
What Is CARS?

CARS (i.e., the Computerized Assessment and Referral System) is an easy to use software package that includes a mental health screener and generates individualized clinical reports. This computer guided interview incorporates a structured diagnostic mental health assessment adapted from an internationally-validated instrument. Comprehensive clinical assessment tools can provide high quality diagnostic information that helps treatment planning, but commonly are not user-friendly. CARS packages a powerful mental health assessment tool with a user-friendly interface. CARS is flexible and provides immediate personalized output. CARS is a tool that laypeople can use easily to administer comprehensive mental health assessments. CARS output includes personalized information about the mental health disorders for which a client qualifies or is at risk, a summary of other risk factors and important issues, and a list of resources targeted by a client's issues and location.

Why Do People and Programs Need CARS?

Mental health problems that extend beyond substance use disorders are common among people with addiction, and can affect treatment outcomes (see Nelson et al., 2015). Yet, in a variety of clinical settings (e.g., addiction treatment facilities or DUI offender programs; see Shaffer et al., 2007), clients often do not undergo comprehensive screening for psychiatric disorders. Even when treatment programs attempt to estimate the extent of psychiatric disorders, in the absence of systematic screening tools, those efforts often are inaccurate. Consequently, standardized and automated assessment and diagnosis tools are essential to the widespread adoption of mental health screening. Because CARS uses the internationally-recognized CIDI (i.e., Comprehensive International Diagnostic Interview), the included assessments are well-validated and reliable.

How Has CARS Been Developed and Tested?

CARS is adapted from the Composite International Diagnostic Instrument (CIDI). We have collaborated with one of the founders of the CIDI, Dr. Ron Kessler and his team at the Harvard School of Public Health, to modify the CIDI for CARS. CARS also takes advantage of open source software (i.e., Java, Drools, and MySQL), reducing costs to potential users. CARS also includes a report generator to provide both diagnostic information and summary risks, as well as a zip code-based resource and referral database system. We conducted usability trials of CARS with DUI program providers in Massachusetts. We revised CARS based on those trials. CARS versions now include Full CARS, the CARS screener, and the self-administered CARS screener, described in more detail on the next page. We also conducted a randomized trial of CARS versions compared to intake as usual at two DUI programs. We are using these trials to assess the validity of the screener module included with CARS, as well as the potential for CARS to serve as a brief intervention.

Available CARS Versions

CARS pilot sites can choose to use any of the following versions of CARS, depending on their resources and needs. All versions output a comprehensive report to be shared with clients. The mental health issues assessed through the CARS comprehensive mental health screener, which is included in all versions, are listed in Table 1.

1. **Full CARS:** This version of CARS includes a comprehensive mental health screener, as well as modules devoted to further evaluation of depression, bipolar disorder, post-traumatic stress disorder, generalized anxiety disorder, panic disorder, social phobia, alcohol use disorder, drug use disorder, and intermittent explosive disorder. Full CARS also includes a module devoted to assessing DUI and factors related to DUI recidivism, a module that assesses suicidality, and a personality disorder screener. Pilot sites using full CARS can choose which of these modules they want to use and whether they want to use the past 12-month or full lifetime version of each module. Full CARS takes between 1 and 2 hours to administer, depending on which modules are selected.
2. **CARS Screener:** This version of CARS includes the same comprehensive mental health screener as Full CARS. The screener was specifically constructed and modified during our trials to be able to stand alone as a screener for programs without the time or resources to conduct full CARS. The CARS Screener takes between 30 minutes and 50 minutes to administer.
3. **Self-Administered CARS Screener:** This version of CARS has identical content to the CARS Screener, but has been modified for self-administration by clients. The Self-Administered CARS Screener takes between 20 minutes and 50 minutes to complete.

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	Conduct Disorder
Oppositional Defiant Disorder	Psychosis	Nicotine Dependence
Alcohol Use Disorder	Drug Use Disorder	Gambling Disorder
Psychosocial Stressors	DUI/Criminal Behavior	

References

- Nelson, S. E., Belkin, K., LaPlante, D. A., Bosworth, L., & Shaffer, H. J. (2015). A prospective study of psychiatric comorbidity and recidivism among repeat DUI offenders. *Archives of Scientific Psychology*, 3(1), 8-17.
- Shaffer, H. J., Nelson, S. E., LaPlante, D. A., LaBrie, R. A., Albanese, M. J., & Caro, G. (2007). The epidemiology of psychiatric disorders among repeat DUI offenders accepting a treatment sentencing option *Journal of Consulting and Clinical Psychology*, 75(5), 795-804.

COMPUTERIZED ASSESSMENT AND REFERRAL SYSTEM NATIONAL PILOT SITE TRIAL

CARS Pilots

As we prepare for widespread distribution of CARS and use within a variety of settings, the Division on Addiction and the Foundation for Advancing Alcohol Responsibility (Responsibility.org) intend to begin testing the implementation and utilization of the assessment instrument by allowing five programs from across the nation to serve as our initial pilot sites. These sites will be the first to integrate CARS into their programs and will provide valuable information for the standardization and implementation of the assessment tool nationwide.

Commitment and expectations of pilot sites

The selected sites will work closely with the Division on Addiction and Responsibility.org to assess the usability of CARS at their locations and determine best practices for implementation. In return, these sites will have access to individualized support for the use of CARS free of cost.

By applying to be a pilot site, programs agree to the following:

- Designate a staff member who will 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 (travel costs to be covered by Responsibility.org). This individual will receive training on the administration of CARS and will subsequently be responsible for training other staff at the pilot site.
- Administer CARS for either a period of three months or until at least 150 clients have completed the assessment.
- Provide feedback about the implementation process and the use of CARS with clientele to Responsibility.org. This will require participation in bi-weekly or monthly phone calls with Responsibility.org.

Timeline

- **February-March:** Identification and selection of pilot sites.
- **March-May:** Selected sites gather treatment information to populate referral database, install CARS software, participate in the in-person training, and train other staff in the administration of CARS.
- **June:** Pilots are officially launched.
- **June-September:** Pilots are ongoing; site liaisons provide feedback to Responsibility.org staff throughout the duration of the pilot period.

Programs are welcome to continue using CARS when the mandatory pilot period or the minimum participant requirement has been met.

We encourage all programs interested in becoming a CARS pilot site to complete and submit an application to either Responsibility.org or the Division on Addiction.

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)

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.holms@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?
 - a. Pre-trial
 - b. Pre-sentencing
 - c. Post-conviction
 - d. 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?
 - a. Identify the position of the individual(s).

- b. Identify how many staff will be responsible for using CARS.
 - c. 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?
- a. Urban (over 50,000)
 - b. 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.

[Insert Agency Logo]

Computerized Assessment and Referral System (CARS) Evaluation

[Agency name here] is collaborating with the Division on Addiction to evaluate and improve the Computerized Assessment and Referral System (CARS), which will be used for part of your intake. [Agency name here] would like to provide your data from CARS to the Division for research purposes. The Division will not have access to your name or other identifying information, just your data. We would also like to provide the Division with records from your involvement with this program, again with all identifying information removed. The Division will use this information to evaluate CARS and study whether information from CARS can help predict client outcomes and improve our services. The Division will not share your individual data with anyone else. Signing this release is voluntary. You have the choice to sign or not. If you decide to sign, you will be given a copy of the signed form.

The reason why you have been invited to be part of this research is because you are receiving services at an agency participating in a national pilot of CARS. If you sign this release, the Division will have access to your CARS data, as well as your records from this program for up to five years from this date. If you want to let the Division access your CARS data but not your records, that is okay, too. You can indicate what you release using the checkboxes below.

If you have any questions or concerns, please contact:

Dr. Sarah Nelson
Associate Director of Research
Division on Addiction, Cambridge Health Alliance
Assistant Professor of Psychiatry
Harvard Medical School
snelson@hms.harvard.edu

Authorization: I have read this form and give my consent to release the following information to the Division for research purposes. I understand that the Division will not have access to my name or identifying information.

yes no

I consent to have [Agency Name here] share my CARS data with the Division on Addiction.

yes no

I consent to have [Agency Name here] share my program records with the Division on Addiction up to five years from this date.

Client Signature

Date

Signature of Staff Obtaining Release

Date