Step 1: Brainstorming

- As you begin your research, meet with Yasmin Khan (ykhan@stanford.edu) who will help you begin brainstorming hypotheses, aims and a desired outcome. Yasmin can also help point to the appropriate Faculty member to serve as an advisor.

Step 2: Define a research goal and exact research question

- Going forward with your research from this point, a narrow and precisely defined goal and question are more modifiable to research designs as opposed to broadly defined goals and questions. To help narrowly define your study, Yasmin (ykhan@stanford.edu) and Lauren Maggio (lmaggio@stanford.edu) can assist in learning how to conduct a thorough literature review in order to focus research questions and outcomes aimed at addressing specific gaps in the literature.

Step 3: Determine whether the research is observational or experimental → Select a research design

- Does the experiment involve and intervention? *Observational research* refers to research in which variables are observed as they in nature – no manipulation of variables (does not involved treatment or intervention). However, *experimental research* does involve manipulation of a variable (requires an intervention).

- In selecting a research design, Yasmin (ykhan@stanford.edu) will help set-up a consultation with SPCTRM (http://spctrm.stanford.edu/).

*Adapted from Figure 1.2 in Research Methods in Health Promotion by Richard A. Crosby, Ralph J. DiClemente and Laura F. Salazar*
General Internal Medicine Research Process

**Step 4: Identify a priority population, determine what variables will be measured and select a sampling pool**

- In this step, it is important to be as specific as possible. Specify the parameters to define your target population. Once you have defined a population and disease of interest, if appropriate to your study, SCCI ([http://clinicalinformatics.stanford.edu/](http://clinicalinformatics.stanford.edu/)) serves as a resource to supply clinical data collected from Stanford Hospital and Clinics and Lucile Packard’s Children Hospital at Stanford. Yasmin (ykhan@stanford.edu) will help set-up a consultation to meet with the group and learn more about how they can meet your data management needs.

- If you have, or will have, data from another source, or would like to create a custom database within the clinical data SCCI provides, Yasmin (ykhan@stanford.edu) can help set-up a consultation with SCCI to have your database created in REDCap ([http://clinicalinformatics.stanford.edu/services/redcap.html](http://clinicalinformatics.stanford.edu/services/redcap.html)).

**Step 5: Handle logistics**

- Write a proposal with help from a Faculty Advisor and Yasmin (ykhan@stanford.edu).
- Yasmin (ykhan@stanford.edu) can assist with submitting an IRB protocol and ensuring HIPAA criteria are met.
- Make sure all financial issues have been considered.
- Organize your team, including: faculty advisors, colleagues, research assistants, data collectors, etc.

**Step 6: Implement the study protocol and collect data**

- Input data into REDCap ([http://clinicalinformatics.stanford.edu/services/redcap.html](http://clinicalinformatics.stanford.edu/services/redcap.html)).

**Step 7: Clean and analyze the data**

- Yasmin (ykhan@stanford.edu) can help follow-up with another meeting with SPCTRM ([http://spctrm.stanford.edu/](http://spctrm.stanford.edu/)) or appropriate resource on campus to have the data analyzed.

**Step 8: Answer the research questions and disseminate findings**

- Contact Yasmin (ykhan@stanford.edu) and Lauren (lmaggio@stanford.edu) to help write a thoughtful manuscript and prepare for submission.

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