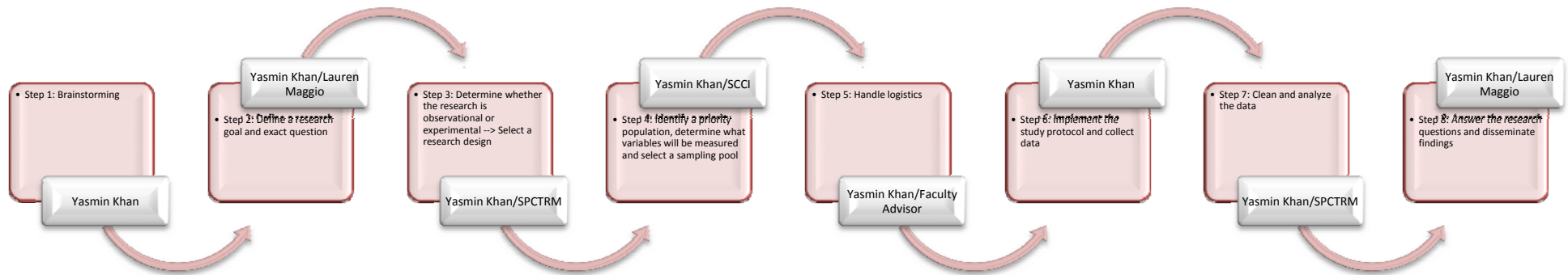


General Internal Medicine Research Process



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/>).

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/>) 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>).

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>).

Step 7: Clean and analyze the data

- Yasmin (ykhan@stanford.edu) can help follow-up with another meeting with SPCTRM (<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.