

Tips for Getting Your Dissemination and Implementation (D&I) Grant Funded*

Grant Preparation Checklist

Next, rate yourself on a 1-5 scale for how well you have addressed each issue below (1= completely; 3= fairly well; 5 = not clearly or thoroughly). For those areas in which you score 3 or higher you may want to *click on the relevant link for resources* to help you improve this feature.

General Tips and Issues to Address:

- Be clear (have several people read your aims)
- Use tables and figures for key issues such as:
 - Recruitment expectations (expanded [CONSORT figure](#) that addresses D&I elements)
 - Components of intervention(s) and comparison condition(s)
 - Key measures/outcomes
- Anticipate challenges- explain your choices nondefensively. Consider using headings to bring attention to sections that you expect reviewers will scrutinize.
- These are guidelines, not gospel.

<i>Click to self rate</i>	<p>Abstract:</p> <ul style="list-style-type: none"> • Include key content relevant to funder and review group; • Summarize aims, study design, key outcomes, number and characteristics of subjects, and implications for public health/impact/funder mission. • This section should help non-experts to understand your project and communicate how your proposal relates to key funder interests or mechanisms
<i>Click to self rate</i>	<p>Specific Aims: (1 page)</p> <ul style="list-style-type: none"> • Provide a brief rationale—state the quality gap and how this application addresses the quality gap; • Specify what is proposed- design; measures; settings/subjects; • Include 2-4 well-articulated aims (what outcomes on what variables, compared to what). • Communicate what is innovative and important implications for impact on public health/clinical practice. • Consider including a brief rationale for each aim • Consider following each aim with a sentence on the methods used to accomplish this aim and the importance of the anticipated findings. • Aims should be related but not contingent upon each other • <i>Come back to aims in various sections-</i> measures, analyses, etc. to show how the aims are addressed
<i>Click to self rate</i>	<p>Significance/Background:</p> <ul style="list-style-type: none"> • Specify need for this research- and how this proposal addresses them

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	<ul style="list-style-type: none"> • BRIEFLY describe the state of the science, include key references, especially classic and recent ones; • Address how this fits the priorities of the funding mechanism and funder. • Keep BRIEF (~1 page) to allow room for detailed APPROACH
<i>Click to self rate</i>	<p>Innovation:</p> <ul style="list-style-type: none"> • BRIEFLY describe the novel products that will stem from this proposal, such as implementation toolkits; • Does this advance theory, methods, impact, and/or application in high risk populations (hopefully more than one of these). • Address how this work fits with recent or upcoming changes in health policy, reimbursement or clinical practice. • Keep BRIEF (~1/2 page) to allow room for detailed APPROACH
<i>Click to self rate</i>	<p>Approach – general requirements:</p> <ul style="list-style-type: none"> • Well-reasoned and appropriate overall strategy, methodology, and analyses; • Are potential problems, alternative strategies, and benchmarks for success presented? • If the project is in the early stage of development, will this proposal establish feasibility and how will potentially risky aspects be managed? • See below for additional recommendations for particular aspects of the Approach
<i>Click to self rate</i>	<p>Preliminary Studies:</p> <ul style="list-style-type: none"> • Focus on your own work; • If studying an evidence-based program, then the supporting evidence-e.g., if any Cochrane or systematic reviews, recommendations or guidelines, followed by your pilot feasibility work and overall expertise, experience, capabilities of your team in this research area; • Include experience and synergy of your team- how members have worked together. • Again, keep relatively brief (~1/2-1 page of preliminary data for each aim)

APPROACH: This is the **most important and heavily weighted** section in reviews; be thorough and clear. Use a logical sequence that maps back to your aims; include tables and figures to break up and clarify text. Show what is innovative about your approach- in terms of theory, methods, intervention, impact, and setting. See [tips for writing your approach](#).

<i>Click to self rate</i>	Conceptual Framework/Theory:
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	<ul style="list-style-type: none"> • Select one or at most two theories or models, usually for both the intervention (if applicable) and the evaluation. • Make sure your selected theory/model(s) fits your problem, context, aims, and level(s) of analysis. • Use the model throughout- show how it explains results, is integrated into intervention components, implementation strategies, measures, hypotheses, and analyses. • Show you understand the model and implications- not just giving lip service. See also: On-line interactive Framework selection tool.
<p><i>Click to self rate</i></p>	<p>Recruitment:</p> <ul style="list-style-type: none"> • Selection of sample at each level of <i>setting(s), staff, and patients</i>. • How did you sample, how many and what type are you recruiting; • How many and characteristics of those invited are estimated to participate- at each of above levels. • Be realistic; base estimates on prior work. • Convince reviewers that you are sensitive to the need to include high-risk populations and sensitive to potential sources of recruiting bias, delays, etc. (Most proposals do not meet recruitment goals on time) • How will you approach participants at each level above to educate, inform, engage them- and maintain their participation? See sample 'Extended CONSORT' recruitment Figure
<p><i>Click to self rate</i></p>	<p>Research Design:</p> <ul style="list-style-type: none"> • Specify and provide the rationale for the design selected as most appropriate for this question in this setting. • How does this design address potential threats to internal <i>and external validity</i>? • What are the strengths and limitations of this design compared to alternative choices you might have selected (or that reviewers might be expecting)? See Designs for D&I research. • What challenges may come up- e.g. contamination, policy changes disrupting the program, secular trends, etc. and how will they be dealt with? • Especially if your design is for a pragmatic trial or comparative effectiveness research, demonstrate how- using the PRECIS-2 wheel or other criteria- your design is pragmatic. • If a comparative study, consider carefully and justify your choice of a comparison condition (e.g., if comparative effectiveness research, then both or all alternative interventions need to be 'real world' alternatives'. See CER that will translate.

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	<ul style="list-style-type: none"> • Consider mixed methods or qualitative research to help design or refine the intervention, and to understand how and why program effects came about (or did not). • <u>See NIH mixed methods resource.</u> If a PCORI or patient engagement application, demonstrate how your design and approach will substantially involve stakeholders (who may be diverse and have quite different perspectives) throughout the project in a meaningful way; not just an initial focus group.
<i>Click to self rate</i>	<p>Intervention: (if applicable):</p> <ul style="list-style-type: none"> • Specify details- e.g., who will deliver, what, when, and how. • Is there a core set of components, or minimum ‘dose’ required (have you or others demonstrated this level of implementation before?). • How appropriate and <i>feasible</i> for this setting is this intervention? • How is it different from or build upon, improve upon earlier research with this type of interventions? • WHY should settings; staff; and patients participate-what is in it for them? • Do current or upcoming policies, reimbursement; guidelines, or requirements support or interfere with this program?
<i>Click to self rate</i>	<p>Implementation Strategy(ies):</p> <ul style="list-style-type: none"> • <u>Distinguish strategies for implementation</u> from the <i>content of the intervention</i> above. • How will the intervention program be introduced, explained, presented, facilitated, supervised, and incentivized; • What strategies will be used to monitor progress, provide feedback on performance, guide adaptations made? <u>See implementation strategies.</u>
<i>Click to self rate</i>	<p>Fidelity and Adaptation:</p> <ul style="list-style-type: none"> • For D&I, one generally wants a balance between fidelity (to core or essential intervention elements) and adaptation (to local circumstances, populations, resources). In diverse, real world settings, not all adaptations are bad! <u>See adaptation articles and models.</u> • Explain exactly how you will measure implementation and fidelity to critical elements of program delivery. • How will you record and report adaptations that occur (and encourage staff and others to report rather than suppress/hide adaptations)? • What rules or guidelines will be used to guide –or restrict adaptations?
<i>Click to self rate</i>	<p>Measures and Outcomes.</p> <ul style="list-style-type: none"> • Clearly specify a primary aim (and power your analyses on this outcome). • Do not have too many key outcomes or aims (reviewers rebel, even if this is the case in the real world :-) • Justify (briefly) the reliability, validity, and appropriateness of your chosen measures for THIS project. If you are not choosing measures that may be

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	<p>other reviewers' favorites (e.g., PROMIS measures; ones your reviewers may have developed but that are impossible to use in real world settings) justify this respectfully. See pragmatic measures resources</p> <ul style="list-style-type: none"> • Show how your measures relate to both your theory and your aims
<i>Click to self rate</i>	<p>Analyses:</p> <ul style="list-style-type: none"> • Explicitly link your analyses to your aims – in the order listed. • Consider restating each aim and then the analyses relevant to this. • Show how your proposed analyses are relevant to address the question at hand, and can address likely challenges, such as dropout, incomplete data, contamination, secular trends, etc. • Most grants require the participation of an experienced statistician. • Consider issues of clustering, violation of assumptions, and how your analyses account for the complexity of the problems addressed such as possible confounding variables. • Demonstrate you have at least power of 80% (preferably 85-90%) given reasonable assumptions about effect size, dropouts, variability, multiple comparisons, etc. Base these estimates on data wherever possible
<i>Click to self rate</i>	<p>Cost, Resources Required and Burden:</p> <ul style="list-style-type: none"> • If possible, estimate the costs and burden required at the relevant levels involved in your study- setting (clinic or hospital), staff (clinical team) and patient/family. • Not all studies require cost or cost-assessment analyses (and some funders, especially PCORI do not allow formal cost-effectiveness analyses, but are interested in intervention costs and burden). For a D&I study, unless it is to have national policy implications, you generally do not need a comprehensive analysis of societal costs or cost-benefit. However, questions about staff time and costs are usually one of the first things that potential adopting settings and participants ask. • Focusing on <i>replication costs</i>, understanding costs and resources required (usually time, equipment and travel resources) from the perspective of different stakeholders, and estimating predicted costs under different future scenarios (sensitivity analyses) can be quite helpful. See assessing costs in D&I

OTHER KEY APPROACH ISSUES:

- Make sure there is clear linkage, consistency, clarity of how your specific aims relate to theory, methods, measures, analyses, etc.
- Use figures and tables to illustrate and clarify any things difficult to explain or that go against convention;
- 'show your work'- there are often not right or wrong decisions, but reviewers want to know you considered alternatives.

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- See recommendations and examples of successful proposals from reviews of funded D&I projects.

<i>Click to self rate</i>	<p>Implications, Dissemination, and Future Research: Leave enough room for these usually final, important sections (cut the intro/significance, preliminary studies if need to create space). Explain where, if successful (and if not, what you will do) and how you will take this research to the next step, broaden its distribution, be applied to a more challenging or broader population, and explain how this current study will inform that.</p> <p>What specific methods to disseminate results will you use? (presentations and journal articles do NOT cut it in D&I, even if in Nature, JAMA, or Science). How will you work with potential users, settings, etc. to package your results, provide trainings, workshops, or ongoing consultations, develop and test guidelines, toolboxes, FAQs, etc.?</p>
<i>Click to self rate</i>	<p>Final Paragraph Summary, Strengths and Limitations. Briefly summarize the key contributions and strengths, acknowledge limitations that all studies have (and if possible here and in more detail in the Approach sections above, how you will anticipate, minimize and address them). Repeat key points in your aims, rationale and why this is a critically important issue, yours is an innovative approach, and why your team is the best group to do this.</p>

Summary of Ratings:

Now print this form, add all your scores above, divide by the number of sections relevant to your grant, and provide your average score here: _____

If this score is more than 3.0, consider if your proposal is not ready for a D&I study or a dramatically different approach and methodology is needed.

In any case, you may want to go back over the areas which you rated 3 or higher, review some resources, and talk with colleagues about their feedback and ideas regarding these sections.

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