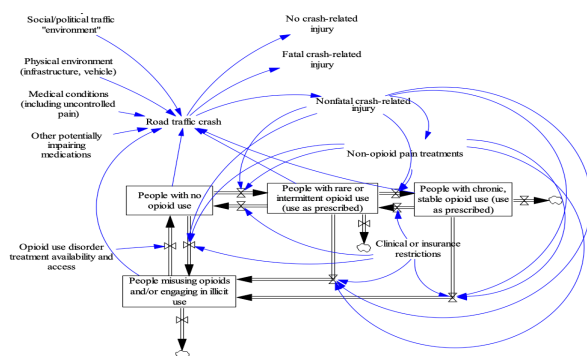


## Opioids at the health and transportation safety nexus

Despite known associations between transportation and opioid use, current approaches typically involve separate analyses using discrete databases. This research examines the linkage potential of two rich population-based data systems, prescription drug monitoring programs (PDMP) and police-reported crash databases, and identifies knowledge gaps amenable to data linkage studies.



*System map linking Road Traffic Crashes with Opioid Use*

Motor Vehicle (MV) police-reported crash and PDMP population-based data systems contain rich information on prescription drug histories and detailed crash circumstances, providing a valuable opportunity to advance understanding of prescription drug trajectories leading to crash events and effects of crashes on subsequent prescription drug patterns.

Standardized templates were used to abstract specific data elements and attributes of MV crash and PDMP databases for all 50 states and DC. Abstracted PDMP elements included accessibility of PDMP data and schedules of controlled substances monitored in each state, while crash-related elements included whether

crash reports document the type of drug test administered at the scene and the granularity of test results recorded.

The results show a majority of PDMPs (94%) are authorized to release data for research purposes. Schedules II-V controlled substances are tracked in 76% of PDMPs, with the remaining tracking II-IV. Drug-related elements captured in crash reports varied considerably by state. Eighty-six percent of states document the type of drug test administered; however, 54% of states only record whether a drug test was positive or negative, with less than a third of states citing specific drugs. Collection of personal identifiers is required in all crash and PDMP databases, suggesting high potential for effective linkage.

The lack of integration between MV crash and PDMP databases hinders advancement of the evidence base on the interconnected causes of unintentional injury death. While crash reports and PDMPs possess their own sets of strengths and weaknesses, linkage of these two data sources could fill critical research gaps.

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