



**“THERE ARE TWO WAYS OF EXERTING  
ONE’S STRENGTH: ONE IS PUSHING  
DOWN, THE OTHER IS PULLING UP.”  
- BOOKER T. WASHINGTON**



## LECTURE/DISCUSSION OUTLINE

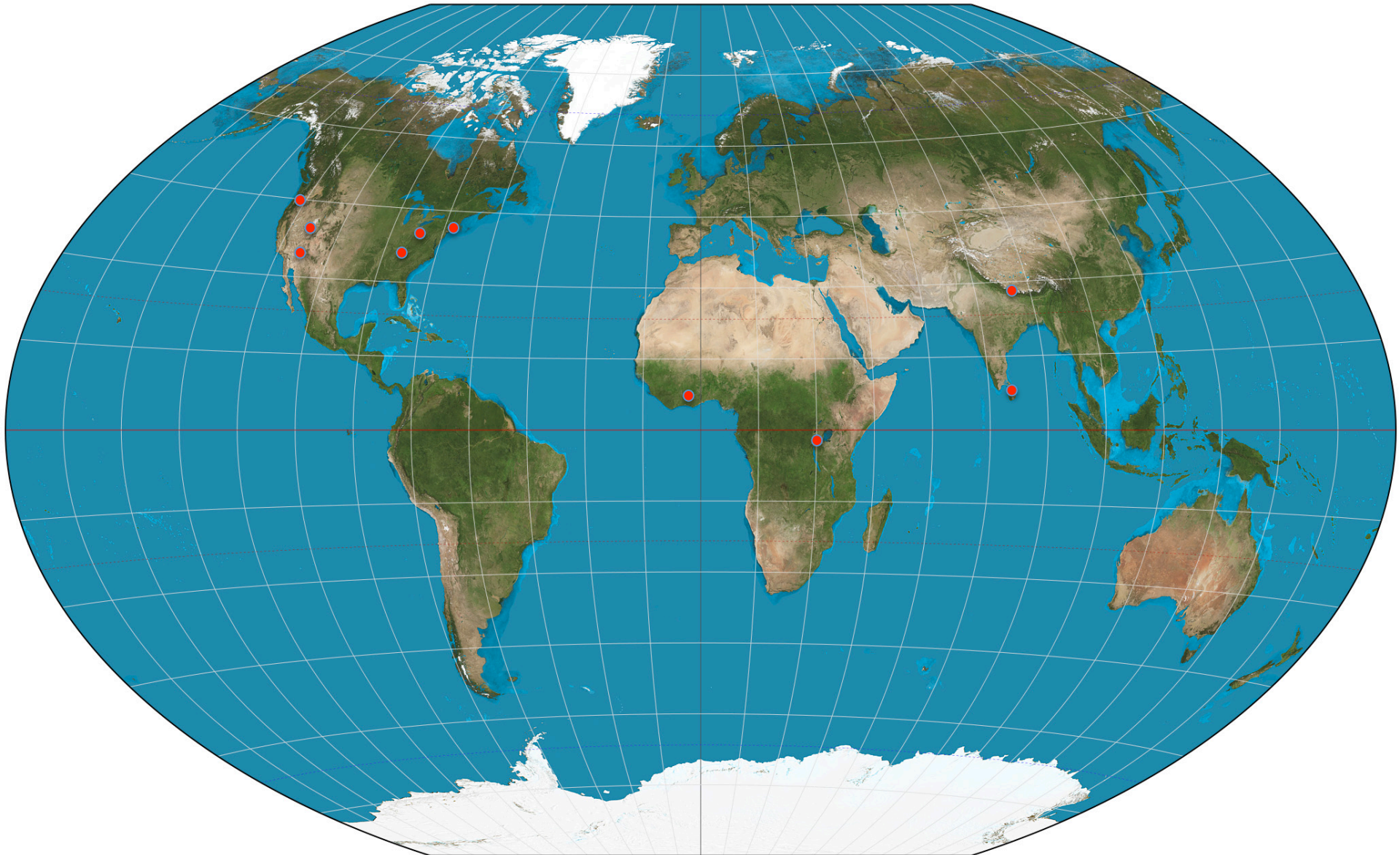
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- 30sec about my background...
- What are our ultimate goals in training HC providers
- **How** can we train the providers we need?
- Arizona's context and UA's mandate
- Arizona Health Sciences Colleges – GRBH
- College of Medicine Programming – UGME
- CoM Programming – GME
- UA Dept of EM Programming
  - The program/curriculum
  - Rural/GH Track outline
  - Sites
- **Areas for future work...**
- Collaboration example – GECC, if time allows



THE UNIVERSITY OF ARIZONA  
MEDICAL CENTER

## MY JOURNEY MAPPED OUT:





## MY INTERESTS: NO CONFLICTS (UNFORTUNATELY)

- University of Arizona
  - College of Medicine – Tucson, Dept. of Emergency Medicine
    - Director of Rural, Border, and Global Health Programs
  - Mel and Enid Zuckerman College of Public Health (MEZCoPH)
    - Health Promotion Sciences Department
- Global Emergency Care Collaborative (GECC)
  - Member of the Executive Committee
- American College of Emergency Physicians (ACEP)
  - International Section Steering Committee Member
  - Inaugural Chair of ISSC's "Grant's and Funding Committee"
- Society of Academic Emergency Medicine (SAEM)
  - Global Emergency Medicine Academy
- International Emergency Medicine Fellowship Consortium
- Consortium of Universities for Global Health (CUGH)
  - Member of the Enabling Systems Committee

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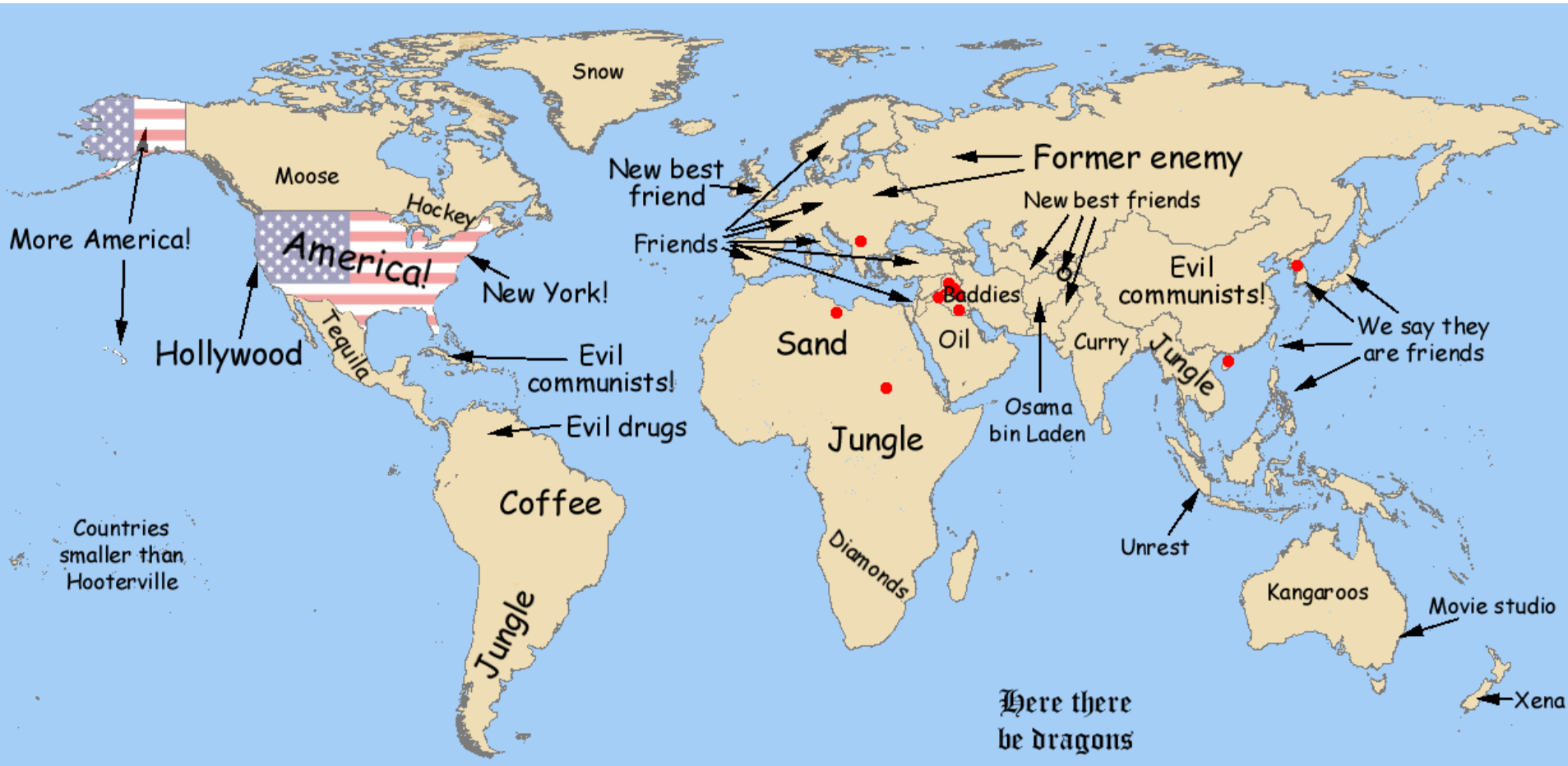


*"Try this—I just bought a hundred shares."*





# HOW MANY AMERICANS VIEW THE WORLD



The world according to the United States of America

• Bombed here

Thank you, Lee Wallace...for the South African perspective!



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## WHAT ARE OUR REAL GOALS IN TRAINING HEALTHCARE PROVIDERS (REGARDLESS OF LOCATION OF TRAINING)

- What kind of HC practitioner do you want for your family, friends, and stakeholder populations?
  - Knowledgeable/Evidence Based
  - Patient-Centered
  - Reflective, resilient
  - Culturally Humble and Empathetic
  - “cross-culturally effective” (Evert)
  - Efficient and resourceful
  - Cognizant of the practitioner’s role(s)
    - Patient, Family, Community and Population levels
  - Invested in reducing health disparities within/between populations



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## HOW CAN WE TRAIN THE PROVIDERS WE WANT/NEED?

- Recruit students and trainees thoughtfully
  - Highly qualified
  - From diverse backgrounds
  - Fit to better match the population(s) they are likely to serve (ideally)
    - Need more robust education “pipelines”
- Provide a solid foundation of knowledge
  - Traditional basic sciences
  - Foundation in the social determinants of health
  - Population-based health and Functions and Essential Public Health Services
  - Social justice and ethics
  - Medical anthropology
  - Understanding of health systems and program development/evaluation
- Ensure education is “competency-based”
- Strong multi-disciplinary teams & Inter-professional programming



## HOW CAN WE TRAIN THE PROVIDERS WE WANT/NEED?

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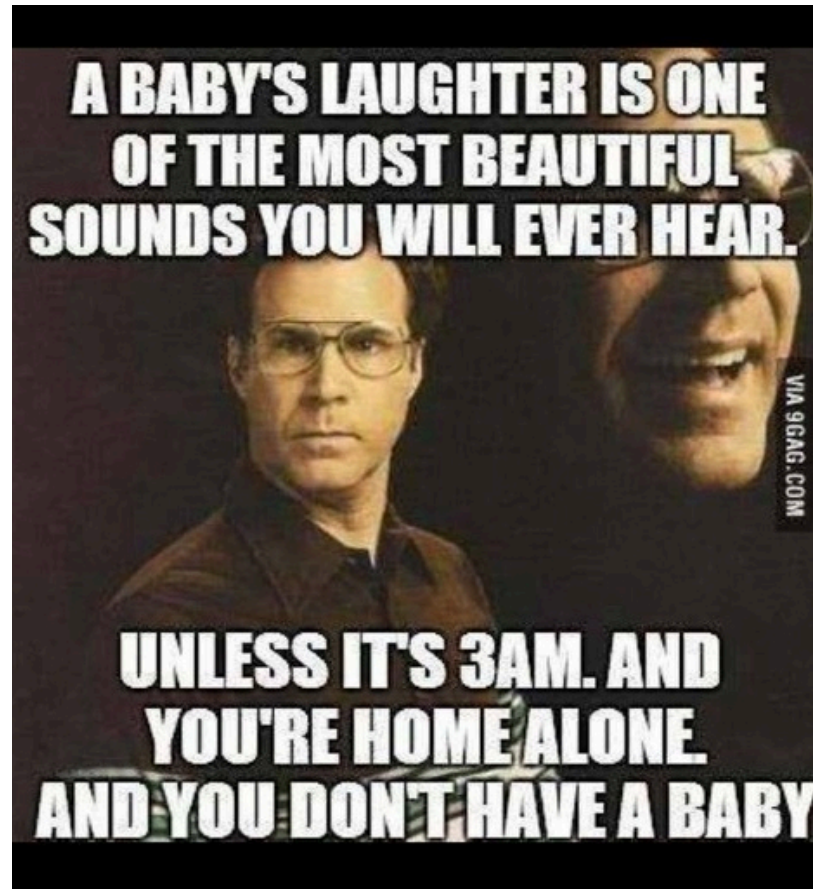
- Provide a strong community-based approach
  - From the outset of education programming (experiential)
- Create opportunities for “de-centering” experiences
  - Taking students out of their familiar comfort zones (location/environment)
    - Resource limited settings
  - Students to encounter the limits of their knowledge and ability
    - Desirable difficulties (Koriat et al. in Eichbaum, 2015)
      - Opportunities for reflection, questioning of assumptions, mistakes
- Utilize reflection and self-evaluation with inter-disciplinary mentoring
- Better assess faculty
  - Assure they can teach and mentor Global/Local Health Experiences (Astle noted)
  - Still to be defined
- Foster notion that collaborative projects should benefit host institutions







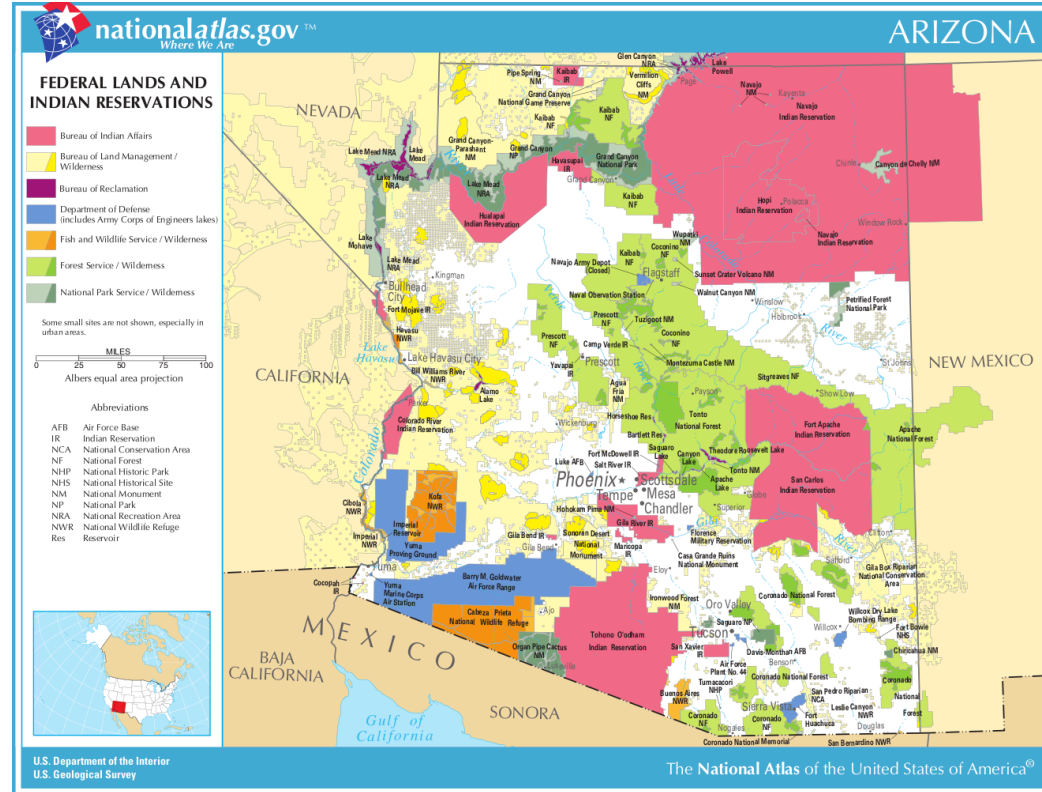
## CONTEXT IS EVERYTHING





## UA HAS A WEALTH OF STRENGTHS FOR GLOBAL-LOCAL HEALTH

- Geography
- Land-grant Univ. mandate
- Inherently intercultural
- Heavy RPCVs presence
- Strong AZ AHEC
- Invested faculty/staff
- **Opportunities for growth**
  - Coalesce projects/programs to leverage strengths
  - Create enabling systems
  - Funding



[HOME](#)[THE MANIFESTO](#)[MISSION STATEMENT](#)[STRATEGIC PLAN](#) ▾[PROGRESS](#) ▾

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## MISSION STATEMENT

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### OUR MISSION

To improve the prospects and enrich the lives of the people of Arizona and the world through education, research, creative expression, and community and business partnerships.

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### OUR VISION

Through cross-cutting innovations distinctive to the University of Arizona, we will expand the student experience through engagement, advance knowledge through innovations in creative inquiry and collaboration, and forge novel partnerships to positively impact our community.

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### OUR SETTING

The University of Arizona in Tucson is a land-grant doctoral research university. Our research and development expenditures place us among the nation's top public universities, and we have membership in the Association of American Universities.

We offer a broad array of programs leading to degrees from the baccalaureate through the doctorate. We have a total enrollment of over 40,000 full-time and part-time students. As a land-grant university, we maintain programs in production agriculture, mining, and engineering, and serve the state through our cooperative extension services, technology transfer, economic development assistance, distributed education, and cultural programming.

The University provides distinguished undergraduate, graduate, and professional education; excels in basic and applied research and



## Health Sciences – 2 campuses

## Rural, Global, Border Progs

- Separate from UA Main Campus
- Very strong RPCV Program
- Arizona Area Health Education Consortium
- Tucson
  - CoM
  - MEZCoPH
    - Global Health Institute
    - Ctr for Rural Health
    - Ctr for American Indian Resilience
  - CoN
  - CoPharm – International Pharm
- Phoenix
  - CoM
  - MEZCoPH (MD/MPH)
- CoM-T
  - UGME
    - GH Distinction track
    - FRONTERA internship
    - Global MedCats Spanish language program
    - Rural Health Professions
    - Commitment to Underserved Program
      - Community Service Distinction Track
  - GME is considered separate



## GBRH GME PROGRAMMING AT UA COM - TUCSON

### Graduate Medical Education

- 2 Primary GME Locations
  - Banner UMC – Tucson
    - 48 ACGME Residency/Fellowship Programs (550)
      - FM, OB, Surg, Anesthesiology, Ortho with Global electives available
  - Banner UMC – South
    - 6 Residencies
    - 1 fellowship
    - **Explicit Rural, Global, Border Foci**

### BUMC-S GME

- EM – GRBH program
  - Required
- FM – GRBH program
  - Required
- IM – Rural rotations
- Optho – Border elective
- Psychiatry – NA elective
- Neurology – ??





## JOB SECURITY FOR EMERGENCY CARE





# BUMC-S EM GLOBAL, BORDER, RURAL HEALTH OPTIONS

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## 1) General SC EM GBRH Curriculum

- 3 yrs of didactics, 4hrs/yr
- Longitudinal Spanish Language Program, Dual role interpreter certification available
- 2<sup>nd</sup> yr - Required Rural EM rotation
- 3<sup>rd</sup> yr - Global Health Elective, General Selective

## 2) Focused EM GBRH Track (intended to expand experience and prep for a career focus)

### Additional programming

- Core reading
- IEM/Global Health Journal Club
- Aligned Scholar Quest Research Project
- Aligned Quality Improvement Project
- Collaborative U of AZ inter-disciplinary education opportunities
  - Pediatrics, Anesthesia, Family Medicine, Surgery and others
- Attendance/Participation in Rural, Global, or Border Health Conference
- Participation in a regional, state, national, or international committee related to track
- Teaching, research project opportunities with Global Emergency Care Collaborative



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## INSTRUCTIONAL STRATEGIES – RURAL & IEM ROTATIONS

- Additional contextually appropriate knowledge acquisition
- U of A faculty mentorship (longitudinal)
- Experiential
  - 1 month IEM rotation
    - Direct clinical work
    - Didactics/SIM
    - EM R3's learning through teaching
    - IEM site faculty mentorship
- Structured Journaling/Self Reflection
- Independent reading
- Collaborative CQI or research project
- Post-trip presentations



## RURAL SITES

- Existing Sites (ongoing)
  - Sho Low
  - Tuba City
  - Sells (Tohono O'odham)
  - Nogalas, AZ
- Sites in development
  - Chinle, AZ (Navajo Rez)
  - Hilo, Hawaii







## GLOBAL EMERGENCY MEDICINE SITES

### Program Focus

- Develop strong relationships with local stakeholder's education/research programs via collaboration
- Enable program growth toward bilateral education/research collaboration
- Ensure safety/security while creating a positive learning experience

### Sites (Ongoing)

- Uganda - Working directly with **Global Emergency Care Collaborative**  
[www.globalemergencycare.org](http://www.globalemergencycare.org)
  - Rural District Hospital ED
  - Regional Referral Hospital
  - Guatemala – Quetzaltenango “Xela” - Primarily Language Training (Pop Wuj)
- Kenya – Aga Khan – Urban setting (Nairobi) supporting local stakeholders (*currently on hold*)
- Nepal – Currently development on hold
  - BP Koirala Institute of Health Sciences

### Future collaborations under development

- Ecuador – UA CoM/AHSC collaboration with Univ. of Cuenca is under development
- Mexico – Collaboration with Pace-MD in Guanajuato City (Med Spanish, Acute/Emerg Care Edu)





## FORMATIVE EVALUATION METHODS\*

- Procedure logs
- Case logs
- Resident self evaluation
- Faculty evaluations
  - IEM site
  - U of A mentor evaluation of journaling/debriefing
- Conference presentation
  - Peer evaluations
- Resident self evaluation
  - Mastery of ACGME based goals and objectives
- Faculty evaluations
  - IEM site
  - U of A mentor evaluation of journaling/debriefing
- Conference presentation
  - Peer evaluations



## SUMMATIVE EVALUATIONS\*

- Residents evaluation of rotation
  - Aimed at optimizing:
    - Clinical experience
    - Accommodations/logistics
    - Preparation
    - Mentorship
- IEM site-specific feedback
  - Regarding optimization of rotations



## FUTURE DIRECTIONS – LEVERAGING UA'S STRENGTHS

- Create more alignment with UA Main Campus (Inter-professional/Multidisciplinary Projects)
  - Office of Global Initiatives
  - College of Social Behavior Sciences
  - College of Agriculture/Life Sciences (One Health)
  - Engineering
- Create additional alignment at AHSC
  - Utilize dual appointment to create fundable collaborative projects
  - Horizontal University-University Collaboration Development (MOU signed, ?funding/support)
    - Looking for input on format for project proposals
  - Additional strategic collaboration between centers/institutes
- CoM
  - Create alignment between departments and investment of personnel and funding resources
  - Creation of an Interdisciplinary Post-Graduate Fellowship
    - Rural/Global focus (eg. HEAL Initiative)
- Department of EM
  - Refinement of our curriculum and assessments (integration of reflective and narrative writing)
  - Hunt for financial support



# QUESTIONS/DISCUSSION!!



# THANK YOU!!

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Additional slides - example of a EM collaboration: Global Emergency Care Collaboration





# GLOBAL EMERGENCY CARE COLLABORATIVE

- Sustainable/Scalable EM Education in resource limited setting

## GECC team from UA Dept of EM

- [Brad Dreifuss](#) – Board Member (collab dev't/research)
- [Lori Stolz](#) – Ultrasound Edu
- [Lucas Friedman](#) – Peds/EM, Ultrasound Edu
- [Emily Grover](#) (EM/Peds grad) – Simulation Edu
- Past Volunteers: [Josh Hoxea](#), [Ben Ruffatto](#), [Nic Hawbaker](#), [Uwe Stolz](#), [Matt Kostura](#), [Jordan Justice](#), [Katie O'Brian](#)
- Several residents/fellows slated to rotate this year
- [Christine Huang](#), [Elaine Situ-LaCasse](#), [Nicola Baker](#)

## Promotional Video:

<http://vimeo.com/17141360>

## Contact with Questions:

[contact@globalemergencycare.org](mailto:contact@globalemergencycare.org)

Bradley Dreifuss – [brad@globalemergencycare.org](mailto:brad@globalemergencycare.org)



GLOBAL  
EMERGENCY CARE  
COLLABORATIVE

<http://globalemergencycare.org/>

Twitter: @globalemergcare



# Uganda

**Masaka Regional Referral Hospital**

**Karoli Lwanga "Nyakibale" Hospital**





## GLOBAL EM CLINICAL TRAINING

- Typically rural
- Very under resourced (infrastructure)
- Wide catchment areas
- Often poor training for providers there long term (little CME)
- Typically lack opportunities for advancement and programs for quality improvement
- Typically lack data collection and epidemiologic/outcomes data







## WHO IS GECC?

- Global Emergency Care Collaborative (GECC) was founded in 2007 to meet the need for quality emergency care at Karoli Lwanga “Nyakibale” Hospital in rural southwestern Uganda.
- Funds were raised by GECC and partner organizations & a needs assessment was completed
- June 2, 2008, Nyakibale Hospital proudly opened Uganda’s first truly functional ED





## WHO IS GECC?



- Developed and implemented a novel education program to train mid-levels in EC, called
  - Emergency Care Practitioners (ECPs).
- Since 2009, the ECPs have cared for ~30,000 patients with a variety of medical and traumatic illness and injuries, preventing an extraordinary number of potential deaths.
- ED treats over 7,000 patients per year.
- A quality assurance database tracks dz/injury surveillance, patient care, and patient outcomes
  - Source of expanding body of pubs



## WHO IS GECC?

- GECC's flagship project
  - The ECP Program
    - 2yr 'train the trainer' program.
- Sustainability are the key tenants Education, clinical care, and administration are weaned from GECC to local staff over time.
- GECC also has expansion programs developing in other Ugandan and Kenyan Locations.







- The ECP Curriculum for local staff consists of:
  - Classroom didactics
  - Clinical bedside training to effectively and independently manage the emergency department.
  - Simulation and procedure series
  - CQI presentations
  - Research
  - Community based outreach



- The curriculum was developed by GECC leadership team - based on QI data and experience working at Nyakibale Hospital.
- The implementation of the curriculum was carried out by GECC volunteers with strong support from other short-term volunteers.



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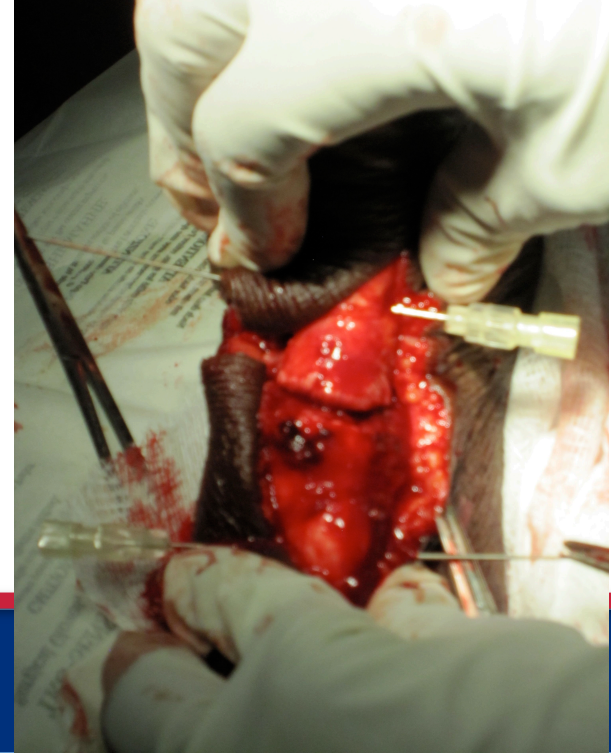
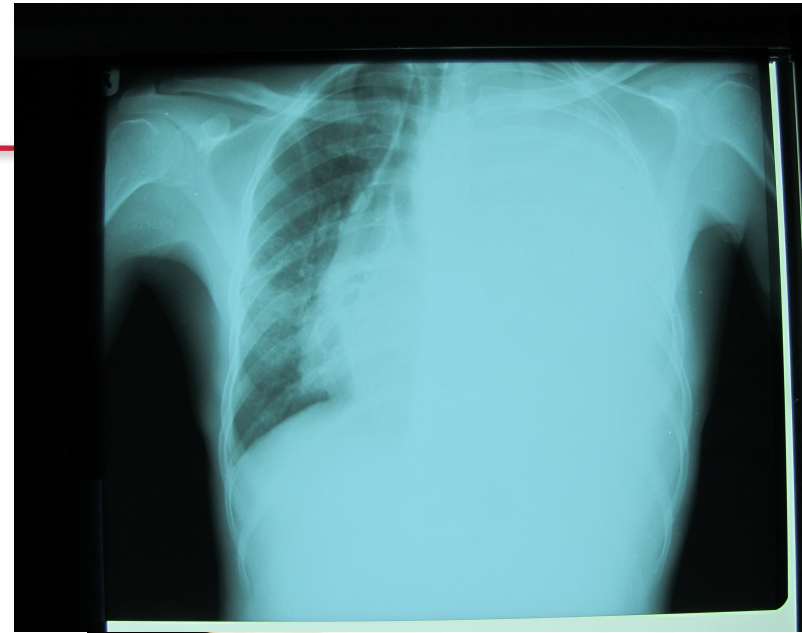
## THE (EM RESIDENT/ATTENDING) ROLE

- You work as a “short term volunteer”
  - Providing clinical and didactic teaching support at weekly conferences to the local ECPs (Emergency Care Practitioners)
- The ED is open from 8am till 12am.
  - Patients arriving outside this time window go directly to the ward.
- ED coverage is generally split amongst volunteer ED attendings/residents
- The onsite GECC Program Director and GECC will provide pre-trip preparation and significant guidance while on the ground.
  - For example, Matt Kostura was asked to prepare educational material ahead of time
    - EKG tutorial, conscious sedation lecture, etc.
- Longer term involvement: [Lori Stolz](#) (another UA Attending) directs the U/S curriculum; [Emily Grover](#) (EM/PEDS grad) co-directs simulation component of curriculum





# WHAT DO WE SEE?





## GECC'S PROGRAM COMPONENTS







## GECC'S PROGRAM COMPONENTS





## GECC'S PROGRAM COMPONENTS

