





Impaired-Driving

10,497 fatalities... .08 or higher

28% of total fatalities

7,052 fatalities... .15 or higher

67% of alcohol-impaired fatalities

\$44 billion

Estimated economic cost of alcohol-impaired-driving

1-in-3

Instances of drug present in fatal crashes

Knox County 'career offender' convicted of 7th DUI

THE PROBLEM

A records ch 6th DUI offense, wreck lead to charges

drivers a

There were 30 DIJI arrests in Spokane County over the Fourth of July weekend, and 13 of the Houston Man Gets Life Sentence After 9th drivers a offense. Drunk Driving Conviction

Repeat Offenders

A man who has pending driving while impaired charges in three other counties was charged again with DWI in Pitt County last

Woman Charged In Deadly Drunk Lweek, according to a weekly review of Pitt County court records.

San Antonio man gets 20 years for eighth DWI

conviction

July 2 allegedly e driving home,

Sober patrols picked up for fifth offense

THE PROBLEM

Diaz's blood-alcohol content was measured at .20 percent — well above the legal limit of .08 — at the hospital following the 3:35 a.m. crash, said Deputy District Attorney Victor Ou.

Rockaway Twp. mother who crashed, killed son, had high blood-alcohol content The two women were killed and Wiggins was found to have a blood alcohol level of .19, which is

The two women were killed and vviggins was found to have a blood alcohol level of .19, which is more than two times the legal limit.

more than 4 times the legal limit

High BAC Offenders

DWI Watch: Woman's BAC was triple legal limit

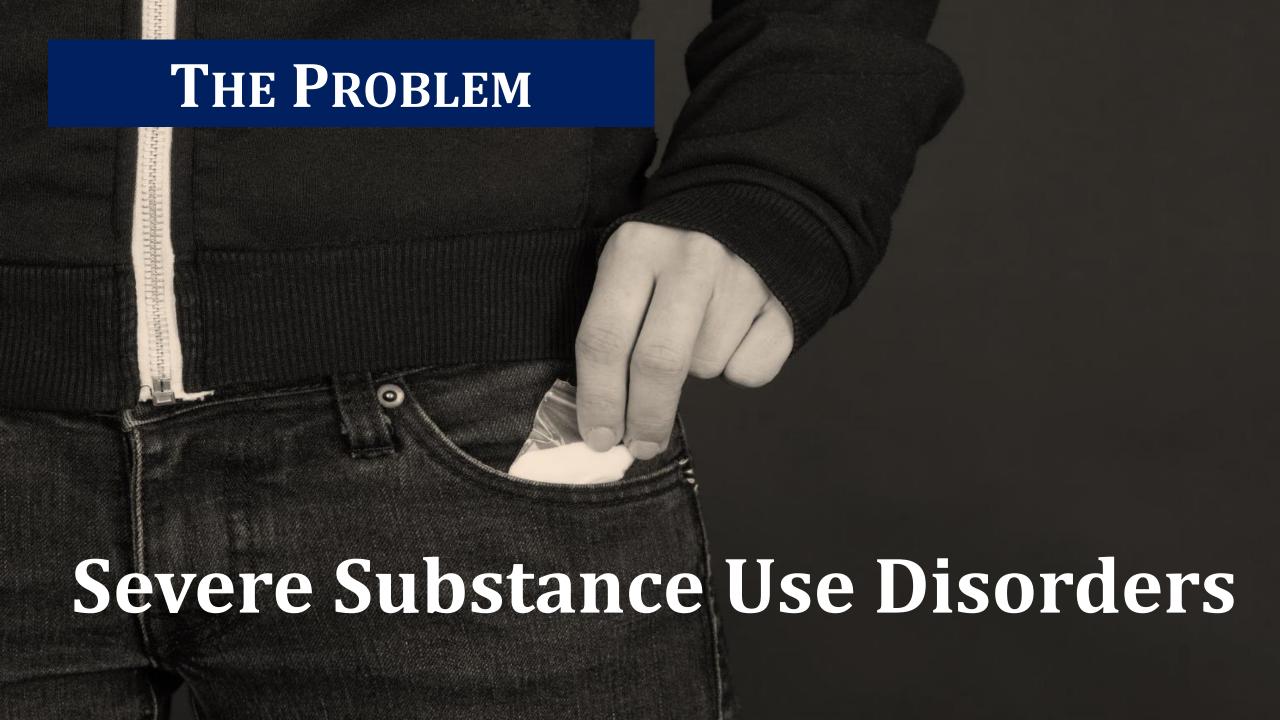
Minnetonka police said Wednesday they pulled over Kelly A. Belanger about

8:15 a.m. Friday within a block of Scenic Heights School and gave her a

preliminary breath test that measured her blood a percent, nearly three times the legal limit for driv

Dispatch received a call of a gray truck stuck in the median at SW 36th Ter/Surfside. There was a male passed out inside the truck. The male woke up and fled the scene. Cpl. Carson spotted the vehicle in the 4100 block of Surfside Blvd and stopped it. Driscoll had hit a mailbox earlier also. After seeing signs of impairment, Cpl. Carson conducted a crash investigation and then a DUI investigation. BAC: .205 and .198.

percent.



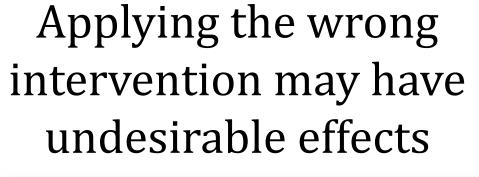






DWI Offenders engage in behavior that is dangerous and frequently causes serious injury or fatalities

THE PROBLEM





Treatment alone

Intensive supervision

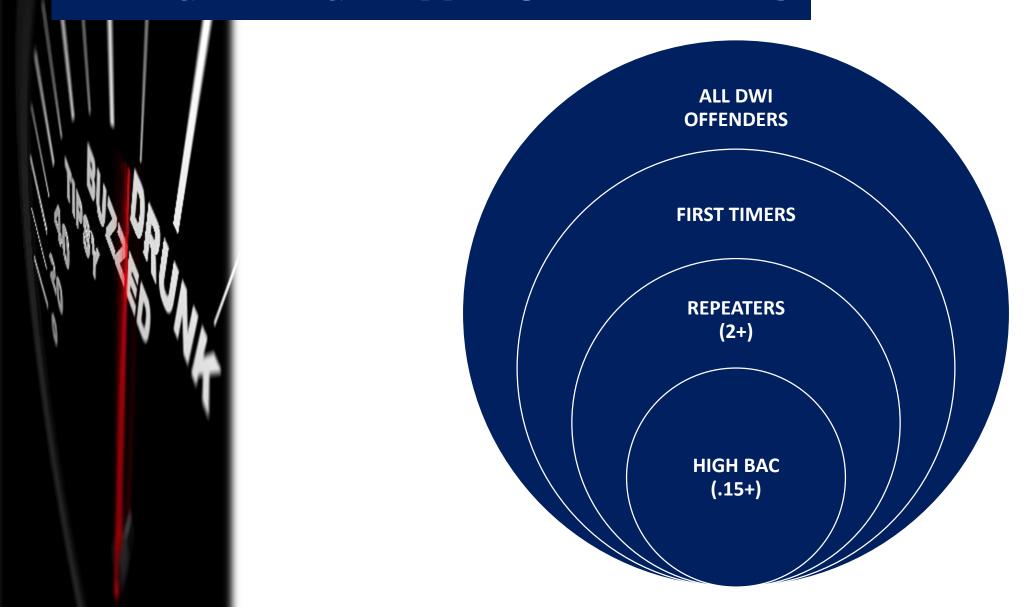
Frequent testing

Ignition interlock

Incarceration

DWI courts

TARGETING DWI OFFENDERS







Model as a Guide to Best Practices

RISK

WHO
Match the intensity
of the individual's
intervention to
their risk of
reoffending

Deliver more intense intervention to higher-*risk* offenders

NEED

WHAT
Target criminogenic
needs: antisocial
behaviors and
attitudes, SUD, and
criminogenic peers

Target criminogenic needs to reduce risk for recidivism

RESPONSIVITY

HOW
Tailor intervention
to learning style,
motivation, culture,
demographics, and
abilities of the
offender

Address the issues that affect responsivity

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.





- 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



- 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



- 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).



MENTAL HEALTH

- 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 & ASSESSMENT



- Screening versus Assessments
- Timing: early and repeated
- Validated assessments should be used to inform
 - Sentencing decisions
 - Case management plans
 - Supervision levels
 - Treatment referrals and case planning

DWI OFFENDERS ARE UNIQUE



- Often lack an extensive criminal history
- High degree of denial and separation
 - Alcohol is legal, highly prevalent, and encouraged by societal norms
 - Tend to be employed
 - May have a stable social network
 - Do not view themselves as criminals
- Repeatedly engage in dangerous behavior

DWI offenders tend to score lower on traditional risk assessments

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.

High Risk/
High Need

Low Need

Low Risk/
High Need

Low Need

Low Need

- **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 Dysthymia Bipolar I Disorder Bipolar II

Disorder Panic Disorder Alcohol Abuse Alcohol

Dependence Post Traumatic Stress Disorder

Personality
Tobacco Use
Oppositional
Intermittent
Disorder
Conduct Disorder

Substance Dependence
Eating Disorders

DUI Behavior

Defiant Disorder

Explosive

DUI Behavior

Criminal History

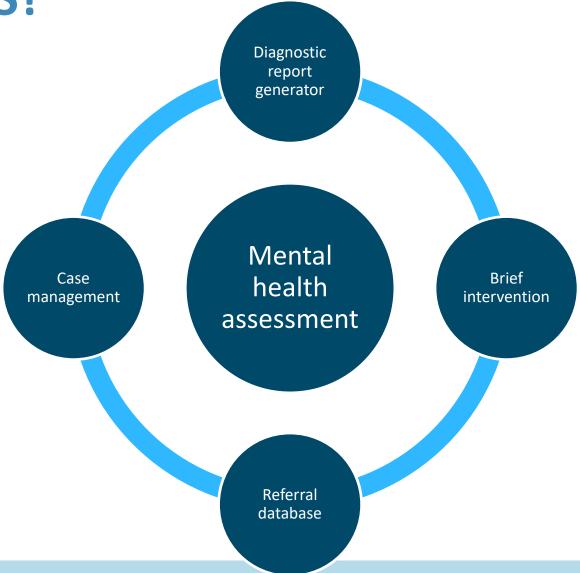
Personality Disorder Psychosocial Risks Peer

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.

Substance dependence

Mental health issues





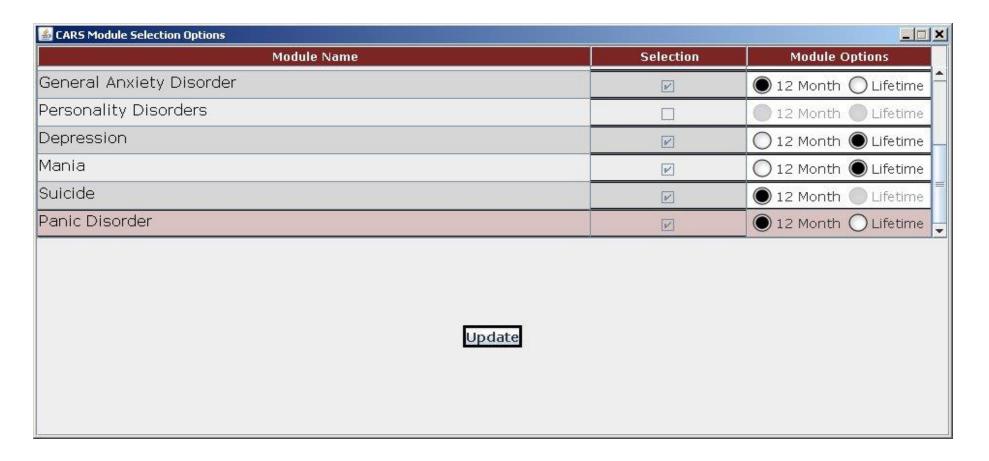


- The CARS tool is a completely electronic assessment tool. It is available as free open source software.
- There are three versions of the CARS tool that can be used:
 - Full assessment
 - Screener
 - Self-administered screener
- CARS is divided into modules representing various mental disorders and 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.

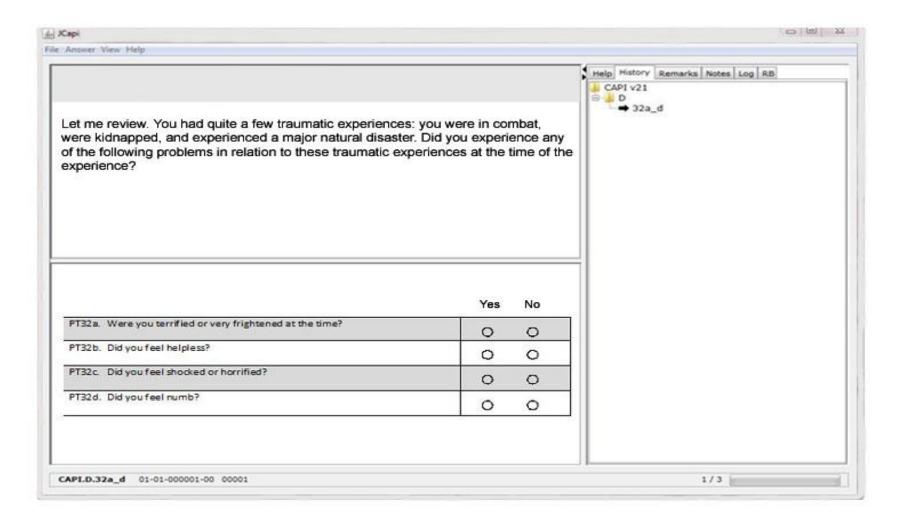


CARS comprehensive mental health screener domains				
Panic disorder	Social phobia	Eating disorders		
Intermittent explosive disorder	Attention deficit/hyperactivity disorder	Obsessive compulsive disorder		
Depression	Generalized anxiety	Suicidality		
Mania/bipolar disorder	Post-traumatic stress disorder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











- 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
Alcohol Abuse	PY		
Obsessive Compulsive Disorder			
<u>Psychosis</u>			
Conduct Disorder			

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

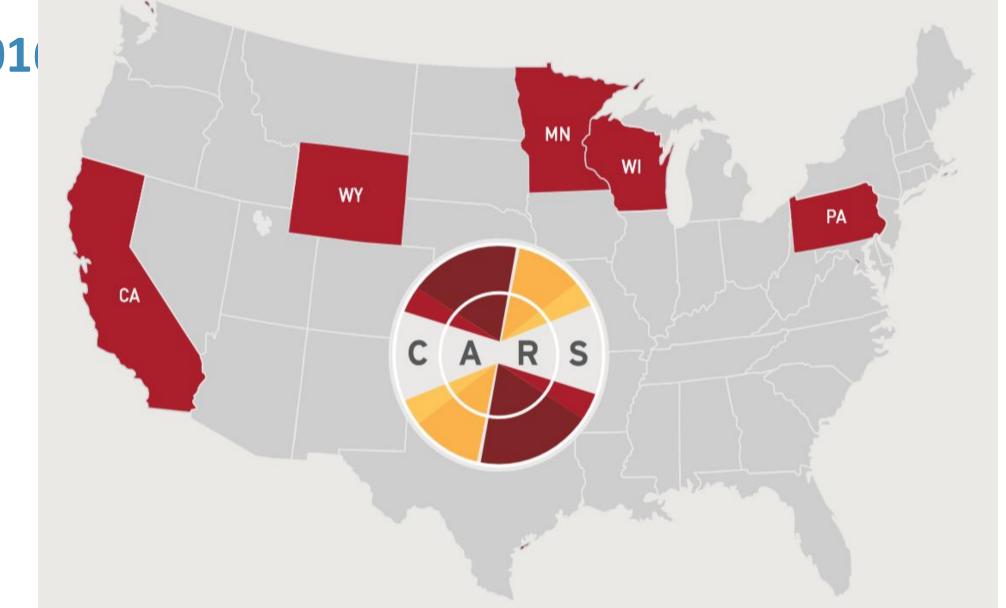
- The study found that a positive screen indicates that further assessment is required, not that the respondent qualifies for the disorder and that the completion of full CARS provides diagnostic information.
- Results from the self-administered version of the screener do not differ fundamentally from those for the intervieweradministered 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?		0	0	0	0	0
SC37b. How much did your attacks of anger ever interfere with your work, your social life, or your personal relationships?		0	0	0	0	0
SC37c. How much did your episodes of feeling depressed or discouraged ever interfere with your work, your social life, or your personal relationships?		0	0	0	0	0
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?	0	0	0	0	0	0
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?		0	0	0	0	0
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?	0	0	0	0	0	0
SC37g. How much did your smoking ever interfere with your work, your social life, or your personal relationships?		0	0	0	0	0
SC37h. How much did your drinking ever interfere with your work, your social life, or your personal relationships?		0	0	0	0	0
SC37i. How much did your drug use ever interfere with your work, your social life, or your personal relationships?		0	0	0	0	0
SC37j. How much did your gambling ever interfere with your work, your social life, or your personal relationships?		0	0	0	0	0
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?		0	0	0	0	0

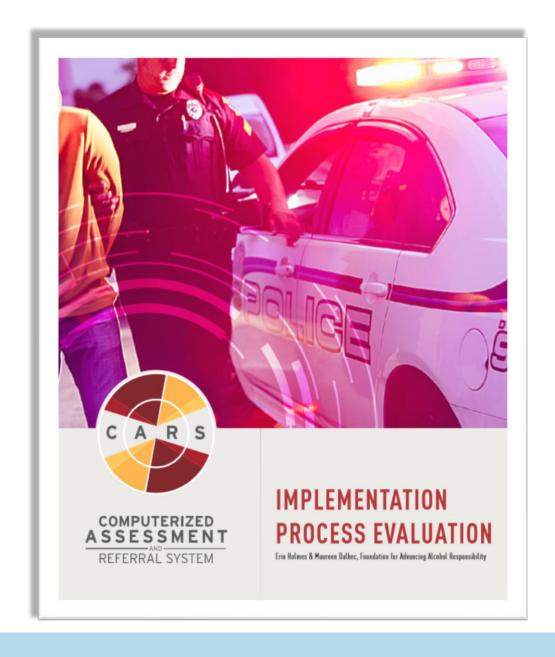


Future considerations

- 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

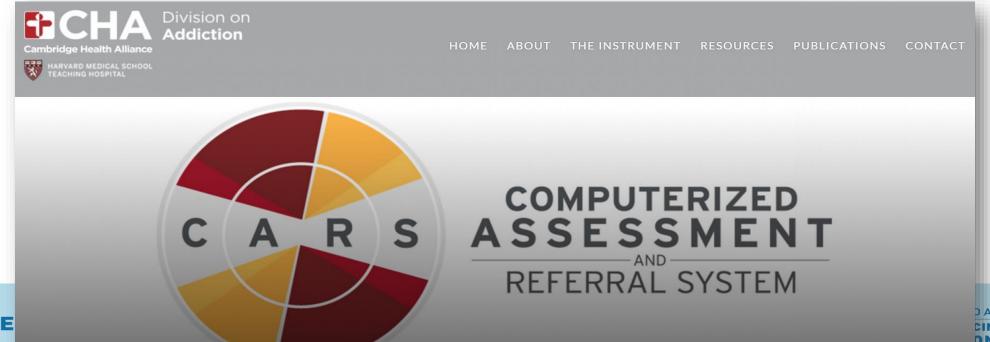
- Provides immediate diagnostic information for up to 20 major psychiatric disorders.
- Provides geographically and individually targeted referrals to appropriate treatment services.
- Generates user-friendly reports at the click of a button.
- Informs supervision and treatment decisions.
- Runs on free 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







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.





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, posttraumatic stress disorder, bipolar disorder).



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

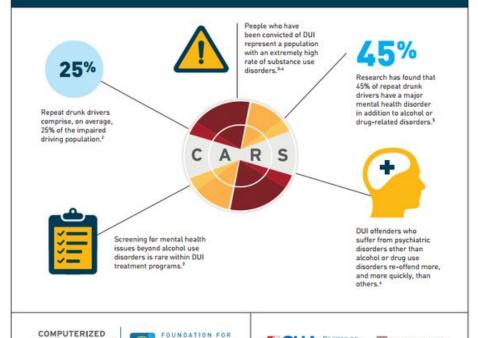


CARS provides referrals to treatment services based on an individual's diagnostic information and ZIP code.



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

HARVARO MEDICAL SCHOOL



ADVANCING ALCOHOL

RESPONSIBILITY

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



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

reconstate.

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











ASSESSMENT

REFERRAL SYSTEM