Seeking Co-Applicant for NIMH R01 Diversity Supplement

Enhance your career and contribute to a study that relates to implementation science research on digital innovations for scaling home visiting interventions to prevent violence and promote early child development in Rwanda.

Background of Parent Research Project

Sugira Muryango is a home-visiting, evidence-based intervention that offers active coaching for caregivers by community lay-workers trained to deliver sessions including early stimulation promotion, play, nutrition, hygiene, non-violent discipline and responsive parenting. It is based on the Family Strengthening Intervention (FSI) model originally developed and tested in Rwanda. Sugira Muryango empowers low-income families enrolled in Rwanda's social protection system to support early childhood development and healthy family functioning. The funded NIMH funded R01 grant will test an mHealth tool to improve quality of delivery of the evidence-based intervention to promote family mental health and functioning in Rwanda. Intertwined within existing government structures in Rwanda, Sugira Muryango is adaptable, flexible, and empowering for communities, families, and government volunteers implementing the program. Results of the Sugira Muryango intervention demonstrate its effectiveness across the entire family.

Requirements

NIH-designated U.S. populations experiencing health disparities (US Citizenship or Greencard Holder)

NIH's ability to help ensure that the nation remains a global leader in scientific discovery and innovation is dependent upon a pool of highly talented scientists from diverse backgrounds who will help to further NIH's mission. **Learn more here.**

Research Background in Related Fields

Completed at least a masters in social work, public health, early child development, or related fields.

Ability to lead, develop, and implement a research plan related to parent study

The supplement will connect to the project specifically testing an mHealth tool to improve quality of delivery of the evidence-based intervention to promote family mental health and functioning in Rwanda.

The Opportunity

The applicant will have the opportunity to create their own research proposal that builds from the parent project, and have the chance to work with and be mentored by leading experts in the field of parenting and child development, including Dr. Theresa Betancourt from Boston College and Dr. Vincent Sezibera from University of Rwanda.

NIMH Diversity Supplement Benefits

The goal of the supplements is to increase diversity in the research workforce by providing training, mentorship and career development opportunities to individuals who are underrepresented in biomedical, behavioral, clinical, social, and basic sciences research. The individual will get individual and group mentorship to lead the proposal and have the opportunity to connect with key researchers based in Boston and Rwanda.

Learn more about the proposal elements here

Thank you so much for your interest in this co-application for the National Institute of Mental Health (NIMH) diversity supplement proposal. The flyer on the previous page has more information about the project and diversity supplement requirements, as well as the general opportunity. **We are advising all potential applicants to review the NIMH diversity supplement information on their website (link here)** as this federal grant proposal will require applicants to review the specific requirements, including applicant eligibility criteria: *The NIH-designated U.S. populations experiencing health disparities, which include racial and ethnic minority groups, people with lower socioeconomic status, underserved rural communities, sexual and gender minority groups, and people with disabilities. Please review the criteria carefully to ensure you are eligible to co-apply.*

To summarize about this opportunity regarding our research in Rwanda and Sugira Muryango: this co-application would require the interested applicant to propose **an independent research** study connected to the parent grant, which is titled, "*Testing an mHealth Digital Dashboard to improve Quality of Delivery of Evidence-based Interventions that Promote Family Mental Health and Functioning in Rwanda. A Hybrid Type 3 Study.*" This awarded project from the NIMH is available on the NIH reporter website, linked here. **This page will bring you to an overview of the project and a summary of its relevance in the field.**

Building off of the expansion of the Sugira Muryango, or 'Family Strengthening Intervention for Early Childhood Development in Rwanda' study, the Boston College RPCA, University of Rwanda, and partners will test a Digital Dashboard tool that *(a) streamlines collection of data on evidence-based intervention quality and reach; (b) improves visibility and searchability of implementation data by region; (c) facilitates caregiver mental health and social services referrals and follow up; and (d) serves as a training platform with resources to enhance interventionist fidelity and competence.*

The proposed research will investigate dashboard-supported delivery of Sugira Muryango in terms of its reach, efficiency, and cost effectiveness. The aims include:

Aim 1: Conduct a Hybrid Type 3 implementation-effectiveness cluster randomized trial to compare Dashboard-supported delivery of Sugira Muryango to standard delivery in Kirehe District (12 sectors).
Aim 2: Use social network analysis to examine cross-site learning—communications, knowledge flow, stakeholder interactions—across the PLAY Collaborative
Aim 3: Leverage GoR infrastructure to examine whether technology-supported delivery increases Sugira Muryango impact, efficiency, and return-on-investment

The results of the proposed research will identify scalable pathways to accelerate integration of technology and evidence-based mental health services into policy and practice in Rwanda.

Next steps for interested diversity supplement co-applicants would include developing a research plan within the original scope of the parent award, but must not be redundant with the aims already funded in the parent award. The research plan should include methods you

would potentially include. Once this is developed, we would arrange a meeting with our team in which the individual would propose their research plan.

Once the research plan is approved the co-applicant would continue on developing their full proposal, with support from Boston College RPCA, and their mentors.

Diversity supplement proposals must include:

1. Summary or abstract and specific aims of the funded parent grant
2. Candidate eligibility statement
3. Career level requested (e.g., post-doctoral; investigator level)
4. Proposed period of support
5. Biographical Sketch of Principal Investigator (PI) and candidate
6. Candidate statement (summary from candidate outlining career goals)
7. Research environment
8. Proposed budget and justification (refer to NOFO for allowable costs)
9. Research plan
10. Mentorship plan
11. Career development plan

For more information, please review the Diversity Supplement page on the NIH website.

FILLABLE TEMPLATE FOR A BULLETED OUTLINE (CHAPTER 7)

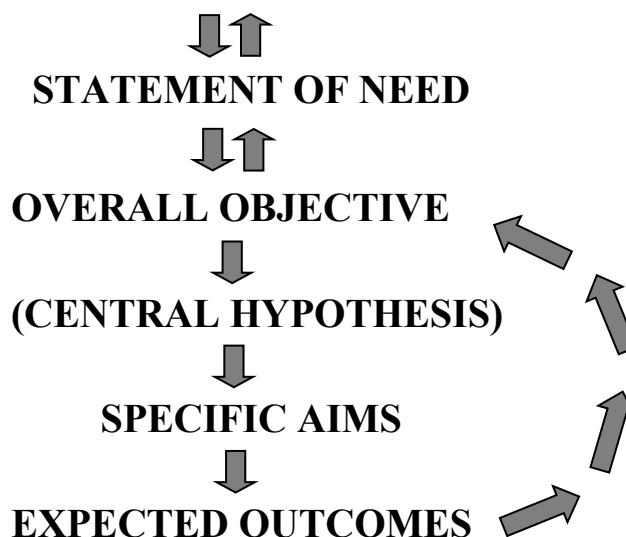## CREATE A BULLETED OUTLINE FOR YOUR SPECIFIC AIMS SECTION

HOW TO CREATE YOUR BULLETED OUTLINE

Here, we include some of what you read in Chapter 7 of your *Workbook* to remind you of what the characteristics of each bullet should be. After writing each bullet, you should delete the preceding text. When you have finished, all you will have to do is expand the bullets into complete sentences and, *voila*, you will have the first draft of your Specific Aims section.

Understanding the purpose of each component will help to ensure development of the linear progression of logic that is essential to the success of this section. Getting the progression of logic right at this outline stage is very important. Do you have all of the linkages? Are they complete? Once they have been expanded into full sentences, do the bullets create a linear progression of logic that will lead the reviewers through this section? In other words, have you created a section that is equivalent to what is depicted in the figure below?

LINEAR PROGRESSION OF LOGIC FOR A STRONG SPECIFC AIMS SECTION

GAP IN KNOWLEDGE/LACK OF SOMETHING

STATEMENT OF NEED

OVERALL OBJECTIVE

(CENTRAL HYPOTHESIS)

SPECIFIC AIMS

EXPECTED OUTCOMES

When you write the gap/lack/need, it should set up the overall objective because the overall

objective for any application has to be to fill the gap/lack to meet the need. If you are proposing hypothesis-driven research, the overall objective should set up the central hypothesis, because that is what has to be tested in order to attain the overall objective. The central hypothesis, in turn, should we written to have readily identifiable parts, each of which sets up an aim to test the related part. The expected outcomes of the aims should collectively attain the overall objective, which fills the gap/lack to meet the need.

Bullets for the Introductory Paragraph:

Introductory Paragraph

Opening Sentence. The purpose of this sentence is to immediately capture the attention of the reviewers and highlight the program-relevant, fundamentally important area that your application will address. It should be arresting and, as such, immediately command the reviewer's attention. Use words that reflect the subject of the solicitation to which you are responding.

■ *Write your bullet here. When it meets the criteria set out above, delete the preceding* Workbook *text.*

Current Knowledge. Your application will most likely be reviewed by three assigned reviewers of a study section/scientific review group. Not everyone at the review panel table will be an expert on the subject that you are proposing. Accordingly, the purpose of this component is to inform reviewers with respect to what is already known in the area of your project, thereby facilitating their ability to grasp the importance of the research you will propose. In essence, you are setting up presentation of the gap in knowledge/unmet need that will drive your application. The progression of bullets should lead the reviewer from the oldest known facts that are relevant to what is currently the edge of the field. Be brief; details will be presented later, in the Research Strategy section. What you want is a maximum of 4 to 6 sentences.

■ *Write your bullets here and delete preceding* Workbook *text.*

Gap in Knowledge/Lack of Something. The specific gap in knowledge or lack of something is the driver of your application and defines the explicit focus for your proposal. The bullet must be simple, direct and must relate to the preceding, current knowledge component as the next step needed to advance the field vertically. As you will see, it is a very important bullet because all of the logic downstream will evolve from it.

■ *Write a bullet here that describes the gap in knowledge or lack of something that will drive your proposal.*

■ *Delete preceding* Workbook *text.*

Statement of Need and Potential Consequences of Not Meeting that Need. Once you have defined the gap or lack, the next step is to frame how this creates an urgent or critical need. You do that by, first, writing a statement of need. What, explicitly, is needed? Most of the time it will be to fill the gap in knowledge or provide the lack of something that you have just described.

■ *Write a bullet here that summarizes the urgent or critical need that will drive your application and delete the preceding* Workbook *text.*

Next, you must support your assertion by indicating what the consequence(s) of failing to meet the need would be. The most important consequence should be blockage of vertical advancement in an area that is of relevance to NIH. What specific NIH-relevant problem will be exacerbated, created, or allowed to persist if that critical need is unmet? What important high-level NIH goal or objective will likely be delayed, impeded, or somehow obstructed if we fail to address this need?

■ *Now, write your bullet that outlines the potential consequences of not meeting the need and then delete preceding* Workbook *text.*

"What, Why, Who" Paragraph

Long-Term Goal. The purpose of this statement is to define for reviewers the continuum of research that you will be pursuing over multiple periods of grant support into the future. Filling the gap/meeting the need delineated in the first paragraph must be seen by reviewers as the next logical step along the continuum that is projected by your long-term goal statement.

■ *Write your bullet here and then delete preceding* Workbook *text.*

Overall Objective for this Application. The purpose of this component is to define what will be accomplished by the research proposed in this application. The overall objective must link back to the critical or urgent need that you delineated earlier, because the overall objective for any application must be to address the need that is offered there. As noted in the preceding paragraph, the overall objective must also link back to the long-term goal as the next logical step along the continuum of research that you are pursuing.

■ *Write your bullet here and then delete preceding* Workbook *text.*

Central Hypothesis and How Formulated. The purpose of the central hypothesis is to focus the research that is proposed. It must logically flow from the overall objective because the central hypothesis is what must be tested to attain the overall objective; that linkage must exist between them. To put it in a different context, your central hypothesis must be your "best bet," out of all alternatives, as to what explains the phenomenon you will be investigating.

A secondary purpose of the central hypothesis is to set up presentation of your specific aims. To do so, deliberately craft the bullet for the central hypothesis to have readily identifiable parts, each of which will later set up an aim to test the related part.

The "how-formulated" bullet(s) has(have) the purpose of informing reviewers that you have preliminary data that support the formulation of your central hypothesis. At the R01 and R15 levels, you must have sufficient preliminary data to rule out alternative explanations, i.e., to provide support for your choice of a central hypothesis. (NOTE: Although NIH states that preliminary data are not "required" for an R21 or R03, in our experience, you are well served by providing some – less than for an R01/R15, but some. An R21 should have more than what would be included in an R03.) You don't need much detail here. All you want is a statement that you have such data. If the work of others has also contributed, acknowledge that fact with a separate bullet and reference the relevant publication(s). Acknowledgement of the work of others should follow mention of your own preliminary data.

■ *Write your bullet for the central hypothesis here.*

■ *Write one or more bullets here, starting with preliminary/prior data that support the central hypothesis.*

■ *Delete preceding* Workbook *text.*

Rationale. The purpose of this component is to convey <u>why</u> you want to do the research. In most cases, it will be because you are seeking new knowledge that will allow you to move the field vertically, something that can't be done now. The rationale must link back to the framing of the problem at the end of the first paragraph. There, you stated that the need is a problem because it is what prevents vertical advancement of the field. It has a "negative" spin. Here, your bullet needs to convey that, once the project has been completed, you will be able to take the vertical step that you can't take now. That is why you want to do the research. The rationale statement has a "positive" spin--a sentence that essentially says, "The <u>*rationale*</u> for the proposed research is that once X is identified, Y can happen," where Y is something of interest or importance to your targeted agency or program.

■ *Write your bullet here and then delete preceding* Workbook *text.*

Specific Aims "Paragraph"

Specific Aims. The purpose of the specific aims is either to test the parts of your central hypothesis or, if you are writing a purely need-driven application, to lay out the tasks that will be undertaken in order to meet the need. With respect to linkage, your aims must grow out of, and be completely concordant with, either the parts of your central hypothesis or, if yours is a need-driven proposal, parts of the overall objective.

If you have offered a central hypothesis earlier, a secondary purpose of the aims is to provide research focus. That is accomplished by including a working hypothesis under each aim.

■ *Write a bullet here for your first aim.*

■ *If you are proposing hypothesis-driven research, write a bullet here that summarizes the working hypothesis for the first aim. If you are proposing research that is purely need driven, write a bullet that summarizes the main approaches/methods that will be employed to complete the stated task.*

■ *Continue by writing the two bullets described, above, for each of your aims.*

■ *Delete preceding* Workbook *text.*

"Payoff" Paragraph

Expected Outcomes. The purpose of expected outcomes is to tell reviewers what each of your aims is expected to produce and how those products collectively attain the overall objective of the grant application.

■ *Write a bullet here for the expected outcome(s) of the first aim. Continue with additional bullets for subsequent aims.*

- *Write a bullet that tells reviewers that the expected outcomes collectively attain your overall objective for the project.*

- *Delete the preceding* Workbook *text.*

Generality Regarding Positive Impact. The purpose of this final bullet is to point out generally that the expected outcomes will positively impact your field. Collectively, by attaining the overall objective of the application they will advance the field vertically. Write the bullet at a general level. Make sure that it creates a seamless segue into the next, Significance subsection of the Research Strategy section.

- *Write your bullet here and then delete the preceding* Workbook *text.*

As a suggestion, once you have completed the outline, leave it alone for a day or so. Our experience is that, if you do so, invariably you will be able to improve it. When you have reached the point of diminishing returns, show it to other members of your research team. Consider having students/postdocs who will be involved in the project take a shot at it. That kind of collective effort will pay big dividends because, if the outline has been optimized, expanding its bullets into sentences will create a compelling first draft of your Specific Aims section, which will need little refinement.