

**Executive Summary**

**Five Year Recidivism after Arrest for Operating  
While Intoxicated:  
A Large-scale Cohort Study**

**D. Paul Moberg and Daphne Kuo**

UW Population Health Institute

April 2017

Prepared for the

Intoxicated Driver Program

Wisconsin Department of Health Services

Bureau of Prevention, Treatment and Recovery



University of Wisconsin  
Population Health Institute  
SCHOOL OF MEDICINE AND PUBLIC HEALTH

## Executive Summary

This evaluation addressed questions regarding the effectiveness of Wisconsin's Intoxicated Driver Program (IDP). The focus is on the five-year post-arrest recidivism rate for individual OWI offenders, assessing whether recidivism rates vary by personal characteristics (age group, sex, race/ethnicity, prior offense) of offenders and by contextual variables (county characteristics). We then ask whether the IDP process is effective in helping offenders to attain services and to reduce recidivism. The analysis also examines whether the nature of the driver safety plan (DSP) which recommends specific levels of service (group dynamics education program, outpatient treatment, etc.) and subsequent compliance with the DSP have an impact on recidivism.

**Methods:** We used data on 441,916 OWI arrests in Wisconsin from 2004 to 2014, with links between arrest, conviction, Wisconsin Assessment of the Impaired Driver (WAID; Jacobson et al., 1979) assessment, and compliance data in order to follow the 2004-2008 arrest cohort of 175,466 Wisconsin drivers over the subsequent 60 months. Analysis used descriptive techniques as well as logistic regression, random effects modeling with covariates, and hierarchical linear modeling to address county-level variables.

**Findings:** OWI arrests declined steadily over the 11 years (2004-2014) we analyzed. These rates are likely affected by individual driver's behavior, intensity of law enforcement activity, and other issues. The decline mirrors national trends. Among **all of those arrested** (n=341,157 individuals with 417,347 arrests) for OWI over the 11 year time period, **most (78%) had only one arrest** and 17% had two arrests during the 11 years. A few had three (4%) or four (1%) arrests, while only 0.3% (about 1,000 people) had five or more arrests.

Taking into account all documented lifetime OWI arrests prior to the study period, **based on 417,347 arrests (and not individuals)** over the 11 years, 58% were first arrests, 23% were second arrests, 11% were third, 5% were fourth, 2% were fifth arrests and slightly more than 1% were sixth or higher. For the most recent year in this data set (2014) there were 17,134 first arrests (58%), 6,416 second arrests (22%), 3,198 third arrests (11%), 1,475 fourth arrests (5%), 707 fifth arrests (2%), and 539 arrests (1.8%) which were 6<sup>th</sup> or more.<sup>1</sup>

We intensely analyzed data from a **5 year cohort of 175,446** individuals with at least one OWI arrest from 2004 through 2008 (see Figure1). Those with OWI arrests were most often young adult (39% age 20-29) white (82%) males (77%). Among those with any OWI arrest during this 5 year time period, 31% had at least one prior arrest; those with priors were older, more likely to be male, and disproportionately more white or American Indian than those with no priors.

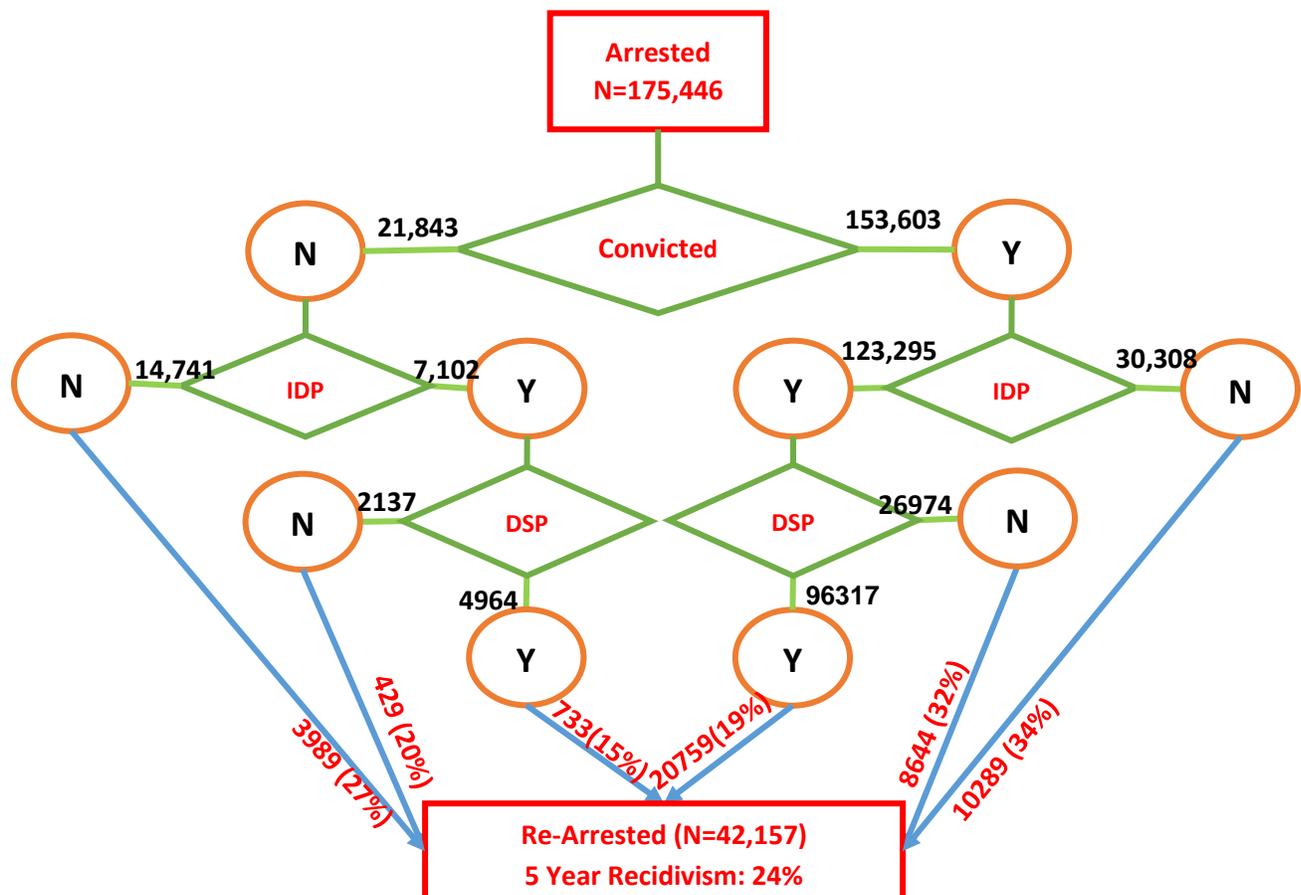
---

<sup>1</sup> Note that these are duplicate counts since one individual may have more than one arrest in a given year; also, the number of arrests we report is likely higher than the official number taken into account for sentencing purposes.

In our cohort, about **88% of those arrested were convicted** of an OWI<sup>2</sup> offense. Regression analysis showed that conviction was most likely among 20-29 year olds; more likely among American Indians but less likely among Hispanics and African Americans than among Whites; more likely among females than males; and less likely among those with prior arrests. Conviction rates varied by county, ranging from 66 to 92 percent of those arrested.

The **Intoxicated Driver Program (IDP)** includes an assessment for all persons convicted of an OWI offense using a tool called the Wisconsin Assessment of the Impaired Driver (WAID), the development of a **Driver Safety Plan (DSP)** based on the WAID findings, and subsequent monitoring/certification of compliance with the DSP. In our cohort of arrestees, 74% participated in the IDP WAID assessment (80% of those who were convicted plus about a third of those not convicted for the index offense). Those with prior offenses, those under 20 or 40-49, and Black, Hispanic and Native Americans were significantly **less likely to participate** in the IDP assessment process than others. IDP participation also varied by county, ranging from 52% to 79%.

**Figure 1: Pathway to Recidivism**  
2004-08 Wisconsin OWI Arrestees



<sup>2</sup> We do not have data on how many of those individuals not convicted of OWI were convicted of a lesser offense, diverted from prosecution, or found innocent.

Among participants in the IDP, 48% were assessed as “irresponsible use” and 18% as “irresponsible use-borderline”. Ten percent were classified as “suspected dependency” and 24% “dependency” (including 7% in remission). Most frequent DSP primary education or treatment requirements were group dynamics course (46%), outpatient treatment (43%), and multiple offenders program (6%). Compliance with the **Driver Safety Plan (DSP)** within two years of the index offense was reported for 78% of those with a DSP. Compliance (among those who had entered the IDP) did not differ by prior offense, but was lower for those under 30 years old, and lower for minority groups (African American, Hispanic, and Native American). Compliance by county ranged from 64% to 85% of those who participated in the IDP. WAID assessment data indicate that those found to have “irresponsible use” were more likely to comply than other diagnostic groups.

**Recidivism (re-arrest for OWI) within 60 months of the index arrest occurred in 24% of this cohort.** This rate did not differ among those who were or were not convicted of the index offense. However, among those convicted who participated in the IDP and complied with their DSP, only 19% recidivated, compared to 32% of those who did not comply with a DSP and 34% of those who bypassed the entire IDP process by failing to comply with the court order for an assessment (see Figure 1). Regression analysis, **including the entire arrest cohort**, found significantly higher re-arrest rates for those with prior offenses,<sup>3</sup> those under age 29, American Indians, and those who were convicted of the index offense. Females, older drivers, and those who entered the IDP process had significantly lower recidivism rates. Recidivism varied considerably by county, ranging from 18% to 36%.

Among **those who participated in the IDP assessment process**, older age groups and females had lower recidivism rates. Hispanic and American Indians (but not African Americans) who participated had higher recidivism than other groups, as did those who had been convicted. Those who were compliant with the DSP had a lower recidivism rate (19%) than those who were non-compliant (32-34%). Relative to those assessed as irresponsible use, the borderline, suspected dependency and dependent cases had higher recidivism rates (28% of dependent, 22% of borderline and 16% of irresponsible users), as did those with prior arrests (unless they complied with the DSP, in which case they did not differ).

**Conclusions:** What do these findings suggest regarding the IDP as an intervention to prevent recidivism? Several conclusions can be reached:

- Any policy changes should consider that to improve overall population safety in a significant manner, **a focus on preventing or deterring first offenses** is likely to have more impact than a focus on those with four, five or more offenses (as much recent legislation has done). Recidivism rates are not much different between those with and without a prior arrest; research (Rauch et al., 2010) indicates that an individual with a history of even one OWI arrest is 7 times more likely to be arrested in a given year than an individual who has never been arrested for OWI.

---

<sup>3</sup> While statistically significant, the compliance and recidivism patterns for those with prior arrests were not much different from those with no prior arrests; the overall 60 month re-arrest rate for those with priors was 26%, compared to 23% for those with no priors. For those with prior offenses who entered and complied with the IDP, there was no difference from the average in recidivism.

- **Recidivism is considerably lower among those arrestees who participate in the IDP** WAID assessment and subsequently comply with their driver safety plan (DSP). Our primary hypothesis—that IDP participation and compliance would add significant value in reducing recidivism—is confirmed. Thus strategies to improve participation and compliance with the IDP program would likely be productive, even though this finding undoubtedly reflects some degree of self-selection bias. Tested strategies include follow-up with OWI offenders who fail to schedule their IDP assessments, and increased use of motivational interviewing to improve compliance with the driver safety plans (DSPs) (see DCTS, 2016). Other possible (but untested) strategies to enhance compliance could include further court intervention with those who fail to comply, higher penalties for failure to participate, and reduced initial penalties and fees to remove financial barriers to IDP participation while reserving higher penalties for those who fail to follow through.
- **Preventive interventions** should be particularly targeted to young white males. Native Americans should also be specifically targeted for recidivism prevention. Strategies to increase the perception of the likelihood of arrest, increasing individual agreement with the goals of the policy, and multi-component programs have been found to reduce alcohol-impaired driving and arrests (Bertelli & Richardson, 2008; Miller et al., 2015; Shults et al., 2009). The use of publicly announced sobriety checkpoints, ignition interlocks for convicted offenders, and mass media campaigns are effective strategies (Jewett et al., 2015; Guide to Community Preventive Services; UWPPI, 2017). Additional strategies to reduce overall alcohol consumption (such as increased taxation of alcohol, reduced outlet density, electronic screening and brief intervention, public education and awareness campaigns), server liability and host training, and policies which reduce the risk of driving after drinking by considering location of establishments and transportation options have some evidence of success (Guide to Community Preventive Services; Scott, 2013; UWPPI, 2017; Voas and Lacey, 2011). Increased penalties are not effective beyond some minimal threshold (Scott, 2013).
- There are **disparities in participation in the IDP program** which contribute to systematic differences in recidivism rates. Participation is lower for those with prior offenses, those under 20 or in the 40-49 age group, and among African Americans, Hispanics and Native Americans. Similarly, among African Americans, Hispanics and Native Americans who do participate in the IDP, compliance with the DSP was significantly lower. For Hispanics and Native Americans, but not African Americans, recidivism was also higher than for non-Hispanic Whites. These disparities suggest that strategies are needed to improve the participation of non-White populations at all stages of the IDP in order to reduce recidivism. The cost of IDP participation may be a barrier to participation and compliance, particularly with socio-economically disadvantaged groups.

- **County differences were pronounced** in rates of conviction, IDP participation and recidivism. County level enforcement activity, court procedures, and treatment systems (not assessed in this analysis) vary considerably and may contribute to these observed differences. Variation on some of these factors could also be addressed, particularly in low IDP participation counties with higher recidivism rates.
- This analysis was limited by a lack of access to data on the status of driver's licenses (e.g., revocation) at the point of OWI arrest, inability to account for conviction for lesser offenses, lack of analysis of BAC levels, and data linkage difficulties. Further analyses could examine to what extent noncompliant drivers with revoked licenses continue to drive and commit subsequent offenses, the predictive value of BAC level, the role of specific symptom patterns, factors related to county-level variability and other relevant questions.

Policy proposals should be clear about the goals of proposed changes, and use existing data to predict potential outcomes—intended and unintended. Is the objective to deter, punish or to extend treatment? Particularly for drivers with multiple repeat offenses, OWI is a symptom of a serious substance use disorder, not necessarily willful or rational criminogenic character where deterrence approaches are effective. Meta-analytic evidence reported by Miller et al., (2015) suggests that multi-component interventions, rather than education or treatment alone, have the most promise in reducing recidivism. Programs and policy should be framed to reduce disparities of access and benefit, while increasing public safety. Potential unintended negative consequences, including overburdening law enforcement, courts, and correctional systems, must be weighed relative to the potential public safety benefits of proposed policy changes. These considerations would seem to argue for a preventive and treatment focus in any policy changes.

Regardless of its limitations, the analysis presented in this report provides an in-depth source of data which we hope will inform future policy deliberations to address the declining but still very prevalent incidence of operating while intoxicated in Wisconsin. It is clear that for offenders who comply with the IDP system, recidivism rates are lower. Perhaps the critical issue is how to increase rates of compliance and reduce disparities in benefit from the IDP services. This is likely best accomplished both by improving and standardizing the community level systems in place and by working to further motivate offenders to participate in beneficial services.

*The full report is available at:*

<https://uwphi.pophealth.wisc.edu/publications/other/index.htm>

## References

- Bertelli, AM, Richardson, LE, 2008. "The behavioral impact of drinking and driving laws." The Policy Studies Journal 36 (4): 545-569.
- Division of Care and Treatment Services, 2016. "Wisconsin Intoxicated Driver Program Noncompliance with Assessment Survey Results." Wi Department of Health Services Publication P-01557.
- The Guide to Community Preventive Services website, <https://www.cdc.gov/epo/communityguide.htm>, accessed April 20, 2017.
- Jacobson, GR, Niles, DH, Moberg, DP, Mandehr, E, Dusso, LN, 1979. "Identifying alcoholics and problem drinking drivers: Wisconsin's field test of a modified NCA criteria for the diagnosis of alcoholism." Pp. 273-293 in M. Galanter (Ed.) Currents in Alcoholism, Vol. VI. New York: Grune and Stratton.
- Jewett, A, Shults, RA, Banerjee, T, Bergen, G. 2015. "Alcohol-impaired driving among adults—United States, 2012." Morbidity and Mortality Weekly Report, 64 (30): 814-817.
- Miller, PG, Curtis, A, Sonderlund, A, Day, A, Droste, N, 2015. "Effectiveness of interventions for convicted DUI offenders in reducing recidivism: A systematic review of the peer-reviewed scientific literature." The American Journal of Drug and Alcohol Abuse 41 (1):16-29.
- Rauch, WR, Zador, PL, Ahlin, EM, Howard, JM, Frissell, KC, Duncan, GD, 2010. "Risk of alcohol impaired driving recidivism among first offenders and multiple offenders." American Journal of Public Health 100 (5): 919-924.
- Scott, Michael, 2013. "Deterring drunk driving: responses to the problem." Presented at the UWPHI Evidence-Based Health Policy Program Legislative Briefing, September 10, 2013.
- Shults, RA, Elder, RW, Nichols, JL, Sleet, DA, Compton, R, Chattopadhyay, SK, Task Force on Community Services, 2009. "Effectiveness of multicomponent programs with community mobilization for reducing alcohol-impaired driving." American Journal of Preventive Medicine 37 (4): 360-371.
- UW Population Health Institute (UWPHI), 2017. What Works for Health Data Base, <http://whatworksforhealth.wisc.edu/search-results.php>, accessed April 15, 2017.
- Voas, RB and Lacey, JC, 2011. Alcohol and Highway Safety 2006: A Review of the State of Knowledge. National Highway Traffic Safety Administration, Report #DOT HS 811 374.

**Acknowledgments:** *We gratefully acknowledge the assistance and guidance from LeeAnn Cooper (Intoxicated Driver Program, Department of Health Services, Bureau of Prevention, Treatment and Recovery) who commissioned this study, and Michael Campbell, also from the DHS, who assisted in data access. Review and assistance in understanding the nuances in the policies and data regarding impaired drivers came from Dale Simon and Vanna Steffen from the Department of Transportation and Kristi Obmascher from the UW-Extension. We also obtained useful conceptual review and advice from Donald Lyden, Laura Van de Hey, and Neil May at DOT. We particularly thank the late Marthinus "Tinus" Taute of DOT for his crucial assistance in accessing data.*