

Final Progress Report for Research Projects Funded by Health Research Grants

Instructions: Please complete all of the items as instructed. Do not delete instructions. Do not leave any items blank; responses must be provided for all items. If your response to an item is “None”, please specify “None” as your response. “Not applicable” is not an acceptable response for any of the items. There is no limit to the length of your response to any question. Responses should be single-spaced, no smaller than 12-point type. The report **must be completed using MS Word**. Submitted reports must be Word documents; they should not be converted to pdf format. Questions? Contact Health Research Program staff at 717-783-2548.

1. **Grantee Institution:** Temple University of the Commonwealth System of Higher Education
2. **Reporting Period (start and end date of grant award period):** 01/01/2009 – 12/31/2012
3. **Grant Contact Person (First Name, M.I., Last Name, Degrees):** Germaine A Calicat
4. **Grant Contact Person’s Telephone Number:** 215.204.7655
5. **Grant SAP Number:** 4100047651
6. **Project Number and Title of Research Project:** 19 - *Smoking Cessation in Homeless Shelters: Benefits of Physical Activity and Support*
7. **Start and End Date of Research Project:** 9/15/2009 – 12/1/2010
8. **Name of Principal Investigator for the Research Project:** Jeremy S. Jordan, Ph.D.
9. **Research Project Expenses.**

9(A) Please provide the total amount of health research grant funds spent on this project for the entire duration of the grant, including indirect costs and any interest earned that was spent:

\$ 10,000

9(B) Provide the last names (include first initial if multiple individuals with the same last name are listed) of **all** persons who worked on this research project and were supported with health research funds. Include position titles (Principal Investigator, Graduate Assistant, Post-doctoral Fellow, etc.), percent of effort on project and total health research funds expended for the position. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name	Position Title	% of Effort on Project	Cost
Jordan	Principal Investigator	14%	\$4211.43
Collins	Co-Investigator	14%	\$3229.03
Ibrahim	Investigator	5%	\$1563.12

9(C) Provide the names of **all** persons who worked on this research project, but who *were not* supported with health research funds. Include position titles (Research Assistant, Administrative Assistant, etc.) and percent of effort on project. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name	Position Title	% of Effort on Project
None		

9(D) Provide a list of **all** scientific equipment purchased as part of this research grant, a short description of the value (benefit) derived by the institution from this equipment, and the cost of the equipment.

Type of Scientific Equipment	Value Derived	Cost
None		

10. Co-funding of Research Project during Health Research Grant Award Period. Did this research project receive funding from any other source during the project period when it was supported by the health research grant?

Yes _____ No X _____

If yes, please indicate the source and amount of other funds:

11. Leveraging of Additional Funds

11(A) As a result of the health research funds provided for this research project, were you able to apply for and/or obtain funding from other sources to continue or expand the research?

Yes _____ No X _____

If yes, please list the applications submitted (column A), the funding agency (National Institutes of Health—NIH, or other source in column B), the month and year when the application was submitted (column C), and the amount of funds requested (column D). If you have received a notice that the grant will be funded, please indicate the amount of funds to be awarded (column E). If the grant was not funded, insert “not funded” in column E.

Do not include funding from your own institution or from CURE (tobacco settlement funds). Do not include grants submitted prior to the start date of the grant as shown in Question 2. If you list grants submitted within 1-6 months of the start date of this grant, add a statement below the table indicating how the data/results from this project were used to secure that grant.

A. Title of research project on grant application	B. Funding agency (check those that apply)	C. Month and Year Submitted	D. Amount of funds requested:	E. Amount of funds to be awarded:
None	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _)		\$	\$

11(B) Are you planning to apply for additional funding in the future to continue or expand the research?

Yes _____ No X

If yes, please describe your plans:

12. Future of Research Project. What are the future plans for this research project?

Study has concluded. We will use findings to support research with other marginalized populations. Looking at physical activity as an intervention to promote healthy attitudes and behaviors with underserved and/or vulnerable populations.

13. New Investigator Training and Development. Did students participate in project supported internships or graduate or post-graduate training for at least one semester or one summer?

Yes X No _____

If yes, how many students? Please specify in the tables below:

	Undergraduate	Masters	Pre-doc	Post-doc
Male				
Female			1	
Unknown				
Total			1	

	Undergraduate	Masters	Pre-doc	Post-doc
Hispanic				

Non-Hispanic			1	
Unknown				
Total			1	

	Undergraduate	Masters	Pre-doc	Post-doc
White				
Black				
Asian				
Other			1	
Unknown				
Total			1	

14. Recruitment of Out-of-State Researchers. Did you bring researchers into Pennsylvania to carry out this research project?

Yes _____ No X

If yes, please list the name and degree of each researcher and his/her previous affiliation:

15. Impact on Research Capacity and Quality. Did the health research project enhance the quality and/or capacity of research at your institution?

Yes X No _____

If yes, describe how improvements in infrastructure, the addition of new investigators, and other resources have led to more and better research.

Served as a catalyst for interdisciplinary research team with faculty from public health and sport/recreation management. Research group is still working together on different projects.

16. Collaboration, business and community involvement.

16(A) Did the health research funds lead to collaboration with research partners outside of your institution (e.g., entire university, entire hospital system)?

Yes _____ No X

If yes, please describe the collaborations:

16(B) Did the research project result in commercial development of any research products?

Yes _____ No X

If yes, please describe commercial development activities that resulted from the research project:

16(C) Did the research lead to new involvement with the community?

Yes _____ No X

If yes, please describe involvement with community groups that resulted from the research project:

17. Progress in Achieving Research Goals, Objectives and Aims.

List the project goals, objectives and specific aims (as contained in the grant agreement). Summarize the progress made in achieving these goals, objectives and aims for the period that the project was funded (i.e., from project start date through end date). Indicate whether or not each goal/objective/aim was achieved; if something was not achieved, note the reasons why. Describe the methods used. If changes were made to the research goals/objectives/aims, methods, design or timeline since the original grant application was submitted, please describe the changes. Provide detailed results of the project. Include evidence of the data that was generated and analyzed, and provide tables, graphs, and figures of the data. List published abstracts, poster presentations and scientific meeting presentations at the end of the summary of progress; peer-reviewed publications should be listed under item 20.

This response should be a DETAILED report of the methods and findings. It is not sufficient to state that the work was completed. Insufficient information may result in an unfavorable performance review, which may jeopardize future funding. If research findings are pending publication you must still include enough detail for the expert peer reviewers to evaluate the progress during the course of the project.

Health research grants funded under the Tobacco Settlement Act will be evaluated via a performance review by an expert panel of researchers and clinicians who will assess project work using this Final Progress Report, all project Annual Reports and the project's strategic plan. After the final performance review of each project is complete, approximately 12-16 months after the end of the grant, this Final Progress Report, as well as the Final Performance Review Report containing the comments of the expert review panel, and the grantee's written response to the Final Performance Review Report, will be posted on the CURE Web site.

There is no limit to the length of your response. Responses must be single-spaced below, no smaller than 12-point type. If you cut and paste text from a publication, be sure symbols print properly, e.g., the Greek symbol for alpha (α) and beta (β) should not print as boxes (□) and include the appropriate citation(s). DO NOT DELETE THESE INSTRUCTIONS.

Needs Assessment. During the first stage of the study, we worked with our partnering agency Back on My Feet (BoMF), to recruit their participants for focus groups. The purpose of these focus groups was to determine unique aspects of the homeless population that might impact the design of the smoking cessation intervention for this population. We included this step in our project based on feedback from a previous research grant submission, from which, reviewers questioned whether a standard cessation protocol would be effective with subjects who were experiencing homelessness.

We recruited focus group participants from 4 homeless shelters in Central and North Philadelphia in close collaboration with the BoMF staff. This collaboration of BoMF and project staff allowed for connection and word of mouth about the project among shelter staff, BoMF members, and through the shelter systems. Working with BoMF staff also allowed us to conduct the focus groups at the My Brother's Place shelter in North Philadelphia.

20 male members of BOMF (our target population) completed the focus groups. Qualitative outcomes from the focus groups included clarification that there was enormous interest among smokers to access no cost smoking cessation services. There was also interest in access to nicotine replacement products, and interest in group format counseling to assist smokers in quitting and staying quit for good. Some of the general comments from the participants consisted of having a cessation program that encompassed basic health education and awareness such as dangers of smoking and carcinogens present in cigarettes, urge management and reduction, education and use of NRTs (patch or gum), and preference for group counseling sessions over individual sessions.

Other key information gathered from the focus groups centered on barriers and facilitators to participation. Transportation challenges were identified as the primary barrier to participation. Similarly, payment or reimbursement for public transportation was viewed as a primary incentive to participate. Other facilitators of participation included the provision of snacks or refreshments during groups, given that most groups were likely to occur after clients' work day.

Based on the needs assessment information gathered in focus groups, we decided to conduct smoking cessation classes in the evenings on Temple University main campus to allow for clients to take public transportation (e.g., subway). We purchased and used healthy refreshments at each session, reimbursed for public transportation, and provided gift cards at completion of the program. Funding constraints prevented us to provide no cost nicotine replacement products -- something the clients strongly requested (and which would be standard in any sustained, evidence-based smoking cessation intervention).

8-week Smoking Cessation Group Feasibility Study. As part of this project, key personnel (Collins and Nair) provided the smoking cessation intervention that included materials tailored to the populations' needs. Procedures of the weekly smoking cessation group counseling sessions are described in earlier reports.

We successfully recruited smoking men who were BoMF participants via word of mouth -- 7 smokers enrolled. Three participants (43%) completed the full 8 sessions. In broader cross-

sections of the U.S. populations of smokers, it is typical to have 30-60% drop-out rates. Given that the target population for this project is among the most challenging to enroll and have the highest recidivism in structured counseling interventions, we rate this enrollment and retention as a moderate success.

Among the three participants who completed the 8-week intervention, all (100%) had quit by the third week and remained ex-smokers through the remainder of the program. A conservative approach to reporting a quit rate for this program would classify those who dropped out as non-quitters. This would result in a quit rate of 43%. While interpretations of this rate should remain cautious - we want to point out those typical quit rates for smoking cessation counseling programs that do not use nicotine replacement products or withdrawal medications (e.g., Chantix, Bupropion) are typically in the 5-10% range. Given that all participants reported being in recovery for other substance dependence (e.g., cocaine, heroin, etc.), we believe that the quit rates and retention rates were positive reflections of the feasibility of this intervention.

Lessons learned from the feasibility trial include our recognition that transportation, location of groups, and timing around work and shelter schedules was a challenge and a barrier to many who wanted to participate, or who dropped out. An enormous barrier was lack of ability to contact participants (most of whom did not own cell phones, and as homeless individuals, did not have routine contact information.) Furthermore, the BoMF organization continues to test strategies to track participants once they leave the shelter system and their program. This lack of tracking prevented our staff from contacting participants for the 3-month follow-up assessment. Future smoking intervention studies in this population should consider the provision of prepaid cell phones as an incentive to participate -- and as a strategy for participant retention. Also, the lack of nicotine replacement turned some prospective enrollees away.

One of the biggest motivators for smoking cessation and stay quit (relapse prevention) that were repeatedly noted by all participants was that they wanted to quit to improve their physical activity (running races) performance. All participants noted soon after quitting that they observed acute improvements in their respiratory and cardiovascular symptoms associated with smoking -- and that their endurance improved. This experience continued to motivate those who quit smoking. Future programs should capitalize on the mutual benefits of physical activity and smoking cessation, and how positive changes in one behavior can affect positive changes in the other behavior.

Since the project commenced, the project team has expanded into a sustained working group that shares overlapping scientific and treatment interest in bridging physical activity and smoking cessation (and other substance dependence) programs for underserved populations, such as the homeless.

18. Extent of Clinical Activities Initiated and Completed. Items 18(A) and 18(B) should be completed for all research projects. If the project was restricted to secondary analysis of

clinical data or data analysis of clinical research, then responses to 18(A) and 18(B) should be “No.”

18(A) Did you initiate a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes
 No

18(B) Did you complete a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes
 No

If “Yes” to either 18(A) or 18(B), items 18(C) – (F) must also be completed. (Do NOT complete 18(C-F) if 18(A) and 18(B) are both “No.”)

18(C) How many hospital and health care professionals were involved in the research project?

 0 Number of hospital and health care professionals involved in the research project

18(D) How many subjects were included in the study compared to targeted goals?

 15 Number of subjects originally targeted to be included in the study
 7 Number of subjects enrolled in the study

Note: Studies that fall dramatically short on recruitment are encouraged to provide the details of their recruitment efforts in Item 17, Progress in Achieving Research Goals, Objectives and Aims. For example, the number of eligible subjects approached, the number that refused to participate and the reasons for refusal. Without this information it is difficult to discern whether eligibility criteria were too restrictive or the study simply did not appeal to subjects.

18(E) How many subjects were enrolled in the study by gender, ethnicity and race?

Gender:

 7 Males
 Females
 Unknown

Ethnicity:

 Latinos or Hispanics
 7 Not Latinos or Hispanics
 Unknown

Race:

- American Indian or Alaska Native
 Asian
 Blacks or African American
 Native Hawaiian or Other Pacific Islander
 White
 Other, specify: _____
 Unknown

18(F) Where was the research study conducted? (List the county where the research study was conducted. If the treatment, prevention and diagnostic tests were offered in more than one county, list all of the counties where the research study was conducted.)

Philadelphia County - Temple University

19. Human Embryonic Stem Cell Research. Item 19(A) should be completed for all research projects. If the research project involved human embryonic stem cells, items 19(B) and 19(C) must also be completed.

19(A) Did this project involve, in any capacity, human embryonic stem cells?

- Yes
 No

19(B) Were these stem cell lines NIH-approved lines that were derived outside of Pennsylvania?

- Yes
 No

19(C) Please describe how this project involved human embryonic stem cells:

20. Articles Submitted to Peer-Reviewed Publications.

20(A) Identify all publications that resulted from the research performed during the funding period and that have been submitted to peer-reviewed publications. Do not list journal abstracts or presentations at professional meetings; abstract and meeting presentations should be listed at the end of item 17. **Include only those publications that acknowledge the Pennsylvania Department of Health as a funding source** (as required in the grant agreement). List the title of the journal article, the authors, the name of the peer-reviewed publication, the month and year when it was submitted, and the status of publication (submitted for publication, accepted for publication or published.). Submit an electronic copy of each publication or paper submitted for publication, listed in the table, in a PDF version 5.0.5 (or greater) format, 1,200 dpi. Filenames for each publication should include the number of the research project, the last name of the PI, the number of the publication and

an abbreviated research project title. For example, if you submit two publications for PI Smith for the “Cognition and MRI in Older Adults” research project (Project 1), and two publications for PI Zhang for the “Lung Cancer” research project (Project 3), the filenames should be:

- Project 1 – Smith – Publication 1 – Cognition and MRI
- Project 1 – Smith – Publication 2 – Cognition and MRI
- Project 3 – Zhang – Publication 1 – Lung Cancer
- Project 3 – Zhang – Publication 2 – Lung Cancer

If the publication is not available electronically, provide 5 paper copies of the publication.

Note: The grant agreement requires that recipients acknowledge the Pennsylvania Department of Health funding in all publications. Please ensure that all publications listed acknowledge the Department of Health funding. If a publication does not acknowledge the funding from the Commonwealth, do not list the publication.

Title of Journal Article:	Authors:	Name of Peer-reviewed Publication:	Month and Year Submitted:	Publication Status (check appropriate box below):
1. None				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published

20(B) Based on this project, are you planning to submit articles to peer-reviewed publications in the future?

Yes _____ No X _____

If yes, please describe your plans:

21. Changes in Outcome, Impact and Effectiveness Attributable to the Research Project.

Describe the outcome, impact, and effectiveness of the research project by summarizing its impact on the incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of outcome, impact or effectiveness of the research project. If there were no changes, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. **DO NOT DELETE THESE INSTRUCTIONS.** There is no limit to the length of your response.

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22. Major Discoveries, New Drugs, and New Approaches for Prevention Diagnosis and Treatment. Describe major discoveries, new drugs, and new approaches for prevention, diagnosis and treatment that are attributable to the completed research project. If there were no major discoveries, drugs or approaches, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. **DO NOT DELETE THESE INSTRUCTIONS.** There is no limit to the length of your response.

None

23. Inventions, Patents and Commercial Development Opportunities.

23(A) Were any inventions, which may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this health research grant? Yes _____ No X

If “Yes” to 23(A), complete items a – g below for each invention. (Do NOT complete items a - g if 23(A) is “No.”)

a. Title of Invention:

b. Name of Inventor(s):

c. Technical Description of Invention (describe nature, purpose, operation and physical, chemical, biological or electrical characteristics of the invention):

d. Was a patent filed for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?

Yes_____ No____

If yes, indicate date patent was filed:

e. Was a patent issued for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?

Yes_____ No____

If yes, indicate number of patent, title and date issued:

Patent number:

Title of patent:

Date issued:

f. Were any licenses granted for the patent obtained as a result of work performed under this health research grant? Yes_____ No____

If yes, how many licenses were granted?_____

g. Were any commercial development activities taken to develop the invention into a commercial product or service for manufacture or sale? Yes___ No____

If yes, describe the commercial development activities:

23(B) Based on the results of this project, are you planning to file for any licenses or patents, or undertake any commercial development opportunities in the future?

Yes_____ No ___X_____

If yes, please describe your plans:

24. Key Investigator Qualifications. Briefly describe the education, research interests and experience and professional commitments of the Principal Investigator and all other key investigators. In place of narrative you may insert the NIH biosketch form here; however, please limit each biosketch to 1-2 pages. *For Nonformula grants only – include information for only those key investigators whose biosketches were not included in the original grant application.*

Jeremy Jordan, PhD., Dr. Jordan is an Associate Professor at Temple University in School of Tourism and Hospitality Management and the Director of the Sport Industry Research Center. Dr. Jordan's research examines the individual and community level benefits of mass participant sport events as well as programs that promote physical activity. Dr. Jordan has received prior funding to study the relationship between structured physical activity programs and behavioral change with vulnerable populations. This research has involved the development and implementation of an assessment models to measure the effectiveness of the services and programming offered by these organizations. Findings from this work have been disseminated through academic publications, conferences and mass media outlets.

Bradley Collins, Ph.D., Temple University, Dr. Collins is an Associate Professor in Public Health in Temple University's College of Health Professions and Social Work. He is Director of the Health Behavior Research Clinic and Director of the Public Health PhD Program. He has been PI on numerous funded projects including 3 NIH/NCI intervention trials as well as behavioral health service contracts. He has over 10 years of experience developing, implementing, and evaluating behavioral health interventions that target underserved populations. Intervention delivery and research experience relevant to this proposal include smoking cessation in mental health and polysubstance abusing populations, promoting physical activity in sedentary populations, addressing low health literacy in high risk populations, and promoting maternal health education (e.g., breastfeeding, nutrition) and secondhand smoke reduction among low-income women

Jennifer Ibrahim, PhD Temple University, Dr. Ibrahim's area of research interest is in health policy development and implementation, particularly at the state and local level. Most recently, she has been investigating means to address tobacco use through cessation treatments and through tobacco control policies. Dr. Ibrahim also serves as Associate Director of Public Health Law Research and is working to develop courses in health policy, including a theories class on the development of health policy.