



Enhancing Drug-Impaired Driving Data Across Canada: Hospital Injury Data



The Issue

Every year, thousands of people living in Canada are seriously injured in collisions involving drugs other than alcohol (Brown et al., 2015, 2021). In Canada, no one agency or organization systematically screens hospitalized drivers for possible drug use or impairment. Given that serious injuries from drug impaired driving (DID) now far outnumber fatalities (Brown et al., 2021), data on injured drivers and possibly other injured road users needs to be collected and studied.

The Significance of the Data

Hospital injury data presents a unique opportunity to learn about the risks and health effects of DID collisions. When collected for studies, these data are often combined with other sources to understand how prevalent DID is among injured drivers, the nature and extent of injuries, who may be at risk for serious injury, and the effects on individuals and health systems. Knowing more about individuals who engage in DID and those who suffer DID-related injuries can help health practitioners, policy makers and road safety practitioners develop approaches to reduce and prevent serious injuries and deaths in future.

Recommended Indicators

Four data indicators are recommended to expand, enhance and standardize DID injury data collection in hospitals. These were developed by and in consultation with DID experts across Canada.

The table describes these four indicators. Since very little DID injury data are collected and reported by hospitals at this time, all the proposed indicators are new indicators. Implementing some new indicators (e.g., substance category) may need a high degree of effort and investment.



Data source	Indicator
New ^a	<p data-bbox="370 331 630 359">Injury data among drivers</p> <ul data-bbox="370 373 1341 428" style="list-style-type: none"><li data-bbox="370 373 1341 428">• Number and percentage of injured drivers involved in collisions who visit hospitals and test positive for substances <p data-bbox="370 447 948 474">Substance category^b and polycategory use among drivers</p> <ul data-bbox="370 489 1414 617" style="list-style-type: none"><li data-bbox="370 489 1414 543">• Number and percentage of hospitalized drivers who test positive for different substance categories<li data-bbox="370 558 1414 617">• Number and percentage of hospitalized drivers who test positive for polycategory, THC and alcohol or THC and other drugs <p data-bbox="370 636 834 663">THC use (preferably blood test) among drivers</p> <ul data-bbox="370 678 1377 732" style="list-style-type: none"><li data-bbox="370 678 1377 732">• Number and percentage of hospitalized drivers who fall across the different established per se limits^c for THC or in combination with alcohol <p data-bbox="370 751 583 779">Driver demographics</p> <ul data-bbox="370 793 1308 921" style="list-style-type: none"><li data-bbox="370 793 1308 848">• Number and percentage of hospitalized drivers who test positive for different substance categories across sex (or gender where possible)<li data-bbox="370 863 1308 921">• Number and percentage of hospitalized drivers who test positive for different substance categories across standardized age groups^d

^aNew indicators include nonexistent or not widely used indicators (e.g., some agencies may track some of these data).

^bCategories 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.

^cPer se limits refer to the legally allowed concentration limits for different impairing substances. THC has three limits depending on the context.

^dRecommend 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 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 proposed indicators, the collection, reporting, and analysis of hospital injury data needs to be standardized across all hospitals in Canada. Developing standards for collecting and reporting on substance(s) and concentration levels in bodily fluids will be one element needed to achieve this.
- The capacity of hospitals to perform tests beyond primary patient care (i.e., testing for presence of substances), especially when treating trauma patients, can potentially limit opportunities for data collection for some hospitals. Additional capacity and financial requirements may be needed to support widespread collection, testing, and recording of data from bodily fluid samples.
- To manage privacy concerns with the reporting and recording of hospitalization data, additional protocols or policies are needed to manage the use and reporting of these data. There will be a need to balance individual rights with public safety. Many of these protocols (e.g., anonymized,



secured, etc.) and models already exist in agencies that collect patient data that could be applied to DID-related data.

- Agencies are encouraged to share, and link hospital injury data to help identify broader impacts of DID collisions, including injuries sustained by other road users. Data linkage can also help reduce the duplication of data in instances where hospitalized drivers later die from their injuries and potentially captured by coroners or medical examiner 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
- 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>

