

**Pennsylvania Department of Health
Final Performance Summary Report
Formula Grants**

Overview of the Health Research Project Performance Review Process and Criteria

An applicant that receives a health research grant under Tobacco Settlement Act / Act 77 of 2001, Chapter 9, is subject to a performance review by the Department of Health upon completion of the research project. The performance review is based on requirements specified by Act 77 and criteria developed by the Department in consultation with the Health Research Advisory Committee.

As part of the performance review process, each research project contained in a grant is reviewed by at least three experts who are physicians, scientists or researchers. Reviewers are from the same or similar discipline as the research grant/project under review and are not from Pennsylvania. Reviewers use the applicant's proposed research plan (strategic plan), the annual progress report and final progress reports to conduct the review. A grant that receives an unfavorable performance review by the Department may be subject to a reduction in funding or become ineligible for health research funding in the future. The overall grant evaluation rating is based on the ratings for the individual research projects contained in the grant.

This performance review report contains the outcome of the review for the grant as a whole (outstanding, favorable, or unfavorable), strengths and weaknesses of each research project, as well as recommendations for future improvement.

The following criteria were applied to information submitted by research grant recipients:

- **Criterion 1 - How well did the project meet its stated objectives? If objectives were not completely met, was reasonable progress made?**
 - Did the project meet the stated objectives?
 - Were the research design and methods adequate in light of the project objectives?
 - Consider these questions about data and empirical results: Were the data developed sufficiently to answer the research questions posed? Were the data developed in line with the original research protocol?
 - If changes were made to the research protocol, was an explanation given, and, if so, is it reasonable?
 - Consider (only for clinical research projects) the extent of laboratory and clinical activities initiated and completed and the number of subjects relative to the target goal.
 - Were sufficient data and information provided to indicate or support the fact that the project met its objectives or made acceptable progress?
 - Were the data and information provided applicable to the project objectives listed in the strategic research plan?

- **Criterion 2 - What is the likely beneficial impact of this project? If the likely beneficial impact is small, is it judged reasonable in light of the dollars budgeted?**
 - What is the significance of this project for improving health?
 - Consider the value of the research completed towards eventual improvement in health outcomes.
 - Consider any changes in risk factors, services provided, incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of impact and effectiveness of the research being conducted.
 - Consider any major discoveries, new drugs and new approaches for prevention, diagnosis and treatment, which are attributable to the completed research project.
 - What are the future plans for this research project?

- **Criterion 3 - Did the project leverage additional funds or were any additional grant applications submitted as a result of this project?**
 - If leveraging of funds were expected, did these materialize?
 - Are the researchers planning to apply for additional funding in the future to continue or expand the research?

- **Criterion 4 - Did the project result in any peer-reviewed publications, licenses, patents, or commercial development opportunities? Were any of these submitted/filed?**
 - If any of the above listed were expected, did these materialize?
 - Are the researchers planning to submit articles to peer-reviewed publications, file for any licenses, or patents or begin any commercial development opportunities in the future?
 - Consider the number/quality of each.

- **Criterion 5 - Did the project enhance the quality and capacity for research at the grantee's institution?**
 - Were there improvements made to infrastructure?
 - Were any new investigators added or were any researchers brought into the institution to help carry out this research?
 - Were funds used to pay for research performed by pre- or post-doctoral students?

- **Criterion 6 - Did the project lead to collaboration with research partners outside the institution, or new involvement with the community?**
 - Are the researchers planning to begin any collaborations as a result of the research?
 - For clinical research only: consider the number of hospitals and health care professionals involved and the extent of penetration of the studies throughout the region or the Commonwealth.

Overall Evaluation Rating

An overall evaluation rating is assigned to each research project. The rating reflects the overall progress the project attained in meeting the stated goals and objectives. The rating is based on a scale of 1–3, with 1 being the highest. An average rating is obtained from all the reviews (minimum of 3) of each project and is the basis for the determination of the final overall rating for each project as follows:

1.00 – 1.33 = *Outstanding*

1.34 – 2.66 = *Favorable*

2.67 – 3.00 = *Unfavorable*

The grant level rating is an average rating from all projects as above. The numerical rating appears in parentheses for the grant and each project in the ***Overall Grant Performance Review Rating*** section of the report.

Overall Grant Performance Review Rating

Grant Rating: Favorable (2.00)

Project Rating:

Project	Title	Average Score
0991101	Assessing DUI Offenders' Needs and Risks to Improve Treatment and Supervision in Pennsylvania	Favorable (2.00)

Project Number: 0991101
Project Title: Assessing DUI Offenders' Needs and Risks to
Improve Treatment and Supervision in Pennsylvania
Investigator: Festinger, David S.

Section A. Project Evaluation Criteria

Criterion 1 - How well did the project meet its stated objectives? If objectives were not completely met, was reasonable progress made?

STRENGTHS AND WEAKNESSES

Reviewer 1:

The project appears to have achieved all its goals. The different phases involved developing a risk assessment using input from a prominent scientific advisory group, testing the questionnaire with 59 DUI offenders and examining items that differed between first-time and repeat offenders. These were the goals listed in the original proposal, and they have all been achieved. The project also provides information about the assessment that was developed and data on some initial validation work conducted with this assessment.

Reviewer 2:

The project made reasonable progress on its goals, and met most of its stated objectives.

Strengths include: 1) The comprehensive and carefully designed literature review; 2) establishment of strong collaborative ties with the local judicial system; 4) a sample size that nearly met the goal; and, 3) development of a simple and quick method for triaging DUI offenders into levels of need and risk.

Weaknesses: It is difficult to evaluate the extent to which goals were fully met due to a lack of information provided in the final report. More details on the statistical analyses and results should be provided in order to fully evaluate the adequacy of the statistical methods.

In the strategic plan, the project investigators indicated that they would conduct an exploratory factor analysis on the need and risk items to determine the extent to which they were independent constructs. This does not appear to have been done, nor is an estimate of the correlation between the constructs provided. Second, it appears as though the original hypothesis was to calculate quantitative need and risk scores, but the scoring described in the final report is binary, classifying individuals into low vs. high risk and/or need. Unfortunately, there is no discussion of the statistical tests or results that led ultimately to a binary scoring approach. It would be useful to know how the high need/risk cutoff of endorsing at least one item was derived. For example, was it based on a percentile ranking or was it derived substantively? Was sensitivity/specificity for DUI status (first-time vs. repeat DUI) evaluated for this cutoff? Were other cutoffs considered? Third, the investigators suggest in the strategic plan that they will evaluate the new

risk/needs assessment across demographic groups. However, it is not clear whether any demographic data was collected, and in the final report, it was indicated that the demographic composition of the sample was unknown. Although the sample size may have precluded an examination of the assessment across demographic groups, it would be useful to know whether the sample was representative of the population of DUI offenders in the two counties.

One of the goals of the project was to 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, yet these recommendations are not discussed in the final report. Therefore, it cannot be determined whether this objective was met.

Reviewer 3:

The project's objectives were spread across four sequential phases. Phase I identified predictors of DUI risk through an exhaustive literature search and identified markers of alcohol dependence through a review of DSM-IV alcohol dependence diagnostic criteria. Phase II involved an expert panel reviewing and finalizing the list of predictors and markers. Phase III was devoted to creating a Web-based triage assessment (i.e., "DUI RANT") based on the items identified by the expert panel. Phase IV involved the administration of DUI RANT to 29 first-time DUI offenders and 30 repeat DUI offenders (>1 offense) to examine between-group differences on each of the assessment's items.

Generally speaking, the investigators did an outstanding job in meeting their objectives. While there was some delay in accomplishing Phase II due to unforeseen difficulties in coordination of the schedules of the expert panel members, the investigators were able to accomplish this phase with the aid of a 12-month no-cost extension. The data generated in Phase IV were sufficient to preliminarily address the utility of the DUI RANT; the analysis of the data was reasonable but rather basic — the repeated univariate t-tests and chi-square analyses likely inflated error, so the investigators are encouraged to use more sophisticated and thoughtful data analytic approaches in future work. Moreover, a weakness of the project is the absence of any of the conventional approaches to demonstrating the psychometric reliability and validity of a scale—in this case, the DUI RANT. It is strongly recommended that the investigators do so in future work. Finally, the investigators appear to have ignored the role of retrospective memory bias (and social desirability and demand characteristics) in repeat offenders using the time of their first DUI arrest as a reference point. Thus, it is unclear to what extent the differences found on the DUI RANT between first-time and repeat DUI offenders are "real," in the sense of not being a product of memory or other biases. Relatedly, the investigators failed to consider demographic factors (e.g., age — repeat offenders may be older) that could have biased their findings. The foregoing are all things that will have to be addressed before it can be argued that the DUI RANT functions as it is intended. That said, this project does appear to have met its objectives, and with additional testing and development, it is likely that the DUI RANT will help to reduce DUI recidivism.

Criterion 2 - What is the likely beneficial impact of this project? If the likely beneficial impact is small, is it judged reasonable in light of the dollars budgeted?

STRENGTHS AND WEAKNESSES

Reviewer 1:

The major goal of this project was to develop a way of identifying individuals who were at high risk for repeat DUI offenses. This project developed an instrument to establish these differences. The initial evaluation of this assessment was conducted by comparing repeat DUI offenders with first-time DUI offenders, and initial findings indicate that these two groups can be differentiated using this questionnaire. However, most of the differences appear to be indicative of more chronic drinking behavior in the repeat, compared with the initial, offenders, which is not surprising. Future work needs to focus on further validation of this instrument using longitudinal research to examine if this is indeed identifying individuals who are likely to be repeat offenders or whether it is just a proxy for intensity of drinking problems. I was disappointed that the final report did not specify future validation plans for this instrument. The investigators are to be commended for the relationships they have established with the DUI regulatory offices, but they should also be cautioned not to disseminate this instrument until the appropriate and full validation has been conducted.

Reviewer 2:

Strength: The project has significant potential to improve adjudication and treatment of DUI offenders, which has implications for reducing DUI recidivism. Reducing DUI recidivism is extremely important given the staggering personal and public health costs of drunk driving. The investigators intend to apply for further funding to continue this line of research.

Reviewer 3:

The likely beneficial impact of the project is an effective, empirically-based triaging approach for DUI offenders. Ultimately, the DUI-RANT may help the efforts to reduce DUI recidivism. While more testing and development of the DUI RANT needs to take place, the approach appears promising. Indeed, the investigators are planning to pursue larger scale NIH funding to further their DUI RANT development efforts. In regard to the dollars invested in the project, the payoff was reasonable in light of the products and potential public health benefits produced.

Criterion 3 - Did the project leverage additional funds or were any additional grant applications submitted as a result of this project?

STRENGTHS AND WEAKNESSES

Reviewer 1:

The funds do not seem to have been leveraged to obtain additional grant funds. The progress report did not provide any details regarding any future research projects.

Reviewer 2:

Strength: The investigators plan to apply for additional funding to continue this line of research. This is important in order to evaluate the extent to which implementation of the developed triage assessment reduces DUI recidivism.

Reviewer 3:

While an NIH application is planned for the future, no leveraging of funds or related additional grant applications occurred during the project period. That said, no leveraging of funds was promised or expected.

Criterion 4 - Did the project result in any peer-reviewed publications, licenses, patents, or commercial development opportunities? Were any of these submitted / filed?

STRENGTHS AND WEAKNESSES

Reviewer 1:

The project resulted in one publication that is under review. It has been provided in the appendix.

Reviewer 2:

Strengths: 1) The investigators have developed a triage assessment that has the potential to be patented and marketed following further validation. 2) The investigators have submitted a related manuscript for publication.

The goal of the submitted manuscript was to review impaired driving policies in the U.S. and to examine the relationship of these policies to alcohol-related traffic fatalities. This manuscript can provide important contextual background for future manuscripts based on the data collected in the current project.

Weaknesses: Currently, there are no submitted manuscripts that specifically use the data collected for this project.

Reviewer 3:

The lack of any peer-reviewed publications, licenses, patents or commercial development is a weakness of the project. Only one manuscript was submitted for publication (and apparently not accepted), and this manuscript has very little to do with the project. Instead, it is a state-by-state review of DUI sanctions and fatalities. In addition, the annotated bibliography developed in Phase I appears nowhere, which is a weakness. It would be a service and a contribution if the bibliography were available by download to interested parties.

Criterion 5 - Did the project enhance the quality and capacity for research at the grantee's institution?

STRENGTHS AND WEAKNESSES

Reviewer 1:

The capacity for research at the institute was not improved. However, the collaboration with the federal DUI department has opened up the opportunity for future collaborative research with this group.

Reviewer 2:

Strength: The project resulted in the establishment of strong collaborative ties with the judicial system and with experts in substance use and psychometric research, which supports the feasibility of additional research on the developed triage assessment.

Weaknesses: The project did not result in improvements to infrastructure, nor were any out-of-state researchers, new investigators or students recruited to participate in the project.

Reviewer 3:

The development of the Treatment Research Institute-housed, Web-based triaging system for DUI offenders represents an enhancement of Treatment Research Institute's infrastructure. The project yielded no new investigators and no funding for pre- or post-doctoral students for Treatment Research Institute.

Criterion 6 - Did the project lead to collaboration with research partners outside of the institution or new involvement with the community?

STRENGTHS AND WEAKNESSES

Reviewer 1:

This project led to collaborations with the staff and parole officers affiliated with the local DUI office. This is a very important component of this project and will definitely pave the way for future work. However, what was disappointing was that the progress report did not provide any details regarding future collaborative projects. With such a community-based project, it is important to keep the work and collaborations going.

Reviewer 2:

Strength: The investigators plan to continue their strong collaboration with the judicial system and experts on substance use and research methodology.

Reviewer 3:

Research collaborators all appeared to come from within Pennsylvania. Only two of the five members of the expert panel were named, and both of them were involved with Treatment Research Institute prior to this project. (A weakness is not naming the other three members; not naming makes it suspect whether there really were five members.) The project did lead to new collaboration with probation officers assigned to triage DUI offenders in two Pennsylvania

counties. However, the investigators appeared not to have asked the probation officers what they thought of DUI RANT. Ultimately, for the DUI RANT to be most useful, those using it (i.e., probation officers) will have to have confidence in it. Future research should address "consumer satisfaction" among probation officers using the DUI RANT.

Section B. Recommendations

SPECIFIC WEAKNESSES AND RECOMMENDATIONS

Reviewer 1:

Let me first clarify that I think that this research is important and necessary and that the project did achieve all its stated goals. The results are interesting; but, in the absence of a plan for how they plan to proceed with validation or use the collaborations that have been established through this initiative, it is hard for me to judge the potential future beneficial impact of this work.

Reviewer 2:

1. Provide more information on the statistical analyses used to develop the triage assessment and the strength of association between the needs and risk constructs.
2. Provide rationale and support for determining the triage assessment cutoff scores.
3. If possible, provide the demographic composition of the sample and comment on representativeness.
4. Provide treatment, supervisory, and sentencing recommendations for each quadrant (i.e., high/low risk, high/low need), per stated objectives for Phase IV of the project.
5. Provide an outline or draft of the proposed manuscript on the findings of the study.

Reviewer 3:

1. The investigators appear to have ignored the role of retrospective memory bias (and social desirability and demand characteristics) in repeat offenders using the time of their first DUI arrest as a reference point. Thus, it is unclear to what extent the differences found on the DUI RANT between first-time and repeat DUI offenders are "real," in the sense of not being a product of memory or other biases. Relatedly, the investigators failed to consider demographic factors (e.g., age — repeat offenders may be older) that could have biased their findings.
2. The lack of any peer-reviewed publications is a weakness of the project. Only one manuscript was submitted for publication (and apparently not accepted), and this manuscript has very little to do with the project. Moreover, the annotated bibliography developed in Phase I appears nowhere, which is a weakness. It would be a service and a contribution if the bibliography were available by download to interested parties.

3. The analysis of the data was a bit weak; i.e., the repeated univariate t-tests and chi-square analyses likely inflated error, so the investigators are encouraged to use more sophisticated and thoughtful data analytic approaches in future work. Moreover, a weakness of the project is the absence of any of the conventional approaches to demonstrating the psychometric reliability and validity of a scale—in this case, the DUI RANT. It is strongly recommended that the investigators do so in future work.
4. A weakness is that the investigators did not ask the probation officers what they thought of DUI RANT. Ultimately, for the DUI RANT to be most useful, those using it (i.e., probation officers) will have to have confidence in it. Future research should address "consumer satisfaction" among probation officers using the DUI RANT.
5. Only two of the five members of the expert panel were named. A weakness is not naming the other three members; not naming makes it suspect whether there really were five members.

Additonal Comments for Treatment Research Institute

Reviewer 3:

This research is a good fit with Treatment Research Institute expertise, and Treatment Research Institute researchers are widely regarded as being tops in their field. The success of this project speaks to Treatment Research Institute's competence and capacity.