Canadian Centre on Substance Use and Addiction

Evidence. Engagement. Impact.

Enhancing Drug-Impaired Driving Data Across Canada: Law Enforcement Incident Data

The Issue

Every year, thousands of people living in Canada are seriously injured or killed in collisions involving drugs other than alcohol (Brown et al., 2015, 2021). Police officers are among the first responders to arrive on the scene of drug-impaired driving (DID) incidents. They are usually responsible for screening drivers for drugs and recommending criminal and noncriminal penalties. While law enforcement already collects and shares some important DID incident data, not all policing agencies collect and report on the same data.

The Significance of the Data

Collecting data from potential impaired driving incidents is key to understanding how common DID is and the effects it has on passengers and other road users (e.g., other drivers, cyclists, pedestrians). To understand the true extent of DID in Canada and to develop strategies to reduce and prevent serious injuries and deaths, Canada needs more comprehensive, standardized data from across law enforcement agencies. Law enforcement, policy makers and road safety practitioners will be able to use these data to better respond to DID issues.

Recommended Indicators

Seven data indicators are recommended for law enforcement agencies to expand, enhance and standardize DID incident data across Canada. These were developed by and in consultation with DID experts from across Canada.

The table describes the seven indicators, which are grouped by the extent to which law enforcement already collects the data. Existing indicators (e.g., driver characteristics) are those that law enforcement already collects. In most cases, with minor adjustments to reporting procedures, these indicators need minimal effort to collect. Adjusted indicators (e.g., substance category) include a mix of data law enforcement already collects, with new data elements proposed. Depending on existing data collection efforts, implementing these indicators may need minimal to moderate investment. New indicators (e.g., administrative sanctions) are those that law enforcement agencies in Canada do not widely collect. In some cases, these indicators may need a higher degree of effort and investment to implement.

Table 1: Recommended law enforcement incident indicators

Data source	Indicator
Existing	Driver demographics • Number and percentage of drivers criminally charged or sanctioned (e.g., fined) by substance category (where available) across sex (or gender where possible) • Number and percentage of drivers criminally charged or sanctioned by substance category (where available) across standardized age groups[a] Tetrahydrocannabinol (THC) blood concentration levels among tested drivers • Number and percentage of drivers whose toxicological results fall across different established per se limits[b] for THC
Adjusted	Substance category[c] and polycategory use among drivers • Number and percentage of drivers who tested positive for different substance categories • Number and percentage of drivers who tested positive for polycategory, THC and alcohol, or THC and other drugs
New[d]	Drivers who have received administrative sanctions • Number of drivers who received DID administrative sanctions per capita and per licensed driver by jurisdiction • Number of drivers who received DID administrative sanctions Drivers recommended for criminal charge or charges[e] • Number of drivers recommended for DID criminal charge or charges per capita and per licensed driver by jurisdiction • Number of drivers recommended for DID criminal charge or charges Approved drug screening equipment (ADSE) use and results • Number and percentage of agencies or units that conduct ADSE tests • Number and percentage of ADSE detections (substance present) out of all ADSE results (detections plus no detections) Standardized field sobriety test (SFST)[f] results • Number and percentage of SFST poor performances (likely impairment) out of all SFST results (poor plus satisfactory performances)

[a]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).

[b]Per se limits refer to the legally allowed concentration limits for different impairing substances. THC has three limits depending on the context.

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

[d]New indicators include nonexistent or not widely used indicators (e.g., some agencies may track some of these data).

[e]Charges by law enforcement agencies only (i.e., does not include court charge data).

[f]SFSTs are a series of behavioural tests (i.e., one-leg stand, walk-and-turn and horizontal gaze nystagmus) to detect impairment, but do not identify substance type. Although the tool was originally developed to detect impairment by alcohol, studies support its use as a screening tool for impairment by drugs in some of the other substance categories (e.g., CNS stimulants, CNS depressants, cannabis or narcotic analgesics) (Papafotiou, Carter, & Stough, 2005; Porath-Waller & Beirness, 2014).

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 to address potential challenges in implementing the recommendations (e.g., standardizing data, data sharing, financial costs) and more detailed information about the Advisory Committee.

Top Considerations for Implementation

- To achieve the full benefit of the indicators, data collection, analysis and reporting need to be standardized across all law enforcement agencies. Regular reviews or audits of law enforcement practices can help achieve greater alignment across agencies.
- Law enforcement data are typically stored at the agency level and may not be accessible to other agencies working to reduce DID. Agencies should work together to establish a centralized body to securely store the anonymized data to improve data sharing, resource use, and interagency co-operation to effectively manage and prevent DID across Canada.
- When law enforcement officers detect alcohol impairment, many do not continue to investigate for drugs, which underestimated the number of DID incidents. The Advisory Committee recommends that when alcohol and drugs are both detected, officers also try to investigate for drugs.

For a full discussion of these and other considerations for implementation, see the full report.

References

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