

Computerized Assessment and Referral System (CARS): **Screening and Assessment of Co-occurring Disorders**



FOUNDATION FOR
ADVANCING ALCOHOL
RESPONSIBILITY

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Overview

- **Co-occurring disorders**
 - Prevalence
 - Implications in the CJS
 - Impaired driver profiles
 - Mental health disorders and DUI offending
- **Screening and assessment**
 - Processes and instruments
- **Computerized Assessment and Referral System (CARS)**
- **Resources**



Co-occurring disorders in the criminal justice system

Co-occurring disorders



- Previously referred to as ‘dual diagnosis’ – co-existence of both a substance use disorder and mental health disorder(s).
- Individuals with mental health disorders are more likely to experience alcohol or drug dependency.
- Co-occurring disorders are often difficult to diagnose as symptoms can be complex and the severity of the disorders can vary.
- In 2014, ***approximately 7.9 million adults*** in the United States had co-occurring disorders (SAMHSA, 2015).



Treating co-occurring disorders

- **System failure:** in many cases, people receive treatment for one disorder while the other disorder remains undiagnosed and/or untreated.
- **Consequences:** higher likelihood of experiencing homelessness, incarceration, medical illnesses, suicide, or death.
- Individuals with co-occurring disorders are best served through integrated treatment.
 - Address mental health and substance use disorders concurrently.
 - Early detection and treatment improves treatment outcomes.



Co-occurring disorders in the CJS

- More than 2/3 of those incarcerated in jail and ½ of prison inmates have a substance use disorder (Karberg and James, 2005; National GAINS Center, 2004).
- The rates of serious mental illnesses are 4-6x higher in jails and 3-4x higher in prisons than in the general population (Prins, 2014; Steadman et al., 2009).
- Prison inmates with mental disorders are also more likely to have substance use disorders than inmates without mental disorders (74% vs. 56%) (Mumola and Karberg, 2006).
- **“Co-occurring disorders are more often the rule than the exception in justice settings”** (Peters et al., 2015).



Co-occurring disorders in the CJS

- Failure to identify co-occurring disorders in the criminal justice system can result in:
 - Increased risk of recidivism
 - Misclassification of risk levels
 - Victimization
 - Lengthier periods of incarceration
 - Inappropriate or inadequate treatment referrals
 - Poor treatment outcomes
 - Missed re-entry opportunities
 - Return to the system (Peters et al., 2008)



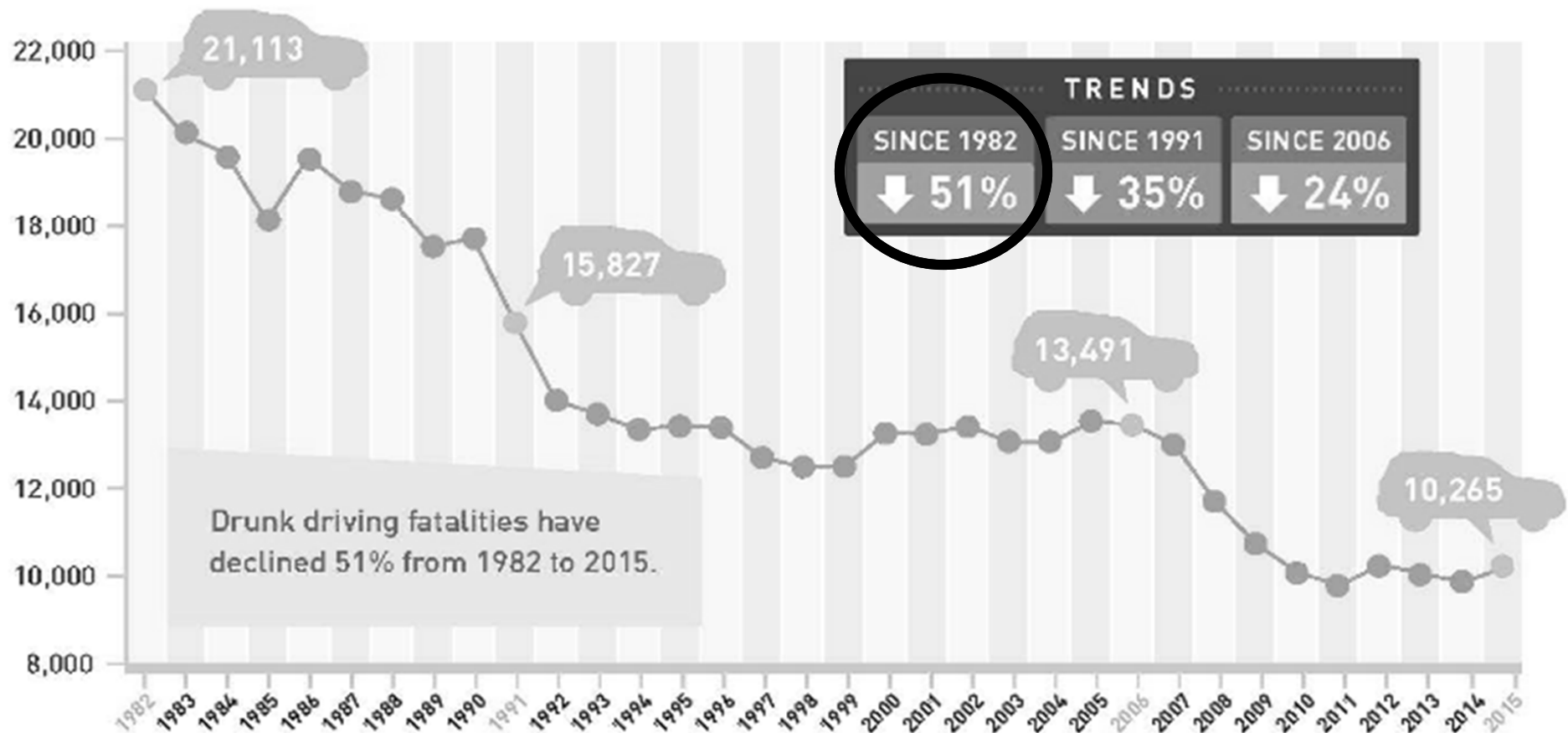
Impaired driver profiles

Alcohol-Impaired Driving Fatalities 1982-2015

Learn more at

Responsibility.org

TOTAL ALCOHOL-IMPAIRED DRIVING FATALITIES



Repeat DUI offenders

- Approximately 25% of individuals arrested and 30% of individuals convicted of DUI are repeat offenders (Warren-Kigenyi and Coleman, 2014).
- Contact with the criminal justice system in and of itself, does not deter at least 1/4 of all offenders.



Impaired driver profiles

- Predominantly male (70-80%)
- Between the ages of 20-45; majority between ages 20-30
- Employed at a higher rate than other offenders
- High-BAC levels (.15>)
- Often drink more per occasion and consume more alcohol than the general population; majority are binge drinkers
- Often have substance use disorders
- Have personality and psychosocial factors that increase risk of offending: irritability, aggression, thrill-seeking, impulsiveness, external locus of control (blaming others), anti-authoritarian attitudes



Hardcore drunk drivers

- Overwhelmingly male (90%); ages 20-45.
- More often single, separated, or divorced.
- Tend to have lower levels of education and income and higher levels of unemployment compared to first offenders.
- More likely to have BACs exceeding .20 or refuse to provide a chemical sample.
- Age of onset of drinking, family history, and alcohol misuse are risk factors.
- Likely to have cognitive impairments (executive cognitive functioning) due to long-term alcohol dependence.



Substance use disorders

- Approximately two-thirds of convicted DUI offenders are alcohol dependent (Lapham et al., 2001).
- 91% of male and 83% of female DUI offenders have met the criteria for alcohol abuse or dependence at some point in their lives (Lapham et al., 2000).
- In addition, 44% of men and 33% of women qualified for past-year disorders.



Substance use disorders

- Approximately 11-12% of impaired drivers are multiple drug users who report significant involvement in drugs other than alcohol or marijuana (Wanberg et al. 2005).
- 38% of male and 32% of female DUI offenders have met the criteria for drug abuse or dependence at some point in their lives (Lapham et al., 2001).



Co-occurring disorders among DUI offenders

- While research has shown that impaired drivers frequently have a substance use disorder, many of these offenders also have a psychiatric condition.
- The presence of a substance use disorder actually ***increases*** an individual's likelihood of having other psychiatric disorders.



Co-occurring disorders among DUI offenders

- In a study of repeat DUI offenders, it was found that 45% had a lifetime major mental disorder.
- Another study that examined the prevalence of these disorders by gender found that 50% of female drunk drivers and 33% of male drunk drivers have at least one psychiatric disorder.
- Mental health issues often linked to impaired drivers include:
 - depression, bipolar disorder, conduct disorder, anxiety, anti-social personality disorder, and post-traumatic stress disorder (PTSD).



The need for mental health assessment among DUI offenders

- Very high level of psychiatric co-morbidity in DUI populations.
- Mental health issues linked to recidivism.
- Treatment has traditionally consisted of alcohol education or interventions that focus solely on alcohol or substance use.
- Screening or assessment for mental health issues is not always available/performed.
- DUI treatment providers rarely have the training/experience to identify mental health issues among their clients.

Subsequently, in many cases, problems are not identified or addressed.



Screening and assessment

Screening

- Screening is the first step in the process of determining whether a DUI offender should be referred for treatment.
- At this stage, offenders who do not have substance or mental health issues are identified and those who may have issues can be sent for a more in-depth assessment.
- Essentially, screening is a way to strategically target limited resources by separating offenders into different categories (i.e., those who do not have an alcohol/mental health problem and those who likely do).
- The screening process in and of itself can also serve as a brief intervention as it requires the individual to begin to think about their use patterns and whether they are problematic.



Assessment

- After the screening process is completed, offenders who show signs of substance or mental health issues can be referred for an assessment.
- An assessment tends to be more formal than screening and these instruments are standardized, comprehensive, and explore individual issues in-depth.
- In contrast with screening, a formal assessment process takes longer to complete (it can take several hours) and is typically administered by a trained clinician or professional.
- This second step is meant to evaluate not only the presence of a substance use disorder (alcohol and/or drugs) but its extent and severity.

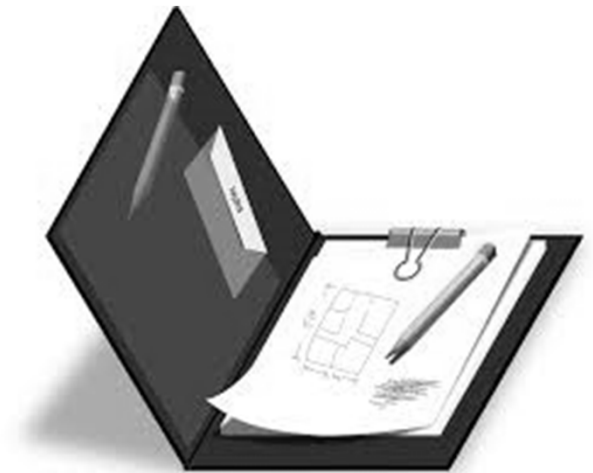
Assessment

- Ideally, screening and assessment would occur at the beginning of the process (such as during the pre-trial stage).
- The results can then be used to inform:
 - Sentencing decisions;
 - Case management plans;
 - Supervision levels; and,
 - Treatment referrals/plans.
- It is important to note that assessments can be repeated at multiple junctures throughout an offender's involvement in the criminal justice system to identify progress and to inform changes to existing plans as needed.



Common assessment instruments

- Alcohol Dependence Scale (ADS)
- Adult Substance Use and Driving Survey – Revised (ASUDS-R)
- Alcohol Severity Index (ASI)
- Alcohol Use Disorder Identification Test (AUDIT)
- Inventory of Drug-Taking Situations (IDTS)
- Drug Abuse Screening Test (DAST)
- Level of Service Inventory-Revised (LSI-R)
- Michigan Alcoholism Screening Test (MAST)
- Substance Abuse Subtle Screening Inventory (SASSI)
- Research Institute on Addiction Self Inventory (RIASI)
- Risk and Needs Triage (RANT)



DUI offenders are unique

- Often lack an extensive criminal history
- High degree of denial:
 - Drinking alcohol is not illegal, highly prevalent, and encouraged in society
 - Tend to be employed and may have a stable social network
 - Do not view themselves as criminals
- Repeatedly engage in behavior that is dangerous

Result = DUI offenders tend to score lower on traditional risk assessments



Limitations of instruments

- Majority of instruments are not designed for or validated among a DUI offender population with several exceptions:
 - DUI-RANT, Impaired Driving Assessment (IDA), and CARS.
- Using traditional assessment instruments, DUI offenders are commonly identified as low risk due to a lack of criminogenic factors.
- DUI offenders often have unique needs and are resistant to change on account of limited insight into their behavior.
- Several organizations have recognized the need to create assessment instruments specifically for DUI offenders:
 - American Probation and Parole Association (APPA), National Center for Drug Court Professionals (NADCP), Responsibility.org



Development and implementation of CARS

The development of CARS

- CARS was developed by a team of researchers from Cambridge Health Alliance, a teaching affiliate of Harvard Medical School.
 - Initial grant funding was provided by NIAAA; Responsibility.org continues to fund CARS research and implementation.
- The goal was to create an assessment tool specifically for a DUI offender population that fills the mental health void that exists with traditional instruments.



The development of CARS

- CARS is a standardized mental health assessment that is adapted from the World Health Organization's Composite International Diagnostic Interview (CIDI).
- Developed by Dr. Ron Kessler and his team at Harvard, the CIDI is a structured interview for psychiatric disorders.
 - Internationally validated instrument
 - Used extensively in research including the National Comorbidity Survey



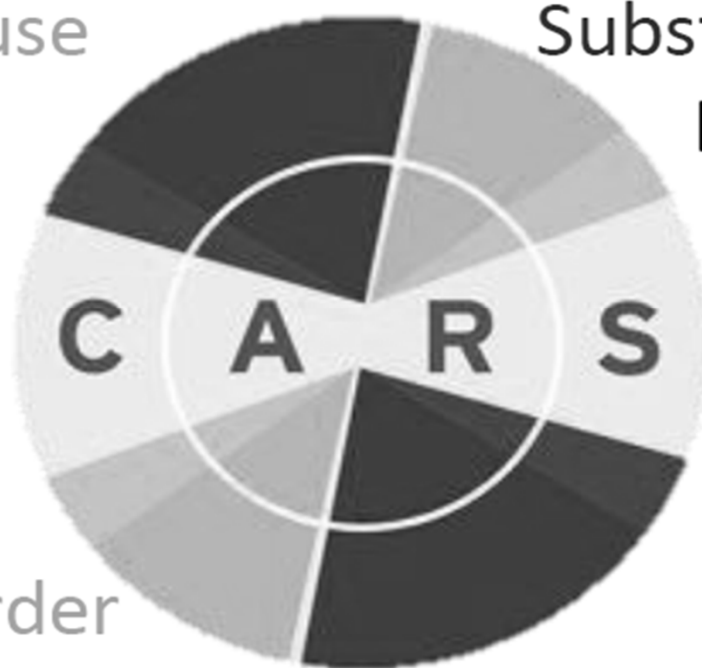
Purpose of CARS

- CARS is a **risk** and **needs** assessment.

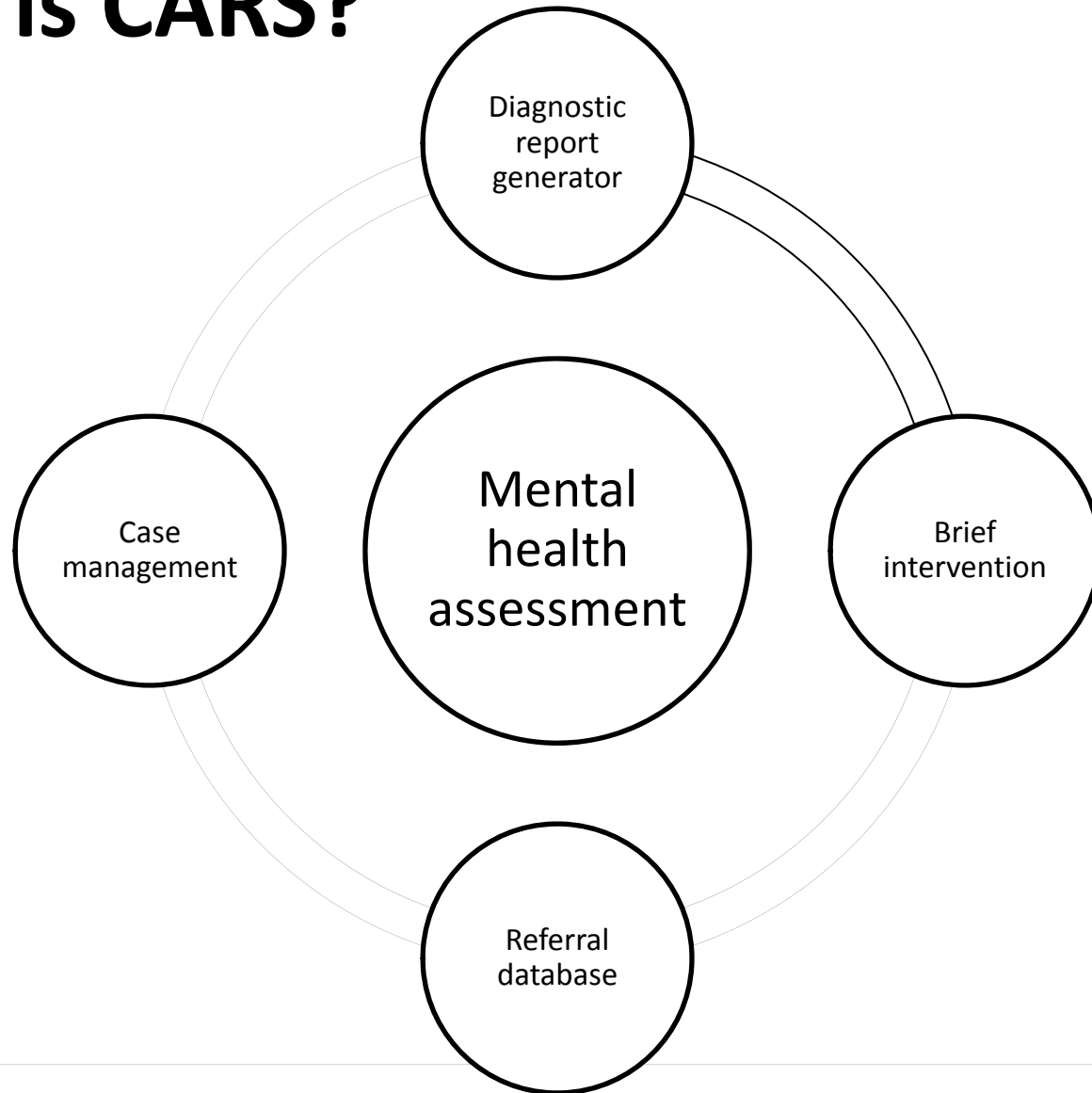


- **Primary purpose:** identify mental health and substance use disorders among DUI offenders and facilitate treatment referral for those issues.
- **Secondary use:** predict DUI recidivism risk from mental health profiles.

Generalized Anxiety Disorder Major Depressive Disorder
 Disorder Dysthymia Bipolar I Disorder Bipolar II Disorder
 Panic Disorder Alcohol Abuse Alcohol Dependence
 Post Traumatic Stress Disorder Substance Abuse
 Substance Dependence Eating Disorders
 Personality Tobacco Use DUI Behavior
 Oppositional Defiant Disorder Explosive Disorder
 Intermittent Disorder DUI Behavior
 Conduct Disorder Criminal History
 Personality Disorder Psychosocial Risks Peer Networks
 Psychosis Gambling Disorder Obsessive Compulsive Disorder
 Attention Deficit Hyperactivity Disorder... and more

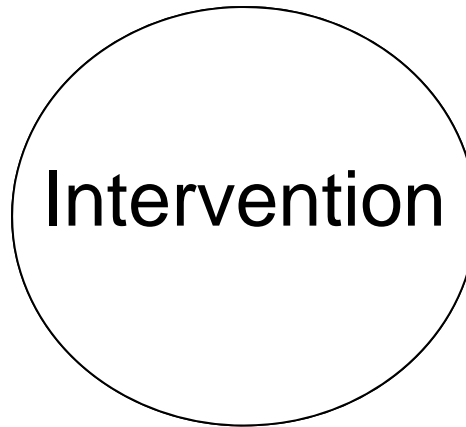
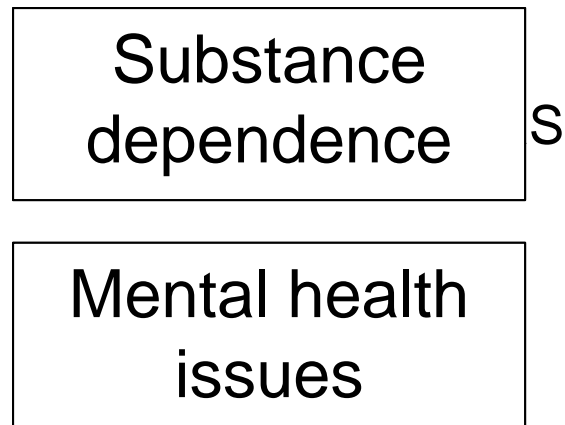


What is CARS?



What is CARS?

- Diagnostic report generator that gives providers and clients:
 - Immediate diagnostic information for up to 20 DSM-IV Axis I disorders (onset, recency, persistence).
 - Geographically and individually targeted referrals to treatment services based on the outcomes of the assessment.



How does CARS work?

- The CARS tool is a completely electronic assessment tool. It is available as free open source software.
- There are three versions of the CARS tool that can be used:
 - Full assessment
 - Screener
 - Self-administered screener
- CARS is divided into modules representing various mental disorders and psychosocial factors.
 - The individual administering CARS can select any subset of modules.
- There is the ability to choose from a past 12-month or lifetime version of the questions for each disorder.



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 | |



How does CARS work?

CARS Module Selection Options

| 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



How does CARS work?

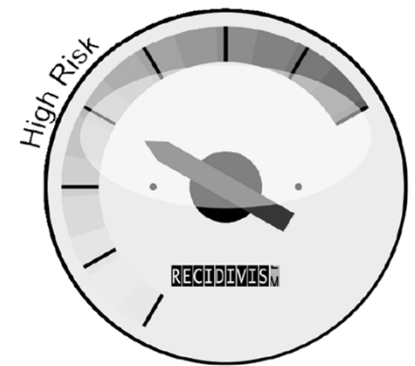
The screenshot shows the JCapl software interface. The main window has a menu bar with 'File', 'Answer', 'View', and 'Help'. The central area contains a text box with the following text: "Let me review. You had quite a few traumatic experiences: you were in combat, were kidnapped, and experienced a major natural disaster. Did you experience any of the following problems in relation to these traumatic experiences at the time of the experience?". Below this text is a table with four rows of questions and two columns for 'Yes' and 'No' answers. The questions are: PT32a. Were you terrified or very frightened at the time?; PT32b. Did you feel helpless?; PT32c. Did you feel shocked or horrified?; and PT32d. Did you feel numb?. Each question has a radio button for 'Yes' and a radio button for 'No'. To the right of the main window is a sidebar with tabs for 'Help', 'History', 'Remarks', 'Notes', 'Log', and 'RB'. The 'History' tab is selected, showing a tree view with 'CAP1 v21' and 'D' under it, and '32a_d' under 'D'. At the bottom of the window, there is a status bar with the text 'CAP1.D.32a_d 01-01-000001-00 00001' and a progress indicator '1 / 3'.

| | Yes | No |
|---|-----------------------|-----------------------|
| PT32a. Were you terrified or very frightened at the time? | <input type="radio"/> | <input type="radio"/> |
| PT32b. Did you feel helpless? | <input type="radio"/> | <input type="radio"/> |
| PT32c. Did you feel shocked or horrified? | <input type="radio"/> | <input type="radio"/> |
| PT32d. Did you feel numb? | <input type="radio"/> | <input type="radio"/> |



How does CARS work?

- Individual diagnostic reports have been programmed to provide information about the mental health disorders for which a person qualifies or is at risk, as well as a summary of bio-psycho-social risk factors.
- The CARS tool includes a section on DUI behavior.
 - The data obtained from the questions in this section is 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.



CARS report

CARS Diagnostic Case Summary

Bob is a 38 year-old woman who has accumulated 0 DUI arrests during her lifetime. She has met full criteria for 1 co-occurring mental health problem (see Table 1) and should receive a referral for additional professional mental health screening (regional referrals are listed on the end of the report)

Table 1. Mental Health Profile

| | Met Criteria | Subclinical Symptoms | Screened into but not tested |
|--------------------------------------|--------------|----------------------|------------------------------|
| <u>Alcohol Abuse</u> | PY | | |
| <u>Obsessive Compulsive Disorder</u> | | | • |
| <u>Psychosis</u> | | | • |
| <u>Conduct Disorder</u> | | | • |

PY = Past Year, LT = Lifetime

**Other disorders screened: PTSD, GAD, Alcohol Dependence, Substance Abuse, Substance Dependence, Personality Disorders, Major Depressive Disorder, Bipolar I, Bipolar II, Panic Disorder, Social Phobia, Intermittent Explosive Disorder, Tobacco Use, Gambling, Eating Disorders, ADHD*

Bob is at high risk for another DUI. Listed below are some of the factors that create this risk for Bob.

DUI Recidivism Risk Factors

- Alcohol Abuse
- Endorsed binge drinking

Based on Bob's mental health profile, she should consider seeking additional professional screening from the resources listed at the end of the report.



Taking it one step further...

- Unlike traditional assessments, CARS has a built-in referral system.
- CARS has been designed to include a list of individually-targeted referrals at the end of each report based on an individual's issues and zip code.
 - The services can include hospitals, outpatient treatment programs, detox programs, halfway houses, self-help programs, etc.
 - Also included are public transportation options (such as bus routes) to travel to each location.
- Before CARS can be implemented, the referral list must be populated with treatment services that are available within that jurisdiction.



Taking it one step further...

Client: Bob

Gender: Female

Age: 38

Regional Referral Information

Based off Bob's interview and the zip code provided (01060), referrals to the 5 closest regional resources for additional mental health screening and treatment are listed below. In addition to these options, Bob also might consider utilizing other relapse and recovery resources, such as AA or online recovery and recidivism prevention programs.

Clinical Support Options

10 Main Street , Florence , MA 01062

(413) 582-0471

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

Mental Health Treatment: Yes

Substance Use Treatment: Yes

Public Transportation Options: (N/A)

Windhorse Integrative Mental Health (a therapeutic community)

211 North St, Northampton, MA 01060

(413) 586-0207

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

Mental Health Treatment: Yes

Substance Use Treatment: Yes

Public Transportation Options: PVTA Bus - 39/39E/B43/M40 - Sheldon Field (W)

PVTA Bus - R44 - 54 Industrial Drive



Implementation study

- The usability of CARS was previously tested; feedback led to the creation of the enhanced screener module.
- In 2015, a randomized control trial was completed in two Massachusetts DUI programs. The purpose of this study was to determine:
 - How does the screener perform in comparison to the full CARS assessment?
 - Are the CARS screener and full CARS valid assessment instruments?
 - Can the CARS screener be successfully self-administered?
 - Does engaging with CARS increase later treatment retention and improve outcomes?
 - How do specific psychiatric disorders relate to recidivism?



Implementation study

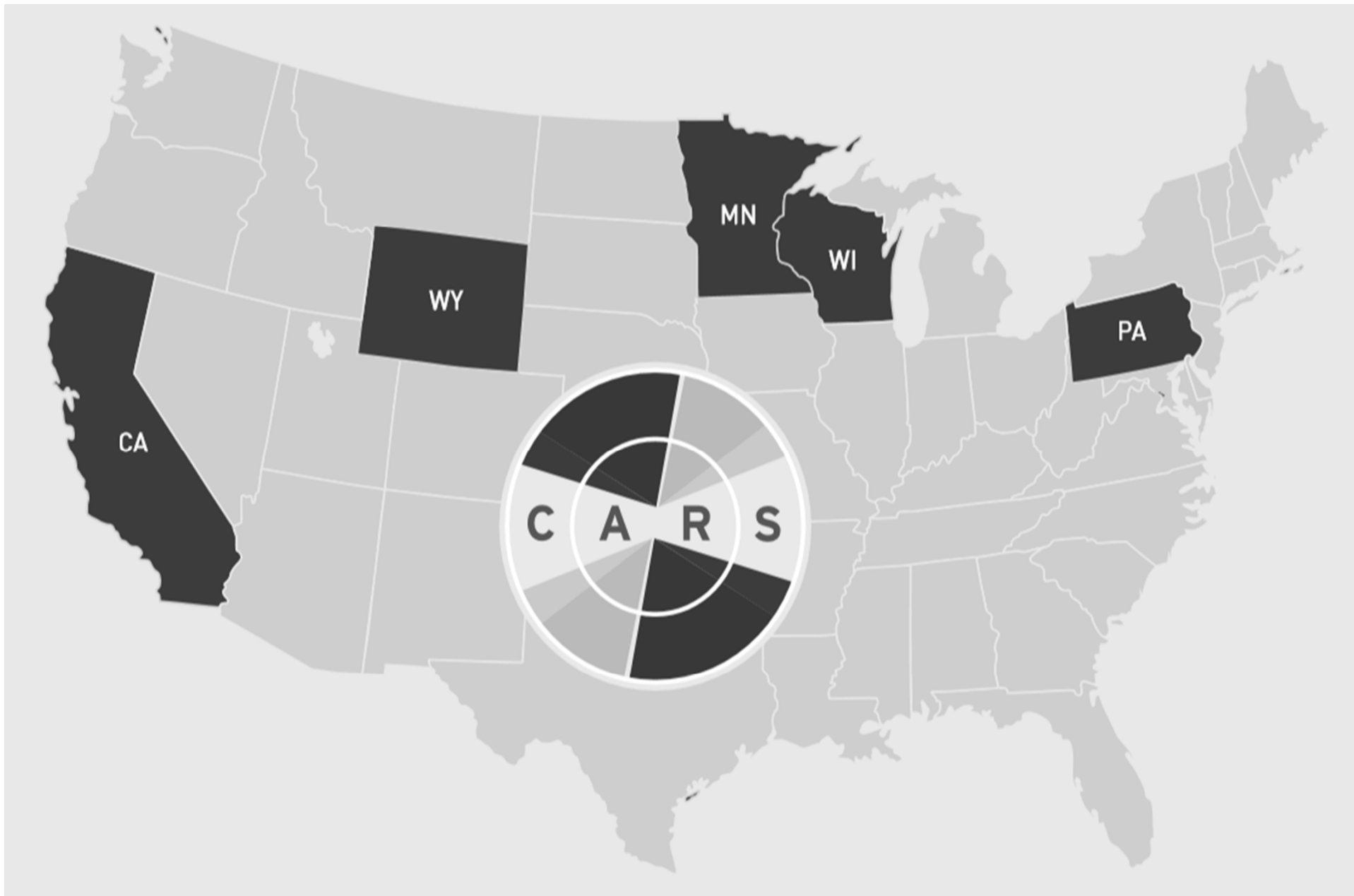
- The study found that a positive screen indicates that further assessment is required, not that the respondent qualifies for the disorder and that the completion of full CARS provides diagnostic information.
- Results from the self-administered version of the screener do not differ fundamentally from those for the interviewer-administered screener although the self-administered version may be more sensitive for some disorders.
- The study also revealed evidence of comorbidity in the repeat DUI offender population, particularly anxiety-related disorders.



2016 Pilot Sites

- 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.





2016 Pilot Sites: Process Evaluation

- Six programs were selected:
 - 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
- All three versions of the tool being incorporated in different programs, at various points within the judicial process.



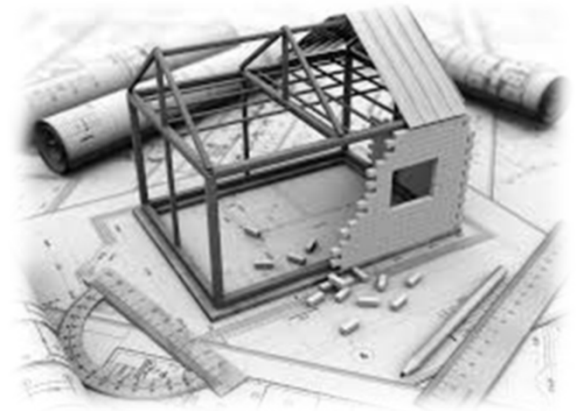
2016 Pilot Sites: Administration

| 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 | - | - |



Recommendations

- Increase the specificity of the CARS screener.
- Improve targeted referrals.
- Develop a version of full CARS that contains only past-year modules.
- Create separate screener and full assessment executables for download.
- Create explicit and detailed instructions for installing/updating CARS software.
- Develop different levels of training for practitioners based on level of experience; consider interactive online training.



Recommendations

- In response to the main CARS concern, new interference matrices have been added to the screener to increase specificity.

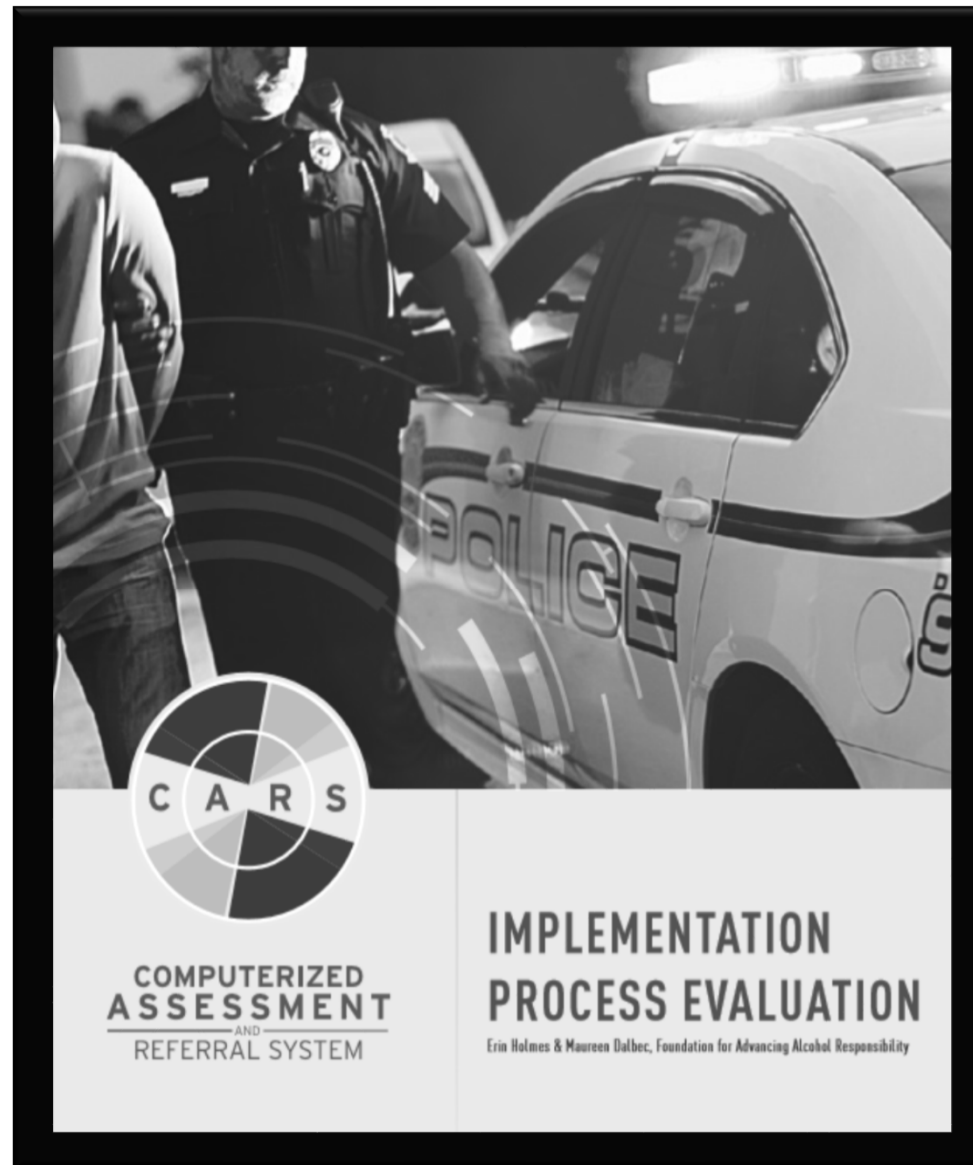
| | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| You reported symptoms in your lifetime related to the following problems, listed below. Please indicate how much each of these problems 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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| SC37g. How much did your smoking ever interfere with your work, your social life, or your personal relationships? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| SC37h. How much did your drinking ever interfere with your work, your social life, or your personal relationships? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| SC37j. How much did your gambling ever interfere with your work, your social life, or your personal relationships? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <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"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



Future considerations

- Develop a Spanish version of CARS.
- Develop a non-DUI specific version of CARS.
- Update CARS to reflect DSM-V changes.
- Consider developing a web-based platform instead of utilizing software.
- Create a CARS mobile application.





Benefits of CARS

- Provides immediate diagnostic information for up to 20 major psychiatric disorders.
- Provides geographically and individually targeted referrals to appropriate treatment services.
- Generates user-friendly reports at the click of a button.
- Informs supervision and treatment decisions.
- Runs on free open source software.
- Can be used by non-clinicians.
- Applicable in a number of settings.



National roll-out

- CARS was launched for general use on June 19, 2017.
- Available to any court, probation department, or program free of cost.
- Online web portal for downloads and training:
www.carstrainingcenter.org



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COMPUTERIZED
ASSESSMENT
—AND—
REFERRAL SYSTEM



Colorado and CARS

- Colorado has a robust treatment program but the Office of Behavior and Health realized that felony offenders are a special subgroup that have treatment needs that differ from the average DUI offender.
- Colorado has sought to standardize treatment protocols across the state to ensure consistency from one county to another.
- Existing treatment tracks in Colorado:
 - **Education** – 12-24 hours of DUI education (level I or II); BAC must be below .10 with no other aggravating factors present
 - **Therapy** – in addition to level II education, therapy may be required
 - First-time – 42 or 52 hours of therapy (level II therapy, track A/B)
 - Second or subsequent – 68 or 86 hours of therapy (level II therapy; track C/D)
 - Maximum would be 110 hours over 13 months



Colorado and CARS

- New model was developed by OBH and a working group from the CO Task Force on Drunk and Impaired Driving.
- Recognized that many of the four+ DUI offenders may not have been adequately assessed and treated in the past; also needed a more comprehensive treatment service provision.
- **Level II 4+:**
 - Consists of a minimum of 18 months of attendance and a minimum of 180 hours of treatment.
 - All treatment is driven by the individual's clinical assessment.
 - More in-depth clinical assessment required – must use an assessment tool specifically designed to assess co-occurring mental health issues in impaired drivers.
 - Requires assessment for cognitive functioning, TBI, adverse childhood experiences, grief/loss, and co-occurring mental health disorders.



Colorado and CARS

- Treatment providers who are interested in becoming certified to serve felony offender clientele will be trained on the use of CARS in August.
- Goal is for CARS to be integrated within statewide treatment network.
- Will provide opportunities for future research and improvement of treatment services.



COLORADO
Department of
Human Services



CARS and the ER

- Partnering with the Emergency Medicine Foundation to pilot CARS in several emergency departments/systems throughout the country.
- EDs can serve as a point of identification and intervention for alcohol misuse.
- Opportunity to test CARS among a more general population; expands usability beyond the criminal justice system.
- 2017 pilot location: University Hospital of Arkansas for Medical Sciences



Revolutionizing DUI Assessment

Computerized Assessment and Referral System (CARS)

What is CARS?



CARS is a report generator that provides immediate diagnostic information for up to 15 major psychiatric disorders (e.g., depression, anxiety disorder, post-traumatic stress disorder, bipolar disorder).



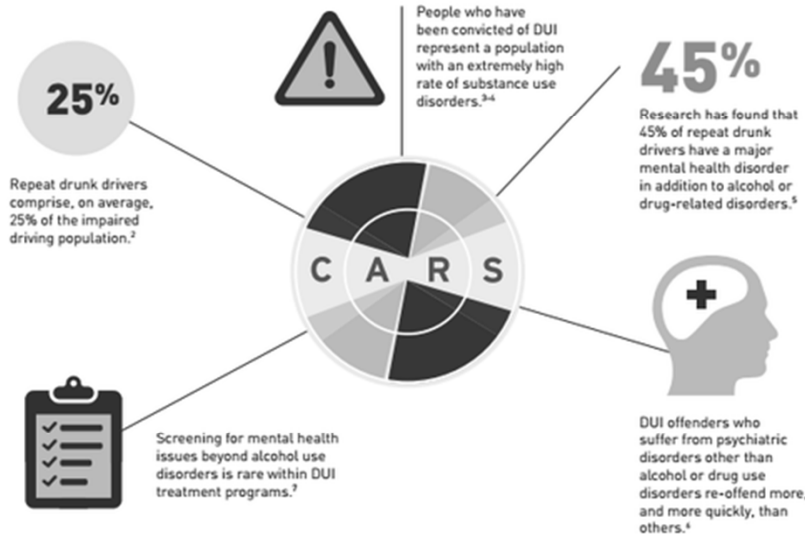
CARS is designed to identify mental health concerns in addition to substance use disorders that influence DUI behavior.



CARS provides referrals to treatment services based on an individual's diagnostic information and ZIP code.



CARS is adapted from the World Health Organization's Composite International Diagnostic Interview (CIDI), an internationally validated assessment.¹



COMPUTERIZED
ASSESSMENT
AND
REFERRAL SYSTEM



FOUNDATION FOR
ADVANCING ALCOHOL
RESPONSIBILITY



CHA Division on
Addiction
Cambridge Health Alliance



How CARS works



Asks about signs and symptoms of mental health issues both within the past year and lifetime.



Identifies specific mental health disorders for which an offender is at-risk.



Generates a report that informs the user about a client's treatment needs and provides appropriate referrals.

Can be used in three formats:



CARS SCREENER



SELF-ADMINISTERED
CARS SCREENER



FULL
CARS ASSESSMENT

Benefits of CARS

- Developed specifically for a DUI offender population
- Informs supervision and treatment decisions
- Provides immediate personalized output and referrals
- User-friendly reports at the click of a button
- Runs on free open source software
- Can be used by non-clinicians
- Applicable in a number of settings

Current efficacy study

- Randomized control trials at two Massachusetts DUI treatment programs
- Six month follow-up
- Study will:**
 - Evaluate full implementation of CARS
 - Test the validity of the CARS screener
 - Determine whether the CARS screener can be self-administered
 - Investigate use of CARS as a brief intervention
 - Examine associations between psychiatric co-morbidity and outcomes among DUI offenders
- Preliminary results in 2015

Footnotes

- 1: <http://www.hcp.med.harvard.edu/whicid/> 2: http://www.nhtsa.gov/staticfiles/hiv/pdf/811991-CWI_Racism_in_USA-1st-rs.pdf 3: <http://www.ncbi.nlm.nih.gov/pubmed/11576032> 4: <http://www.sciencedirect.com/science/article/pii/S03781140001344> 5: http://www.divisiononaddiction.org/html/prints/ShafferNationalUCCP_api.pdf 6: <http://go-tat.org/1M30Kun> 7: http://www.divisiononaddiction.org/html/prints/ShafferNationalUCCP_api.pdf

For further information please contact: erin.holmes@responsibility.org or visit Responsibility.org/CARS

COMPUTERIZED
ASSESSMENT
AND
REFERRAL SYSTEM



FOUNDATION FOR
ADVANCING ALCOHOL
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CHA Division on
Addiction
Cambridge Health Alliance



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RESPONSIBILITY



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