Sommer Aldulaimi, MD, Global Health Co-Director, <u>sommer.aldulaimi@bannerhealth.com</u> Jerry Koleski, MD, Global Health Co-Director, <u>jerome.koleski@bannerhealth.com</u> Diane Poskus, Global Health Coordinator, <u>dposkus@arizona.edu</u>

# MED 800C Global Health Capstone Course (4 cr.)

- Required for year 4 students in the Global Health Distinction Track
- Complete the Selection Form for Research [800] Electives and submit it to the coordinator. Once the course co-directors approve it, you will be registered in OASIS during your chosen time frame.

## Objectives/Goals:

- 1. Learn how to do research in a publishable format
- 2. Learn how to write a narrow, focused research question
- 3. Learn about a global health topic which excites and interests you

The paper should be fully referenced in **AMA style**, typically in "meta-analysis" format. The topic, preferably drawn from that student's field experiences in this track, will be approved by the Distinction Track co-directors, even if you have a different faculty advisor.

You must speak with one of the co-directors and your advisor to help focus your topic. The written, narrow topic must be submitted to the global health coordinator on or before **NOVEMBER 1**. The Capstone paper is due on or before **APRIL 15**.

### Selecting a Researchable Question

- 1. Before defining a research question, choose a TOPIC:
  - Something that interests and excites you.
  - Once you have a general topic, conduct preliminary research and consider:
    - What questions have been asked/answered?
    - Where are there gaps in the research?
- 2. All research must be defined by a research question that is:
  - Narrowly focused (in your question and region)
  - Clearly defines the exposure/risk factor and the outcome
  - Describes who, what, where, and when?
- 3. A typical successful literature search will yield 10 20 papers. Much more than that and you will have a hard time sticking to 12 15 pages.

### Human Subjects Research

If you will be doing any activities involving interviewing patients or using their medical information, then you will likely need IRB approval. <u>This link</u> can help you consider if your work fits this category, but we can also connect you to the IRB if you are unsure.

If you want to do a questionnaire or any other research with people, even with your classmates or coworkers in an international setting, you MUST get IRB approval. We can help you with this process.

Required modules by the University of Arizona IRB in addition to their other paperwork:

- <u>CITI training</u>: a) biomedical investigator and b) Native American Research
- University of Arizona <u>HIPAA training</u>
- <u>Conflict of interest form</u>

Paper organization:

- The paper must be between 12-15 pages (not including title page, references, abstract).
- Size 11 12 font and 1.5 spaced

The paper must include the following sections (some papers may be arranged with different headings based on the topic)

- Title page
- Abstract (typically arranged as: problem, methods, results, and conclusions)
- Introduction
- Methods
- Findings
- Discussion
- Conclusion
- References in AMA format
- Tables and figures (may include in body of paper or at the end)
- Appendix (if indicated)

### IMPORTANT: Typical Pitfalls

- 1. Most students pick topics far too broad, so you must:
  - a. Discuss narrowing your topic enough with your advisor:
    - i. Example: to go from "Diabetes in Africa" to "Low-Tech lifestyle modification in Tanzanian diabetics."
    - ii. A good rule of thumb is that you must keep narrowing your literature search until you get to 10 20 reference papers.
- 2. Conclusions
  - a. What did you LEARN?
  - b. What are the possible solutions to the problem you read about?

### Sample capstone project titles from previous students:

- Black, White and Grey: The Use of Chest Radiography in the Diagnosis of Pediatric Pneumonia in Resource Limited Settings
- Neonatal Resuscitation Training in Tanzania: Helping Babies Breathe
- Rising Caesarean Section Rates at a Regional Hospital in Arusha, Tanzania
- Effects of Changes in healthcare Policy in Ecuador Under the Correa Administration on Healthcare Outcomes and the Gender Ratio among Medical Professionals
- A review of the *Aedes aegypti* mosquito as a vector of disease in Central and South America and future directions in mosquito control strategies.
- Managing Traumatic Injury and Hemorrhagic Hypovolemic Shock in Resource Limited Setting
- An assessment of autism spectrum disorder awareness in Montero, Bolivia
- Mental Health Care in Refugee Populations: The Mae Tao Experience
- Assessing the prevalence of and public health efforts to address the dual burdens of malnutrition and excess weight, and their resulting non-communicable diseases in Ecuador's present post-neoliberal era.