

# Specific Aims Page Writing Workshop October–November 2023



The PIKO Professional Development Core is offering a three-session workshop to assist investigators in writing and refining their Specific Aims page. A Specific Aims page is a one-page executive summary of your research proposal and represents the most important page of an NIH grant application.

The three-session online training will include:

- Monday, October 23, 2023 at 3–4:30 pm: Instruction on how to prepare a specific aims page, and an overview of the importance of identifying a funding mechanism, engaging a mentor, and contacting a project officer.
- Week of October 30, 2023: Small group review of first draft of Specific Aims page.
- Week of November 6, 2023: Small group review of second draft of Specific Aims page.



**Priority** will be given to investigators who are:

- Invited to submit a full proposal to the PIKO or Ola HAWAII Pilot Projects Program
- Preparing to apply for GUMSHOE (PIKO's advanced grant writing course) in Spring 2024
- Affiliated with the University of Hawai'i, Hawai'i Pacific University, or Chaminade University of Honolulu
- Focusing on clinical and translational research projects to improve the health and well-being of Native Hawaiians, Other Pacific Islanders, Filipinos and other medically underserved populations in Hawai'i.

Register by Friday, October 20, 2023. Click here to register [PIKO PD Core Fall 2023 Specific Aims Registration Link](#) and be prepared to provide:

- A working title of your research proposal
- 3–5 sentences about the significance and objective of your research project
- The name and affiliation of your academic mentor (someone who understands your research area and can help guide your research)
- The name and affiliation of your community partner, if known

For more information, contact Kathryn Braun [kbraun@hawaii.edu](mailto:kbraun@hawaii.edu), Merle Kataoka-Yahiro [merle@hawaii.edu](mailto:merle@hawaii.edu), or David Horgen [dhorgen@hpu.edu](mailto:dhorgen@hpu.edu).

**The Center for Pacific Innovation, Knowledge, and Opportunities (PIKO)**, which is funded by NIH/NIGMS (U54GM13806), represents a collaboration between the University of Hawai'i, Hawai'i Pacific University, and Chaminade University of Honolulu, aimed at building a robust CTR infrastructure, strengthening and diversifying the CTR workforce, and disseminating and implementing CTR findings to improve the health of Native Hawaiians, other Pacific Islanders, Filipinos, and other marginalized and medically underserved populations in Hawai'i.

## SPECIFIC AIMS: THE HOUR GLASS APPROACH<sup>1</sup>

The Specific Aims page substantiates a public health problem, points out a gap in current knowledge, and suggests a research solution. It proposes “aims” to produce findings to fill the gap and outlines the potential impact of the proposed research and its findings on the public health problem, the field, and future research.<sup>2</sup>

One’s specific aims should reflect an “hourglass” structure. It begins broadly with the nature of the problem and its impact on the health of the nation, next highlights the key scientific question(s) that beg to be answered in order to address this problem, especially with respect to the population of interest, subsequently describes the study to be undertaken that will generate the data and insights to answer the key question(s), then stipulates approximately three specific aims to which the resulting data can speak and hypotheses to be tested, and closes – as the base -- with a final paragraph that communicates the theoretical and/or programmatic significance of the anticipated findings – the “so what?” Think of this 1-page document as a series of building blocks that move the reader from a broad overview to increasingly specific points that return at the end to a more general base.

The first paragraph should begin by orienting the reviewer to the nature of the problem. The first paragraph needs to capture the reviewers’ attention. Look for a powerful “hook” that will make your effort stand out from others and engage the reviewer. You want the reviewer to feel drawn into the problem and compelled to read on. Why should we care about this problem? The end of the first paragraph should, then, end with 1–2 sentences that underscore the fact that relatively little is known about the topic of interest.

The second paragraph should subsequently introduce one’s particular line of inquiry, the research question that follows naturally from the last point of the first paragraph. If you propose to focus on a particular population, translate the general problem/question into terms specific to it, mirroring the points you introduced in the first paragraph. Your argument will be well served by frequent reference to evidence in the literature. Can you introduce your own work that suggests this line of inquiry likely will be fruitful? If so, reference several highly relevant articles. It often is powerful to articulate 2–3 questions you intend to explore, ensuring, of course, that each anticipates your specific aims. Having done so, the reviewer then is set up to nod in agreement that the next logical step is to explore, identify, and understand the particular factor(s) of central interest to you. Your work, then, will begin to correct this limitation.

The third paragraph should describe the study you will undertake to address the specific aims. Answer: who, what, where, when and how? Consider referencing a particular conceptual framework that will guide this inquiry; the literature offers many relevant examples. If you propose an intervention, briefly describe its likely content, format, mode of delivery, duration, and anticipated outcomes. For observational studies, briefly describe the setting, population of interest, study design (cross-sectional; longitudinal), sampling plan, likely number of participants by gender, age, race/ethnicity, measurement domains with key constructs, and mode of data acquisition. Provide similar information regarding existing data sets if a secondary analysis proposal, identifying study by name, years data available, and reference a seminal summary article. Reviewers need this background to assess whether or not your specific aims can be addressed in terms of the proposed intervention or observational study, and the data to be acquired or examined.

The fourth paragraph is your actual specific aims. These are the scientific objectives that address the broader goal of your proposed study. Convention suggests three specific aims. Each specifies a particular action step, related to one another that build incrementally toward the knowledge required to answer your research question. But your aims must NOT be contingent upon one another, for failing to successfully answer a prior aim precludes your ability to pursue the subsequent aim(s). This poses a fatal flaw! Consider stating a hypothesis to be generated or tested immediately after each aim. This offers the reviewer a sense of your expectations and provides more specificity. Lastly, nothing should appear in these specific aims that hasn’t been anticipated in the previous paragraphs.

The fifth and last paragraph is intended to bring the reviewer back out of “the weeds” to the significance of the proposed work, to the anticipated benefits, to your needs if a career development proposal, and to why we should care. What are the likely scientific and treatment implications of the findings of the proposed work? This is the “so what” paragraph, which speak to public health importance. It anticipates impact. Be as specific as you can, and appropriately assertive with respect to its importance.

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<sup>1</sup> Manson SM. Selecting issues and hypotheses for a research proposal. In Pequegnat W, Stover E, Boyce CA (eds.). *How to Write a Successful Research Grant Application: A Guide for Social and Behavioral Scientists*. Springer Science+Business Media. Pp. 49-57.

<sup>2</sup> Monte AA, Libby AM. Introduction to the Specific Aims Page of a Grant Proposal. *Acad Emerg Med*. 2018;25(9):1042-1047. doi: 10.1111/acem.13419.