DEVELOPING A RESEARCH QUESTION:
“I KNOW WHAT MY GENERAL TOPIC IS, BUT I DON’T KNOW HOW TO STATE MY RESEARCH QUESTION.”

STEP 1: GENERAL TOPIC

• What would you like to become an expert in?
• For clinicians, is there something puzzling in your practice/patients?
• Is there something specific that is related to current events (either in the news or at your clinic), that you could study?
• Is there a certain population you would like to study? Who?
• Could you develop an interesting research question about a topic that you already have data on?
• Still unsure? Work with faculty mentors/colleagues to brainstorm.

STEP 2: PRELIMINARY RESEARCH

• Literature Search (contact a librarian for help)
  o Caitlin Bakker1: cjbakker@umn.edu
  o RG Johnson1: johns842@umn.edu
• What has already been done?
  o Could it be done again, but better?
• What are the gaps in the current literature/clinical guidelines?

STEP 3: CONSIDER YOUR AUDIENCE

• Who will be interested in the results of this research?
• What is your mentor/funder/co-investigator interested in?
  o Still unsure? Go to JANE: http://jane.biosemantics.org/

STEP 4: REFINE QUESTION USING THE “FINER” CHECKLIST

Don’t worry about the perfect question yet, just write down ideas as they develop.2
– FEASIBLE: Do you have the necessary data? If not, are you able to get/collect this data? Will there be enough participants? Can you afford it ($/time)? Do you have the right skills and expertise? If not, can they be developed, or can you collaborate?
– INTERESTING: Is this interesting to you? Your co-investigators? The field?
– NOVEL: Will this make a contribution to the literature or to practice? Will this question confirm, refute, or extend previous findings?
– ETHICAL: Are there any ethical concerns? Will this be approved by the IRB?
– RELEVANT: Will this study produce information that could be useful for science, policy, future research, or practice?

STEP 5: IS YOUR QUESTION WELL-ARTICULATED?

Question should contain the following (do not always need all of these items)2
– POPULATION: What specific population are you interested in?
– INTERVENTION: What is your intervention?
– COMPARISON: Who are you comparing your population to?
– OUTCOME: What (and how) are you measuring?
– TIME: What is the appropriate follow-up time?

STEP 6: THE “SO WHAT” TEST

Lastly, if someone says “So what?” to your question… can you respond? How will the answer to this question change your practice? What will be done with the answer?

NEXT STEPS: AFTER YOU HAVE YOUR QUESTION...

• Turn your question into study objectives (aims/goals) – consider your professional goals/development too.
• Design your study methods (pre/post survey, control group vs. intervention, focus groups, comparing outcomes after vs. before an intervention etc.).
• Define your outcomes (primary and secondary). How will you measure them?
• Write up a proposal and get feedback from peers.
• Consider who else should be on your team for this project? Bring in expertise.
• Develop a project timeline and plan for the IRB submission.
• Request design, data management, data analysis, and/or statistics support.
  o 1 http://tinyurl.com/fmch-stats-eval-request

1Support specific to Dept. of Family Medicine & Community Health faculty/staff; Created by Family Medicine & Community Health Research Services, at the University of Minnesota; Adapted from a presentation by Dr. Alicia Allen and a worksheet by Dr. Patricia Adam; 2Farrugia P, Petrisor BA, Farrokhyar F, Bhandari M. Research questions, hypotheses and objectives. Canadian Journal of Surgery. 2010;53(4):278-281. Updated 9/26/2016