

Preparing a Pilot Grant Application

Wayne T. Sanderson, PhD, CIH

Department of Biosystems and Agricultural Engineering
College Agriculture, Food, and the Environment
College of Engineering
University of Kentucky



Purpose of a Pilot Grant

- Initial exploration of new research ideas
- Test methods: survey instruments, exposure assessment techniques, ways to evaluate health effects, evaluation of training or interventions
- Evaluate access and level of participation of study population
- Assess variability in exposure and health outcomes
- Formulate or refine a hypothesis
- Gather data to develop a more comprehensive study

Start with Questions

- Begin with at least one question which doesn't currently have an answer.
- Examples:
 - How many children have had ATV safety training and has that training had any effect on their behaviors?
 - How many pesticide poisonings or high exposure events occur among farmers that go unreported and why are they not reported?
 - Do most injuries and fatalities occur among full-time or part-time farmers?

Use Questions to Formulate Aims

- Based upon the questions of interest, formulate testable aims or research hypotheses.
- Example: Rural Youth Noise Project
 - What are the noise exposures of rural youth?
 - Aim 1: Measure the noise exposures of rural youth over randomly selected time periods.
 - What knowledge do rural youth have about noise exposure and what protective measures do they use?
 - Aim 2: Assess the variability of rural youths knowledge about noise exposures and their use of protective measures.

Justify Need for Study

- Provide background information—a literature search--on what is already known and not known about the study questions.
- Build a case for why the answers to the research questions or specific aims are important and what impact these answers may have.

Study Population

- Describe the study population
 - What group will be studied?
 - How will study participants be selected?
 - How many participants will be needed?
 - What are the advantages and limitations of the population chosen for study?

Study Instruments and Tools

- Describe the study instruments and tools that will be used in the study.
 - Questionnaire
 - Exposure assessment devices
 - Health effects evaluation methods
 - Intervention methods
- Describe how instruments and tools will be used to obtain data.

Data Analysis

- Because pilot-studies are generally small with an insufficient amount of data for complex analysis, only simple data analysis plans make sense, but should be briefly described.
 - Descriptive statistics: mean, std dev, median, range, frequency distribution, (confidence limits)
 - t-tests
 - Chi-square
 - Simple analysis of variance
 - Simple regression

Impact and Future Studies

- Describe how the results of the pilot study will be used and its potential impact for designing future studies.
- This is your opportunity to sell your research idea.

Other Stuff

- Dissemination of Results
- Evaluation Plan
- Biosketches
- Utilization of Center Facilities
- Timeline
- Budget
- Plan for Continuing Reporting of Work
- References