

Specific Aims Workshop

CFAR Developmental Core +
Behavioral and Community Science
Core

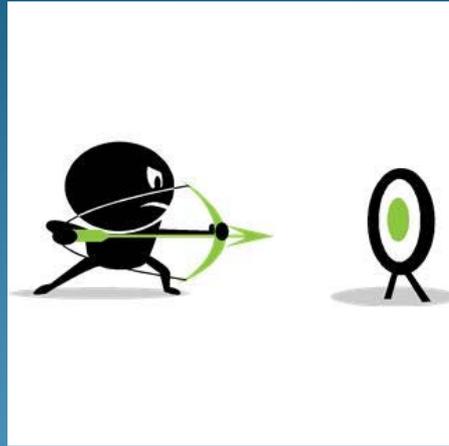
October 10, 2017

Agenda

- 9:15-9:45: Brief talk on tips for writing specific aims
- 9:45-11:15: Presentations by participants with discussion and feedback
- 11:15-11:30: Break
- 11:30-12:30: One-on-one consultations with facilitators
- 12:30-13:30: Networking Lunch 😊
- 13:30-2:00: Brief feedback & wrap up

Facilitators (experienced HIV researchers and grant writers)

- **Janet Turan** – public health, qual & mixed methods, stigma, global health
- **Robin Lanzi** – public health (family & child/adolescence), CBPR, qual & mixed methods, technology
- **Edward Jackson** – community engagement, community-based research
- **Mirjam-Colette Kempf** – epidemiology, nursing, psychosocial factors
- **David Pollio** – social work, structural barriers, qual and mixed methods
- **Laura Timares** – grant writing, basic science, grantsmanship
- **Frank Wolschendorf** – HIV, TB, basic science
- **Paul Goepfert** – infectious diseases, immunology, basic sciences,
- **Maria Pisu** – health services research, health economics, cancer research
- **Aadia Rana** – HIV women's health, health disparities, infectious diseases
- **Stephen Mennemeyer** – health economics, cost effectiveness analyses



Writing Specific Aims

CFAR Developmental Core + Behavioral and Community
Science Core

Specific Aims Workshop

October 10, 2017

Different Names*

- Specific Aims page (NIH)
- Executive summary
- Project Overview
- Etc....
- *Regardless of the name, this is usually the most important section of your grant application!*

* Several slides in this presentation are adapted from the Longitudinal Grant Writing Workshop, Kisumu, Kenya, 2015.

Key Tips

- Write this section of your grant **first**
- Get lots of feedback on this section from your colleagues, mentors, and representatives of the funding agency
- Revise again and again!
- Note: This is different than the briefer “abstract” that is more of a summary of the proposal and is often written **last**.

Specific Aims (for NIH)

- Length: 1 page
- Style: Non-technical. Write this section for all reviewers / study section members, since they will all read it.
- This section must include everything that is important and exciting about your project – *but without a lot of detail.*

Specific Aims (cont' d)

- The *flow of logic* must be so clear and compelling that reviewers at the study section meeting will be able to follow it. **Tell a compelling story!**
- Together with the Significance and Innovation subsections, it is one of the most important parts of the application in terms of generating enthusiasm for your project in the majority of reviewers.
- **Most of the reviewers will only read this part of the application!**

Suggested Template (Russell & Morrison)

- **Introductory paragraph**
 - compelling opening sentence, important knowns, needs/gaps in knowledge
- **“What is going to be done by whom” paragraph**
 - Long-term goal, overall objective of the proposal and/or central hypothesis, rationale, best team and environment to carry this out
- **Specific aims and activities paragraph**
 - Each aim and how you plan to achieve it
- **Payoff paragraph**
 - Expected outcomes, innovation, impact

Specific Aims:

Introductory Paragraphs

- **Develop a compelling argument for funding.**
 - The secret to creating a compelling flow of logic in this section is to appropriately link its components, one to another.
 - **Begin with an interest-grabbing sentence** that immediately establishes the relevance of your proposal to human health.
 - Describe *the scope of the problem* (such as number of people affected, morbidity/mortality, costs to society).
 - Describe *the gap in knowledge* that your project will address (that is, from a research perspective, what we don't know that we need to know in order to move forward; provides rationale for specific aims).

Specific Aims:

Introductory Paragraphs (cont' d)

– **State your *long-term goal*.**

- It should be relevant to public health and be broad enough to give the impression that this study is part of a larger research plan that will continue beyond the bounds defined in the Specific Aims.
- It should reflect your “niche” area of research/programs (that is, the area in which you will be the acknowledged expert).
- It must be realistic (i.e., something that is clearly achievable over a finite period of time).
 - For example, if you are a cancer researcher, it would not be credible to write that your long-term goal is to cure cancer.

Specific Aims:

Introductory Paragraphs (cont' d)

– State *the objective* of this application

- This component defines the purpose of your application, which is to fill the gap in knowledge identified in the 1st paragraph.
- This must also link to your long-term goal as the next logical step along a continuum of research.
- Emphasize the “product” of the research, not the “process” that produced it.
 - For example, “to study” something would not be an appropriate goal; what you want is what the study will produce.

Specific Aims:

Introductory Paragraphs (cont' d)

- If your project is hypothesis-driven, state your central hypothesis.
 - Your central hypothesis must link to the objective, because the objective will be accomplished by testing your hypothesis.
 - The purpose of the hypothesis is to provide focus for your research project and, therefore, your grant application.
 - Tell reviewers how your hypothesis was formulated – either on the basis of your own preliminary data or on the published work of others.

Specific Aims:

Introductory Paragraphs (cont' d)

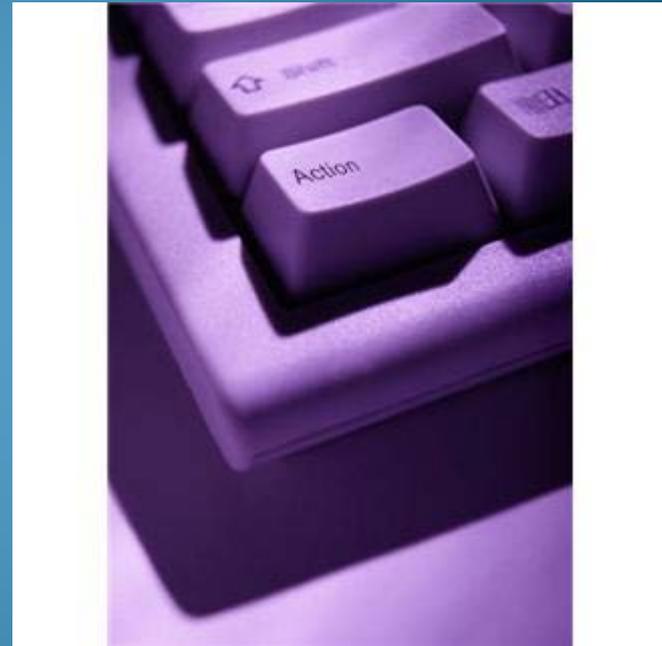
- Include a rationale that tells reviewers what will become possible *after* the research or project is completed that is not possible now.
 - The gap in knowledge discussed above represents a problem because its continued existence blocks the next step in the field from being taken.
 - Once the proposed research/project has been completed, you will be able to take the blocked step – that is *why* you want to do the work.
 - This is where you can excite reviewers: the rationale can truly be exciting because it conveys that the expected outcomes will clearly advance your field.

Specific Aims

- Each aim should consist of one sentence: be concise and concrete; *clarity* is the goal.
- Emphasize “product” over “process.”
- Keep the number of aims to a minimum (2-4).
- Aims should be able to “stand alone”: they can be related but must be *independent* (i.e., they do not depend on a particular outcome of a previous aim).
- Include rationales and methods to be used, when needed.

Good verbs to use in Specific Aims:

- Examine
- Explore (if qualitative)
- Elucidate
- Evaluate
- Identify
- Compare
- Assess
- Refine



How to Write this Section

- Russell and Morrison Grant Writing Handbook
<http://www.grantcentral.com/workbooks/national-institutes-of-health/>
- See Chapter on Specific Aims, for a step by step guide to writing this section of your grant.
- Also includes examples of well written specific aims pages

Example Specific Aims Pages

Option B+ Study (PIs: Abuogi and Turan)

Outline of the Specific Aims for Option B+

- Promise of Option B+
- The problem/challenges
 - The barriers
 - What is currently understood about the barriers
- What we propose to do in the current study and how
- Our overall goal for the study
- The specific aims themselves
- Why this all is so immensely important!

Example Aims: Option B+ Study

- **Aim 1:** To **evaluate** the acceptability of lifelong triple ARV therapy given to HIV-infected pregnant women both for their own health and for PMTCT (Option B+), as well as facilitators, barriers, and acceptability of potential interventions for ART adherence and retention in care, using qualitative research methods.

- **Aim 2:** To **compare** service utilization outcomes (pregnant women's adherence to ART, women's retention in HIV care, and uptake of early infant diagnosis) in four study conditions (community MM intervention only, text message intervention only, both interventions, and control) using a 2X2 factorial design.

- **Aim 3**: To **examine** effects of the individual and combined interventions on maternal and infant health outcomes, including maternal CD4 counts/viral loads, and MTCT at 6 weeks, 12 months, and 18 months.

Another example: Reproductive Stigmas (Foundation Grant)

- Lack of understanding of decision-making processes following unintended pregnancy
- Differences and disparities in outcomes of unintended pregnancy
- Social stigma is likely to play a major role
- Overall goal of the proposed study
- Each specific aims and the approach to be used for each
- Importance and implications of this work

Reproductive Stigmas: Aim 1

- To **explore** perceptions of reproductive stigmas (e.g., stigmas related to use of family planning, out-of-wedlock pregnancy/parenting, adoption, and abortion) and the role of these stigmas in pregnancy decision-making for young low-income women in Birmingham.
 - Approach: We will conduct 6 focus groups with young low-income women.

Reproductive Stigmas: Aim 2

- Aim 2: To **develop** reproductive stigma measures related to pregnancy decision-making.
 - Approach: Using the focus group findings and our existing validated abortion stigma survey items, we will (a) develop new items that capture other reproductive stigmas, and (b) pre-test these items through cognitive interviews with 10-15 young low-income women.

Reproductive Stigmas: Aim 3

- Aim 3: To **assess** the reliability and validity of the adapted measures, as well as **preliminarily explore** associations of reproductive stigmas with women's pregnancy decisions.
 - Approach: We will survey a sample of 185 young low-income women attending reproductive health clinics in Birmingham. Women who have experienced an unintended pregnancy in the past 3 years will be asked to respond to a self-administered iPad survey.

Common Errors (see Yang)

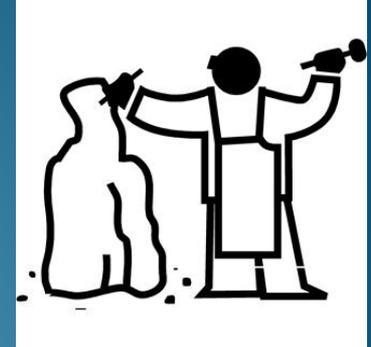


- *Unrealistic* aims
 - Too broad and/or not feasible to achieve
 - To determine the root cause of poverty in Africa by conducting nationally representative surveys in 34 nations.
- *Poorly justified* aims
 - Not clear why the current study is needed
 - We want to do this project just because no one has ever done it before.
- *Purely descriptive* aims
 - Just a laundry list or “fishing expedition”
 - To describe all the things that may be related to suicide attempts among youth in the United States.

Common Errors (continued)

- *Unnecessarily complicated* aims
 - Avoid a complicated aim with several sub-aims
 - To determine X, we aim to carry out 1a), and 1b), and 1c), etc...
- *Lack of cohesiveness* of the aims as a unit
 - No clear relationship among the aims
- *Excessive interdependence* of aims for success
 - If initial aim(s) fails, subsequent aims won't work
 - In Aim 1, we will determine if there is a relationship between HIV-related stigma and adherence to antiretroviral medications.
 - In Aim 2, we will elucidate the mechanisms in the relationship between HIV-related stigma and ART adherence.

Working on your Specific Aims



- Write a draft early in the proposal development process
- Share with co-investigators, mentors, and colleagues and get feedback
- Keep re-reading, editing, and refining
- Get more feedback from co-investigators, mentors, and colleagues
- **The most important part of the grant!!!**

Some helpful grant writing resources & examples

- <https://www.dropbox.com/sh/btmvnsumzpmxl4g/AACarvUXtwwUkl5rniRQU1tQa?dl=0>