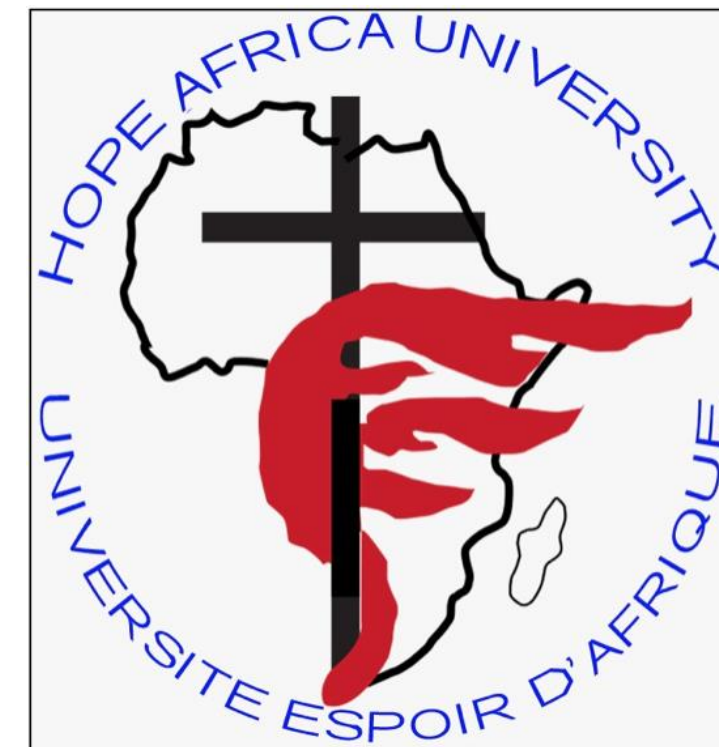
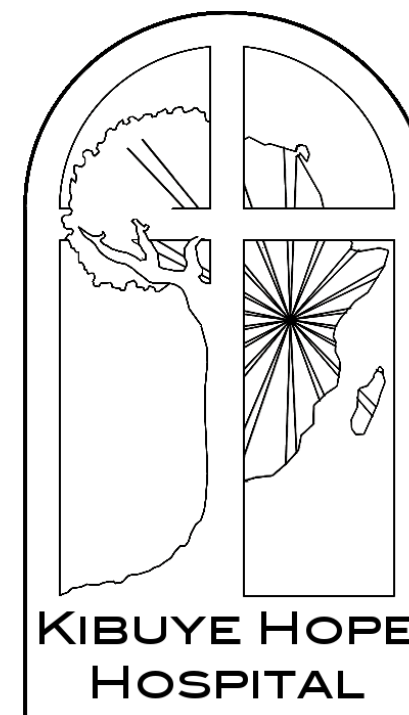


Healthcare Education Mission: Cultural Competence and Critical Thinking

Experiences with Medical Student Education in Burundi

Serge

Grace at the Fray

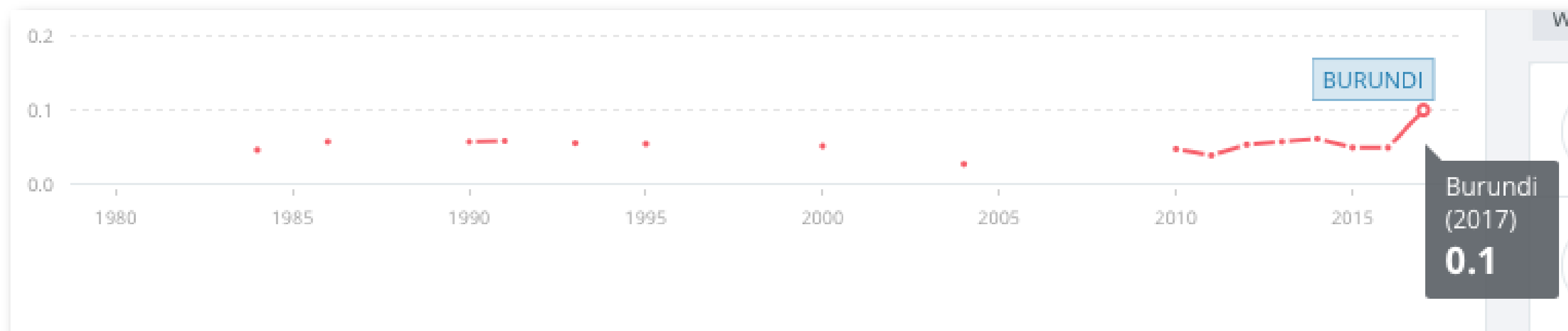


Drs. Rachel and Eric McLaughlin - 11-13 November 2021 - Louisville GMHC

Who are We?

What is our context?

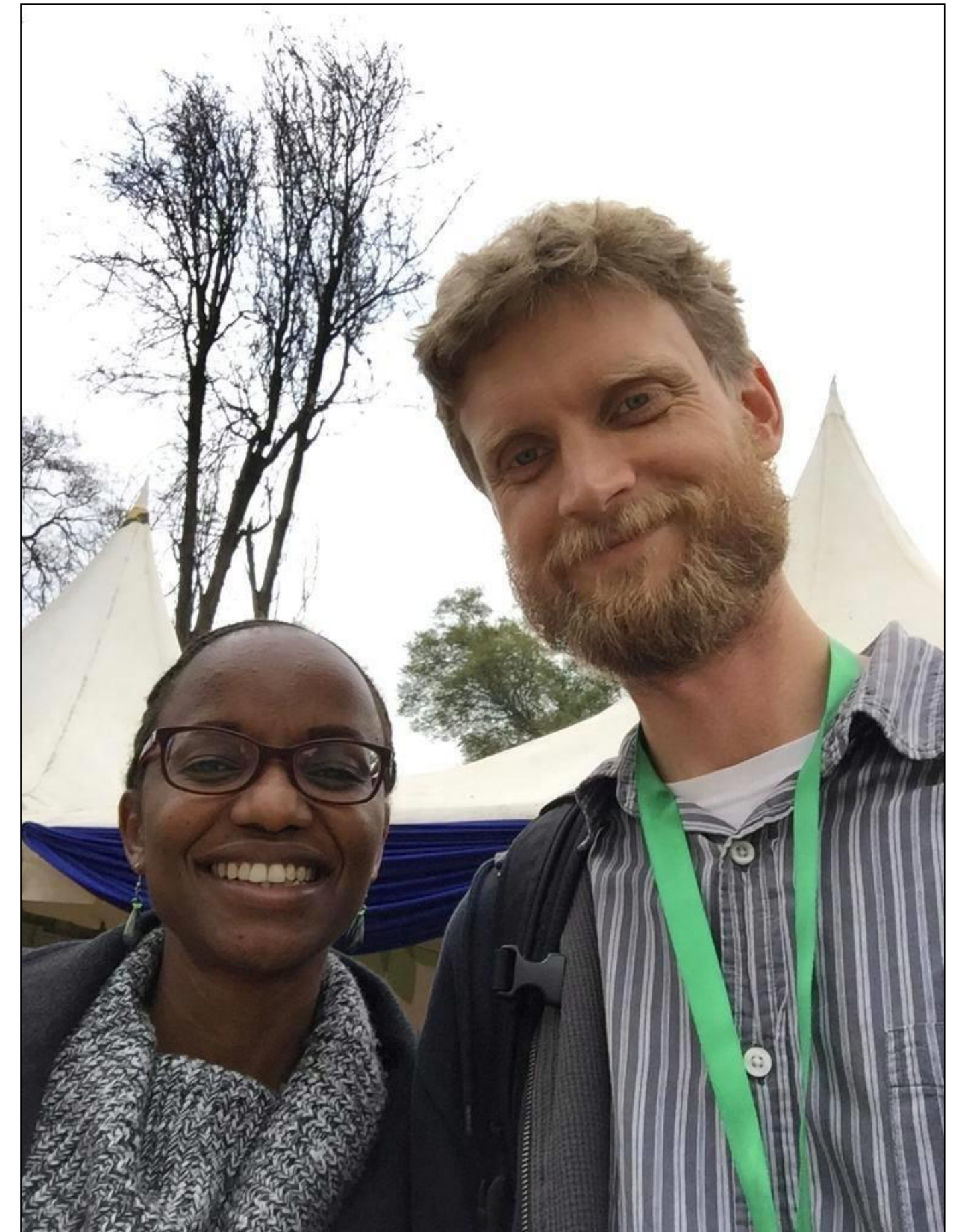
- 2009-2011: Kenya: Interns, Residents
- 2013-present: Medical Students, Interns



Critical Thinking in Africa

Is this really true? I mean, there are lots of smart Africans who can think critically!

- Africa is full of good critical thinkers, especially in social situations
- (story from an African friend who is smarter than me)
- The question is less critical-thinking *capacity* and more *application* of their capacity to academics/medicine.



Traditional Medical Education



- Hope Africa University started their medical school in 2007, with a curriculum that had been slightly-modified from the national university.
- Many HAU professors were also professors at other medical schools, thus our experience was likely normal for our context.
- Courses were usually taught intensively and exams scheduled afterwards (sometimes long afterwards) based on the syllabus given by the professor.
- Little to no laboratory exposure

Traditional Medical Education

Exam sample

Final Exam:

1. Pathophysiology of Rheumatic Heart Disease
2. Treatment of Ischemic Heart Disease

- Implications:
 - 100% rote memory = 100% evaluation
 - Lack of understanding and application
 - Massive forgetting

Innovations We Have Found Useful

- Weekly quizzes and Clinical scenarios
- Practical Exams
- Journal Club
- Ethics
- Modeling and Resource Limitation

Innovations We Have Found Useful

Weekly quizzes and Clinical scenarios

- Beat the cram!
- Courses that have short quizzes each week of a 6-10 week course to encourage (force) studying as the students go through the course
- Test questions that require application of clinical scenarios. Case presentation + “what is the next step?”

Innovations We Have Found Useful

Practical Exams

- Obstetrical course with simulator sessions using *Helping Babies Breathe* and *Helping Mothers Survive* models
- 10 minute practical exam for each student to demonstrate practical competencies



Innovations We Have Found Useful

Journal Club

- Use the article to see where information comes from and to question how it is applied.
- Helps to appreciate ambiguity and know how to approach nuanced situations (e.g. a test that is <100% specific or a treatment that is only effective in a certain group)



PEDIATRIC JOURNAL CLUB

CLUB DE LECTURE PÉDIATRIQUE

Quand ? Tous les 1^{er} et 3^e jeudi du mois à 14h

Où ? Nouvelle salle de conférence pédiatrique

Qui ? Cette conférence s'adresse aux étudiants lors de leur stage pédiatrique, mais elle n'est pas obligatoire. Tous les autres étudiants sont les bienvenus et encouragés à participer !

Langue ? Généralement des articles rédigés en anglais; articles occasionnels en français. La discussion peut être en anglais ou en français.

Des articles? Le Dr. Jenn choisira généralement l'article. Cependant, s'il existe un article présentant un intérêt particulier choisi par l'étudiant, nous pouvons envisager de revoir cet article. À chaque conférence, Dr. Jenn présentera ou discutera un mot ou un terme lié à la révision d'un article.

Innovations We Have Found Useful

Ethics Discussions

- Ethical case studies are complex by nature and require an identification and comparison of abstract principles
- Also a FASCINATING cultural lesson for the foreigner

Case example #1 (Highlighting beneficence and non-maleficence in the context of insufficient professional expertise)

“In Over Your Head” You are the only doctor present at a rural hospital who just admitted a pregnant woman at 38 weeks gestation with a hemorrhage, and you suspect placenta previa. Fetal heart tones are 170 per minute. You are new at this hospital and you are being trained to do C-sections. Up until now, you have only observed several times, but you have never done one alone. The patient’s BP is 70/30, and she continues to bleed despite every other intervention. It takes 3 hours to get to the next nearest hospital that can do a C-section. The ambulance is available. Do you transfer the woman or try to save her life by doing a C-section alone?

Case example #4 (Highlighting autonomy and beneficence in the context of resource limitation and African family culture)

“Who decides?” A mother of 8 children is hospitalized for a Cesarean for baby #9 while baby #8 is hospitalized for severe acute malnutrition due to inadequate food supply at home. The mother agrees to have a tubal ligation. However, the father refuses, not for religious reasons, but because he says that “a large family is the truest blessing.” The mother asks you secretly to do the tubal anyway and to not inform the father. What do you do?

Innovations We Have Found Useful

Modeling and Resource Limitation

- There is no replacement for DOING critical thinking together
- The Magic Words “I don’t know” (“but I will find out!”)
- Resource Limitation provides an opportunity to practice critical thinking together
 - “I need 5 tests, but the patient can only afford 1. Which is the most important? Which possible result will change management how?”



Conclusion

- Integrating critical thinking into medical education is a valuable skill that many Westerners can contribute abroad if done in culturally-competent ways
- When appropriate, formal teaching methods can be redesigned
- Take advantage of the context of resource limitation to involve learners in “everyday” critical thinking learning opportunities