

# Treatment Research Institute

## Annual Progress Report: 2009 Formula Grant

### Reporting Period

July 1, 2010 – June 30, 2011

### Formula Grant Overview

The Treatment Research Institute received \$171,222 in formula funds for the grant award period January 1, 2010 through December 31, 2011. Accomplishments for the reporting period are described below.

### Research Project 1: Project Title and Purpose

*Assessing DUI Offenders' Needs and Risks to Improve Treatment and Supervision in Pennsylvania* - Current statutes do not take into account the full range of DUI offenders' needs and risks when determining their disposition and placement. Basing initial treatment considerations on blood alcohol concentration alone may result in missed critical opportunities for providing necessary treatment to those with severe drug or alcohol problems. Following in the footsteps of the Drug Court Risk and Needs Triage (RANT), the purpose of the current project is to develop a brief assessment that incorporates a comprehensive set of evidence-based markers of alcohol dependence and predictors of DUI recidivism. The assessment will address both public health and public safety considerations by helping to determine the optimal combination of treatment and/or criminal justice supervision for DUI offenders and promote evidence-based dispositions for DUI offenders.

### Anticipated Duration of Project

1/1/2010 - 12/31/2011

### Project Overview

Tailoring treatment and supervision to the specific needs and risks of criminal offenders have been shown to result in substantial improvements to the health of the individuals and our communities. In *Phase I* we will identify robust predictors of DUI recidivism (risk). Markers of alcohol dependence (need) will be derived from the criteria for alcohol dependence identified in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). During *Phase II* an expert panel will review and finalize the list of predictors of DUI recidivism and markers of alcohol dependence. The panel will include experts in criminal justice research, alcohol abuse and dependence, DUI recidivism, psychometric analysis, and those working with DUI offenders in the criminal justice system. In *Phase III* we will create a preliminary triage assessment that incorporates each of the final set of need and risk items identified by the expert panel. This web-based triage will be modeled after and use the same format as our existing RANT instrument that

is currently used in several drug courts throughout the U.S. This Phase will involve development of a tool that will: (1) be capable of administration in *less than 10 minutes* due to the large numbers of arrestees in most jurisdictions; (2) be capable of administration by *non-clinically trained probation officers* who may have limited interviewing experience; (3) be capable of generating *immediate scoring outputs* that would be available in real time to make treatment and supervision determinations and that could be easily and quickly read and understood by non-clinicians; and (4) transfer de-identified data to the Treatment Research Institute's (TRI's) secure server in a highly encrypted manner. During *Phase IV* we will administer the completed triage assessment to 30 first time DUI offenders and 30 repeat DUI offenders ( $\geq 1$  offense) to examine between group differences on each item and risk and need summary scores. Individuals who have been recently arrested and convicted of DUI offenses in Union and Snyder County, PA will be asked by the Probation Officer *at the time of their initial probation interview* if they would be interested in participating in the pilot DUI RANT. Many items will be completed by the Probation Officer through available records, while some items may need to be clarified with the participants. Finally in *Phase V* we will reconvene our expert panel via teleconference to review the psychometric and between group findings, determine suitable scoring algorithms and weighting of items, generate a list of treatment and supervisory recommendations for each quadrant (i.e., high/low risk, high/low need), and outline potential sentencing recommendations to be developed into a policy brief and a future longer-term grant proposal.

### **Principal Investigator**

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### **Other Participating Researchers**

Karen Dugosh, PhD – employed by Treatment Research Institute

### **Expected Research Outcomes and Benefits**

A critical challenge for our field is to devise an evidence-based system to reliably assess DUI offenders as soon as possible following the point of arrest not only to help inform their dispositions, but also to direct them to the most effective and cost-efficient treatment services. This requires simultaneous attention to offenders' clinical needs and criminogenic risks. Clinical needs are those areas of dysfunction that if adequately addressed would both improve their health and reduce the likelihood of continued criminal involvement. Criminogenic risks are characteristics of offenders that make them more likely to recidivate and more likely to pose a risk to public safety. Accurate assessment of individuals' needs and risks will help to determine the optimal level of treatment services and criminal justice supervision necessary to ensure more successful outcomes.

This project will develop and evaluate a brief assessment designed to identify need and risk factors related to DUI recidivism. The expert panel will generate specific recommendations for treatment placement and dispositions for DUI offenders as a function of their level of need and risk. Although the current project may have no direct benefit for current project participants, the triaging system developed through the project may help future DUI offenders receive an optimal combination of treatment and/or criminal justice supervision. This could have significant benefits for the Commonwealth by addressing both issues of public health and public safety.

### **Summary of Research Completed**

During the current reporting period, we completed Phase II of the project. Phase II involved the development of the risk and clinical need items that are to comprise the DUI RANT. We convened an expert panel to determine which risk and clinical need items to include in the preliminary version of the assessment. The panel consisted of five experts in the fields of criminal justice research, criminal justice practice (i.e., probation officer, defense attorney), substance use disorders, DUI recidivism, and instrument development. Prior to the meeting, the annotated bibliography that was compiled during Phase I was mailed to all panel members. They were instructed to review the document prior to the panel meeting for its completeness and relevance. When the expert panel convened, members were re-introduced to the aims of the project as well as their role in the DUI RANT development process. Following this introduction, the group reviewed potential predictors of risk of recidivism that were presented in the annotated bibliography and identified the most critical items. In addition, panel members identified several new items that they felt should be included in the instrument. This process was then repeated to identify the most robust markers of clinical need. The discussion culminated in the identification of 6 markers of substance dependence. These 30 items were selected for inclusion in the DUI RANT.

After identifying items that would comprise of the preliminary DUI RANT, we proceeded to Phase III of the study which involved developing the 30 items into a web-based system that could be easily completed by DUI Court personnel electronically. TRI's programmer developed those items into a highly secure ASP.NET application using an MS SQL Server. The system transmissions were industry-standard encrypted using 128 bit SS. The user-interface consisted of simple-to-read input screens that presented each item one at a time. Each item was accompanied by a help menu that clearly describes the intent and rationale for the item and specific instructions for interviewers. The resulting system was very similar to that of our existing Drug-Court RANT.

Once the system was developed, we proceeded to Phase IV of the study. In this phase, we examined the discriminative utility of the DUI RANT items in a small pilot study with the goal of identifying which items best discriminated between first-time and repeat DUI offenders. In the study, DUI RANTs were completed on 60 individuals who had been recently arrested and convicted of DUI offenses in Union and Snyder Counties in Pennsylvania. The sample was comprised of 30 first time DUI offenders and 30 repeat DUI offenders. Union and Snyder Probation Officers (POs) completed the DUI RANT assessment at the time of the offender's initial probation interview. The DUI RANT items were completed to reflect client's status at the *time of the current conviction* for first-time offenders and the *time of their first conviction* for

repeat offenders. DUI RANT items were completed and/or corroborated by the Probation Officer through available client records and self-report data obtained through interviews of the study participants. Importantly, TRI staff met with the PO's who would be collecting the study data to train them on how to complete the DUI RANT as well as to teach them about interviewing techniques and research practices. This training included the topics of informed consent, human subjects protections, and confidentiality.

Once DUI RANTs were completed for the sample of 60 participants, the data was downloaded and imported into SPSS. The data was screened by TRI's data analyst for outliers using standard data cleaning techniques. Following this process, analyses were conducted to identify DUI RANT items on which first-time and repeat offenders differed at the time of their first arrest (i.e., the current arrest for first-time offenders and the first arrest for repeat offenders). T-tests were performed for continuous risk and clinical need items (e.g., age of first use, number of prior alcohol treatments, number of prior felony arrests) and chi-square analyses were performed for binary and other categorical variables (e.g., valid driver's license at the time of the arrest, any binge use or loss of control). The data analyst reviewed the data with the PI and Co-PI to identify which items represented the best markers of risk and clinical need based on their ability to discriminate between first-time and repeat offenders.

These results are currently being summarized for presentation at the upcoming expert panel meeting scheduled for early September 2011. At the upcoming meeting we will present the study results to panel members. At this meeting, the PI, Co-PI, and expert panel members will discuss the study findings and identify which risk and clinical need items should be retained in the final version of the DUI RANT.