



**COMPUTERIZED  
ASSESSMENT**  
—AND—  
REFERRAL SYSTEM

# IMPLEMENTATION PROCESS EVALUATION

Erin Holmes & Maureen Dalbec, Foundation for Advancing Alcohol Responsibility

Supported by:



# ACKNOWLEDGEMENTS

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# EXECUTIVE SUMMARY

## DUI Offending and Co-Occurring Disorders

Over the last three decades, tremendous progress has been made in reducing the number of individuals killed in alcohol-impaired driving crashes. Since 1982, fatalities have declined by 51%. However, there is still work to be done. In 2015, the most recent year for which data is available, 10,265 people lost their lives on our nation's roadways as a result of alcohol-impaired driving (NHTSA, 2016). These deaths were completely preventable.

In an effort to achieve further reductions in fatalities, it is imperative that efforts focus on high-risk drunk drivers. Hardcore drunk drivers commonly drive with a blood alcohol concentration (BAC) of .15 or above, and do so repeatedly, as evidenced by having more than one driving under the influence (DUI)<sup>1</sup> arrest. These offenders are

## 10,265 PEOPLE LOST THEIR LIVES ON OUR NATION'S ROADWAYS AS A RESULT OF ALCOHOL-IMPAIRED DRIVING IN 2015

highly resistant to changing their behavior despite sanctions, treatment, or education and pose an elevated crash risk. Approximately 25% of individuals

arrested and 30% of individuals convicted of DUI are repeat offenders (Warren-Kigenyi and Coleman, 2014). This means that contact with the criminal justice system in and of itself, does not deter at least one quarter of all offenders.

To save lives, reduce recidivism, and stop the revolving door more must be done to identify and address the underlying causes of impaired driving behavior. The screening and assessment of DUI offenders is imperative to determine individual risk level and treatment needs. But an assessment should not be limited to the identification of substance use disorders. The most obvious etiology or origin of impaired driving is an alcohol and/or drug problem. However, DUI offenders also frequently suffer from one or more mental health disorders. In a study conducted by Shaffer et al. (2007), 45% of repeat DUI offenders were found to have a

lifetime major mental health disorder other than alcohol or drug abuse or dependency. Unfortunately, psychiatric comorbidity is often overlooked among this offender population. The failure to identify mental illness misses an opportunity to treat another root cause of offending.

## The Computerized Assessment and Referral System (CARS)

Treatment for DUI offenders traditionally consists of alcohol education or interventions that focus solely on substance use. Screening and assessment for co-occurring disorders is often not performed because appropriate instruments are not available, practitioners do not have training or experience in the mental health sphere, and there is a general lack of understanding about psychiatric comorbidity among impaired drivers.

In recognition of the prevalence of co-occurring disorders among DUI populations and the limitations of existing assessment instruments, the Foundation for Advancing Alcohol Responsibility (Responsibility.org) has dedicated funding and ongoing support to the development and piloting of a more comprehensive diagnostic tool that identifies major mental health disorders in addition to substance use disorders (SUDs). Over the past seven years, Responsibility.org has collaborated with the Division on Addiction at Cambridge Health Alliance (Division), a Harvard Medical School teaching hospital, to develop, validate, and make available the Computerized Assessment and Referral System (CARS).

CARS was initially developed with grant funding from the National Institute on Alcohol Abuse and Alcoholism (NIAAA), which provided support to the Division on Addiction for the study of repeat DUI offenders.

The assessment is adapted from the World Health Organization's (WHO) Composite International Diagnostic Interview (CIDI). The CIDI is a reliable and internationally validated instrument that has the added benefit of being developed for use by lay interviewers.

1. Driving under the influence (DUI) is the abbreviation most commonly used to encompass impaired driving offenses. For the purpose of this report, DUI is the most frequently used term to describe drunk driving. Other abbreviations (e.g., DWI, OUI, OWI, etc.) may appear when discussing laws specific to the states where pilot sites were located.

CARS is both a risk and needs assessment. Unlike traditional paper-and-pencil assessments, CARS combines a standardized substance use and mental health assessment with a user-friendly interface. The tool is operated on free, open source software that generates immediate personalized diagnostic reports that contain information about a client's mental health profile, a summary of risk factors, and targeted referrals to treatment services within their geographic area that match their individual needs. CARS is available in three formats: full assessment, interviewer-administered screener, and self-administered screener.

## Cars Pilots

Following the completion of a usability study and randomized control trials, multiple pilot programs were launched in the summer of 2016 to identify ways to successfully implement CARS at various intercepts in the DUI system, improve the efficiency and user-friendliness of the software, and address any technical challenges in advance of the national launch of the instrument in 2017.

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### Six sites were selected by Responsibility.org and the Division to serve as CARS pilot sites:

- **IMPACT, Inc. – Milwaukee, Wisconsin**
- **Isanti County Probation Department – Cambridge, Minnesota**
- **Lackawanna-Susquehanna Office of Drug and Alcohol Programs – Scranton, Pennsylvania**
- **Laramie County DUI Court – Laramie, Wyoming**
- **San Joaquin DUI Monitoring Court – Stockton, California**
- **South St. Louis County DWI Court and Probation Department – Duluth, Minnesota**

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The CARS pilot studies ran for three months, with most sites completing their minimum commitment by the end of September 2016. Throughout this period, Responsibility.org staff obtained information on the

progress of CARS implementation and use at each site as well as general feedback with the intent of using this data to formulate recommendations to facilitate widespread use of the assessment instrument.

## Findings: Pilot Experiences

CARS was administered a combined 422 times during the pilots. Of importance, all three versions of the instrument (full assessment, interviewer-administered screener, and self-administered screener) were successfully implemented. As a result, insight into the use of both screeners as well as the full assessment was provided.

**Integration.** Each of the pilot sites reported that they integrated CARS within their existing program frameworks with relative ease. Many of the sites added CARS to their current processes and protocols as opposed to replacing existing assessment instruments. In this regard, CARS was viewed as a supplemental tool that allowed practitioners to more effectively determine the risk and needs of individual clients. In particular, CARS filled a gap that many of the programs/courts had in assessing mental health needs. While the use of assessment instruments that identify SUDs and risk level was an integral component of every program involved in the pilots (whether their primary focus is facilitating treatment referrals or supervising offenders), the majority had not been able to identify co-morbid mental health disorders to the degree that they would like amongst their DUI offender population until they used CARS. In several instances, the CARS findings were used to inform decision-making regarding client treatment referrals.

**Training.** Practitioners from each site reported that they were satisfied with the training and level of support that they received prior to the launch of the pilots. While an in-person or 'live' training was identified as an ideal scenario, practitioners recognized that this is not a feasible model for educating the masses on CARS implementation. When asked whether they thought the training they attended at Division headquarters could be effectively translated into an online format, there was unanimous agreement that this could be achieved.

The CARS training manual was identified as an important resource that many of the practitioners referred to when questions or issues arose. Many reported that the manual contained an appropriate level of detail and was invaluable in training colleagues who did not have the opportunity to participate in the in-person training. When asked if an individual could learn to administer CARS relying solely on the manual, the majority of practitioners responded in the affirmative.

**Functionality and software.** All practitioners involved in the pilot reported that CARS is extremely user-friendly and that they had no difficulty administering the assessment to clients. There was agreement that the self-guided nature of the assessment made the process

## THE FAILURE TO IDENTIFY MENTAL ILLNESS MISSES AN OPPORTUNITY TO TREAT ANOTHER ROOT CAUSE OF OFFENDING.

easier and that the ability to instantly generate reports as opposed to scoring the assessment by hand was especially efficient. Practitioners

reported that the length of time required to administer the screener was reasonable for each of the sites as it typically took fewer than 20 minutes to complete.

At the locations where the self-administered version of CARS was implemented, program staff reported that clients had few challenges in using the screener. Most clients were able to follow the instructions without any additional guidance from staff making the process efficient and allowing for multiple clients to complete the screener at once if necessary.

**Referral database.** Feedback on the referral database was generally positive. Almost every pilot site noted that the referral database is an extremely useful resource for practitioners and clients alike. Unlike traditional assessment instruments that merely identify areas of concern, the information provided by CARS combined with the referrals to appropriate interventions was viewed as an important feature that distinguishes this instrument from other assessment tools that practitioners currently use. The matching of clients to services not only provides clients with guidance, it also reduces practitioner workload by making targeted referrals based on objective criteria.

Practitioners at more than half of the pilot sites stated that they reviewed the treatment referrals with clients and encouraged them to follow-up with one of the providers identified in their individualized CARS report. Clients who kept a copy of their report were instructed to review their treatment options and select the provider that they preferred. This provision of options was viewed as an asset as clients were empowered to make decisions but simultaneously retained some control over which services they sought out.

Ultimately, there was agreement that the generation and maintenance of a robust and up-to-date treatment database could be onerous, particularly at the outset of the process. However, with the provision of proper guidance, explicit instructions, and clear templates, some of the workload may be alleviated.

**Client experience.** In addition to providing feedback about their experience with CARS, practitioners were also asked to comment on how their clients responded to the assessment. Generally, there was little to no resistance to CARS on the part of clients. At several sites, completion of CARS was strictly on a voluntary basis and practitioners found that most clients were willing to complete either the screen or assessment with minimal persuasion.

Practitioners reported that many clients seemed to benefit from talking about their issues during the assessment and were fairly open when answering questions. A common finding amongst the pilot sites was that many clients who either screened positive or were diagnosed with a disorder had not previously considered that they may have a mental health issue. While not always well received, this information did give some clients pause and seemed to provide them with insight into their problems and behavior.

## Recommendations

Upon review of the extensive feedback and insights provided by pilot site practitioners, Responsibility.org formulated recommendations to address key areas of concern. These recommendations are meant to strengthen CARS by improving its functionality and real-world application and addressing any perceived shortcomings.

### 1. Increase the specificity of the CARS screener.

The most consistent concern expressed by practitioners during the pilots was that the specificity of the CARS screener was too low (i.e., too many clients screened positive for mental health disorders). While practitioners were quick to acknowledge that a high percentage of their clientele did have co-occurring disorders, they described a need to ensure that there was greater balance between the sensitivity and specificity of the screener. In other words, they want to cast a narrower net and ensure that there are fewer false positives.

In response to this concern, the Division modified the screener by adding two “interference grids” that contain questions asking clients to indicate to what degree the symptoms they reported experiencing compromised their ability to function (ranging from “not at all” to “an extreme amount”). For an individual to screen positive for a disorder, they must respond that their daily functioning has been affected some, a lot, or an extreme amount on account of their symptoms.

2. **Improve targeted referrals.** The agencies/ programs involved in the CARS pilots relied on existing lists of treatment providers and services to populate their individual referral databases. The relatively short window provided to customize CARS for each site in advance of pilot launch limited opportunities to segment providers by specialty. In an effort to address the concern that the same referrals are generated for most clients, modifications to database functionality are being made to assist agencies in populating and maintaining their referral databases.

3. **Develop a version of full CARS that contains only past-year modules.** Each of the sites that participated in the pilot project chose to use past-year as opposed to lifetime versions of the full CARS modules. Given this apparent preference,

the Division is considering the development of a past-year version of the full CARS assessment (i.e., this version would contain modules that focus on past-year diagnoses only).

### 4. Create separate screener and full assessment executable files for download.

In recognition that most agencies will likely rely solely on the screener, the Division intends to create two separate executables for download. The availability of the standalone screener executable will reduce the work required of each agency at initial set-up (i.e., practitioners can avoid having to go through the process of customizing full CARS modules). With the screener download, agencies will still have the ability to choose between the interviewer or self-administered version of the CARS screener. The full CARS download will afford practitioners the option of using all three versions of CARS.

### 5. Create explicit and detailed instructions and protocols for installing and updating CARS.

In order to ensure that the initial set-up and subsequent updating of CARS is as easy and efficient as possible, it is recommended that detailed step-by-step instructions be made available to assist agencies and providers through the download, installation, and update process. While significant information is available in the CARS training manual, the Division is encouraged to periodically review materials, provide more details, and make additions as necessary.

### 6. Develop different levels of training for practitioners depending on prior experience.

Current training is designed to allow anyone, including a person with no clinical experience, to use the assessment. Practitioners with extensive experience working with offender and/or treatment populations, particularly those trained in motivational interviewing, may find it too

simplistic. For these individuals a comprehensive practicum may not be necessary. For this reason, several pilot site practitioners recommended developing a streamlined standard training program to be completed by everyone that provides an overview of how to set-up the instrument and addresses other technical/software issues. For individuals who lack experience or do not have a high degree of comfort in administering assessments, a second track of training could be created that provides them with tips for conducting CARS interviews and examples of how to overcome client resistance or other challenges.

**7. Develop an interactive online training.** The development of user-friendly and practical training materials was a top priority in advance of CARS distribution. The current training materials are effective. However, it may be advantageous to supplement them with the creation of a companion interactive training that includes activities and exercises that engage practitioners. This training should follow principles of adult learning, include interactive components, and be made available on the CARS web portal.

**8. Develop a Spanish version of CARS.** Second to English, Spanish is the most spoken language in the United States. Several of the pilot sites indicated that staff had to translate CARS questions for some of their clients which greatly slowed the administration of the assessment. While many agencies have individuals on staff who speak Spanish, the consistent reliance on them to serve as translators is not efficient. Further, there are often multiple ways to translate words and the variation in translations may undermine consistent application of the instrument. For sites that utilize the self-administered screener, a lack of Spanish translation made it impossible for a handful of clients to complete the assessment. It is, therefore, a priority to translate all versions of CARS into Spanish.

**9. Develop a non-DUI specific version of CARS.** Several pilot sites expressed a desire to use CARS with non-DUI offenders. Given that CARS is primarily a treatment needs assessment, it

has broad applicability within the criminal justice system as a whole. In its current version, there is the capability to turn-off the DUI module within full CARS but the agency must remember to do so at the time of set-up. The Division will explore the feasibility of developing a new version of CARS that does not contain the DUI offending module for agencies that wish to use the instrument among other types of offenders (e.g., domestic violence offenders, drug offenders, etc.).

**10. Update CARS to reflect DSM-V changes.** CARS is adapted from the CIDI which relies on DSM-IV classifications and diagnostic criteria. While there has been discussion about updating the CIDI to reflect modifications in the DSM-V, no timeline to complete this work has been established. Future CARS updates likely will occur if/when the CIDI is revised.

**11. Consider developing a web-based platform instead of using software.** CARS is currently available in software form only. To avoid IT challenges such as having to complete system-wide updates and installs whenever a new version of CARS becomes available, it has been suggested that a web-based platform be developed. The benefit of having a web-platform is increased efficiency as practitioners could simply login and have access to the most current version of the instrument. This removes potential challenges, complications, and delays that are inherent with having to coordinate with IT departments. The Division is currently exploring the viability of creating this type of platform in the future.

**12. Create a CARS mobile application.** A number of sites, particularly those who used the self-administered version of the screener, expressed interest in using tablets to administer CARS. The compact and lightweight nature of a tablet may make it easier to complete the screener as agencies could hand clients a tablet as opposed to having to designate space for a kiosk and/or provide access to a desktop or laptop computer. In order to run CARS from a tablet, it must be converted from software into a mobile app. This is a costly process and one that would likely occur after a web-based platform is created.

## Next steps

While every state has implemented programs designed to reduce drunk driving by evaluating offenders and addressing their needs, most do not assess offenders for co-morbid substance use and mental health disorders. This gap likely contributes to the high rate of recidivism among this population. Through the use of CARS, practitioners will now be better equipped to identify the risk level and needs of their clients and develop individualized supervision and treatment plans. To facilitate the use of this instrument, next steps focus on making CARS accessible to all agencies and practitioners.

Following the completion of the pilots and the formulation of recommendations, the Division has worked diligently to make modifications to CARS in advance of distribution. Comprehensive testing of the software has been ongoing to identify any potential errors or bugs and a full code review was completed to determine areas for potential improvement. Updates to the software will continue to be made and new versions of CARS will be finalized prior to the national launch.

To facilitate the rollout of CARS and to ensure that all interested parties have easy access to the software, the Division has created an online web portal that will go live later this year. The public side of the website includes information about the history of and latest developments in the CARS project as well as research publications and study findings. Individuals who wish to download the CARS executables must register to gain access to the assessment portal.

The training materials that were developed in advance of the pilots have since been finalized and will be available for download on the CARS website. Other documents, materials, and training videos that will assist practitioners and/or agencies in implementing

the assessment will continue to be developed, refined, and added to the web portal. In the future, interactive training modules and practicums may become features of online CARS training.

The CARS project will culminate in the national launch of the instrument in the spring/summer of 2017. The Division will continue to pursue grants to conduct additional research on the etiology of impaired driving behavior and the relationship between psychiatric comorbidity and DUI offending. Responsibility.org will promote the use of CARS within the traffic safety, criminal justice, and public health fields and make agencies aware of the availability of this revolutionary instrument and how it can fill gaps in current assessment processes.

**THE CARS PROJECT  
WILL CULMINATE IN THE  
NATIONAL LAUNCH OF  
THE INSTRUMENT IN  
THE SPRING/SUMMER  
OF 2017**

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# INTRODUCTION

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Over the last three decades, tremendous progress has been made in reducing the number of individuals killed in alcohol-impaired driving crashes. Since 1982, fatalities have declined by 51%. However, there is still work to be done. In 2015, the most recent year for which data is available, 10,265 people lost their lives on our nation's roadways as a result of alcohol-impaired driving (NHTSA, 2016). These deaths were completely preventable.

In an effort to achieve further reductions in fatalities, it is imperative that efforts focus on high-risk drunk drivers. Hardcore drunk drivers commonly drive with a blood alcohol concentration (BAC) of .15 or above, and do so repeatedly, as evidenced by having more than

## **APPROXIMATELY 25% OF INDIVIDUALS ARRESTED AND 30% OF INDIVIDUALS CONVICTED OF DUI ARE REPEAT OFFENDERS**

one driving under the influence (DUI)<sup>1</sup> arrest. These offenders are highly resistant to changing their behavior despite sanctions, treatment, or education and pose an elevated crash risk. Approximately 25% of individuals arrested and 30% of individuals convicted of DUI are repeat offenders (Warren-Kigenyi and Coleman, 2014). This means that contact with the criminal justice system in and of itself, does not deter at least one quarter of all offenders.

To save lives, reduce recidivism, and stop the revolving door more must be done to identify and address the underlying causes of impaired driving behavior. The screening and assessment of DUI offenders is imperative to determine individual risk level and treatment needs. But an assessment should not be limited to the identification of substance use disorders. The most obvious etiology or origin of impaired driving is an alcohol and/or drug problem. However, DUI offenders also frequently suffer from one or more mental health disorders. In a study conducted by Shaffer et al. (2007),

45% of repeat DUI offenders were found to have a lifetime major mental health disorder other than alcohol or drug abuse or dependency. Unfortunately, psychiatric comorbidity is often overlooked among this offender population. The failure to identify mental illness misses an opportunity to treat another root cause of offending.

In recognition of the prevalence of co-occurring disorders among DUI populations and the limitations of existing assessment instruments, the Foundation for Advancing Alcohol Responsibility (Responsibility.org) has dedicated funding and ongoing support to the development and piloting of a more comprehensive diagnostic tool that identifies major mental health disorders in addition to substance use disorders. Over the past seven years, Responsibility.org has collaborated with the Division on Addiction at Cambridge Health Alliance (Division), a Harvard Medical School teaching hospital, to develop, validate, and make available the Computerized Assessment and Referral System (CARS).

To prepare for the national rollout and widespread distribution of the CARS tool in 2017, Responsibility.org and the Division partnered to pilot CARS at six sites across the country. As part of this process, the instrument was integrated into existing program frameworks and was utilized by practitioners to identify ways to increase its user-friendliness and efficiency. This process evaluation also served as an opportunity to develop strategies to improve implementation and use of the tool as well as ways to maximize CARS' benefits and achieve better outcomes. The feedback and insight obtained from these sites is detailed in the following report and will be used to refine the assessment tool in advance of its launch.

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<sup>1</sup> Driving under the influence (DUI) is the abbreviation most commonly used to encompass impaired driving offenses. For the purpose of this report, DUI is the most frequently used term to describe drunk driving. Other abbreviations (e.g., DWI, OUI, OWI, etc.) may appear when discussing laws specific to the states where pilot sites were located.

# CO-OCCURRING DISORDERS, DUI OFFENDING, AND THE CRIMINAL JUSTICE SYSTEM

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Co-occurring disorders (also referred to as psychiatric comorbidity or dual diagnosis) are common among the general population. Research has shown that individuals with mental health disorders are more likely to also experience alcohol or drug dependency within their lifetime. The 2015 National Survey on Drug Use and Health (NSDUH) found approximately 20.8 million people had a substance use disorder (SUD) during the past year. Approximately 8.1 million people (3.3% of the adult population) had both a SUD and mental illness within the past year and 2.3 million adults had a co-occurring disorder. It is often difficult to identify and diagnose co-occurring disorders as the severity of the disorders often varies and symptoms can overlap. Accordingly, individuals who suffer from multiple disorders may not always receive a complete diagnosis. While they receive treatment for one substance use disorder or mental health condition, their other disorder(s) will go undiagnosed, and, subsequently, untreated. The end result is a failure to provide holistic care for an individual who suffers from multiple afflictions that may or may not be intrinsically linked.

In the criminal justice system there is an overrepresentation of individuals who have substance use, mental health, and co-occurring disorders. For example, 68% of individuals in jail met the criteria for SUDs in the year prior to their incarceration according to one study (Karberg & James, 2005). This is in stark contrast to the 8.4% of the general populace that have SUDs.

A study by James and Glaze (2006) also revealed that the percentage of prison inmates with mental health disorders is much higher than that of free society. According to their research, 61% of females and 44% of males in federal prisons and 73% of females and 55% of males in state prisons have mental health problems. The prevalence rates are even higher in local jails where 75% of female and 63% of male prisoners have a mental health problem. A substantial majority of these

offenders also suffer from SUDs. In one study, 74% of prison inmates with a mental health disorder also had a SUD (Mumola & Karberg, 2006). In sum, “co-occurring disorders are more often the rule than the exception in justice settings” (Peters et al., 2015, p. 1).

Similarly, the presence of both substance use and mental health disorders is commonplace among DUI offenders. Approximately two-thirds of convicted DUI offenders are alcohol dependent (Lapham et al., 2001) with 91% of male and 83% of female DUI offenders having met the criteria for alcohol abuse or dependence at some point in their lives (Lapham et al., 2000). Furthermore, 33% of male and 50% of female DUI offenders with an alcohol use disorder also had at least one other psychiatric disorder (Lapham et al., 2001). Female DUI offenders appear to have significantly higher psychiatric comorbidity relative to their male counterparts (LaPlante et al. 2008) with diagnoses of anxiety, depression, and bipolar disorder being common. Extensive histories of trauma (e.g., post-traumatic stress disorder) are also present among female impaired drivers (Peller et al., 2010; Robertson et al., 2013).

## CO-OCCURRING DISORDERS ARE MORE OFTEN THE RULE THAN THE EXCEPTION IN JUSTICE SETTINGS

Not surprisingly, repeat offenders have higher lifetime rates of alcohol abuse and dependence, drug abuse and dependence, and psychiatric comorbidity than the general population (Nelson and Tao, 2012). In the Shaffer et al. (2007) analysis, in addition to the finding that 45% of repeat DUI offenders had a lifelong major mental disorder, nearly 30% qualified for a past-year disorder. In many instances, these disorders contribute to criminal behavior and absent appropriate treatment, it is not surprising that many of these offenders recidivate.

The failure to identify co-occurring disorders in the criminal justice system can have many negative consequences including misclassification of risk levels, lengthier periods of incarceration, inappropriate or inadequate treatment referrals, poor treatment outcomes, missed re-entry opportunities, and increased risk of recidivism (Peters et al., 2008). The end result is an increased likelihood of future contact with the justice system which is both burdensome and costly.

The use of comprehensive screening and assessment in the criminal justice setting is therefore, necessary to identify comorbidity among DUI offenders. Historically, very few assessments have been designed specifically for DUI offenders. This often results in practitioners combining multiple instruments to provide a complete picture of an individual offender's risk level and specific treatment needs.



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To improve long-term outcomes, it is best to detect and treat co-occurring disorders as early as possible. While this has been a shortcoming within the criminal justice system, a new instrument has been developed to ensure that both substance use and mental health disorders are identified and to facilitate referrals to appropriate treatment interventions and services that will address DUI offenders' comorbidity concurrently: CARS.

# COMPUTERIZED ASSESSMENT AND REFERRAL SYSTEM

Treatment for DUI offenders traditionally consists of alcohol education or interventions that focus solely on substance use. Screening and assessment for co-occurring disorders is often not performed because appropriate instruments are not available, practitioners do not have training or experience in the mental health sphere, and there is a general lack of recognition that psychiatric comorbidity is common among impaired drivers. CARS was conceptualized to fill this gap in the system and to ultimately, produce better outcomes.

## Development of CARS

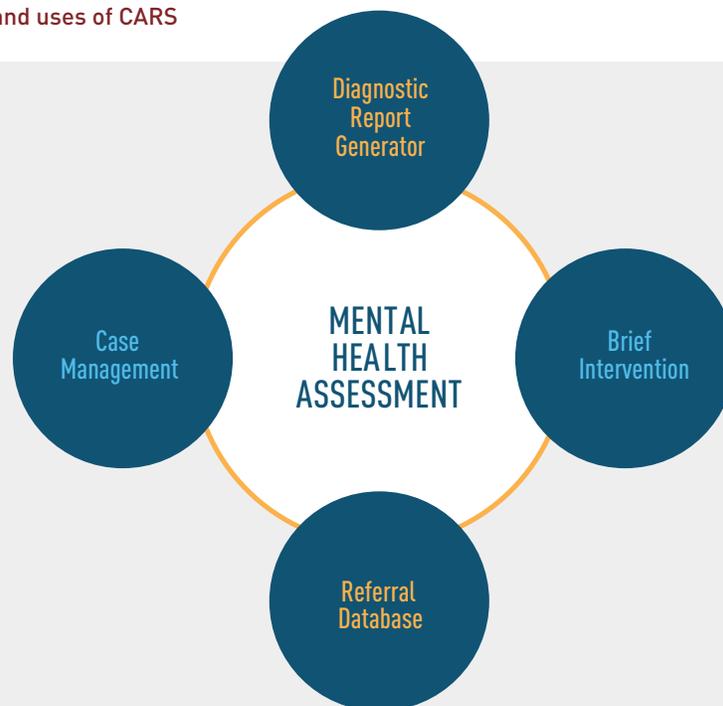
CARS was initially developed with grant funding from the National Institute on Alcohol Abuse and Alcoholism (NIAAA), which provided support to the Division on Addiction for the study of repeat DUI offenders. The assessment is adapted from the World Health Organization's (WHO) Composite International Diagnostic Interview (CIDI). The CIDI is a reliable and internationally validated instrument that has the added benefit of being developed for use by lay interviewers. As a result, the

CIDI has been used extensively in research, including the National Comorbidity Survey. When seeking to create a new assessment tool for use in clinical settings with DUI offenders, the Division collaborated with one of the developers of the CIDI, Dr. Ronald C. Kessler, and his team at Harvard School of Public Health to adapt and re-package CIDI content in a format more suitable for use in clinical settings and with DUI offenders.

## CARS Components

CARS is both a risk and needs assessment. Unlike traditional paper-and-pencil assessments, CARS combines a standardized substance use and mental health assessment with a user-friendly interface. The tool is operated on free, open source software that generates immediate personalized diagnostic reports that contain information about a client's mental health profile, a summary of risk factors, and targeted referrals to treatment services within their geographic area that match their individual needs.

Figure 1. Components and uses of CARS



Similar to the CIDI, CARS has been developed in such a way that its use is not limited to clinicians and/or researchers. The computerized and user-friendly nature of CARS allows practitioners who lack clinical training or experience in the area of mental health to perform the assessment. In fact, though some personalized training in the use of the instrument and clinical training is recommended, individuals with the most basic computer skills can easily follow the instructions in the CARS training manual to learn how to administer the assessment. Further, those administering the tool typically become skilled clinical interviewers simply by conducting multiple guided interviews.

### Full CARS

Initially, CARS was available in only one format – a full assessment. The full assessment is divided into modules addressing various mental disorders and psychosocial factors. The instrument provides immediate diagnostic information for multiple DSM-IV Axis I disorders including major depressive disorder, bipolar disorder, anxiety disorders (e.g., post-traumatic stress disorder), substance use disorders, conduct disorder, and so forth. Extensive skip logic within the tool enhances its efficiency. In the full assessment, respondents first complete a screening module, and only enter diagnostic modules in areas where they screen positive. Within

each module, there are multiple checkpoints. If a respondent answers questions in a way that does not suggest the presence of a disorder, CARS moves the respondent onto the next module they screened into.

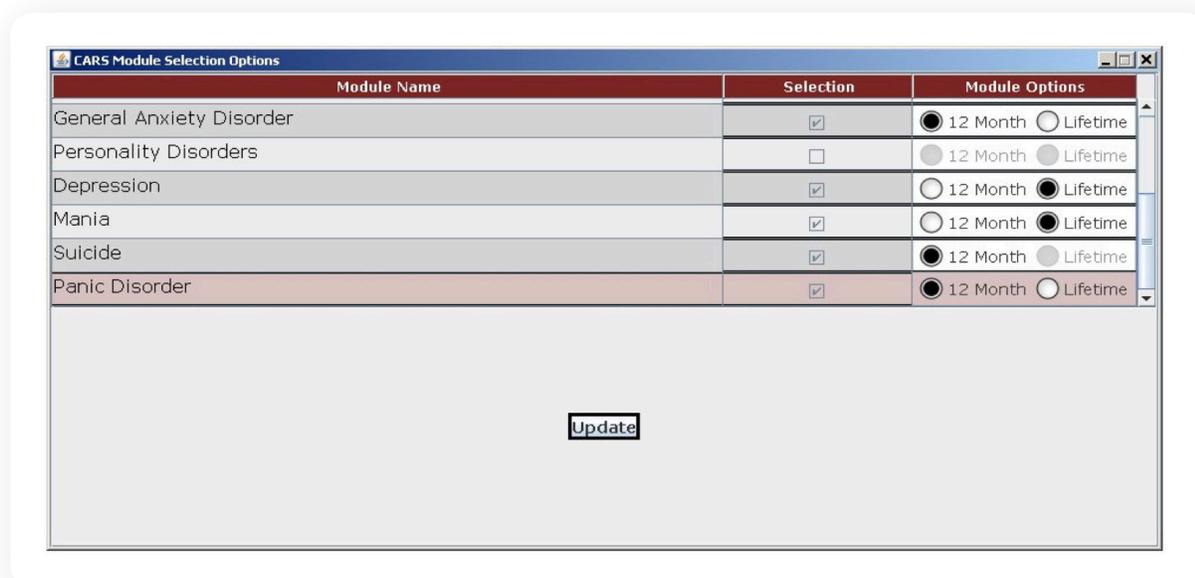
## USERS CAN SELECT ANY SUBSET OF MODULES TO BE TURNED ON OR OFF

In addition, there is flexibility within the administration of the full assessment, allowing the individual or program administering the tool to tailor it to reduce time burden. Users can select any subset of modules to be turned on or off – in other words, they can focus on specific disorders as opposed to administering the entire assessment. If they turn off a module, respondents will not enter that module even if they screen positive. Users can also choose from past 12-month or lifetime versions of each module. By selecting the past-12 month version of a module a client will only be assessed for whether they qualify for the disorder within the past year.

Full CARS also includes a module devoted to DUI behaviors and risk factors for DUI, including other criminal behaviors, drinking motives, and drinking contexts.

Figure 2. CARS module selections

[see larger](#)



## Cars Screeners

The comprehensive nature of the full assessment requires a significant amount of time to administer the tool. Unfortunately, many criminal justice practitioners, particularly those who supervise or treat a large number of clients, do not have the two or more hours needed to administer all modules. This challenge was confirmed during a CARS usability study conducted in Massachusetts in 2013. The Division recruited five agencies that work with DUI offenders and asked staff to use the assessment and provide feedback on their experience. Based on their feedback and input from key stakeholders, the Division recognized the need to adapt CARS to accommodate for programs that do not have the time and/or resources to administer the full assessment.

Subsequently, an empirically-based standalone screener was created. The CARS brief screener can be used to provide a good indication of diagnostic areas that require further assessment. Table 1 lists the domains contained within this version of CARS. The screener takes between 15-40 minutes to complete and indicates disorders for which a respondent might be at risk or might qualify. A second version of the screener was developed to allow for self-administration.

The screener module also includes a section that asks specifically about past 12-month changes in many facets of a person's life including family members and dependents, illness and health, financial stability, employment, legal issues, social life, and so forth. This provides a valuable snapshot of recent stressors that might affect mental health and recovery.

**Table 1. CARS comprehensive mental health screener domains**

Panic disorder	Social phobia	Eating disorders
Intermittent explosive disorder	Attention deficit/hyperactivity disorder	Obsessive compulsive disorder
Depression	Generalized anxiety	Suicidality
Mania/bipolar disorder	Post-traumatic stress disorder	Conduct disorder
Oppositional defiant disorder	Psychosis	Nicotine dependence
Alcohol use disorder	Drug use disorder	Gambling disorder
Psychosocial stressors	DUI/criminal behavior	

## Referral Database

Another feature that distinguishes CARS from traditional assessments is the built-in referral database. Traditional assessments simply identify disorders that people have or are at risk of developing. CARS goes one step further by not only identifying and explaining these disorders, but also by providing a list of options for appropriate treatment services. Each CARS report includes a list of targeted referrals that match clients to services based on their ZIP Code and individual treatment needs. These services can include hospitals, outpatient treatment programs, detox programs, halfway houses, self-help programs, and so forth. The referral database also has the functionality to input public transportation options (such as bus routes) for each service which is useful on account of many DUI offenders lacking driving privileges. The referral portion of the system can also reduce the workload of the individual administering the assessment and make it easier for clients to find appropriate services and interventions within their community.

Figure 3. Example of CARS referrals [see larger](#)

Client: Ben                      Gender: Male                      Age: 35

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### Regional Referral Information

Based on Ben's interview and the zip code provided (02143), referrals to the 5 closest Massachusetts resources for additional mental health screening and treatment are listed below. In addition to these options, Ben also might consider utilizing other relapse and recovery resources, such as Alcoholics Anonymous or online recovery and recidivism prevention programs.

**CASPAR Mens Recovery Home**  
 16 Highland Ave, Somerville, MA 02143  
 (617) 623-5277  
<http://www.casparinc.org>  
 Type of Care: Residential  
 Payment Options: Accepts most types of insurance. Does not accept private pay.  
 Insurance: unknown  
 Medicare/Medicaid: Yes  
 Specializations: not specified  
 Public Transportation Options: MBTA Bus 88/90 - Highland Ave @ Medford St

**North Charles Institute for the Addictions**  
 260 Beacon St, Somerville, MA 02143  
 (617) 861-9405  
<http://www.northcharles.org/>  
 Type of Care: Outpatient  
 Payment Options: unknown  
 Insurance: unknown  
 Medicare/Medicaid: unknown  
 Specializations: not specified  
 Public Transportation Options: MBTA Bus 8/10 - Southampton St @ Atkinson St.  
 MBTA Fairmount Line - Newmarket

Before CARS can be utilized by an agency or program, the referral list must be populated with treatment services that are available within the county/jurisdiction. While this may take some initial work, many probation departments or court programs maintain partial databases of these resources. This requirement may have the added benefit of motivating agencies to conduct

audits of existing treatment services and to exercise judgment and oversight with respect to the quality of these services.

## CARS Reports

For all versions of CARS, individual diagnostic reports are generated within seconds after the screening or assessment is completed. The reports provide information about the mental health disorders for which a person qualifies or is at risk, his or her experience of symptoms, as well as a summary of bio-psycho-social risk factors. Importantly, reports are written in everyday language which ensures that clients, as well as staff, can review the report and readily understand the findings. Other assessments produce reports that are written using clinical language that can hinder the ability of a layperson to understand the results. CARS reports contain the same information one would find in a clinical report, but the language is targeted and tailored to the non-clinician.

Figure 4. Example of CARS report [see larger](#)

Client: Ben                      Gender: Male                      Age: 35

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### CARS Diagnostic Case Summary

Ben is a 35 year-old White man. He has screened positive for 3 co-occurring mental health problems (see Table 1) and should receive a referral for professional mental health assessment (regional referrals are listed on the end of the report). Ben has accumulated 2 DUI arrests during his lifetime.

Ben has also reported some symptoms related to 1 disorder. These symptoms suggest that he is experiencing some subclinical difficulties with these disorders, but he did not meet clinical levels for these disorders. Ben should report these subclinical experiences when he seeks additional professional mental health screening.

**Table 1. Mental Health Profile**

	Met Criteria	Subclinical Symptoms	Screened into but not tested
Alcohol Abuse	PY		
Alcohol Dependence	PY		
Panic Disorder	PY		
ADHD		LT	
Oppositional Defiant Disorder			*

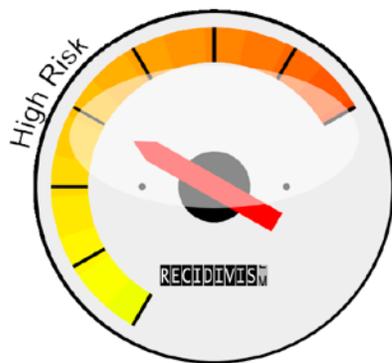
PY = Past Year, LT = Lifetime

Did not meet criteria for: PTSD, Substance Abuse, Substance Dependence, Personality Disorders, Major Depressive Disorder, Bipolar I, Bipolar II, Bipolar NOS, Dysthymia, Social Phobia, Intermittent Explosive Disorder, Tobacco Use, Gambling, Eating Disorder, Obsessive Compulsive Disorder, Psychosis, Conduct Disorder, GAD

While the primary purpose of CARS is to identify mental health and substance use disorders among DUI offenders in order to facilitate treatment referrals, a secondary use is to predict DUI recidivism risk from individual mental health profiles. The full CARS assessment includes a module specific to DUI behavior

and drinking and driving patterns and motivations. The data obtained from the questions in this section are integrated with other risk factors to generate an overall DUI recidivism risk score. A graphic is generated as part of the outcomes report that indicates where an individual is within a range of low to very high risk. This score is derived from past research. As more studies are conducted and the amount of data collected increases, the Division will be able to further calibrate and refine this scoring.

**Figure 5. CARS risk graphic**



### Recent Research Initiatives

In 2015, the Division began a multi-site randomized controlled implementation trial to further evaluate the use of CARS within DUI populations. This study continued to test the usability of the full assessment, tested the validity of the screener module (both interviewer and self-administered versions), investigated its use as a brief intervention, and examined associations between psychiatric comorbidity and outcomes among DUI offenders. The study involved two Massachusetts DUI programs - the Middlesex Driving Under the Influence of Liquor Program (MDUIL), a two-week inpatient program for repeat offenders and the Behavioral Health Network Driver Alcohol Education Program for first offenders.

For six months, within each of these two treatment programs, the Division randomized the implementation of CARS so that equal numbers of participating clients received one of four conditions: (1) intake as usual; (2) full CARS assessment; (3) screener only; and (4) self-

administered screener. Follow-up with clients began six months after their initial participation and information about their treatment outcomes, drinking behavior, driving behavior, and legal involvement since they first entered the study was collected and is being analyzed and written up.

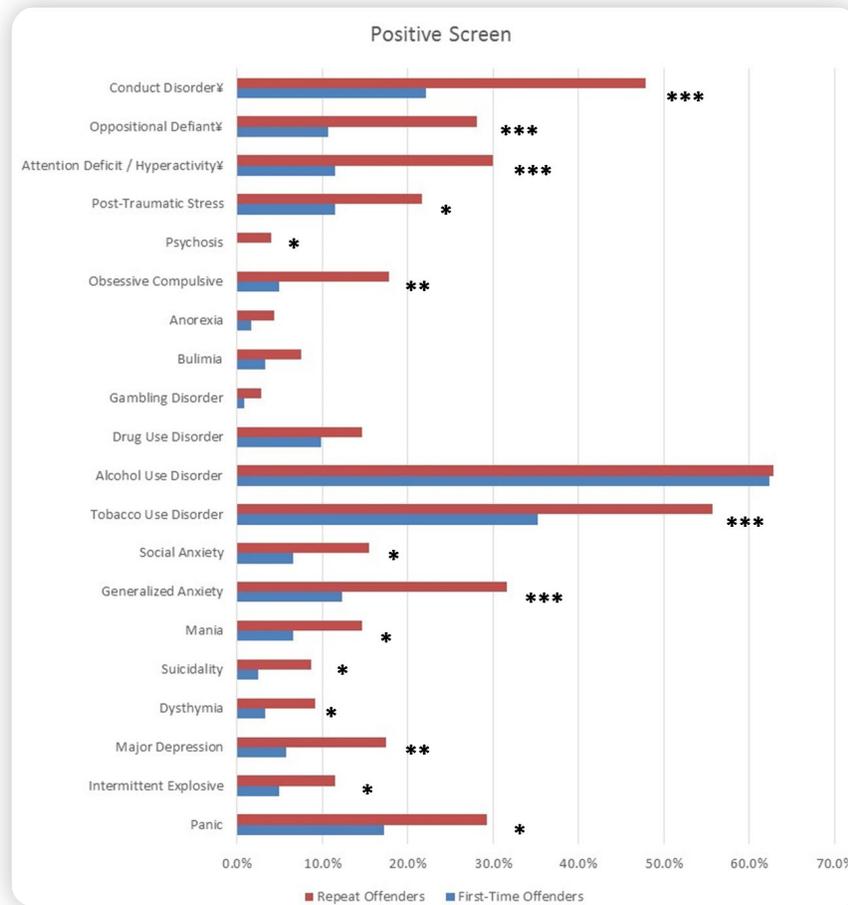
The study addressed several questions that inform the use of CARS: 1) the rates of positive screens for mental health issues in first-time and repeat offender populations; 2) the relationship between positive screens and meeting full diagnostic criteria for a disorder; and 3) differences between self-administered and interviewer-administered versions of the CARS screener.

As Figure 6 shows, both first-time and repeat DUI offenders evidenced considerable psychiatric comorbidity, and repeat DUI offenders evidenced higher rates of positive screens for disorders than did first-time DUI offenders. Repeat DUI offenders were more likely to screen positive in both lifetime and past year timeframes for panic disorder, intermittent explosive disorder, dysthymia, mania, generalized anxiety disorder, tobacco use disorder, obsessive compulsive disorder, psychosis, and post-traumatic stress disorder. Repeat offenders were also more likely to screen positive in the past year for major depression and social anxiety, and more likely to screen positive for childhood symptoms of attention deficit / hyperactivity disorder, oppositional defiant disorder, and conduct disorder. The average number of positive past year screens for comorbid disorders for repeat offenders was 6.2, significantly higher than the average number of 3.6 for first-time offenders.

**THE AVERAGE NUMBER OF POSITIVE PAST YEAR SCREENS FOR COMORBID DISORDERS FOR REPEAT OFFENDERS WAS SIGNIFICANTLY HIGHER THAN THE AVERAGE FOR FIRST OFFENDERS**

Figure 6. CARS randomized control trial screening results

see larger



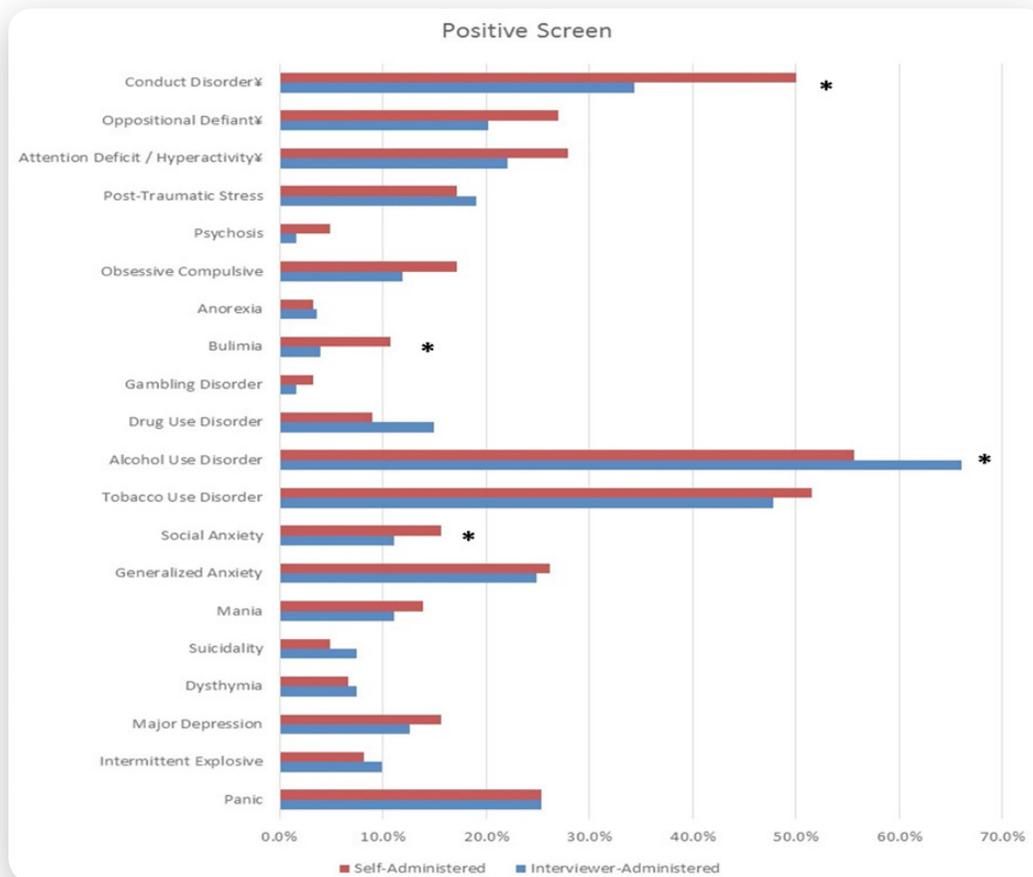
Within the implementation trial, the DUI sites utilized the following diagnostic modules at some point as part of the full CARS assessment condition: alcohol, drug, generalized anxiety, PTSD, depression and dysthymia, and mania. For these modules, the Division was able to determine the percent of positive screens that result in full diagnoses. For alcohol use disorder and drug use disorder, all of the cases that screened positive and used the full CARS assessment went on to qualify for those disorders. For general anxiety, 40% of those who screened positive and used the full CARS assessment qualified for generalized anxiety disorder. For PTSD, 18% of those who screened positive and used the full CARS assessment qualified for PTSD. Finally, for depression 40% of those who screened positive and used the full CARS assessment qualified as having had a major depressive episode, and 50% of those who screened positive for mania and used the full CARS assessment qualified as having had a manic episode. These results suggest that the screener is highly specific for substance use disorder, moderately specific for anxiety and mood disorders, and less specific

for PTSD. Current work is ongoing to validate the CARS screener using an existing national dataset.

When compared to the interviewer-administered screener, the self-administered screener performed similarly, suggesting that it is a comparable and viable administration method for CARS (see Figure 7). The screener screens for lifetime history of 19 disorders, and past year history of 16 disorders, in addition to lifetime and past year history of suicidality. The results from the self-administered and interviewer-administered screeners did not differ from each other for 15 of the 19 lifetime disorders, 15 of the 16 past year disorders, and suicidality. In almost all cases where they differed – lifetime social anxiety, lifetime and past year bulimia, and childhood conduct disorder – the self-administered screener was more sensitive, picking up additional positive screens. The only exception to this was lifetime history of alcohol use disorder, where the interviewer-administered screener registered more cases, possibly because of the DUI program context within which the interviewers were operating.

Figure 7. CARS interviewer-administered vs. self-administered screener results

[see larger](#)



## Benefits of CARS

Overall, CARS offers a number of benefits that make it an ideal instrument for practitioners and sets it apart from other existing assessment instruments including:

- Developed specifically for a DUI offender population;
- Runs on free, open source software which provides agencies with a cost-effective assessment option;
- Generates user-friendly reports at the click of a button;
- Provides immediate diagnostic information for major psychiatric disorders;
- Informs treatment and intervention decisions;
- Provides geographically and individually targeted referrals to appropriate treatment services;
- Offers flexibility in selecting assessment length and content; and,
- Applies in a number of settings (e.g., bond/bail hearings, pre-trial services, pre-sentencing, post-conviction – traditional courts and DUI Courts, probation departments, treatment programs, etc.).

# PILOT PROGRAM METHODOLOGY

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Following the completion of both the usability study and randomized control trials, multiple pilot programs were launched in the summer of 2016 to identify ways to successfully implement CARS at various intercepts in the DUI system, improve the efficiency and user-friendliness of the software, and address any technical challenges in advance of the national launch.

## Site Selection Process

Pilot sites were chosen through a rigorous application review process. Interested parties submitted application forms (see Appendix A) that outlined software, personnel, resource, jurisdictional, and client requirements. Prospective sites had to provide detailed information about their programs and identify the population that CARS would be administered to and at what point in the justice process the assessment would be performed.

In addition to meeting minimum requirements, sites also were required to work closely with the Division and Responsibility.org to assess the usability of CARS at their locations and determine promising practices for implementation.

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**In return, the sites had access to individualized support for the use of CARS at no cost. By applying to be a pilot site, programs agreed to:**

- **Designate a staff member who would oversee the implementation of CARS at the pilot location and serve as a liaison with the Division and Responsibility.org;**
- **Coordinate between site IT staff and the Division to load and troubleshoot the CARS software in advance of pilot launch;**
- **Compile information about local treatment services and interventions in advance of CARS implementation to facilitate the population of the referral database;**
- **Send one staff member to an in-person training in the Boston area. This individual would receive training on the administration of CARS and, upon completion, would be subsequently responsible for training other staff at the pilot site;**
- **Administer CARS for a period of three months or until 150 clients completed the assessment; and,**
- **Provide feedback about the implementation process and the use of CARS with clientele to Responsibility.org and participate in bi-weekly or monthly phone calls with Responsibility.org.**

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Application forms were posted online in February 2016 and were advertised through both Responsibility.org and Cambridge Health Alliance social media channels and the Responsibility.org website. Outreach was also made to practitioners who previously expressed interest in incorporating CARS into their program. The application process closed in mid-March.

A total of 12 applications were received and a vetting process commenced in which both Responsibility.org and the Division reviewed and ranked each application. The applications were weighed based on whether the necessary requirements were met. An effort was made to ensure that chosen sites were diverse geographically, covering both urban and rural jurisdictions; the sites offered variation in testing opportunities (i.e., allowing CARS to be implemented in pre-trial, traditional court, DUI Court, and treatment settings); and the sites were willing to use different versions of CARS. Priority was also given to sites that had previously incorporated innovative practices within their programs. Ultimately, six sites were chosen to serve as CARS pilot sites.

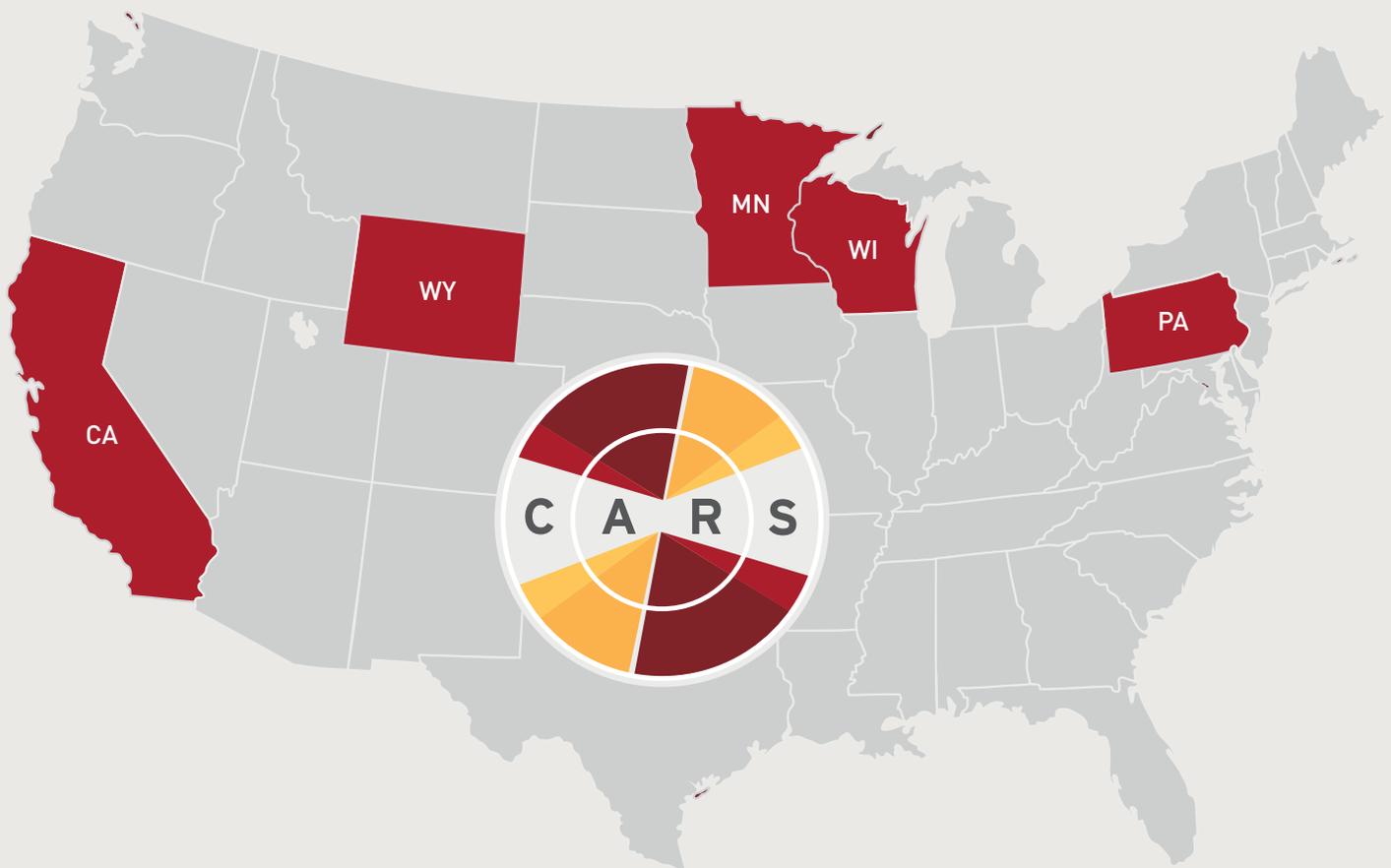
## Pilot Site Profiles

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The following programs were selected by Responsibility.org and the Division as CARS pilot sites.

- IMPACT, Inc. – Milwaukee, Wisconsin
  - Isanti County Probation Department – Cambridge, Minnesota
  - Lackawanna-Susquehanna Office of Drug and Alcohol Programs – Scranton, Pennsylvania
  - Laramie County DUI Court – Laramie, Wyoming
  - San Joaquin DUI Monitoring Court – Stockton, California
  - South St. Louis County DWI Court and Probation Department – Duluth, Minnesota
- 

Figure 8. Location of CARS pilots



## IMPACT, Inc.

IMPACT is the designated provider of Intoxicated Driver Program (IDP) assessments for all Milwaukee County residents who are required to complete an assessment as part of re-licensing requirements following an operating while intoxicated (OWI) conviction. Statute (Wisconsin Administrative Code, Chapter DHS 62) requires all assessors to administer the Wisconsin Assessment of the Impaired Driver (WAID). The outcomes of the assessment determine whether the client should receive education, treatment, or both to prevent recidivism. A driver safety plan is created following the completion of the assessment and the client is responsible for adhering to the requirements outlined in the plan in order to be eligible to obtain driving privileges.

In addition to performing assessments, IMPACT is responsible for connecting nearly 300,000 clients with community services annually. IMPACT IDP staff maintain a preferred list of alcohol and drug abuse treatment and mental health providers to which they make referrals.

In 2015, IMPACT completed over 4,000 assessments for individuals convicted of OWI. Most of the clients seek an assessment post-conviction but occasionally individuals will complete the assessment pre-conviction on the advice of counsel. Of those assessed, the majority were first offenders (69%). With respect to referrals, 51% of the OWI clients were referred to education programs and 49% were referred to treatment. According to IMPACT, 77% of the OWI clients referred to treatment complete their programs which is higher than the state average of 68%.

IMPACT is the only pilot site to rely solely on the self-administered version of CARS. Clients were given the option to voluntarily complete the CARS screener immediately prior to their regularly-scheduled IDP assessment. Upon completion of CARS, the clients then completed the required WAID which is administered by a counselor. The CARS report was not reviewed or discussed with the client until the WAID was completed so as not to influence the assessment findings.

**Table 2. IMPACT, Inc.: Site characteristics**

<b>Jurisdiction</b>	Urban; Milwaukee County has a population of 956,000
<b>Pilot setting</b>	Primarily post-conviction; treatment
<b>Target population</b>	First and repeat OWI offenders
<b>Assessment administrator(s)</b>	Client
<b>Other assessments utilized</b>	Wisconsin Assessment of the Impaired Driver (WAID) – statutorily required
<b>CARS version piloted</b>	Self-administered screener

## Isanti County Probation Department

Isanti County Probation is responsible for overseeing the supervision of DWI offenders with caseloads consisting of both first and repeat offenders. Isanti County is also the birthplace of the staggered sentencing model for DWI offenders. Developed by Judge James Dehn, the model relies on increased court involvement in offender supervision, accountability, and treatment to reduce recidivism and alter behavior (NHTSA, 2005).

In contrast to the traditional approach to punishment, a staggered sentence requires a convicted DWI offender to serve a limited period of incarceration followed by appearances before a judge to assess and track progress. Staggered sentencing divides a standard jail sentence or home electronic alcohol monitoring sanction into three segments. The onus is on the DWI offender to demonstrate compliance with the agreed upon conditions at the end of each segment served. Continued compliance results in an offender being able to serve the remainder of what would normally be a period of incarceration in the community. Violations lead to the imposition of the full period of incarceration.

In 2003, the Minnesota House of Representatives Research Department (Cleary, 2003) conducted a

preliminary evaluation of the staggered sentencing model and found that offenders given staggered sentences experienced almost 50% less recidivism than a comparable group of DWI offenders at the same time. In an evaluation of intensive supervision programs, the National Highway Traffic Safety Administration (NHTSA) found that staggered sentencing participants had a 30.6% lower recidivism rate than comparison communities over a four-year post-offense timeframe (Wiliszowski et al., 2011).

Offenders were identified by probation officers and completed the CARS screener at various points in the criminal justice process including the pre-trial, pre-sentencing, and post-conviction phases. Probation officers reviewed the results of the screening with their clients and used this as an opportunity to discuss mental health and substance use issues.

As the only rural site involved in the pilot project, Isanti presented an opportunity to determine how CARS could be utilized in a jurisdiction that has limited resources (e.g., fewer service providers).

**Table 3. Isanti County Probation Department: Site characteristics**

<b>Jurisdiction</b>	Rural; Isanti County has a population of 38,000
<b>Pilot setting</b>	Pre-trial, pre-sentencing, and post-conviction
<b>Target population</b>	First and repeat DWI offenders
<b>Assessment administrator(s)</b>	Probation officers
<b>Other assessments utilized</b>	Level of Service Inventory-Revised pre-screen (LSI-R); Level of Service/Case Management Inventory (LS/CMI)
<b>CARS version piloted</b>	Interviewer-administered screener

## Lackawanna/Susquehanna Office of Drug and Alcohol Programs

The Lackawanna/Susquehanna Office of Drug and Alcohol Programs (LSODAP) was established in 2010-2011 and provides comprehensive prevention, intervention, and treatment services. Through the management of a network of contracted treatment providers, a continuum of care ranging from outpatient counseling to inpatient rehabilitation and case management is offered to individuals in need of substance use and mental health interventions. The list of behavioral health providers is updated on a regular basis as the network grows and/or services change. Another role of LSODAP is to serve as the lead agency in the planning, implementation, and support of the county's treatment courts.

Each individual charged with impaired driving in Pennsylvania is required to complete an alcohol and

drug evaluation called the Court Reporting Network (CRN) at the pre-trial stage of the criminal justice process. Based on the outcomes of the evaluation, the state may require that an individual complete a more comprehensive assessment. In addition to the CRN, LSODAP case managers agreed to administer all three versions of CARS.

The identification of pilot participants was coordinated through the County DUI Coordinator and Case Management Supervisor at the Lackawanna County Pre-trial Unit utilizing existing referral protocols. Clients participated on a voluntary basis and the case managers decided which version of CARS would be most appropriate for each individual client.

**Table 4. Table 4. Lackawanna/Susquehanna Office of Drug and Alcohol Programs: Site Characteristics**

<b>Jurisdiction</b>	Urban; Lackawanna County has a population of 214,000
<b>Pilot setting</b>	Pre-trial services
<b>Target population</b>	First and repeat DUI offenders
<b>Assessment administrator(s)</b>	DUI Coordinator and program case managers
<b>Other assessments utilized</b>	Court Reporting Network evaluation [CRN] - Mandated by Pennsylvania DUI Association regulations
<b>CARS version piloted</b>	Interviewer-administered screener, self-administered screener, full CARS assessment

## Laramie County DUI Court

The Laramie County DUI Court was established in 2006 to address the threat posed by repeat (hardcore) DUI offenders. In Wyoming and Laramie County, DUI is the most common offense for which individuals are arrested. The average number of prior drunk driving convictions among the court population is four and approximately 35% of the participants are felony DUI offenders.

A recent report (Laramie County, 2016) found that 72.7% of DUI Court graduates from the last three years have not recidivated. This translates to an estimated \$78,000 in incarceration costs saved. Over the last decade, the court has provided services to more than 300 participants.

Unlike many problem-solving courts, the Laramie County DUI Court is unique in that probationers who are terminated from the program are returned to their original sentencing courts for revocation proceedings. As

such, the DUI Court provides services for the Cheyenne Municipal Court, Laramie County Circuit Court, and the Laramie County District Court.

Individuals must apply to be a participant in the DUI Court after pleading guilty but prior to sentencing. In order to be eligible to enter the program offenders must complete an interview and meet specified criteria (e.g., repeat offender, intensive treatment needs, etc.). Once individuals pass the initial application process, they are screened using the Impaired Driving Assessment (IDA) to determine the level of community supervision they require.

All existing DUI Court participants and new applicants to the program were screened with CARS over the duration of the pilot.

**Table 5. Laramie County DUI Court: Site characteristics**

<b>Jurisdiction</b>	Urban with surrounding rural communities; Laramie County has a population of 91,700 spread over 2,700 square miles
<b>Pilot setting</b>	Pre-sentencing/post-conviction; DUI Court
<b>Target population</b>	Repeat DUI offenders
<b>Assessment administrator(s)</b>	DUI Court Director
<b>Other assessments utilized</b>	Addiction Severity Index (ASI) – required for all convicted DUI offenders in Wyoming; Impaired Driving Assessment (IDA)
<b>CARS version piloted</b>	Interviewer-administered screener

## San Joaquin County DUI Monitoring Court

In 2008, San Joaquin County implemented a system change requiring all repeat DUI offenders in the largest judicial district (mainly the City of Stockton) to participate in a DUI Monitoring Court program overseen by Judge Richard Vlavianos.

The San Joaquin DUI Monitoring Court (SJDMC) does not follow all tenets of the traditional drug court model for all participants. Many of the repeat DUI offenders in this program are not dependent on alcohol or drugs and do not need the high level of supervision and treatment that would be appropriate for high-risk/high-need offenders. For this reason, the SJDMC has two tracks. Track 1 is the “compliance or monitoring track” where participants are required to come to court infrequently to report on progress in completing the terms of their probation, including DMV requirements to qualify to get their license returned. Track 2 is the “treatment track” for those participants who demonstrate that they are unable to comply with Track 1 requirements and are assessed as needing drug and alcohol treatment. Track 2 follows the traditional drug/DUI court model more closely.

The SJDMC model has been highly effective in reducing recidivism and expanding the number of offenders that can be served in the county.

### Results of a 2012 NPC Research evaluation (Carey et al.) revealed that:

- Fewer SJDMC participants were re-arrested in the 18 months after their eligible DUI than those on traditional probation;
- Less than half as many court participants were involved in crashes, including those related to DUI/ DUID, compared to those on traditional probation;

- SJDMC participants were much more likely to comply with court, probation, and DMV requirements; and,
- Court participants were significantly more likely to regain their driver’s licenses upon completion of the program.

Upon intake, each individual referred to the DUI Court is screened using the DUI-Risk and Needs Triage (DUI-RANT) and American Society of Addiction Medicine (ASAM) evidence-based tools. The outcomes of these risk/needs assessments determine track assignment. Licensed substance abuse counselors serve as compliance officers/case managers and are responsible for conducting intake interviews, obtaining client background information, and administering assessments. In addition to conducting assessments using the aforementioned instruments, case managers were also tasked with administering CARS during the pilot. Both the interviewer-administered screener and full CARS were utilized during this pilot with the latter being used in instances where case managers determined that individuals had a higher level of treatment needs.

The outcomes of CARS screening/assessments served as guidance for the court team in determining which actions and referrals would be most appropriate for participants with mental health disorders.

Unique to this pilot was the use of CARS among a non-DUI offender population. A number of screenings were conducted with Mental Health Court participants to verify previously identified treatment needs.

**Table 6. San Joaquin County DUI Monitoring Court: Site characteristics**

Jurisdiction	Urban; Stockton has a population of 302,389
Pilot setting	Post-conviction; DUI Court and Mental Health Court
Target population	Tier II DUI Court participants
Assessment administrator(s)	Compliance officers/case managers
Other assessments utilized	DUI-RANT; ASAM evidence-based tools
CARS version piloted	Interviewer-administered screener; full CARS assessment

## South St. Louis County DWI Court and Probation Department

The South St. Louis County (SSLC) DWI Court was established in 2008 and serves a population of high-risk/high-need primarily DWI offenders who are typically convicted of felony offenses. In recent years, Chief Judge Shaun Floerke has implemented additional tracks within his DWI Court to accommodate clients who are assessed as being low-risk/high-need, and for gross misdemeanor clients who are assessed as being high-risk/high-need.

Arrowhead Regional Corrections provides probation services in South St. Louis County. Probation officers are responsible for the supervision of all gross misdemeanor DWI offenders which includes high-BAC (.16+) first offenders, those convicted of DWI child endangerment or test refusal, and second and third offenders (within ten years).

An evaluation conducted by NPC Research (Zil et al., 2014) revealed that SSLC DWI Court participants (regardless of whether they graduated from the program) had 66% fewer re-arrests and 66% fewer new DWI arrests three years after program entry when compared to offenders who went through traditional court processes. Moreover, the SSLC group had 60% fewer felony arrests two years after program entry and the

highest-risk participants in the program (three or more priors) had the greatest reductions in recidivism. Under the leadership of Judge Floerke, the court has also seen a graduation rate of 86%. In addition to reducing recidivism, the court was found to accrue cost-savings. Zil et al. (2014) determined that due to the decrease in the re-offense rate, there was a savings of \$4,814 per DWI Court participant over the two-year study.

The SSLC DWI Court continues to innovate and incorporates evidence-based practices into the program framework. With grant funding from the Minnesota Office of Traffic Safety, a Screening, Brief Intervention, and Referral to Treatment (SBIRT) model was incorporated into the court. Through this process, first-time DWI offenders receive SBIRT within a few weeks of their arrest, ensuring that they begin to address risky drinking behavior early. The court team is currently working on developing in-depth recidivism data for all offenders that have utilized SBIRT.

Both the DWI Court felony offenders and gross misdemeanor offenders on probation caseloads were assessed using the interviewer-administered CARS screener.

**Table 7. South St. Louis County DWI Court and Probation Department: Site characteristics**

<b>Jurisdiction</b>	Urban with surrounding rural communities; Duluth has a population of 86,000 within 87 square miles
<b>Pilot setting</b>	Post-conviction; DWI Court and probation department
<b>Target population</b>	Felony and gross misdemeanor DWI offenders (both first and repeat)
<b>Assessment administrator(s)</b>	Probation officers; probation interns; DWI Court clinical director
<b>Other assessments utilized</b>	DWI Court - ASAM Multidimensional Assessment and Global Appraisal of Individual Needs Short Screener (GAINNS); Probation – Substance Abuse Subtle Screening Inventory (SASSI)
<b>CARS version piloted</b>	Interviewer-administered screener

## Training, Pilot Launch, and Data Collection

On May 16<sup>th</sup>, 2016 at least one representative from each pilot site attended an all-day training at the Division on Addiction office in Medford, Massachusetts. In advance of the training, each site was provided with a training version of CARS to allow the designated attendee an opportunity to familiarize themselves with the tool. The training consisted of three main components including an introduction and clinical training, technical training on how to use the software and troubleshoot problems, and mock assessment interviews with Division staff. Portions of the training were also streamed and recorded to provide additional staff at each of the pilot sites with an opportunity to learn about the instrument.

The next step in the process was to develop site-specific implementation plans. Division staff met with representatives from each site to gain the information necessary to customize CARS to meet each program's needs and expectations. This included identifying which versions of CARS would be used at each site, determining which modules would be turned on in the full assessment (see Table 8 for details), cleaning the referral source data provided by each site and incorporating it into the referral database, and customizing the introductory language that appears whenever a new assessment is started. After these

modifications were made, each site received their own implementation plan (see Appendix B) and were provided with a custom version of CARS for download in June.

The pilots commenced in the last two weeks of June and first two weeks of July. Representatives from Responsibility.org scheduled conference calls with representatives from each of the sites at regular intervals (which varied from two to four weeks depending on availability and scheduling) to discuss challenges, issues, concerns, and to obtain other feedback. To structure these conversations, a standardized practitioner interview guide was used for the duration of the pilots (see Appendix C). The guide contains a series of questions covering a variety of topic areas ranging from technological and implementation issues to practitioner and client experiences with CARS.

At the conclusion of the pilots, the data collected from each site were compiled and analyzed to identify common experiences, themes, and concerns. The general findings were used to formulate recommendations that served as the basis for discussion during a series of 'project wrap' calls scheduled between the pilot sites, Responsibility.org, and the Division in November 2016.

**Table 8. CARS pilot site version and module selections**

Pilot Site	Interviewer-administered screener	Self-administered screener	Full CARS assessment	Modules
IMPACT, Inc.	-	X	-	-
Isanti County Probation Department	X	-	-	PY Anxiety, PY Alcohol, PY Drug, DUI, Personality Disorder
Lackawanna-Susquehanna Office of Drug and Alcohol Programs	X	X	X	PY Anxiety, PY Depression, PY Mania
Laramie County DUI Court	X	-	-	PY Suicide, PY Alcohol, PY Drug, DUI
San Joaquin County DUI Monitoring Court	X	-	X	PY Anxiety, PY PTSD, PY Depression, PY Mania
South St. Louis County DWI Court and Probation Department	X	-	-	PY Anxiety, PY PTSD, ADHD, Personality Disorder

Note. PY=Past Year; PTSD=post-traumatic stress disorder; ADHD=attention deficit/hyperactivity disorder

# FINDINGS: PILOT EXPERIENCES

The CARS pilot studies ran for three months, with most sites completing their minimum commitment by the end of September 2016. Throughout this period, Responsibility.org staff obtained information on the progress of CARS implementation and use at each site as well as general feedback with the intent of using this data to formulate recommendations to facilitate widespread use of the assessment instrument.

CARS was administered a combined 422 times during the pilots. Table 9 provides an overview of the data from each site. Of importance, all three versions of CARS were successfully implemented. As a result, insight into the use of both screeners as well as the full assessment was provided.

**Table 9. Number of screens/assessments completed by pilot sites**

Pilot Site	Interviewer-administered screener	Self-administered screener	Full CARS assessment
IMPACT, Inc.	-	150	-
Isanti County Probation Department	12	-	-
Lackawanna-Susquehanna Office of Drug and Alcohol Programs	50	73	18
Laramie County DUI Court	30	-	-
San Joaquin County DUI Monitoring Court	43	-	9
South St. Louis County DWI Court and Probation Department	37	-	-

## General Cars Experience and Integration

Each of the pilot sites reported that they integrated CARS within their existing program frameworks with relative ease. Many of the sites added CARS to their current processes and protocols as opposed to replacing existing assessment instruments. In this regard, CARS was viewed as a supplemental tool that allowed practitioners to more effectively determine the risk and needs of individual clients. In particular, CARS filled a gap that many of the programs/courts had in assessing mental health needs. While the use of assessment instruments that identify SUDs and risk level was an integral component of every program involved in the pilots (whether their primary focus is facilitating treatment referrals or supervising offenders), the majority had not been able to identify co-morbid

mental health disorders to the degree that they would like amongst their DUI offender population until they used CARS. In several instances, the CARS findings were used to inform decision-making regarding client treatment referrals.

Overall, the pilot experience reportedly was positive and provided the sites with more information about their clientele, particularly their treatment needs. Kurt Zunker, Director of the Laramie County DUI Court, revealed that he felt his court was not appropriately addressing the mental health needs of program participants. He said that not having a background in psychiatry made the prospect of effectively screening or assessing clients for mental health disorders seem daunting. Several practitioners at other pilot sites echoed these sentiments and shared that their

programs were strengthened by adding a mental health assessment. Zunker summarized his experience by stating, "CARS has brought my DUI Court team to the realization that we need to ensure that our program participants are being screened appropriately, referred to receive further diagnoses as necessary, and that those participants receive appropriate services that will ensure their success."

Several sites administered the tool to clients they were familiar with to determine if the assessment outcomes matched what they already knew about those individuals. Staff reported that the results reflected the issues that these clients were known to face and supported the instrument's accuracy. The practice of re-assessing long-term clients also provided practitioners with an opportunity to review these individuals' progress and develop plans to continue to address their ongoing challenges. For example, South St. Louis DWI Court team members conveyed that the conversations that ensued between treatment practitioner and client were beneficial because both parties were able to pinpoint where behavior change had occurred and where more work could still be done to facilitate lasting recovery.

To no one's surprise, CARS indicated that a high percentage of DUI offenders had or screened positive for co-occurring disorders. Judge Vlavianos noted that 37% of his DUI Monitoring Court participants that were screened were in need of mental health referrals.

## **37% OF DUI MONITORING COURT PARTICIPANTS THAT WERE SCREENED WERE IN NEED OF MENTAL HEALTH REFERRALS**

population. The ability to have an evidence-based evaluation and referral is a giant step forward in meeting the previously unidentified needs of our clients. It will undoubtedly result in much better results for our clients."

After implementing CARS within their courtrooms or probation departments, a few of the pilot sites saw the potential for its use in other environments in which they

operate, including pre-trial services, post-conviction supervision, and specialty courts (e.g., mental health courts, veterans treatment courts, drug courts, etc.). In fact, several of the sites engaged with partners to determine the feasibility of extending the use of CARS beyond DUI clientele.

Judge Vlavianos' team began assessing mental health court participants to verify the results of previous assessments and to ensure that these individuals were being appropriately matched with community services. Talks also began to determine the viability of screening individuals incarcerated in the county jail as part of the intake process.

At the close of the pilot project, several sites expressed a desire to continue to use CARS; at least two sites still regularly administer the instrument to their clients. In addition to the benefits that the tool offers in terms of diagnosing and referring clients, some of the programs involved in the pilots also believe that CARS will facilitate the collection and analysis of data collected that can assist them in better understanding their respective DUI offender populations.

### **Training Feedback**

Practitioners from each site reported that they were satisfied with the training and level of support that they received prior to the launch of the pilots. Feedback on the in-person training in Medford was positive as practitioners appreciated the opportunity to attend a meeting outside of their respective offices. They reported that the dedicated time for training minimized the potential for distraction and afforded them the opportunity to ask questions. While an in-person or 'live' training was identified as an ideal scenario, the attendees recognized that this is not a feasible model for educating the masses on CARS implementation. When asked whether they thought the training they attended at Division headquarters could be effectively translated into an online format, there was unanimous agreement that this could be achieved. However, a few practitioners expressed concerns that web-based trainings or self-guided learning may be difficult to complete uninterrupted in a hectic court or treatment environment.

The in-person training was delivered with the goal of attendees obtaining enough knowledge to be able to train their colleagues to effectively administer CARS. All practitioners agreed that this was accomplished. Several of the site contacts stated that they held trainings with their own staff and that the information they acquired from the Division allowed them to educate others in an efficient manner. For example, the South St. Louis County DWI Court team not only trained their staff but were able to enlist and train their probation department and its interns to administer the assessment during the pilot.

The CARS training manual was identified as an important resource that many of the practitioners referred to when questions or issues arose. Many reported that the manual contained an appropriate level of detail and was invaluable in training colleagues who did not have the opportunity to participate in the Medford training or watch the livestream of the meeting. When asked if an individual could learn to administer CARS relying solely on the manual, the majority of practitioners responded in the affirmative.

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**Even though the training and materials provided did meet practitioner needs and expectations, they identified several areas where more information could be provided to facilitate the installation, implementation, and use of CARS including:**

- **How to download and install CARS if the agency is operating from a server (this is a particularly important consideration for practitioners that work at agencies with internal or external IT departments);**
- **How to construct a robust treatment referral database;**
- **Whether to select past-year or lifetime versions of modules (and the subsequent workload implications of this choice);**
- **How client risk level is generated (i.e., how the algorithm designates individuals as low, medium, or high-risk);**

- **How to access previously saved or completed reports; and,**
- **How to address privacy/confidentiality concerns (e.g., Health Insurance Portability and Accountability Act (HIPPA) compliance).**

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The provision of static resources that can be accessed on an as-needed basis was identified as an integral component to any online training initiative. Many of the practitioners stated that the CARS training manual, installation instructions, referral database template, and training videos should all be added to the CARS web portal and updated on a consistent basis. As existing training resources are modified and new documents are created, the above suggestions should be taken into consideration.

The one component of the live training that many of the practitioners thought was valuable but not easily replicated online was the mock interview. The Division asked the practitioners in attendance to administer CARS to Dr. Shaffer and were subsequently able to offer real-time feedback. This exercise was singled out not only as an engaging learning opportunity or practicum but also a necessity. In other words, all practitioners should practice conducting a CARS interview to familiarize themselves with the questions before working with clientele. Several pilot site participants noted that the more they practiced administering CARS, the more efficient they became during their interviews (which had the added benefit of reducing the amount of time it took to complete the screens and/or assessments).

Given the inherent challenges in replicating hands-on training, practitioners suggested that the Division consider developing mock CARS interviews that can be posted on the web portal. While experienced practitioners who have a background in motivational interviewing techniques may not need to view these videos, they are likely to be beneficial for practitioners who lack experience working with clients or are new to administering assessments.

## Functionality and Software

The workload involved in the initial set-up at each of the pilot sites varied. Some locations were able to seamlessly download the tool on individual practitioner computers and follow simple instructions to operate CARS. Other sites required more support due to server/network issues or IT permissions that had to be acquired before CARS could be downloaded and run. For this reason, it is recommended that any agency or program that is interested in using CARS identify all potential IT challenges and determine whether they want to install standalone versions of CARS or run the software from a network in advance of download. By making

### PROGRAM STAFF REPORTED THAT CLIENTS HAD FEW CHALLENGES IN USING THE SCREENER.

these decisions upfront, it will mitigate the time spent required to load and operate the system.

With respect to the use of the instrument itself, all practitioners involved

in the pilot reported that CARS is extremely user-friendly and that they had no difficulty administering the assessment to clients. There was agreement that the self-guided nature of the assessment made the process easier and that the ability to instantly generate reports as opposed to scoring the assessment by hand was especially efficient.

Practitioners reported that the length of required time to administer the screener was reasonable for each of the sites as it typically took fewer than 20 minutes to complete. Those who completed the full assessment (Lackawanna-Susquehanna Office of Drug and Alcohol Programs and San Joaquin County DUI Monitoring Court) were often able to complete it in a shorter timeframe than they originally thought possible. The skip logic utilized in full CARS was highlighted as an important component in maximizing efficiency as these sites have to balance the desire to obtain detailed diagnostic information about clients with staff time constraints.

At the locations where the self-administered version of CARS was implemented, program staff reported that clients had few challenges in using the screener. Most clients were able to follow the instructions without any additional guidance from staff making the process efficient and allowing for multiple clients to complete the screener at once if necessary.

Throughout the course of the pilot, there were a handful of software/functionality issues that arose. By and large, the Division was able to solve these problems and provide support to the site within 24 hours. In most instances, a new version of CARS was provided to the site and the pilot progressed with minimal delay.

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#### The following issues were highlighted during the pilots:

- **At one site, a previously downloaded version of CARS was unintentionally removed from a practitioner's laptop. The cause of this removal could not be isolated. A new download and installation instructions provided by the Division allowed the pilot to continue without interruption.**
- **Several sites identified an issue with the reports generated by the CARS screener. In a handful of cases, the wrong gender pronoun (i.e., referring to the client as 'she' when the respondent was identified as a male) appeared in the risk section of the report. The Division was able to locate and fix the code error and walk each site through an update process.**
- **Many practitioners stated that functionality of the instrument would be increased if they had the capability to go back to previous questions to either make modifications to responses or to add notes. Clients sometimes made comments about previous questions or sections when they had already been completed. These statements**

would have resulted in changes being made to the original response. In its current format, practitioners do not have the ability to return to questions in CARS once they have moved on to another section. The addition of this feature was highlighted by several practitioners as an important consideration moving forward.

- **The last functionality issue identified by practitioners relates to language. In some of the counties where pilot sites were located there are large minority populations, particularly Hispanic. For sites that relied on the self-administered version of the screener, the lack of a Spanish version was particularly problematic as staff were not always available to assist Spanish-speaking individuals, making it impossible for them to complete the screening.**

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## Referral Database

Prior to the commencement of the CARS pilots, each site provided the Division with a list of treatment services within their community. Most of the sites maintain lists of preferred treatment providers and augmented that list for the purpose of the pilot. Many have long-standing or established working relationships with the treatment entities that they included in their site lists. Thus, while there was variance in terms of the frequency with which these lists are updated and/or audited, by and large, most of the involved agencies were confident that their treatment lists contained reliable providers.

Feedback on the referral database was generally positive. Almost every pilot site noted that the referral database is an extremely useful resource for practitioners and clients alike. Unlike traditional assessment instruments that merely identify areas of concern, the information provided by CARS combined with the referrals to appropriate interventions was viewed as an important feature that distinguishes this instrument from other assessment tools that practitioners currently use. The matching of clients

to services not only provides clients with guidance, it also reduces practitioner workload by making targeted referrals based on objective criteria.

Practitioners at more than half of the pilot sites stated that they reviewed the treatment referrals with clients and encouraged them to follow-up with one of the providers identified in their individualized CARS report. Clients who kept a copy of their report were instructed to review their treatment options and select the provider that they preferred. This provision of options was viewed as an asset as clients were empowered to make decisions but simultaneously retained some control over which services they sought out.

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**While the response to the referral database was overwhelmingly positive, a few issues arose. The majority of concerns related to how best to populate and maintain the database and whether it would be beneficial to have more explicit instructions at the outset to guide this effort. Valuable feedback provided by site practitioners included:**

- **The referrals in several instances were not targeted enough as the same providers were continually identified for both substance use and mental health treatment services. If sites could refine their database entries to indicate whether a particular provider specialized or had expertise in specific areas/disorders, this would assist in providing more targeted referrals.**
- **Some sites preferred to separate their database between substance use disorder and mental health disorder treatment providers. For example, LSODAP requested that this modification be made as they maintain distinct lists of providers in each of these areas. The Division was able to accommodate this request and restructure the LSODAP database and reports.**
- **Inquiries were made by some practitioners as to whether the radius for inclusion of services could be widened or reduced. Locations like San Joaquin County have a blend of both urban and rural populations and therefore, have to**

**be cognizant of where services are located. Individuals near Stockton have a multitude of treatment options, but clients from neighboring counties and jurisdictions may have to travel much longer distances to access services. There should be increased flexibility for courts or programs in rural jurisdictions.**

- **Practitioners were in agreement that increased functionality within the database is needed to allow them to add providers or modify existing entries. While most believed that an annual or quarterly audit of the services in their community is a goal that agencies should strive for, the reality is that practitioners often learn about new providers or gain feedback/information about existing services from colleagues and clients (e.g., provider is no longer in business or taking new clients; services do not meet state regulations/requirements) and would benefit from having the ability to enter the database and make edits or additions as they see fit.**
- **In a similar vein, practitioners noted that they need to be cognizant of changes to Medicare/Medicaid and health insurance as this could affect the services that are available to individual clients. For this reason, they believe it is important that those administering CARS also have the ability to remove or add providers from the database.**

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Ultimately, there was agreement that the generation and maintenance of a robust and up-to-date treatment database could be onerous, particularly at the outset of the process. However, with the provision of proper guidance, explicit instructions, and clear templates, some of the workload may be alleviated. Despite identified limitations and challenges, practitioners generally agreed that the benefits of the referral database outweighed all concerns. In generating the referral list, SJDMC Compliance Manager Nathan Summers remarked that his team “became aware of several agencies in the process of developing the

referral sources that were not known to staff. This was welcome news, as our court now has new partners to address the needs of our most underserved clients.” Nathan went on to say that CARS afforded him the opportunity to access services for treatment needs that were previously unidentified or overlooked. The use of the assessment and referrals will not only improve the outcomes in Judge Vlavianos’ court but “almost certainly ensures that quality of life will improve for this underserved population.”

### **Client Experience**

In addition to providing feedback about their experience with CARS, practitioners were also asked to comment on how their clients responded to the assessment. Generally, there was little to no resistance to CARS on the part of clients. At several sites, completion of CARS was strictly on a voluntary basis and practitioners found that most clients were willing to complete either the screen or assessment with minimal persuasion. One practitioner noted that he had clients who were eager to participate as a pilot subject because they viewed the instrument as having the potential to help others in the future.

## **PRACTITIONERS REPORTED THAT ALLOWING THE CLIENTS TO REVIEW THE REPORT FINDINGS THEMSELVES WAS HELPFUL**

Practitioners reported that many clients seemed to benefit from talking about their issues during the assessment and were fairly open when answering questions. A common finding amongst the pilot sites was that many clients who either screened positive or were diagnosed with a disorder had not previously considered that they may have a mental health issue. While not always well received, this information did give some clients pause and seemed to provide them with insight into their problems and behavior. In commenting

on the use of CARS within his probation department, Judge James Dehn summed up this lack of awareness on the part of justice-involved individuals. He stated that as a judge who has handled DUI cases for nearly 30 years he had “seen firsthand the role that mental health problems play in driving up rates of recidivism.” With the availability of CARS, he believes that his team now has the ability to “assist offenders in identifying and understanding their substance use and mental health issues which they may not have realized were present.”

Practitioners reported that allowing the clients to review the report findings themselves was helpful because the language used was accessible to individuals of varying levels of education and the reports provided clear explanations of the findings. Clients largely understood assessment outcomes, which reduced overall frustration levels.

The administration of CARS also facilitated dialogue between practitioners and clients. The review of the report with clients provided another opportunity to discuss not only their symptoms and behavior, but also constructive ways to address their problems. Some practitioners stated that this helped them develop a better rapport with new clients and, at a minimum, gave them options to consider. Determining whether clients accessed the treatment referrals provided by CARS was outside the scope of this evaluation, but practitioners indicated that a few of their clients expressed a desire to follow-up with the interventions identified in their reports.

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**While the overall experience of clients appears to have been positive, several concerns were identified at a number of pilot sites:**

- **There was a perception among some practitioners that clients may be more honest when completing the self-administered version of the screener than the interviewer-administered screener. This seems especially true within the context of**

**community corrections. A few probation officers stated that they felt as though their clients may not be as forthcoming when responding to questions directly if they feared sanctions for violating conditions.**

- **Concern was expressed by pilot site participants (both practitioners and clients) about clients being screened into disorders under the lifetime criteria based on symptoms or experiences in childhood. Others were skeptical about the ability of clients to remember incidents that far back in life. Given that most sites relied upon past year criteria, this was not a major concern but rather a consideration that they felt warranted attention.**
  - **A few of the practitioners were surprised that some offenders that they would traditionally view as lower risk were classified as high-risk and this caused them to question the instrument’s sensitivity. Some clients also expressed concerns about the tool’s classification of risk for recidivism. There were multiple instances where clients were upset not by the identification of mental health disorders but rather their designation as being at high-risk to recidivate. This frustration was particularly prevalent among first offenders who were identified as high-risk.**
  - **Finally, some clients expressed concerns regarding privacy. Some practitioners noted that their clients were worried about who would have access to their CARS reports and whether action would be taken based upon the instrument’s findings. However, clients who were provided with copies of their reports to take with them seemed to be pleased with the apparent transparency of the process (i.e., that the findings were presented to them and they could review and keep the report).**
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# RECOMMENDATIONS

Upon review of the extensive feedback and insights provided by pilot site practitioners, Responsibility.org formulated the following recommendations to address key areas of concern. These recommendations are meant to strengthen CARS by improving its functionality and real-world application and addressing perceived shortcomings. Recommendations are prioritized according to topic and urgency of need (i.e., modifications that ideally would be made in advance of national launch versus those that can be made in the future).

## Cars Functionality and Software Modifications

### 1. Increase the specificity of the CARS screener.

The most consistent concern expressed by practitioners during the pilots was that the specificity of the CARS screener was too low (i.e., too many clients screened positive for mental health disorders). While practitioners were quick to acknowledge that a high percentage of their clientele did have co-occurring disorders, they described a need to ensure that there was greater balance between the sensitivity and specificity of the screener. In other words, they want to cast a narrower net and ensure that there are fewer false positives.

In response to this concern, the Division modified the screener by adding two “interference grids” (see Table 10) that contain questions asking clients to indicate to what degree the symptoms they reported experiencing compromised their ability to function (ranging from “not at all” to “an extreme amount”). For an individual to screen positive for a disorder, they must respond that their daily functioning has been affected some, a lot, or an extreme amount on account of their symptoms. Both past-year and lifetime versions of the grid have been added to the interviewer and self-administered CARS screeners.

Table 10. CARS screener interference grid mock-up

[see larger](#)

You reported symptoms in your lifetime related to the following problems, listed below. Please indicate how much each of these problems interfered with your work, your social life, or your personal relationships <i>in your lifetime</i> – an extreme amount, a lot, some, a little, or not at all?	An extreme amount	A lot	Some	A little	Not at all	N/A
SC37a. How much did your attacks of fear, panic, or discomfort ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37b. How much did your attacks of anger ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37c. How much did your episodes of feeling depressed or discouraged ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37d. How much did your episodes of feeling much more excited or full of energy than usual or feeling very irritable ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37e. How much did being a “worrier” or much more nervous or anxious than other people ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37f. How much did feeling very afraid or shy with people or in front of a group of people ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37g. How much did your smoking ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37h. How much did your drinking ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37i. How much did your drug use ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37j. How much did your gambling ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
SC37k. How much did your concern about your weight or your eating binges ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					

## **2. Improve targeted referrals.**

The agencies/programs involved in the CARS pilots relied on existing lists of treatment providers and services to populate their individual referral databases. The relatively short window provided to customize CARS for each site in advance of pilot launch limited opportunities to segment providers by specialty. In an effort to address the concern that the same referrals are generated for most clients, modifications to database functionality are being made to assist agencies in populating and maintaining their referral databases.

Agencies will now have the ability to include multiple fields of information about each treatment provider or service that is added to the database. For example, agencies will be able to document whether providers offer specialized services for certain disorders (i.e., they may offer mental health treatment but have expertise in treating PTSD) and if they offer varying levels of treatment (e.g., detoxification, inpatient residential treatment, outpatient counseling, etc.). A greater amount of detail and precision in the database will result in more accurate and targeted referrals that are matched to the individual needs of clients. While not required, these added fields will prove useful to agencies that conduct thorough audits of the treatment services within their jurisdiction.

Many of the pilot sites also expressed a need to be able to routinely update the database as new providers are discovered or existing providers expand the services they offer or no longer take clients. To address this concern, the Division is adding a feature to the CARS software to allow sites to directly input or modify information contained within their individual databases (as opposed to having to incorporate a new version of the database every time changes are made). It will be the responsibility of each agency to keep their referral databases current.

## **3. Develop a version of full CARS that contains only past-year modules.**

Each of the sites that participated in the pilot project chose to use past-year as opposed to lifetime versions of the full CARS modules. Given this apparent preference, the Division is considering the development of a past-year version of the full CARS assessment (i.e., this version would contain modules that focus on past-year diagnoses only). The rationale for creating this modified version of CARS is that it would increase efficiency for agencies that are not interested in examining or spending resources on people with lifetime disorders rather than acute conditions.

One of the primary challenges in administering full CARS is the length of time required to complete assessment. While practitioners have repeatedly indicated that they would benefit from obtaining the additional diagnostic information from the full assessment, they must balance this with the added workload and staff time constraints. By limiting questions to a past-year timeframe, the amount of time required to complete the full assessment would be reduced and could provide practitioners with more opportunities to utilize full CARS in addition to the screeners.

## **4. Create separate screener and full assessment executable files for download.**

For the reasons mentioned above, resource and staffing limitations result in most practitioners only having time to administer the CARS screener. In recognition that most agencies will likely rely solely on the screener, the Division intends to create two separate executables for download. The availability of the standalone screener executable will reduce the work required of each agency at initial set-up (i.e., practitioners can avoid having to go through the process of customizing full CARS modules). With the screener download, agencies will still have the ability to choose between the interviewer or self-administered version of the CARS screener. The full CARS download will afford practitioners the option of using all three versions of CARS.

## Cars Training

### 1. **Create explicit and detailed instructions and protocols for installing and updating CARS.**

In order to ensure that the initial set-up and subsequent updating of CARS is as easy and efficient as possible, it is recommended that detailed step-by-step instructions be made available to assist agencies and providers through the download, installation, and update process. While significant information is available in the CARS training manual, the Division is encouraged to periodically review materials, provide more details, and make additions as necessary. One suggestion is to include a 'Frequently Asked Questions' document to the web portal that is continually updated based on issues identified by practitioners and agencies.

### 2. **Develop different levels of training for practitioners depending on prior experience.**

Current training is designed to allow anyone, including a person with no clinical experience, to use the assessment. Practitioners with extensive experience working with offender and/or treatment populations, particularly those trained in motivational interviewing, may find it too simplistic. For these individuals a comprehensive practicum may not be necessary. For this reason, several pilot site practitioners recommended developing a streamlined standard training program to be completed by everyone that provides an overview of how to set-up the instrument and addresses other technical/software issues. For individuals who lack experience or do not have a high degree of comfort in administering assessments, a second track of training could be created that provides them with tips for conducting CARS interviews and examples of how to overcome client resistance or other challenges.

The development of a tiered training approach will meet the needs of different practitioners. Those who lack experience will have access to a greater level of detail and support whereas those who are confident in their skills can bypass aspects of training that may be viewed as overly time-consuming or unnecessary.

### 3. **Develop an interactive online training.**

The development of user-friendly and practical training materials was a top priority in advance of CARS distribution. The current training materials are effective. However, it may be advantageous to supplement them with the creation of a companion interactive training that includes activities and exercises that engage practitioners. This training should follow principles of adult learning, include interactive components, and be made available on the CARS web portal. Given that this approach would be more intensive than a standard overview, it could be developed as a second or subsequent tier in a multi-level training.

## Future CARS developments

### 1. **Develop a Spanish version of CARS.**

Second to English, Spanish is the most spoken language in the United States. Several of the pilot sites indicated that staff had to translate CARS questions for some of their clients which greatly slowed the administration of the assessment. While many agencies have individuals on staff who speak Spanish, the consistent reliance on them to serve as translators is not efficient. Further, there are often multiple ways to translate words and the variation in translations may undermine consistent application of the instrument. For sites that utilize the self-administered screener, a lack of Spanish translation made it impossible for a handful of clients to complete the assessment. It is, therefore, a priority to translate all versions of CARS into Spanish.

**2. Develop a non-DUI specific version of CARS.** Several pilot sites (most notably San Joaquin County) expressed a desire to use CARS with non-DUI offenders. As revealed in Section 2 of this report, there is a high rate of co-occurring disorders among all justice-involved individuals. Given that CARS is primarily a treatment needs assessment, it has broad applicability within the criminal justice system as a whole. In its current version, there is the capability to turn-off the DUI module within full CARS but the agency must remember to do so at the time of set-up. The Division will explore the feasibility of developing a new version of CARS that does not contain the DUI offending module for agencies that wish to use the instrument among other types of offenders (e.g., domestic violence offenders, drug offenders, etc.).

There is also interest in piloting CARS among non-justice-involved populations, particularly within the public health sphere (e.g., emergency departments, urgent care settings). A non-DUI specific version of the instrument would be necessary in these settings.

**3. Update CARS to reflect DSM-V changes.** CARS is adapted from the CIDJ which relies on DSM-IV classifications and diagnostic criteria. While there has been discussion about updating the CIDJ to reflect modifications in the DSM-V, no timeline to complete this work has been established. Future CARS updates likely will occur if/when the CIDJ is revised.

**4. Consider developing a web-based platform instead of using software.** CARS is currently available in software form only. To avoid IT challenges such as having to complete system-wide updates and installs whenever a new version of CARS becomes available, it has been suggested that a web-based platform be developed. The benefit of having a web-platform is increased efficiency as practitioners could simply login and have access to the most current version of the instrument. This removes potential challenges, complications, and delays that are inherent with having to coordinate with IT departments. The Division is currently exploring the viability of creating this type of platform in the future.

**5. Create a CARS mobile application.** A number of sites, particularly those who used the self-administered version of the screener, expressed interest in using tablets to administer CARS. The compact and lightweight nature of a tablet may make it easier to complete the screener as agencies could hand clients a tablet as opposed to having to designate space for a kiosk and/or provide access to a desktop or laptop computer. In order to run CARS from a tablet, it must be converted from software into a mobile app. This is a costly process and one that would likely occur after a web-based platform is created.

# NEXT STEPS AND CONCLUSION

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Despite significant reductions in alcohol-impaired driving crashes, work remains. Hardcore drunk drivers continue to recidivate at an unacceptable rate. While every state has implemented programs designed to reduce drunk driving by evaluating offenders and addressing their needs, most do not assess offenders for co-morbid substance use and mental health disorders. This gap likely contributes to the high rate of recidivism among this population. As Judge Shaun Floerke noted, “the challenges in coordinating, paying for, scheduling, and obtaining a mental health assessment for DUI offenders are too many to list. The availability of CARS has solved this problem. This comprehensive assessment will assist practitioners in knowing how to proceed with and for a client, which will lead to better outcomes. That is invaluable.” To facilitate the use of this instrument, next steps focus on making CARS accessible to all agencies and practitioners.

Following the completion of the pilots and the formulation of the recommendations outlined in the previous section, the Division has worked diligently to make modifications to CARS in advance of distribution. Comprehensive testing of the software has been ongoing to identify any potential errors or bugs and a full code review was completed to determine areas for potential improvement. Updates to the software will continue to be made and new versions of CARS will be finalized prior to the national launch.

To facilitate the rollout of CARS and to ensure that all interested parties have easy access to the software, the Division has created an online web portal that will go live later this year. The public side of the website includes information about the history of and latest developments

in the CARS project as well as research publications and study findings. Individuals who wish to download the CARS executables must register to gain access to the assessment portal. The registration process will require individuals or agencies to provide background information about their intentions regarding the use of the assessment. The completion of a user agreement will also be required before access to the software is granted. Upon approval, users will be provided a password to access the portal where they can download CARS and review training materials. The registration process is integral to the management of CARS distribution and future development of the instrument as it not only provides insight into how the instrument is being used but also provides a mechanism through which communication can occur. For instance, updates will periodically be made to the CARS software and when they become available, an alert can be sent to all registered CARS users.

The training materials that were developed in advance of the pilots have since been finalized and will be available for download on the CARS website. Other documents, materials, and training videos that will assist practitioners and/or agencies in implementing the assessment will continue to be developed, refined, and added to the web portal. In the future, interactive training modules and practicums may become features of CARS training.

Another priority for 2017 is to pilot CARS in non-criminal justice settings. To this end, Responsibility.org has partnered with the Emergency Medicine Foundation to identify emergency departments (EDs) able to implement the CARS screener effectively in a hospital environment. EDs are a place of frequent contact for individuals who suffer from substance use, mental health, and co-occurring disorders. According to a study conducted by Owens et al. (2010), substance use and/or mental health disorders are related to one in every

**“CARS WILL ASSIST PRACTITIONERS IN KNOWING HOW TO PROCEED WITH AND FOR A CLIENT, WHICH WILL LEAD TO BETTER OUTCOMES. THAT IS INVALUABLE”**

eight ED visits in the United States. This translates into nearly 12 million visits to hospital emergency departments annually. The use of CARS in the ED setting will facilitate identification of psychiatric comorbidity among individuals who may not be justice-involved but are in need of intervention. The goal of the ED pilot will be to 1) identify patients who may have substance use and mental health disorders, and 2) match them with appropriate community services that can be accessed post-discharge. At the time of this writing, proposals from several EDs are being reviewed.

The CARS project will culminate in the national launch of the instrument in the spring/summer of 2017. The Division will continue to pursue grants to conduct additional research on the etiology of impaired driving behavior and the relationship between psychiatric comorbidity and DUI offending. Responsibility.org will promote the use of CARS within the traffic safety, criminal justice, and public health fields and make agencies aware of the availability of this revolutionary instrument and how it can fill gaps in current assessment processes.

For more information and updates, please refer to the [Responsibility.org](http://Responsibility.org) and [Division on Addiction](http://Division on Addiction) websites:



**[responsibility.org/stop-impaired-driving/initiatives/cars-dui-assessment-project/](http://responsibility.org/stop-impaired-driving/initiatives/cars-dui-assessment-project/)**



**[divisiononaddiction.org/computerized-assessment-referral-system/](http://divisiononaddiction.org/computerized-assessment-referral-system/)**

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# APPENDIX A: CARS PILOT APPLICATION AND MINIMUM REQUIREMENTS

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## CARS PILOT SITE APPLICATION

Please use the following outline to guide the preparation of your application to become a CARS Pilot Site. When completed, please return this narrative to Erin Holmes at [erin.holmes@responsibility.org](mailto:erin.holmes@responsibility.org) by Friday, March 18, 2016.

1. Identify the IT capabilities of the pilot site (i.e., describe the host computers, operating system, memory, networking, Internet access, and other pertinent information).
2. Identify the sign-offs required to administer the CARS tool among clients (e.g., ER department chair, IRB, Chief Justice, etc.).
3. Identify any state restrictions for using assessment instruments in your jurisdiction.
  - a. Is there flexibility to select an assessment tool (at least for the pilot period)?
  - b. If restrictions exist, does CARS meet state requirements for clients required to complete an assessment?
  - c. Is another assessment tool required for use during the pilot period?
    - i. If yes, would it be possible for Cambridge Health Alliance to access comparative data at a later date?
4. Describe how you will identify mental health and addiction treatment resources with which to populate the referral and continuing care database needed for the CARS tool prior to the commencement of the pilot.
  - a. Does a list of available services/treatment interventions already exist? If so, when was the last time it was updated/audited?
5. Identify which population the CARS tool will be used with at the pilot site:
  - a. DUI offenders (specify first offenders, repeat offenders, or both)
  - b. Substance use program clients
  - c. ER/hospital patients
  - d. Treatment facility clients
  - e. Other (specify)
6. How many clients do you anticipate utilizing the CARS tool within a 3-month period?
  - a. N= or → than XX each week.
  - b. What percentage of your total clients is that?
    - i. If only a percentage of clients will be participating in the pilot, please indicate how they will be identified and selected.
  - c. How long would it take your site to use the tool with a minimum of 150 clients?
7. How much time do you have available, per client, to administer the CARS tool?

- 8.** Identify which version(s) of the CARS tool you anticipate using during the pilot. Explain why you made this selection.
- a. Full assessment
  - b. Screener
  - c. Self-administered screener
  - d. Combination
- 9.** If used within a court setting, in what stage of the judicial process will the CARS tool be administered?
- e. Pre-trial
  - f. Pre-sentencing
  - g. Post-conviction
  - h. Multiple points
- 10.** Please describe how/when/where the CARS tool will be administered to clients (e.g., intake interview, etc.).
- 11.** Who will be responsible for administering the CARS tool at your pilot site?
- i. Identify the position of the individual(s).
  - j. Identify how many staff will be responsible for using CARS.
  - k. List the experience/qualifications/training of these individuals as it relates to administering assessments and conducting interviews with clients (e.g., motivational interviewing).
- 12.** How would you classify your jurisdiction?
- l. Urban (over 50,000)
  - m. Rural (under 50,000)
- 13.** Please provide any additional background information about your program (e.g., structure and operations) that would be relevant to piloting CARS.

### **CARS Pilot Site Minimum Requirements**

(place a check in each box to indicate your site's ability to fulfill these requirements)

**1.** Software requirements

- PCs running Windows XP or higher
- Internet access
- 4 GB RAM
- 1GHZ – 2GHZ Pentium processor
- Screen size: 13 inches or greater with at least 1040x768 resolution

## 2. Personnel requirements

- Dedicated point of contact (CARS Administrator) who will be responsible for overseeing
- the implementation of the CARS pilot, which includes:
- Acquiring and installing the CARS tool
- Developing local mental health and substance use service provider list for
- Including in the CARS referral database
- Training all other staff in the use of CARS at the pilot site
- Ongoing use of the tool
- Serving as liaison for both the Division on Addiction and the Foundation for
- Advancing Alcohol Responsibility for the duration of the pilot
- Attending a one-day off-site training session – in the Boston area – that will
- focus on using CARS
- IT professional available on-site or accessible for ongoing support throughout the pilot
- program to provide support to staff utilizing CARS

## 3. Time and resource requirements

- Able to send a dedicated staff person (i.e., the CARS administrator
- for the site) to attend a one-day off-site training session in the Boston area
- Able to populate the referral/aftercare database needed for CARS with local mental
- health and substance use service providers prior to the commencement of the pilot
- Able to devote up to an hour per client for CARS assessment
- Commitment to use the CARS tool until (1) at least 150 clients have been assessed and/or
- (2) at least three months of client evaluations have passed
- Commitment to provide feedback about the implementation and use of CARS via bi-
- weekly/monthly interviews and/or online surveys with Responsibility.org staff

## 4. Jurisdiction requirements

- Able to incorporate CARS into program as standard practice during pilot period
- CARS meets state or jurisdiction requirements for assessment (if applicable)

## 5. Client requirements

- Able to use CARS with all or a representative sample of clients during pilot
- Able to obtain consent/confidentiality agreement from clients who are assessed that
- includes a release of data for research purposes (Sample attached from Cambridge Health Alliance or may create or use an existing one that meets your organization's requirements)

# APPENDIX B: SAMPLE CARS IMPLEMENTATION PLAN

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**Contact:** Nate Summers

**Screener Time required:** 30-50 minutes

**Installation:** Standalone

**Full CARS Time required:** 58-91 minutes (PY)

**Screener:** Interviewer-administered

**Start Date:** June 20<sup>th</sup>, 2016

**Full CARS:** PY Anxiety, PY PTSD, PY Depression, PY Mania

## Installation Instructions:

1. Download the CARS executable, CARS\_windows\_20160616\_[hourcreated]\_[Pilot].exe, from the following site - <https://drive.google.com/open?id=0B66618yuBrk7ZE1UZnV5empKUTA> - onto each computer on which you intend to administer CARS.
2. Once the file downloads, double-click on the executable file to begin the installation.
  - a. If you are newly installing CARS on a machine, you will see a dialog box that asks you to click "Next" to start the installation.
  - b. If you are updating an existing CARS version (e.g., from the training version to the implementation version), you will be offered the choice to update the existing installation or install in a different directory. Use the default setting "Yes, update the existing installation". When you do this, any sessions you ran prior to the update will be removed. If you need to save these sessions for any reason, contact us before updating!
3. Select the folder where you would like CARS to be installed. Click the "Next" button to proceed with installation. When the setup has finished, click the finish button in the bottom right of the dialogue box.
4. After completing the installation, you should be able to go into your directory, find the CARS application, click and begin.

## Initial Set-Up Instructions (to be completed on EACH computer that will be used for CARS):

1. When setting up CARS or adding users, your site administrator will enter the tool as the administrator
  - a. Username = admin
  - b. Password = carsadmin

2. For a new installation, your site administrator will first need to register your site and add users to the tool.
  - a. If you update an existing installation, you will not need to re-do steps you have already completed.
  - b. If prompted to register your site, enter the requested information, including your own email address as the site administrator.
  - c. To add new users or modify existing users, follow the instructions in the training module.
  - d. For your site, you have selected to run the Screener and Full CARS, depending on the situation. For each user, you need to designate the modules that will be active when Full CARS is selected. (Whenever you interview a client, you will be able to select whether you complete the self-administered screener, the interviewer-administered screener, or full CARS. The designated modules will be activated for Full CARS.) Therefore, for each user, select Post-Traumatic Stress Disorder, Generalized Anxiety Disorder, Depression, and Mania, and select "12 month" for each.
3. For both a new installation and an updated installation, to activate your customized introduction language, you will need to make a change to the CARS properties file.
  - a. Using Notepad or a similar text editor, open the following file: C:\CARS\bin\cars\cars.properties.
  - b. The file contains a line: "siteID=1". This line tells CARS which customization to use.
  - c. San Joaquin is site #7. Change this line so it reads "siteID=7". Do not change any other line! d. Save your changes and close the file.

### **Assessment and Report Generation Instructions:**

1. Review the Training Manual.
2. To start an assessment, you must login as one of the users you have set up, not as the administrator.
3. Enter the zip code where the client lives or is most likely to seek services.
4. When prompted, select the version of CARS you wish to use (CARS-SA, CARS-SC, or CARS-F).
5. The client ID # you enter should be a unique identifier for the client, with a prefix of SJ. If you already create client ID #s for your program, you could use those and just add the prefix. So a possible client ID could be SJ30579 or SJ2.
6. If you are conducting an interviewer-administered screener or Full CARS:
  - a. Proceed through the assessment.
  - b. When you complete the assessment, thank the client for their time and excuse them. Then complete the 10 Interviewer Observation questions that follow.
  - c. Once complete, click the "yes" button, and click "yes" again when CARS asks whether you would like to generate a diagnostic report. After a minute or two, the report will show up on your screen as a PDF. You can then print the PDF.
  - d. i. You can also find all past reports (identified in the file name by session #, not client ID) in your  
e. Documents folder under "CarsReports." ii. If for any reason the PDF does not show up on your screen, you will find it in the CarsReport folder.
  - f. The report should be reviewed with the client and both you and he/she should receive a copy.

7. If you are conducting a self-administered screener:
  - a. The self-administered introduction screen will appear. Your client is now ready to proceed through the assessment.
  - b. When the client completes the assessment and calls you over, follow steps 6c&d, above.

### **Troubleshooting Instructions:**

1. If you encounter an error or a problem with CARS, first identify whether the error is preventing you from proceeding with the assessment.
  - a. If the error does not prevent you from continuing, make a note of the error, but finish the assessment. Once you have shared the report with the client and dismissed him/her, proceed to the troubleshooting steps.
  - b. If the error prevents you from continuing, finish the assessment on paper. Once you have dismissed the client, proceed to the troubleshooting steps.
2. To report an error, please provide as much of the following information as possible:
  - a. Your name
  - a. Date and time of error
  - b. A description of the error, including the question number
  - c. Screenshot, if possible
  - d. List of any other applications running on your computer at the time
  - e. Description of any recent changes to your computer, if applicable
3. Send your description to [snelson@hms.harvard.edu](mailto:snelson@hms.harvard.edu) and/or [jhkleschinsky@challiance.org](mailto:jhkleschinsky@challiance.org) (Sarah and John, Division staff)
4. You can also use this procedure to provide your suggestions on improving CARS.

### **Contact Information:**

FAAR – Erin Holmes ([erin.holmes@responsibility.org](mailto:erin.holmes@responsibility.org))

Division – Sarah Nelson ([snelson@hms.harvard.edu](mailto:snelson@hms.harvard.edu))

### **Attachments:**

Screener – PDF, June 3<sup>rd</sup>, 2016

CARS Training Manual – PDF, June 3<sup>rd</sup>, 2016

# APPENDIX C: CARS PILOT INTERVIEW GUIDE

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## PILOT INTERVIEW GUIDE

### Ease of integration of CARS into existing court/program structure

- Has it been a smooth transition to include CARS within your existing program? Explain.
- Were there any issues and/or challenges that you experienced when adding CARS to your program's framework? If so, please explain.
- How were you able to address these issues?
- Would there be a way to overcome this issue at the outset? Please share any suggestions that would improve integration.
- Did you substitute CARS for another assessment instrument? If so, was this an easy substitution? Please explain.
- Are there other junctures in your program at which CARS could be integrated in the future? (i.e., pre-trial, pre-sentencing, post-conviction, supervision, treatment)

### Functionality of CARS software

- Do you find CARS easy to use?
- Are the instructions contained within the software sufficient (for both practitioners and clients)?
- Which features of the CARS software do you find to be most useful?
- Have you begun assessments with clients, saved them, and completed them at a later date? If so, was this process easy?
- Do you use the notes feature when administering the assessment to clients?
- If you wanted to turn different modules on/off, would you be able to do this?
- \*IMPACT – is the software simple enough for clients to self-administer CARS?

- Have clients encountered any challenges completing the assessment on their own? If so, what concerns have they voiced?
- Have you encountered any issues generating reports? If so, what issues?
- Have you encountered any issues accessing reports that have previously been saved? If so, what?

### Development and maintenance of treatment database

- Prior to participating in the CARS pilot, did you already have a list of available treatment services in your jurisdiction?
- If you had an existing list, how frequently are the services vetted/updated?
- Was it difficult to generate a treatment services list?
- Approximately how long would it take you to create a fully vetted referral database from scratch?
- Is creating and maintaining a treatment database manageable for your staff?
- Did you have sufficient guidance to be able to generate the referral list?
- If no, would you have benefited from a detailed how-to in order to generate the referral list?
- How frequently do you think the services contained within your database should be audited/updated?
- Do you find the treatment referral database useful?
- Have you encountered any issues with the referral database?
- Is it easy for you to update information in the database?

- Have you explored the option of adding alternative transportation routes to the referral database? Is this something you would consider in the future?
- Have any clients had a positive response to the referral portion of the report (e.g., they found it useful to be presented with treatment options)?
- Have any of your clients reported following-up with the referrals contained within the report?
- Have you discussed the use of CARS and the referral database with any local treatment providers? If so, did they have any feedback?

### **Review of reports with clients/offenders**

- Do you review the CARS reports with each individual client or do you provide them with the report as a takeaway?
- Have the clients indicated that they understand the findings contained within the report?
- Have any clients expressed that the report findings are useful to them?
- Do you review the referrals with clients?
- As a practitioner, do you find the reports useful?
- Which aspects of the report do you think provide the greatest benefit to you as a practitioner?
- Have the report findings influenced your decision-making (re. sentencing, supervision, treatment, programming, etc.)?
- Is there any additional information that would be useful to include in the report?
- Training process
  - Did the initial in-person training provide you with the information and skills necessary to train colleagues back home?
  - What were the strongest elements of the training?
  - Was the level of detail sufficient? If no, please specify whether you would have liked more or less information.
  - What are some areas where you would have liked to receive more information?
- Did you feel the need to follow-up for additional information or support?
- How could the in-person training be improved?
- Do you think this training could be translated to a stand-alone webinar and still be sufficient to prepare individuals to serve as trainers for their respective programs?
- Were the training materials useful? Did you refer to them throughout the pilot?
- Did your colleagues have access and/or refer to the training materials?
- How could the training materials be augmented?
- General thoughts on assessment findings and associated outcomes
  - Based on the assessments you have completed thus far, are you surprised by the percentage of offenders who screen positive for mental health disorders?
  - Based on the assessments you have completed thus far, are you surprised by the percentage of offenders who screen positive for co-occurring disorders?
  - Are there any other findings that you have found to be interesting? Please explain.
- Challenges and issues that arose
  - Please identify any challenges that you faced in implementing and using the CARS tool.
  - Please identify any concerns that were voiced by staff and/or offenders about using or completing the CARS assessment.
  - Please identify the strategies you used to address the challenges/issues that arose.
- How could another program have avoided the issues that you encountered?

# APPENDIX D: IMAGE INDEX

Figure 2. CARS Module Selections

The screenshot shows a window titled "CARS Module Selection Options" with a table of module selections. The table has three columns: "Module Name", "Selection", and "Module Options". The "Module Options" column contains radio buttons for "12 Month" and "Lifetime". Below the table is an "Update" button.

Module Name	Selection	Module Options
General Anxiety Disorder	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> 12 Month <input type="radio"/> Lifetime
Personality Disorders	<input type="checkbox"/>	<input type="radio"/> 12 Month <input type="radio"/> Lifetime
Depression	<input checked="" type="checkbox"/>	<input type="radio"/> 12 Month <input checked="" type="radio"/> Lifetime
Mania	<input checked="" type="checkbox"/>	<input type="radio"/> 12 Month <input checked="" type="radio"/> Lifetime
Suicide	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> 12 Month <input type="radio"/> Lifetime
Panic Disorder	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> 12 Month <input type="radio"/> Lifetime

**Update**

[back](#)

Figure 3. Example of CARS Referrals

**Client: Ben**

**Gender: Male**

**Age: 35**

---

## Regional Referral Information

Based on Ben's interview and the zip code provided (02143), referrals to the 5 closest Massachusetts resources for additional mental health screening and treatment are listed below. In addition to these options, Ben also might consider utilizing other relapse and recovery resources, such as Alcoholics Anonymous or online recovery and recidivism prevention programs.

### **CASPAR Mens Recovery Home**

16 Highland Ave, Somerville, MA 02143

(617) 623-5277

<http://www.casparinc.org>

Type of Care: Residential

Payment Options: Accepts most types of insurance. Does not accept private pay.

Insurance: unknown

Medicare/Medicaid: Yes

Specializations: not specified

Public Transportation Options: MBTA Bus 88/90 - Highland Ave @ Medford St

### **North Charles Institute for the Addictions**

260 Beacon St, Somerville, MA 02143

(617) 661-0405

<http://www.northcharles.org/>

Type of Care: Outpatient

Payment Options: unknown

Insurance: unknown

Medicare/Medicaid: unknown

Specializations: not specified

Public Transportation Options: MBTA Bus 8/10 - Southampton St @ Atkinson St.  
MBTA Fairmount Line - Newmarket

Figure 4. Example of CARS Referrals

**Client: Ben**

**Gender: Male**

**Age: 35**

**CARS Diagnostic Case Summary**

Ben is a 35 year-old White man. He has screened positive for 3 co-occurring mental health problems (see Table 1) and should receive a referral for professional mental health assessment (regional referrals are listed on the end of the report). Ben has accumulated 2 DUI arrests during his lifetime.

Ben has also reported some symptoms related to 1 disorder. These symptoms suggest that he is experiencing some subclinical difficulties with these disorders, but he did not meet clinical levels for these disorders. Ben should report these subclinical experiences when he seeks additional professional mental health screening.

**Table 1. Mental Health Profile**

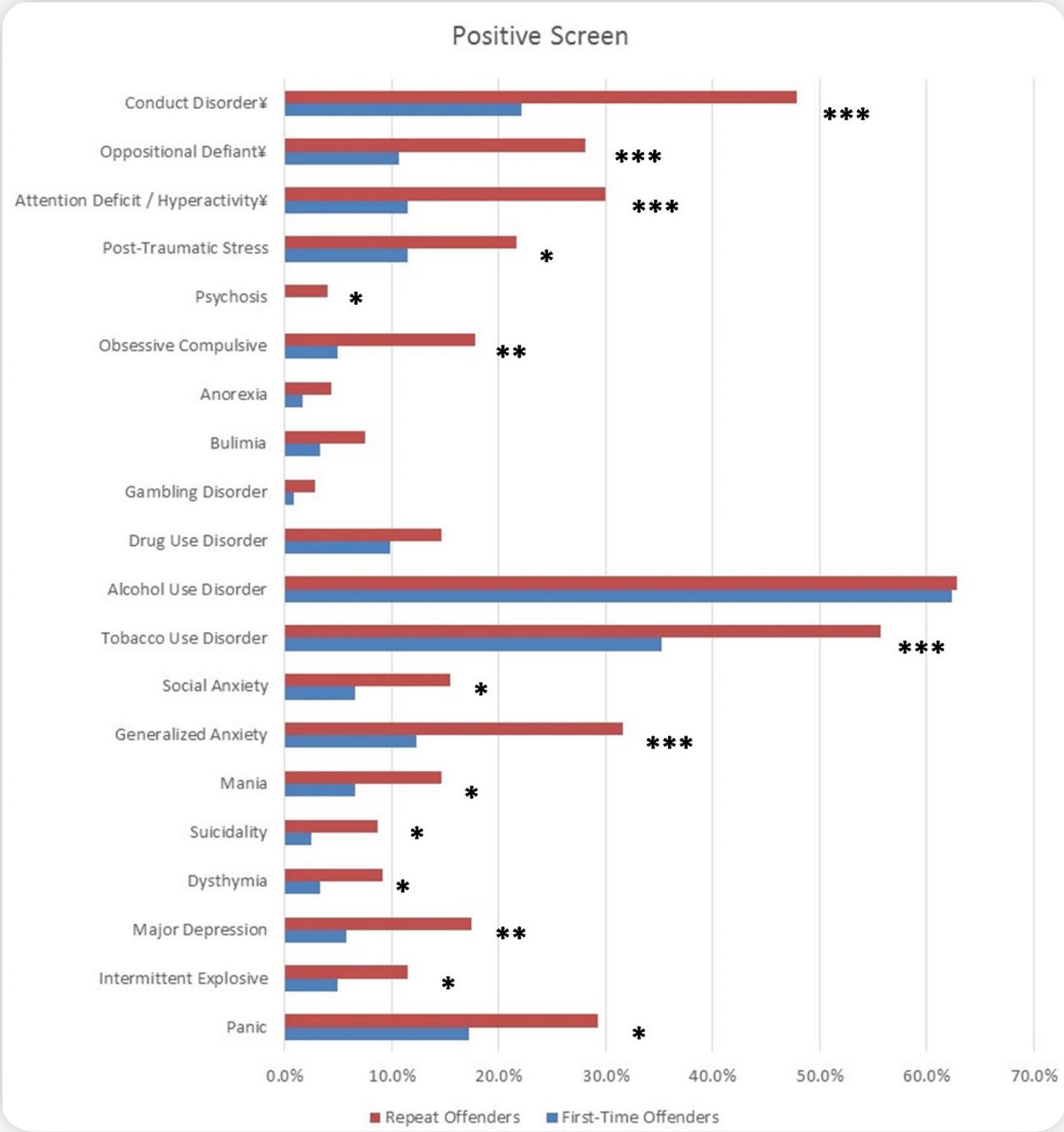
	Met Criteria	Subclinical Symptoms	Screened into but not tested
<u>Alcohol Abuse</u>	PY		
<u>Alcohol Dependence</u>	PY		
<u>Panic Disorder</u>	PY		
<u>ADHD</u>		LT	
<u>Oppositional Defiant Disorder</u>			•

*PY = Past Year, LT = Lifetime*

*Did not meet criteria for: PTSD, Substance Abuse, Substance Dependence, Personality Disorders, Major Depressive Disorder, Bipolar I, Bipolar II, Bipolar NOS, Dysthymia, Social Phobia, Intermittent Explosive Disorder, Tobacco Use, Gambling, Eating Disorder, Obsessive Compulsive Disorder, Psychosis, Conduct Disorder, GAD*

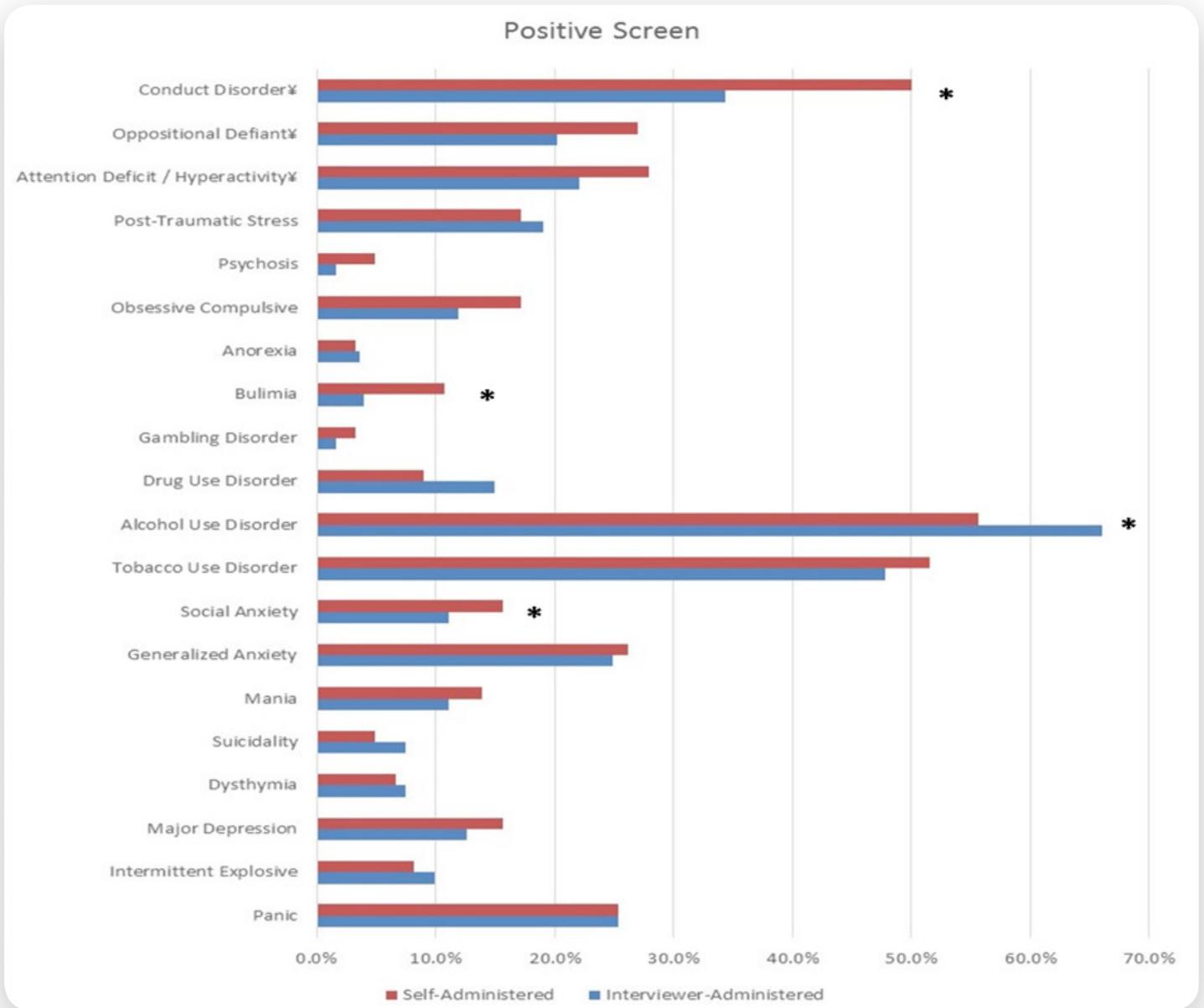
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Figure 6. CARS Randomized Control Trial Screening Results



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Figure 7. CARS Interviewer-administered vs. Self-administered screener results



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Figure 10. CARS Screener Interference Grid Mock-up

You reported symptoms in your lifetime related to the following problems, listed below. Please indicate how much each of these problems interfered with your work, your social life, or your personal relationships <i>in your lifetime</i> – an extreme amount, a lot, some, a little, or not at all?	An extreme amount	A lot	Some	A little	Not at all	N/A
<b>SC37a.</b> How much did your attacks of fear, panic, or discomfort ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37b.</b> How much did your attacks of anger ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37c.</b> How much did your episodes of feeling depressed or discouraged ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37d.</b> How much did your episodes of feeling much more excited or full of energy than usual or feeling very irritable ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37e.</b> How much did being a “worrier” or much more nervous or anxious than other people ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37f.</b> How much did feeling very afraid or shy with people or in front of a group of people ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37g.</b> How much did your smoking ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37h.</b> How much did your drinking ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37i.</b> How much did your drug use ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37j.</b> How much did your gambling ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					
<b>SC37k.</b> How much did your concern about your weight or your eating binges ever interfere with your work, your social life, or your personal relationships?	<input type="radio"/>					

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**COMPUTERIZED  
ASSESSMENT**  
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