

# Examination of Implementation of Place of Last Drink Using a Framework of Implementation Components

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## Abstract

Over 13,500 deaths were attributed to alcohol-impaired driving in 2022. Driving under the influence (DUI) of alcohol is a serious public health problem, causing injury, death, and property damage on U.S. roadways. Overconsumption of alcohol is often a result of overservice at licensed alcohol establishments, but efforts to address overservice at bars and restaurants have had little to no success. Place of Last Drink (POLD) is a strategy by which law enforcement officers attempt to learn the last place a driver consumed alcohol. Once an establishment is identified as the place a driver was last served alcohol, law enforcement and alcohol regulatory agencies can intervene with the licensee to change practices. Research on POLD is limited, but some studies have found that implementation of POLD is often incomplete or inconsistent. Toomey and colleagues at the University of Minnesota developed a framework of implementation components that may be useful to informing agencies seeking to implement POLD to reduce DUIs related to overservice at licensed establishments. The state of Vermont began implementing POLD in 2018 and sought to better understand its implementation in the state. This paper uses a case study approach to examine POLD implementation in Vermont using the Minnesota study's framework of implementation components, using key informant interviews, member checks with alcohol regulation personnel, and comparison of key findings from case studies developed by the Minnesota research. Vermont's implementation was high. Factors that contribute to Vermont's experience are presented.

## Keywords

safety, impairment in transportation, alcohol, impaired driving, sustainability and resilience, transportation and society, transportation and public health

Driving under the influence (DUI) and alcohol-involved crashes cause substantial harm in the United States. In 2022, 13,524 people died in alcohol-impaired driving traffic deaths (1). One factor that contributes to DUIs and crashes is overservice of alcohol at licensed alcohol establishments. Although overservice of alcohol at a licensed establishment is illegal in 48 of 50 states (2), research shows that efforts to reduce sales to obviously intoxicated persons have had limited or little success (3–7).

Studies using pseudo-intoxicated customers at licensed alcohol establishments show 58% to 90% were able to purchase alcohol (4–10). Overservice of alcohol is associated with falls, violence, and motor vehicle crashes (11–13).

Alcohol regulatory and law enforcement agencies attempt to address overservice and related problems in a variety of ways, including Responsible Beverage Service (RBS) training, random inspections of licensed

establishments, bar walk-throughs, and observations at alcohol establishments, but these efforts have not been rigorously evaluated (14). Another study found most state alcohol regulatory agencies have insufficient capacity to routinely and systematically monitor and enforce overservice at licensed alcohol establishments (15).

One strategy being implemented by alcohol regulatory agencies and law enforcement in several states to attempt to address overservice of alcohol is Place of Last Drink (POLD). In jurisdictions implementing POLD, an officer responding to an alcohol-related incident attempts to

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determine whether the person was coming from a licensed establishment (i.e., what was their POLD?). If a licensed alcohol establishment is involved, steps can be taken to follow up and/or intervene with the licensee (16). Intervention may include an investigation, a conversation with the owner or manager, training with staff on signs of intoxication and strategies to avoid overserving customers, and working with the licensee to change practices such as eliminating drink specials, limiting numbers of drinks, serving food, and better communication between servers at shift change. In cases that warrant it, regulators may issue a warning or citation or even suspension for a license violation (14).

It is unclear how many states or jurisdictions are implementing POLD, since the decision to do so is made at the state or local level. What is known is that few studies have evaluated POLD and the results have been mixed at best. A study conducted in one New York and one Ohio community examined a random sample of 10 licensed alcohol establishments identified as having high calls for service; this study included POLD enforcement, RBS training, and an awareness campaign. Although researchers found a reduction in sales to pseudo-intoxicated purchasers in one community (decreasing from 96% to 72%), they did not find significant change at the other site (17). Another study in the state of Washington showed decreased DUI arrests in the study community, but the results were not statistically significant (18). The most recent study by Toomey and colleagues at the University of Minnesota examined POLD implementation in Minnesota communities. It showed little difference in alcohol-related crime outcomes between POLD and comparison communities (19) and little difference in alcohol-related crash rates between POLD and comparison communities (20).

Importantly, the Minnesota study found substantial differences in levels of implementation among communities, with some communities implementing at a very low level or not at all (21). Some research shows that fully implementing a policy is essential for it to be effective, including awareness of the policy, enforcement with consequences for lack of compliance, and monitoring of implementation (22).

The Minnesota study developed a framework to examine the implementation of POLD (21). In Minnesota, licensing is done at the local municipal level, so POLD is administered by local law enforcement. The state created a statewide database to document and track POLD, but the decision to undertake POLD and participate in the data collection is made by local municipalities. To inform the framework of implementation components, in each of the 26 study communities researchers interviewed law enforcement agency representatives who were familiar with how POLD was initiated and implemented in their

community. This information was used to identify four components that contribute to successful implementation of POLD: 1) startup, 2) data collection, 3) stakeholder awareness, and 4) follow-up (21, 23). The study found only 3 of 26 agencies in the study were implementing all four components; 6 were implementing three of the four components, and the other 17 were implementing two or fewer of the components.

It is useful to examine the level of implementation when looking at the outcomes of a POLD initiative, to determine whether lack of outcomes is related to POLD itself, or to shortcomings in implementation. The state of Vermont began implementing POLD in 2018 and wanted to examine its implementation processes to learn whether there were areas for improvement. Staff from the Department of Liquor and Lottery, Office of Compliance and Enforcement (OCE) engaged the evaluator to examine its enforcement. This paper examines the implementation of POLD enforcement in the state of Vermont using the Minnesota implementation framework.

## Methods

This evaluation employed a case study method to assess the implementation of POLD in Vermont. A planning team consisting of the evaluator, the National Liquor Law Enforcement Association executive director, and key OCE staff met regularly to make key decisions about the study, its focus, and design. This group helped identify stakeholders for key informant interviews, provided access to license and enforcement data, and provided input and review on findings.

### Methods Included

*Assessment of an Implementation Score of POLD Implementation in Vermont Using the University of Minnesota Research Study Implementation Framework.* In-depth interviews were held with the OCE senior director and two sergeants to analyze the extent to which each evaluation component was implemented. A score for Vermont was calculated based on the scoring model used in the Minnesota study.

*Key Informant Interviews with Stakeholders/Partners.* The evaluator conducted interviews with key OCE staff and stakeholders to validate and provide additional information on Vermont's implementation of POLD within the framework developed in the Minnesota study. Informants were identified by the evaluation planning team, to obtain representative input from people familiar with POLD implementation and history in Vermont. Interviews were semistructured, conducted by telephone, and lasted under 30 min. At the beginning of each interview, the evaluator explained the underlying rationale of the study and its

**Table 1.** Minnesota Framework Implementation Components Survey Questions (21)**Startup**

- Was there a specific person who advocated for starting Place of Last Drink in your community or agency?
- Did your agency inform alcohol establishments about Place of Last Drink at the start of your program?
- Did your agency talk with city or county leaders about the start of the Place of Last Drink program in your community?
- Did your agency educate the general public about the start of the Place of Last Drink program in your community?

**Data collection**

- Have officers in your agency been given instruction on how to collect Place of Last Drink data?
- Does your agency have a standard operating procedure (SOP) or formal policy related to collecting, recording, or using Place of Last Drink information?
- Do officers collect Place of Last Drink for all alcohol-involved incidents, or just particular types of incidents?
- When officers respond to these incidents, how many consistently collect Place of Last Drink when appropriate?
- When officers respond to these incidents, how many consistently record Place of Last Drink when appropriate?
- How do officers document a Place of Last Drink case?
- In general, what was the response from officers in your agency about recording Place of Last Drink?

**Stakeholder awareness**

- Does your agency do anything to maintain awareness about the Place of Last Drink program among alcohol establishments in the community?
- Has your agency used any strategies to increase awareness about the Place of Last Drink program in the general community?
- Has your agency used any strategies to increase awareness about the Place of Last Drink program among city council members or other local government officials?

**Follow-up**

- Has your agency used Place of Last Drink data to plan or inform: observations at bars/restaurants, saturation patrols, or underage drinking enforcement operations?
- Has your agency or community taken any actions in response to an establishment frequently being named a Place of Last Drink?
- In response to an establishment being frequently named as a Place of Last Drink ...
  - has your agency met with an owner or manager of an establishment?
  - has your agency or community mandated that an establishment train staff members on responsible beverage service?
  - has your community fined an establishment?
  - has an alcohol establishment in your community had its license suspended?
  - has your agency given Place of Last Drink data to a governing body such as a City Council/County Board for consideration during license renewal?
  - has your agency or community publicly named establishments that are a frequent Place of Last Drink during a specified time period?
  - has your agency or community required an establishment to develop and submit a mitigation plan?

purpose, named the partners and funders involved, and offered participants the opportunity to ask any questions. After obtaining permission from the respondents, all interviews were recorded and transcribed. The interviews were analyzed to identify common and unique themes to better understand implementation in Vermont. The evaluator facilitated a member check with the evaluation planning group to review and validate the main findings. Eight people were interviewed between May 16 and June 6, 2022. Respondents included representatives from the Vermont Forensics Lab ( $n = 2$ ), Vermont Liquor and Lottery ( $n = 2$ ), local law enforcement ( $n = 2$ ), a licensed establishment owner ( $n = 1$ ), and the Traffic Safety Resource Prosecutors office ( $n = 1$ ).

*Assessment of Differences and Similarities of Implementation in Vermont with Minnesota POLD Case Studies.* The Minnesota research also conducted several case studies of POLD implementation in two Minnesota cities and in two counties in Wisconsin (24). Differences and similarities in the context and experience of implementation in the Midwest

settings and Vermont were assessed to identify the potential reasons.

### *Framework of POLD Implementation Components*

Several questions were developed to assess each component (see Table 1). The implementation components and scoring criteria from the Minnesota study are described here: (21)

- 1) **Startup**—Refers to the initial decision by an agency to implement POLD. Startup elements include the role of a key person(s) to champion and advocate for implementation of POLD, informing alcohol establishments that POLD data will be collected, informing community leaders and decision makers of POLD implementation, and informing the general public about the startup of POLD. An implementation score is “high” if at least three of these criteria are met.
- 2) **Data collection**—Includes instructing law enforcement officers on how to collect POLD data; an

agency having a standard operating procedure or formal policy relating to collecting, recording, or using POLD data; clarifying what types of incident are to be included (many communities collect data on only DUIs, some collect data on a broader array of criminal incidents such as assaults); the consistent collection of POLD data by officers, consistent recording of POLD data by officers, officers processes for recording POLD, and officer attitudes toward and motivation to document POLD. An implementation score is “high” if at least five of these criteria are met.

- 3) Stakeholder awareness—Includes actions taken by an agency to maintain awareness of POLD among alcohol establishments in the community: in the general community, and among decision makers (such as elected officials and community leaders). An implementation score is “high” if at least one of these criteria is met.
- 4) Follow-up—Refers to how the agency uses POLD data. This component includes using POLD data for planning and directing resources (such as observations at bars/restaurants, saturation patrols, or underage drinking enforcement), or use of POLD data to take action with an establishment that has been identified as a POLD. Action might include meeting with establishment owners/managers, mandating staff training or participation in RBS training, implementing a fine or a license suspension/revocation, providing data to a local governing body for consideration at license renewal, publicly naming establishments with frequent POLD incidents, or requiring a mitigation plan for an establishment to correct issues. An implementation score is “high” if at least three of these criteria are met.

## Results

### *Vermont Implementation Scores and Description*

Table 2 presents the implementation score for Vermont using the Minnesota implementation framework. Vermont scored high in three of the four components in the framework: data collection, stakeholder awareness, and follow-up. The only component that Vermont did not score high in was startup.

#### 1) Startup—Vermont score: Low

The Senior Director of Licensee Operations was a strong advocate and championed implementation of POLD in Vermont. He was familiar with POLD and recognized the value of implementing it in Vermont. In

2018, Vermont had the opportunity to begin POLD implementation as part of a pilot program through the National Liquor Law Enforcement Association (NLLEA), which enabled the start of POLD in two Vermont communities on a trial basis. However, whereas alcohol establishments in one of the two sites were informed of POLD, the other was not, and when Vermont institutionalized POLD after the pilot, alcohol establishments were not notified. Likewise, city and county elected leaders and the general public were not informed of POLD.

The director’s support was critical to institutionalizing POLD in Vermont after the initial pilot program. Experience from the pilot informed the development of Vermont’s program. OCE investigators appreciate the value of POLD and consider it a useful tool for working with licensees. (This is likely to have contributed to the high scores in Vermont for the other three implementation components.) One of the few areas Vermont scored low on was notifying establishments, communities, and elected officials when POLD was beginning to be implemented. Since its initial implementation, investigators reported that they now try to inform establishments of the program when they interact with them on routine inspections.

#### 2) Data collection—Vermont score: High

Law enforcement officers in the state are given instruction on how to collect POLD data. Vermont has a specific protocol for how the data are collected in DataMaster. DataMaster is a device used to collect and record blood alcohol concentration and data related to the incident. It is used by almost every law enforcement agency in Vermont, enabling uniform training and collection of data. Training is provided in the law enforcement Academy, so all new personnel are trained; POLD training is included in DUI training; and DataMaster supervisors are all trained in POLD data collection. The POLD protocol is straightforward for officers: it is a forced-choice “yes or no” question in DataMaster, requiring a simple click to record whether a licensed alcohol establishment was identified as the POLD. The question is:

Did your investigation determine that the place of last drink for this arrest was a licensed liquor establishment or permitted event?

A “yes” response is referred to OCE and triggers an investigation. The documentation is designed to be simple, which leads to high compliance with data collection; clicking the “yes” response does not impose a burden on officers. Identifying the source of the alcohol is part of the DUI protocol, and recording it is routine for officers. As one officer said, “The time burden really isn’t that

**Table 2.** Vermont Place of Last Drink (POLD) Implementation Score

Component #1—Startup: Low ( $n = 2$ ; high score is 3 or more)		
Implementation element	Status	Explanation of implementation status
Specific person who championed POLD?	Yes	Senior Director of Licensee Operations promoted initial pilot and institutionalization
Inform alcohol establishments?	No	Establishments were not notified
Inform elected leaders?	Some	Presentations to Chiefs of Police Association; collaboration w/Forensics and Traffic Safety Resource Prosecutors office
Educate general public?	No	No efforts to educate the public
Component #2—Data collection: High ( $n = 6$ ; high score is 5 or more)		
Officers instructed on how to collect POLD data?	Yes	Included in training, Academy, and Driving under the influence (DUI) training
Standard operating procedure or formal policy on collecting, recording, using POLD data?	Yes	Yes/No question in DataMaster, which is used in all DUIs
Collect POLD on all incidents or only DUIs?	DUI	Only DUIs
Consistent collection of POLD?	Yes	DataMaster question is a required question
Consistent recording of POLD?	Yes	DataMaster question is a required question
How is POLD documented?	DataMaster	DataMaster required (Yes/No question); some officers add notes
General response from officers re POLD?	Positive	Question is simple to document; officers especially appreciate feedback on cases from liquor control investigators; law enforcement see value of POLD data
Component #3—Stakeholder awareness: High ( $n = 3$ ; high score is 1 or more)		
Efforts to maintain awareness of POLD among licensees?	Yes	Investigators share POLD information when undertaking inspections or interactions; some focused outreach in targeted areas
Use strategies to increase awareness of POLD in community?	Yes	Present POLD information to coalitions and community members; encourage use
Strategies to inform elected officials?	Yes	Presentations at legislative committees; state's attorneys; Commissioner reports to Governor
Component #4—Follow-up: High ( $n = 7$ ; high score is 3 or more)		
POLD data used to plan/inform compliance and enforcement?	Yes	All triaged POLD incidents are investigated and include meeting with licensee
Taken actions using POLD data?	Yes	Licensees are informed; actions taken to address specific issues
Met with owner/manager?	Yes	Follow-up with all triaged POLD
Require staff training?	Yes	Frequently require staff training
Fined an establishment?	Yes	On occasion
Suspended a licensee?	Yes	On occasion (rare, but is an option)
Shared data with governing bodies?	Yes	Presented to legislative committees, shared periodically in report to Governor
Required licensee to develop a mitigation plan?	Yes	Standard practice to identify corrective steps for licensee

much 'cause it's just a yes or no." Officers also see the benefit of collecting this information: responses from officers about collecting POLD data have been largely positive. They do not feel that it is a burdensome task and they appreciate knowing that somebody from OCE is going to follow up and investigate when a POLD has been identified. A police chief confirmed that officers are often motivated to provide POLD information, and can see it has a direct connection to the issues they deal with:

[Officers] understand the reasoning and see the value in it for sure, especially when they get a response from Liquor

Control about a problem. I think that that really kind of solidifies the reasoning behind it.

### 3) Stakeholder awareness—Vermont score: High

OCE investigators frequently use other opportunities when they are undertaking inspections or interacting with licensed establishments to inform them of the POLD data collection. Investigators also network with local officers to make them aware of POLD. This might be informal communication, when investigators are at local law enforcement agencies, and the opportunity to

bring up POLD and share information presents itself. In addition, some of the community coalitions are becoming aware that POLD data are being collected and are expressing an interest in learning more about how they can use these data to support their local businesses and partner with them to address problems. In addition, data are occasionally shared with legislative committees and state's attorneys. Thus, decision makers are beginning to be informed of the collection of POLD data.

Stakeholder awareness occurs with licensees and other agencies, including local law enforcement, the Forensics Lab, state's attorneys, traffic safety resource prosecutors, and elected officials. As one person observed,

We use it as an opportunity to educate. So it really becomes an opportunity for us to engage in those communications with our licensees about over-serving ... Because we lead with an "education first paradigm" our licensees are very receptive to that ... [POLD] is really helping to foster that really strong relationship between our licensees and our investigators. The other thing is it's really helped develop intra-agency law enforcement connection.

State's attorneys are becoming more aware of the value of the information obtained in POLD investigations and increasingly reach out to OCE investigators for their cases. As one said, "That was super helpful in some of the cases I had ... it's good evidence to be able to present to a jury or to a defense attorney."

#### 4) Follow-up—Vermont score: High

Vermont OCE uses the POLD information to work with licensed establishments to create plans to address problems and take corrective action. Typically, an investigator initiates a conversation with the owner or manager of the licensed establishment to learn more about what led to the incident, investigate it, and devise a plan to correct any issues identified. Vermont's goal is compliance, not to focus on punitive measures; although, when necessary, punitive measures such as a fine or a suspension have been taken.

When an officer selects "yes" (that a DUI involved a licensed establishment), that information is forwarded on to OCE and assigned to an investigator. The investigator's initial step is to obtain the police report for the POLD incident and contact the arresting officer to gather any available information, for example, body- or dash camera video, and to confirm whether there were witnesses.

Next, the investigator will meet with the licensed establishment's owner or manager and inform them that their establishment was identified as a POLD in a DUI incident. The investigator requests information from the manager such as video surveillance footage from the establishment, if available, in addition to receipts, work

schedules, and information about who may have witnessed/observed service. When the investigator identifies how the overservice occurred, they work with the owner/manager to correct the problem. This may involve providing additional training for employees on how to avoid overservice, implementing new policies such as serving food later in the evening, earlier closing hours, limiting the number or types of drinks served, monitoring the number of drinks a customer has, and in some cases the termination of an employee's contract. Most investigators create a written plan or list of corrective actions that they recommend to the licensed establishment so that they can follow up and ensure that these steps are being taken.

According to OCE investigators, follow-up focuses on education and compliance: "Our job is compliance first. We're called the Office of Compliance and Enforcement. We want compliance, and we will leverage enforcement when we can't otherwise." One investigator observed,

A lot of times I've noticed when you deal with a licensed establishment [that] you typically don't deal with, and they realize what was going on, they're—I don't want to use the word mortified—but they're upset with their staff and they make changes. I had a POLD case at [a licensed establishment], and the gentleman was in the establishment for seven hours consuming alcohol. I spoke with the owner and she made her own changes ... She was very like receptive to like, oh, this happens here, let's fix the problem. And I would like to say that we've never had problems there since. So we're changing the behavior. I feel a lot of it is through education. Like this particular case, after I investigated it, I went there and spoke to all her bartenders. We gave a little seminar of what to look for and what to do. And [the owner] was so thankful.

One licensee confirmed the value of seeing the OCE investigator as a resource who can help the business:

I was phenomenally impressed with [the OCE investigator] and how she handled it ... She gives us her phone numbers. If we have any questions, we can email her continually as things come up that we may not understand, which we have now utilized more and more because she established a relationship with us. And I think that's another piece, having an open dialogue with the businesses where they can feel comfortable to ask questions. Like she will help us in any complicated situation now or with things that we don't have answers to. And I'm very comfortable now asking her, as are my managers, they all have her numbers on their phone ...[We] feel comfortable knowing she's here to teach and educate before, it's not just about punishment.

#### *Overall Implementation Score for Vermont: High*

Vermont's overall implementation score based on the Minnesota implementation framework was "high."

**Table 3.** Minnesota Study Community Implementation Scores Compared with Vermont Score

Number of implementation components	Number of communities	Final overall score
4	3	High POLD implementation
3	6 (and Vermont)	
2	5	Medium POLD implementation
1	6	Low POLD implementation
0	6	

Note: POLD = Place of Last Drink.

Vermont scored high in three of the four categories. In comparison, only nine of 26 agencies in the University of Minnesota study scored high in three or more components, and 17 scored high in two or fewer categories, as shown in Table 3.

### *Comparison With the University of Minnesota POLD Case Studies*

There were several differences in implementation experiences between the communities examined in the Minnesota research's case studies and Vermont's experience:

**Jurisdiction/Area Covered.** One significant difference between Vermont and the experiences of Minnesota and Wisconsin communities is that Vermont is a control state (i.e., the state controls the distribution and sale of spirits through the Vermont Division of Liquor control and provides the regulatory framework for sales) and implements POLD statewide, with investigations conducted by the OCE, whereas the other two states have local licensing. In Minnesota, local law enforcement agencies collect POLD data and decide how to utilize them. One Minnesota community in the case study follows up all POLD incidents, contacting the owner/manager within a few days of the incident, and taking steps to ensure corrective action on the part of the establishment, including city council actions against a license with ongoing problems. The other Minnesota community uses POLD data primarily to identify establishments that could benefit from attendance at server training courses. In Minnesota, local departments participating in POLD also enter the data from their community into a statewide database. In Wisconsin, public health advocates have an arrangement with law enforcement to access and compile POLD data and prepare reports twice a year: the focus is primarily educational. Whereas Minnesota relies on each local jurisdiction to develop how it will document, record, and use POLD data, Vermont is able to collect data

consistently across the state, since all law enforcement agencies use DataMaster to document POLD incidents.

**Investigators with Alcohol Enforcement Authority and Expertise.** A strength of Vermont's implementation process is that, as a control state, it has a statewide alcohol enforcement agency whose investigators are intimately familiar with liquor licensing and alcohol regulations, and often already have relationships with some of the licensees. Investigations are conducted by Vermont Liquor and Lottery, by OCE, and already are the agency that monitors compliance and enforcement of licensees. This was not the case in the communities examined in the Minnesota and Wisconsin case studies, where law enforcement has to contact other authorities within their jurisdiction to address a licensing issue. Although law enforcement officers could contact an establishment and recommend changes, ultimately they are not the agency authorized to deal with licensing issues.

**Timeliness of Information.** Another strength of Vermont's implementation of POLD, and similarly, one of the Minnesota communities, is the timeliness of obtaining and following up on POLD information: POLD data are available within a day or two, thus the investigation can commence quickly. (In Vermont, OCE supervisors obtain a daily report of POLD incidents; in the Minnesota community, a custom flag notifies a community resource officer of incidents daily. In the other Minnesota community and the Wisconsin settings, POLD information is only compiled twice a year, which limits timely follow-up.)

**Type of Incidents Documented.** Currently, Vermont collects POLD only for DUI incidents. One Minnesota community documents POLD for additional crimes: they have a custom flag in their reporting system that renders this feasible. In the case of an establishment with ongoing issues, the additional documentation of POLD related to assaults and fights was useful in working with that establishment.

**Cross-jurisdictional Issues.** A challenge for some communities in Minnesota and Wisconsin was identifying how to address an issue when the POLD was an establishment in another jurisdiction. Since Vermont implements POLD at the state level, that has not been an issue.

**Medical Situations.** All states noted that it is not always possible to collect POLD data in situations that involve a medical emergency or where medical assistance is needed, such as at a crash site. This is likely to continue to be a

limitation in most settings. This inability to collect information in situations where there is an injury requiring medical assistance may obscure some of the more serious cases where obtaining POLD data could be especially valuable.

**Community Context.** Local conditions can affect the approach a community takes when implementing POLD. Some of the Minnesota and Wisconsin communities noted that a community's environment might constrain some types of enforcement efforts. Further, some communities lack the sufficient resources to assess and use their POLD data in a timely manner.

## Discussion

Vermont implements POLD at a high level. Its implementation benefits from being statewide and using DataMaster to collect POLD data, making it simple and efficient for law enforcement officers to document a POLD incident as part of a DUI report. POLD incidents are referred to OCE daily, so that follow-up can happen in a timely manner. This enables investigators to collect additional information, access camera footage, receipts, and talk with officers and staff at the licensed establishment before memories fade or records are destroyed.

POLD is widely valued by OCE investigators, partners, and numerous stakeholders. Some licensees also see the value of POLD, and are open to or even anxious to have additional tools and tips for avoiding overservice.

Relationships with local law enforcement facilitate information gathering and investigations by OCE. Local law enforcement sees the benefit of POLD, and its potential for addressing problems at local establishments. Some local officers noted they would appreciate more follow-up from OCE investigators, to learn the outcomes of investigations, and what actions were recommended for a bar, so that they can support the effort. Some officers reported that they do not consistently learn about the outcomes of POLD investigations.

The OCE investigators bring expertise in licensing laws and regulations as well as in responsible service, blood alcohol levels, and signs of intoxication, and are well versed in strategies that licensees can use to prevent overservice. Licensees often welcome the assistance and are anxious to take steps to reduce the likelihood of a future incident. Some licensees reported that OCE investigators are accessible and helpful, and see them as a resource. That said, if a licensee resists making changes or addressing a problem, investigators will move beyond education and take punitive steps such as a fine or suspension.

Training is often part of their work with an establishment after a POLD incident. One licensee suggested that

the server training provided by the state should include much more emphasis on how to recognize signs of intoxication, the effect of alcohol on the body, blood alcohol count information, tips to avoid overservice, and how to deal with a customer who has had too much to drink. This owner said that when this information was presented to staff after a POLD, it was a "real eye opener" for them.

There may be areas for greater cooperation around POLD with local public health groups and prevention coalitions. Currently, there is little or limited information shared with these groups about the implementation of POLD, its purpose and benefits, or about establishments in their communities that have had an incident. These groups can sometimes support enforcement efforts or training and, in cases of resistant licensees, apply community pressure or support for improving practices. They can also help emphasize the need for such efforts with decision makers.

Investigation of POLD incidents requires substantial staff time and resources. This may become an issue as many alcohol agencies continue to take on additional responsibilities resulting from expanded types of allowed sales enacted during the COVID-19 pandemic and the expansion of direct-to-consumer shipping. Continuing to prioritize investigation of POLD incidents may therefore become challenging.

## Limitations and Future Research

This study has demonstrated that examining the implementation of POLD can be useful in understanding its value and could help inform future research that looks at outcomes. This study examined only its implementation, therefore, it is limited in its ability to assess the outcomes of POLD on DUI, crime, or overservice at licensed establishments. It presents a strong model of what implementation can look like. Future research should consider the level of implementation of POLD, as well as ways to support implementation, and to to inform stakeholders about how effective POLD may be at reducing alcohol-related problems at establishments. It would be beneficial to learn more about the extent of adoption of POLD across the United States—it is unclear how many states are undertaking POLD and whether they are doing it at the statewide or local jurisdiction level, as well as how they are implementing the program. In addition to looking at the implementation process, the Minnesota study is examining crime and DUI outcomes. Future studies should ultimately be designed to include these outcomes. Additional research could also examine POLD in relationship to dram shop laws and licensed establishment liability, and how these concerns may influence decisions to adopt POLD.



## Conclusion

Vermont has been successfully collecting POLD data and investigating POLD incidents since 2018. After beginning as part of a pilot project with NLLEA in 2018, OCE institutionalized POLD in 2020 and continues to look for ways to improve on its administration. Nationally, POLD has been the subject of research interest, creating an opportunity for additional examination of POLD implementation in Vermont using an implementation framework developed by researchers at the University of Minnesota. This examination demonstrated that Vermont is implementing POLD at a high level and that it has been well-received by some licensed establishments, suggesting POLD may help address challenges with overservice of alcohol and contribute to reductions in impaired driving.

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## Author Contributions

The authors confirm contribution to the paper as follows: study conception and design: L. Bosma, C. Christofes; data collection: L. Bosma; analysis and interpretation of results: L. Bosma; draft manuscript preparation: L. Bosma. All authors reviewed the results and approved the final version of the manuscript.

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## Data Accessibility Statement

The interview respondents were assured that the raw data would remain confidential; therefore, owing to ethical considerations, the data cannot be publicly shared but can be accessed by qualified researchers with a data sharing agreement on approval from the authors.

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