the breath test requires the driver to insert a small plastic tube into his mouth to provide the sample.

The U.S. Supreme Court determined recently that the use of an oral swab by law enforcement was a "**negligible intrusion**." *Maryland v. King*, 569 U.S. --- (2013). Saliva testing was again discussed in *Birchfield v. North Dakota*, which concluded that saliva testing is "no more intrusive" than breath testing. 136 S.Ct. 2160, 2177. This finding is in accord with *McGuigan* as discussed above.

The Vermont Supreme Court has also considered oral swabs and determined that, even though they remove saliva, rather than air, from the mouth, **oral tests are equivalent to breath tests**. See *In re Nontestimonial Identification Order Directed To R.H.*, 171 Vt. 227, 233-34 (2000)

Furthermore, the Court stated, "**We do not believe that taking a saliva sample by swabbing a pad on the inside of the mouth involves the same intrusiveness as drawing blood by piercing the skin with a needle**." Emphasis added.

Given the legal precedents set to this point, the Vermont Supreme Court would likely conclude that our Constitution permits a request for a sample of saliva, particularly when that request is supported by facts sufficient to permit an officer to suspect that a driver may be impaired by drugs.

Conclusions and Recommendations

Oral fluid testing is a scientifically reliable means of determining the presence of drugs in impaired drivers. It is effective and reliable both as a roadside screening test and as an evidentiary test. It is less invasive than blood testing, and results can be obtained more quickly. It is the position of this committee to recommend that the Legislature wholeheartedly endorse its use in Vermont.

Furthermore, we would ask that the Institution Committees of the House and Senate continue to monitor the renovation of the VFL in order to ensure its timely opening and certification. The VFL will significantly reduce the costs of prosecution of drugged driving cases, once operational.

Defense Counsel's Perspective

In an effort to provide a balanced report, Attorney Bradley D. Myerson of Manchester Center, Vermont, has provided an alternate position to the majority report. It has not been altered or edited.

LIMITATIONS OF SALIVA TESTING

1. According to the Center For Forensic Science Research and Education *Vermont Oral Fluid Drug Testing Study 2015*, at 3: "A limitation of saliva testing is that drug concentrations 'cannot be related to a specific degree of impairment in the driver, nor can they be used to predict

blood drug concentrations'". Also, the National Safety Council's Alcohol Drugs and Impairment Division compiled recommendations for scope and threshold for laboratory based drug screening and confirmation in saliva testing cases. "The recommendations do not however address criteria for field based testing devices". Id.

2. "There is currently no Federally approved list of devices for use in law enforcement saliva drug testing as there is for alcohol testing devices". Id. at 4.

3. The oral fluid drug testing study is not authoritative because of all the persons in the study who tested positive for drugs, "only 9 subjects provided blood samples so no statistical comparisons were possible of performance of field saliva testing against the current practice of blood testing". Id. at 7.

4. The comparisons in the report between field saliva test results and blood tests is for informational purposes only "as the number was too small for meaningful analysis of the sensitivity, accuracy, or positive predictive value".

5. Two field saliva testing drug devices were evaluated in the study, the Drager Drug Test 5000 and the Alere DD52 Mobile Test System. Regarding the Alere DDS 2, field testing produced an invalid result in 24% of the total cases. "Given the low number of subjects and the low frequency of positives in the cohort, the specificity and sensitivity and accuracy cannot be calculated with any statistical significance...". Id. at 15.

THE LACK OF PROOF THAT DRIVERS IMPAIRED BY DRUGS, ARE A THREAT TO PUBLIC SAFETY SUFFICIENT TO JUSTIFY SALIVA TESTING

1. According to data provided by the Vermont Court Administrator, between 2014 and July 1, 2016, 359 motorists were arrested for driving under the influence of drugs, or drugs and alcohol, with 356 being convicted. Of these, there were 229 arrests for 1st Offense DUI/Drugs, without regard to identity of substance, with 278 convictions (the discrepancy is because of cumulative cases from previous years resulting in convictions).

2. Roadside saliva testing is being proposed as a clear cut way to determine if someone is under the influence of drugs, similar to preliminary roadside breath testing in DUI cases. However, there is ample research showing that there is little to no correlation between the level of THC in a person's blood and actual impairment. Moreover, since roadside breath test results are not scientifically reliable under Vermont Law to be introduced as part of a DUI prosecution to establish guilt beyond a reasonable doubt, *excepting in Civil License Suspension cases or as a basis to establish probable cause in a preliminary hearing*, how can the results of roadside saliva testing be deemed sufficiently accurate and reliable under Rule 702 to be introduced into evidence? The manner in which the human body ingests controlled substances, including marijuana, is vastly different than that of alcohol.

3. A saliva sample showing some level of THC means nothing except that the driver had smoked marijuana at some previous time, or even was in a room with pot smokers, i.e. "contact high". It is widely accepted in the scientific community that THC remains in a person's system long after marijuana is smoked. What if the driver is a medical marijuana user and happens to be stopped because of a defective equipment violation? Medical marijuana patients may always have a certain amount of nanograms in their blood at almost all times, yet have no impairment.

4. Marijuana remains in the body for up to 30 days and perhaps longer but the mind altering affects of THC only remain for a few hours, and peak within 10 to 30 minutes of ingestion.

5. From the National Highway Traffic Safety Administration Drug and Human Performance Fact Sheets for Cannabis/Marijuana (D9-THC) (www.nhtsa.gov/people/injury/research/job185drugs/cannabis. htm):

It is difficult to establish a relationship between a person's THC blood or plasma concentration and performance impairing effects.

It is inadvisable to try and predict effects based on blood THC concentrations alone... it is possible for a person to be affected by marijuana use with concentrations of THC in their blood below the limit of detection of the method. Id. at 2.

6. *Test case*: Australia

- In west Australia, roadside saliva testing (using the Draeger Drug Test) was introduced in legislation in 2006.
- It has recently come to light from police that these machines have "quite a few issues" including: failing to return adequate readings, machines not working sufficiently (the indicators fails even though there is plenty of saliva), and failing to pick up on positive readings despite admission from driver they had smoked in the last 24 hours.[4]
- Saliva testing was recently criticized by a NSW judge who acquitted a man who was charged with drug-driving nine days after he had smoked.[5]
- In that case, roadside saliva test detected presence of THC in his blood, although clearly he was not impaired since he had smoke nine days earlier.[6]

7. What if the saliva sample shows elevated levels of a drug prescribed for a driver but who is stopped for an equipment violation or a minor traffic infraction, i.e. failure to activate a turn signal within 100 feet of an intersection, doesn't show signs of alcohol impairment, but nevertheless makes the officer feel "suspicious" because of for example, bloodshot, watery eyes (from fatigue, smoking, allergies) or dry mouth (nervousness) or hesitant speech (nervousness), which could be seen as symptoms of drug ingestion?

8. The devices used would have to be extremely accurate and reliable to show and "any amount" standard, and there is no scientific standard evident for the "any amount" threshold that a DUI/Drug violation would be based on.

[4] https://au.news.yahoo.com/a/31046715/police-drug-test-accuracy-in-doubt/
[5] http://www.smh.com.au/nsw/roadside-drug-driving-tests-mysterious-and-uncertain-magistrate-says-20160202-gmjus2.html
[6] http://www.abc.net.au/news/2016-02-02/man-caught-drug-driving-days-after-smoking-cannabis-acquitted/7133628

PERSONAL PRIVACY CONCERNS GENERATED BY ROADSIDE SALIVA TESTING

1. In State v. Medina 2014 VT 69, 197 Vt. 63 (2014) the Vermont Supreme Court held that warrantless, suspicionless DNA collection (by swabbing of the lining of the mouth)of persons arraigned for a felony, after a determination of probable cause, was an unconstitutional search and seizure under the Fourth Amendment and Chapter 1, Article 11 of the Vermont Constitution. While the proposed Saliva Testing Statute has safeguards against retention of DNA from roadside saliva testing, and while Medina found swabbing of the mouth to be unconstitutional under Federal and State law, the privacy interests addressed in Medina regarding a person's saliva should apply with equal force to trigger the same protections against warrantless roadside saliva testing under Chapter 1, Article 11.

2. In Medina, the mouth swab DNA test was authorized by 20 V.S.A. § 1933(a)(2). However, the "donor" had to first be arraigned for a felony, *after* a determination of probable cause, for their DNA to be collected by mouth swab. Conversely, a roadside saliva test does not involve a sampling of tissue, an entry in to the mouth, or retention of DNA from the collected sample for later submission to the Vermont DNA Databank. Nevertheless, the privacy interests a person has in his saliva, and in his bodily fluids generally, is so substantial that warrantless roadside saliva testing may violate Chapter 1, Article 11 of the Vermont Constitution. The Vermont Supreme Court has "consistently held that Article 11 provides greater protections than its Federal analog, the Fourth Amendment...". State v. Cunningham 2008 VT 43 ¶ 16, 183 Vt. 401 (2008).

3. First, the order to produce saliva for testing is a search under Chapter 1, Article 11. When an officer asks a driver to perform field dexterity tests in order to determine whether the individual should be processed for DUI, a seizure occurs, State v. Gray 150 VT 184, 190-91 (1988). Certainly a saliva test should be treated no differently. A request to provide *a preliminary breath test*, as part of the DUI roadside processing, is also a search, State v. Therrien 2011 VT 120 ¶ 1, 191 Vt. 24, 27 (2011).

"Because of the strong interest in public safety *and the minimal intrusion of the test*, administering a PBT is reasonable under both the Fourth Amendment and Article 11 of the Vermont Constitution, if an officer *can point to specific, articulable facts indicating that an individual has been driving under the influence of alcohol*." State v. Therrien, supra at 28 ¶ 7 (citation omitted) (emphasis added).

4. It is also accepted that a person does not have a privacy interest in their breath, because it is expelled by the body as part of the normal respiratory process. However, since saliva is a bodily fluid not normally shared with the public at large, and because an individuals have a privacy interest in their bodily fluids, the standards for preliminary breath testing are too low for justifying a warrantless seizure of saliva for roadside breath testing. While it can be argued that there is "a strong law enforcement interest in attempting to keep a suspected drunk (or drugged) driver off the roads", the "level of intrusion" should be greater for saliva testing than roadside breath testing, or roadside dexterity exercises. State v. Therrien, supra.

5. Under Article 11, warrantless searches and seizures are presumed unconstitutional, a determination where the Court will not defer to the Legislature. State v. Medina, supra, 197 Vt. at 70, ¶ 13. Certainly a motorist has an expectation of privacy in his saliva. "Defendants, like the rest of us, have an expectation of privacy in their oral cavity and in the information contained in their DNA", Id. ¶ 13. This means the State must justify what exceptional circumstances "in which special needs, *beyond the normal need for law enforcement*, made the warrant and probable cause requirement impractical". Id. at 73, ¶ 14 (quotation omitted) (emphasis added). If a "special need" is found, a Court must determine a "balancing" of the competing public and private interests at stake. Id. (citation omitted).

6. In Birchfield v. North Dakota 579 U.S._ 2016 (6/23/16), the United States Supreme Court held that under the Fourth Amendment, police must obtain a warrant before seeking an evidentiary blood sample from a DUI arrestee. In reaching this

conclusion, the Court noted the difference between breath testing and blood testing, the latter being obviously more intrusive. Id. slip. op. at 22-23. The Supreme Court engaged in a similar balancing analysis regarding the degree to which blood testing intruded upon individual privacy and the degree which blood testing was needed to promote "legitimate governmental interests", Id. at 20 (citation omitted).

7. The proposed Vermont saliva testing bill prohibited the collection and use of DNA in test samples by police. However, saliva does contain DNA, and as Birchfield noted, "although the DNA obtained (through a Buccal Swab)", "could be lawfully used only for identification purposes... *the process put in to the possession of law enforcement authorities a sample from which a wealth of additional, highly personal information could potentially be obtained*" slip. op. at 21-22 (emphasis added). Under Article 11, the State must prove that it has a "special need" for roadside saliva testing to justify a warrantless search and whether such a search interferes with individual rights. State v.Medina, supra, at 73-74, ¶ 15.

8. An example of a "special needs" exception to the warrant requirement of Article 11 is the DUI Roadblock, allowing the police to "apprehend intoxicated drivers who may have otherwise posed a serious threat to society". State v. Record 150 Vt. 84, 90 (1988). As pointed out elsewhere herein, it is unclear driving under the influence of drugs is as dangerous and as widespread as driving under the influence of alcohol. Moreover, the level of intrusion triggered by a car being stopped at a roadblock - even if the roadblock is set up and administered with appropriate written guidelines - is hardly as great an intrusion "upon an individual's legitimate and reasonable expectation of privacy", as ordering a person suspected of driving under the influence of drugs to provide a saliva sample. See State v. Record, supra at 87 (noting "the extent of the interference with an individual's personal liberty" must also be examined).

9. Given the privacy interest a citizen has in his saliva, and the interference with personal liberty by having to disgorge a sample of bodily fluid on the side of the road, the constitutional balance favors the privacy interest inherent in one's saliva. See, State v. Medina, supra at 88, ¶ 47 ("our special needs test requires that (1) the statute fulfills a special need, *beyond the normal needs of law enforcement*, and that (2) the balance

between public interest and private interest at stake weighs in favor of allowing the search and seizure (citation omitted) (emphasis added).

10. In Medina, the Court held that the State's interest in obtaining DNA sampling from persons charged with but not convicted of a felony, for identification purposes, favors the privacy rights of the Defendant under Article 11, so that the statute providing for DNA sampling of persons charged with a felony, violated Chapter 1, Article 11. Id. at 95, ¶ 63.

11. The Vermont Supreme Court has expansively interpreted the privacy interests inherent in Article 11. If the Legislature were to pass a saliva testing bill, it would be immediately challenged on constitutional grounds, and might well be deemed unconstitutional, following the rationale set forth in Birchfield and Medina, particularly concerning saliva as a bodily fluid. Of course, an officer can administer the same field exercises to a motorist believed to be driving under the influence of drugs as if alcohol was involved, question the suspect about drug use and rely upon sight, sound, and smell to arrive at a probable cause to arrest, *without* a roadside saliva test. The availability of this evidence reinforces that the State cannot prove a warrantless seizure of saliva for roadside testing even given the State's interest in fighting drugged driving. In comparison to a DUI roadblock being constitutional under Chapter 1, Article 11 based upon the need to combat drunk driving, no such showing has been made that driving under the influence of drugs in Vermont rises to that same level to justify the State's interest in saliva testing of suspected drivers.

12. It should also be noted that until the 1970's saliva testing was available as an option for *evidentiary testing*, for a motorist who *had been arrested*, upon probable cause, for driving under the influence. Thus it could be suggested that in an age of expanded privacy interests, roadside saliva testing of drivers *suspected* of driving under the influence of drugs *should not* be used as a basis for probable cause to arrest.

13. There are substantial logistical impediments to the practicality and use of roadside saliva testing such as :

- What if the suspect is unable to produce an adequate sample? Will he be deemed to refuse, with the refusal being admissible in the same manner a refusal to prove a PBT may be used against the motorist;
- Will the motorist be instructed that he is not required to provide a sample, and that police cannot force him to do so, see State v. Therrien, supra;
- What will the admissibility standards be for roadside saliva tests? Roadside breath test results are not scientifically reliable under Vermont Law to be introduced in a DUI criminal prosecution. Use of roadside saliva tests may be admissible in other States but will be subjected to pre trial litigation here under Vermont Rule of Evidence 702. If preliminary breath test results are not admissible, then how could the more complex scientific processes involved in roadside saliva testing be admissible as an element in determining probable cause?

DRIVING UNDER THE INFLUENCE OF DRUGS IS NOT SO WIDESPREAD IN VERMONT TO JUSTIFY ROADSIDE SALIVA TESTING

1. According to data provided by the Vermont Judiciary, between FY2014 and FY2016 there were 383 DUI Drug Offense charges filed, of which 233 or 61% resulted in convictions and 143 were dismissed (see attached charts). There were 3 charges filed during this same time for Driving Under the Influence of Drugs, Fatality Resulting.

2. According to National Highway Traffic Safety Administration (NHTSA*) Analysis of Fatal Crash Data*, Vermont: 2009 -2013[7] during this timeframe there was an average of 69 motor vehicle related deaths annually. Traffic fatalities fell 6.76% during this period, or nearly twice the rate of decrease of the national average. See also, "Traffic Safety In Vermont Fatalities are Down, Driving Deaths Are Down", attached as "Appendix 1"

[7] http://ghsp.vermont.gov/sites/ghsp/files/documents/Vermont%202009-2013%2ONHTSA%20Summary%20of%20Motor%20Vehicle%20Crash%20%26%20Fatality%20Data%20(FARS).pdf

OFFICE OF THE DEFENDER GENERAL-LEGALIZATION TRAFFIC SAFETY & CRIME 2013

TRAFFIC SAFETY IN VERMONT: FATALITIES ARE DOWN; IMPAIRED DRIVING DEATHS ARE DOWN

2009-2013

- From 2009 through 2013, there were 346 motor vehicle related deaths in Vermont, on average about 69 deaths annually. *NHTSA Analysis of Fatal Crash Data*, Vermont: 2009-2013.[1]
- Traffic fatalities were down 6.76% from 2009 to 2013. Compared to data Nationwide, where fatalities were only down 3.44% during that same time period.

Major Contributors to Fatalities in Vermont, behavior related:

1. Unrestrained Occupant Deaths: 38% of total
2. Speed-Related Deaths: 35%
3. Alcohol Impaired Driving Deaths: 29%
4. Older Driver Involved Deaths: 26%
5. Young Driver Involved Deaths: 20%

Overall, the largest declines were in three behavioral categories:

1. Unrestrained Occupant Deaths: - 25%
2. **Impaired Driving Deaths: - 25%**
3. Speed Related Deaths: - 18%

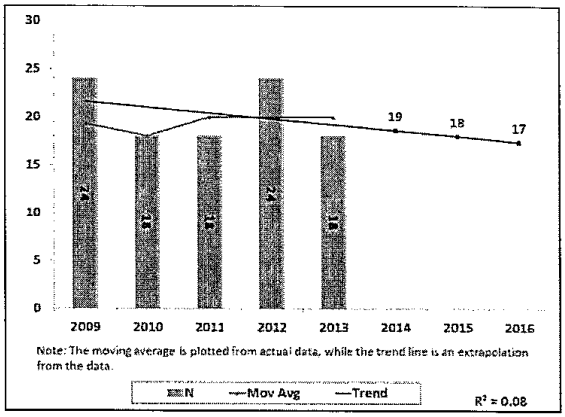

Figure 3. Vermont Alcohol-Impaired Driving Fatalities

2013 - 2016

- Vermont decriminalized small amounts of marijuana in 2013.
- Highway fatalities continue to decrease:[2]

Fatalities as of March 23, 2016
13 Fatalities

Year	Fatalities
2015	57
2014	44
2013	70
2012	77
2011	55

[1] *NHTSA Analysis of Fatal Crash Data*, Vermont: 2009-2013, http://ghsp.vermont.gov/sites/ghsp/files/documents/Vermont%202009-2013%20NHTSA%20Summary%20of%20Motor%20Vehicle%20Crash%20%26%20Fatality%20Data%20%28FARS%29.pdf.

[2] State of Vermont, Vermont Highway Safety Alliance. http://highwaysafety.vermont.gov/data, viewed on 3/29/16.

3. Based on the statistics provided, there is simply an insufficient public safety hazard to satisfy the "special needs" test under Article 11 to justify the use of saliva for roadside testing.

4. According to a NHTSA February 2015 research report titled *Drug And Alcohol Crash Risk*, attached as "Appendix 2":

- The role of marijuana "in contributing to the occurrence of crashes remain less clear. Many studies, using a variety of methods have attempted to estimate the risk of driving after use of marijuana (citations omitted). The methods have included experimental studies, observational studies, and epidemiological studies. While useful in identifying how marijuana affects the performance of driving tasks, *experimental and observational studies do not lend themselves to predicting real world crash risk*, Id. at 1;
- A 2010 study conducted in 9 European Union countries found that the risk of crash involvement for drivers testing positive for THC *was similar to drivers with BAC levels of between .01 to .04% while drivers having a BAC of between .08 and .12% were 5 to 30 times more likely to crash than sober drivers*. Id. at 2;
- Caution should be exercised in assuming that drug presence implies driver impairment. *Drug tests do not necessarily indicate current impairment*. Also, in some cases, drug presence can be detected for a period of days or weeks after ingestion, Id. at 4.

5. This 2015 Study did find a statistically significant increase in unadjusted crash risk for drivers testing positive for illegal drugs, and THC specifically. However,

"Analyses incorporating adjustments for age, gender, ethnicity, and alcohol concentration level did not show a significant increase in the levels of crash risk associated with the presence of drugs". Id. at 8.

6. The Study adds that age, gender, ethnicity and alcohol use were highly correlated with drug use and accounted for much of the increased risk associated with the use of illegal drugs and with THC.

7. In summary, NHTSA's research, as contained in the 2015 Report confirms that there is simply insufficient data to establish that drivers who use marijuana, or even other drugs, and then drive, are at a significantly higher risk to crash than drivers who use alcohol.

8. This lack of data would undermine the "special needs" argument advanced by the State when attempting to justify a warrantless search by testing a DUI drug suspect's saliva, under Chapter 1, Article 11 of the Vermont Constitution, see State v. Medina 2014 VT 69, 197 Vt. 63 (2014) discussed infra.