



# Enhancing Drug-Impaired Driving Data Across Canada: Passenger and Light-Duty Vehicle Operator Data



## The Issue

Every year, thousands of people living in Canada drive after using drugs other than alcohol, posing significant risks to themselves and other road users (Brown et al., 2015, 2021; Statistics Canada, 2021). During roadside surveys, randomly selecting drivers are tested for the presence of alcohol and other drugs. Results are anonymous and confidential. These surveys are the best and sometimes only source of information about how many people drive after using drugs. Few roadside surveys have been done with drivers of passenger and light-duty vehicles (e.g., vans, pick-up trucks). Previous surveys were limited to certain areas in Canada (e.g., Ontario, British Columbia).

## The Significance of the Data

Roadside surveys provide a glimpse into the everyday driving habits of people living in Canada. Drivers are asked questions about recent substance use, which can be verified by oral fluid samples taken during the survey. Having more accurate information about who is driving impaired by which substance or substances and when (e.g., day, time, etc.) can help identify groups at potential risk of driving impaired and help tailor public education and prevention efforts to meet their needs. These data can inform the efforts of those tackling drug-impaired driving (DID), including policy makers, decision makers and road safety practitioners.

## Recommended Indicators

Four data indicators are recommended to expand, enhance and standardize roadside survey data of passenger and light-duty vehicle drivers. These were developed by and in consultation with DID experts across Canada.

The table describes the four indicators. Since roadside surveys are not widely conducted on a regular basis in Canada, all proposed indicators are considered new to the field. Some may need a high degree of effort and investment to implement nationally.



Data source	Indicator
New <sup>a</sup>	<p>THC use (oral fluid) among drivers</p> <ul style="list-style-type: none"><li>• Number and percentage of drivers who test above 25 ng/ml for THC</li></ul> <p>Date, day of the week and time when driver was stopped</p> <ul style="list-style-type: none"><li>• Number and percentage of drivers who tested positive for different substance categories<sup>b</sup> by time periods (e.g., midnight to 3 a.m.), day of the week and date</li></ul> <p>Driver demographics<sup>c</sup></p> <ul style="list-style-type: none"><li>• Number and percentage of drivers who tested positive by different substance categories across sex (or gender where possible)</li><li>• Number and percentage of drivers who tested positive for different substance categories across standardized age groups<sup>d</sup></li></ul> <p>Substance category<sup>b</sup> and polysubstance use among drivers</p> <ul style="list-style-type: none"><li>• Number and percentage of drivers who tested positive for different substance categories</li><li>• Number and percentage of drivers who tested positive for polysubstance, THC and alcohol, or THC and other drugs</li></ul>

<sup>a</sup>New indicators include nonexistent or not widely used indicators (e.g., some agencies may track some of these data).

<sup>b</sup>Categories are defined as the seven used by Drug Recognition Experts (Royal Canadian Mounted Police, 2018): central nervous system depressants, inhalants, dissociative anaesthetics, cannabis, CNS stimulants, hallucinogens and narcotic analgesics.

<sup>c</sup>Standardized data collection methods and criteria used across Canada.

<sup>d</sup>Recommend standardization be based on the Canadian Council of Motor Transportation Administrators age groups (i.e., 16–19, 20–24, 25–34, 35–44, 45–54, 55–64, and 65 years and older).

These indicators are part of a broader set of 34 national DID indicators for various agencies recommended by an expert Drug-Impaired Driving Indicators Advisory Committee, chaired by the Canadian Centre on Substance Use and Addiction. For a complete list of the recommended indicators, see the full report, [Measuring the Impact of Drug-Impaired Driving: Recommendations for National Indicators](#). Also included in the report are suggestions for agencies on addressing potential challenges in implementing the recommendations (e.g., standardizing data, data sharing, financial costs) and more detailed information about the Advisory Committee.

## Key Considerations for Implementation

- The biggest limitation to conducting roadside surveys is the cost. The Advisory Committee recommends establishing a formal funding mechanism to support the regular collection and reporting of roadside survey data from across Canada.
- Data collected from drivers about their substance use (e.g., consumption methods, most recent use) are limited by what the driver remembers or reports, and whether they know the substance or substances they have consumed may cause impairment (e.g., prescription or over-the-counter medications). This is a natural limitation to studies with people. However, with more education about impairing drugs, driver knowledge could improve these types of self-reported data.

For a full discussion of these and other key considerations for implementation, see the [full report](#).



## References

- Brown, S. W., Vanlaar, W. G. M., & Robertson, R. D. (2015). *Alcohol and drug-crash problem in Canada: 2011 report*. Ottawa, Ont.: Canadian Council of Motor Transport Administrators. [https://www.ccmta.ca/web/default/files/PDF/2011\\_Alcohol\\_and\\_Drug\\_Crash\\_Problem\\_Report\\_Eng.pdf](https://www.ccmta.ca/web/default/files/PDF/2011_Alcohol_and_Drug_Crash_Problem_Report_Eng.pdf)
- Brown, S. W., Vanlaar, W. G. M., & Robertson, R. D. (2021). *The alcohol and drug crash problem in Canada: 2016 report*. Ottawa, Ont.: Canadian Council of Motor Transport Administrators. <https://www.ccmta.ca/web/default/files/PDF/CCMTA.2016%20Alcohol%20and%20Drug%20Crash%20Problem%20Report.EN.MAR2021.pdf>
- Statistics Canada. (2021). Table 35-10-0177-01 *Incident-based crime statistics, by detailed violations, Canada, provinces, territories and Census Metropolitan Areas*. Ottawa, Ont.: Author. <https://doi.org/10.25318/3510017701-eng>

