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Karibu!

Welcome to a wonderful and challenging medical experience in Kenya! As a participant in the Indiana University-Moi University School of Medicine Partnership or as a member of the AMPATH Consortium, you are preparing for a rotation that we believe will enhance your professional and personal growth.

Kenya is a wonderful nation but uncertainty is a fact of life there. Preparation, flexibility, and maintaining a broad perspective are key to a good experience for both you and your Kenyan hosts. Our goal is to assist you to become as well prepared as possible. Please read these documents carefully. Their purpose is to help you understand the purpose of the program and to help you make the most of your experience in Kenya.

Please complete all documents and return to Ron Pettigrew at least 6 weeks prior to travel.

The staff of the Indiana University—Moi University Partnership is willing and able to help you with any questions or concerns you might have. Please note the contact information on page 2.

If at any time before, during, or after your activity in Kenya, you have any questions, comments, or suggestions, please contact the Ron or Jenny. In the meantime, we wish you success as you prepare to travel to Kenya!

Asante sana and safari salama!

Ron Pettigrew, AMPATH Program Manager

Jenny Baenziger, MD ~ IU Center for Global Health, Assistant Director Education
**CONTACT INFORMATION**

*Updated 7/12/2018 JTB*

* To call Kenya from outside of Kenya: Dial the international code (254), then dial the city code and then the 5-8 digit telephone number.
* To call within Kenya: A zero is required before the “area code” when calling from within Kenya. Omit the zero when calling from outside of Kenya.

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone/Fax/E-Mail</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Eldoret, Kenya</td>
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<td>E: <a href="mailto:mturissi@iu.edu">mturissi@iu.edu</a></td>
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<td>Medicine Team Leader</td>
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<td>C: 0795 946 289</td>
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<td></td>
<td>Eldoret, Kenya</td>
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<td></td>
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<td></td>
<td>C: Kenya: 0716 827 131</td>
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<td></td>
<td>Eldoret, Kenya</td>
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E- Sarah Ellen: sarahellen@iuteam.org

Suzanne Goodrich, MD  Co-Field Director of Research  IU House  Eldoret, Kenya  
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E: spgoodri@iu.edu

Raptim/MTS Travel  717 N. Main Street  Eldoret, Kenya  
ATTN: Brent Sprunger  Box 505  Newton, KS  
P: 800/835-0106  
F: 316/283-2397  
E: inspire2us@raptim.org

Kwa Kila Hali Safaris  Eldoret and Nairobi  
Netta and/or Christine  P: 011-254-(0)20-248-653  
C: 011-254-(0)722-725347  
E: netta@nettaruthmann.com  
info.kwakilahalisafaris@gmail.com

Endoroto Travel  Eldoret  
Damarice Wathika  E: endorototraveltd@gmail.com  
C: 011-254-(0) 721-376-197

Taxi Max  Eldoret  
P: 011-254-(0) 725-885-733

Joseph Chacha/Mangrove Tours  Eldoret  
P: 011-254-(0) 53-2060236  
C: 011-254 (0) 721-215-074

Francis Dagala  Eldoret  
Eldoret-based taxi driver  C: 0721-410-253

U.S. Embassy in Kenya  
Business Hours: 0203636451  
After Hours: 0203636170

Canadian Embassy in Kenya  
Phone: 0203663000  
Alternate phone: 0734420366

Consular Section/American Citizen Services  
+254 (20)375-3704/375-3700

Regional Security Office  
+254 (20)363-6301

Foreign Commercial Service  
+254 (20)363-6438

www.ampathkenya.org
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<th>Activity</th>
<th>Contact/Resource</th>
</tr>
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<td><strong>All:</strong> Become familiar with program goals and objectives</td>
<td>Ron Pettigrew and Jenny Baenziger</td>
</tr>
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<td>AT LEAST 3 mo before departure</td>
<td><strong>Faculty:</strong> contact Ron Pettigrew regarding IU House availability</td>
<td>Ron Pettigrew</td>
</tr>
<tr>
<td>AT LEAST 3 mo</td>
<td><strong>All:</strong> Obtain passport. Must be good for at least 6 months <em>after return.</em></td>
<td><a href="https://passportusa.org/get_started/?pay_rec=01&amp;pmt=multi&amp;lp=03&amp;source=3j7rdm4l_16_5412381">https://passportusa.org/get_started/?pay_rec=01&amp;pmt=multi&amp;lp=03&amp;source=3j7rdm4l_16_5412381</a></td>
</tr>
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<td>3 months before</td>
<td><strong>Faculty and residents:</strong> Complete documentation for visitor’s medical license in Kenya</td>
<td>Orientation Materials/ Program Assistant</td>
</tr>
<tr>
<td>3 months before</td>
<td><strong>All:</strong> Obtain plane tickets to Nairobi and from Nairobi to Eldoret</td>
<td>Online flight purchases options (Kayak, Orbitz, etc) Travel Agent Ron Pettigrew</td>
</tr>
<tr>
<td>3 months before</td>
<td><strong>All:</strong> Obtain appropriate immunizations and malaria prophylaxis. Most insurances will only give a 1-month supply, so fill the malaria prescription NOW and again before you leave (or, call to get prior authorization from your insurance company for a 2-month supply).</td>
<td>Options: Center for Global Health Shot Night (May) Campus Health Travel Medicine Clinics</td>
</tr>
<tr>
<td>2 months before</td>
<td><strong>Faculty staying &gt;1mo:</strong> Complete Special Pass Application</td>
<td>Ron Pettigrew</td>
</tr>
<tr>
<td>2 months before</td>
<td><strong>All:</strong> Send travel itinerary to Ron Pettigrew. Students: Complete all online iAbroad requirements.</td>
<td>Ron Pettigrew</td>
</tr>
<tr>
<td>2 months before</td>
<td><strong>Students:</strong> Complete and sign Guidelines for International Electives and Experiences and Liability Waiver</td>
<td>Ron Pettigrew</td>
</tr>
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| 2 months before               | **All:** Obtain travel health insurance (copy of policy or policy number) and send verification to Ron Pettigrew | *Medical students:* Covered by IU health insurance. 
*Residents:* Covered by IU health insurance. If opted out of IU health insurance, see orientation manual for other options. |
<p>| 2 months before               | <strong>All:</strong> Complete and send in copy of Emergency Contact                  | Ron Pettigrew                                                                    |</p>
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<td>2 months before</td>
<td>All: Obtain visa</td>
<td><a href="http://www.ecitizen.go.ke">www.ecitizen.go.ke</a></td>
</tr>
<tr>
<td>1 month before</td>
<td>All: Register with the U.S. State Department</td>
<td><a href="https://step.state.gov/step/">https://step.state.gov/step/</a></td>
</tr>
<tr>
<td></td>
<td><strong>All (optional but encouraged):</strong> Attend refresher orientation refresher with Jenny Baenziger and Ron Pettigrew. Held on the 3rd Thursday of the month from 4-5PM in the Global Health offices.</td>
<td>Ron Pettigrew</td>
</tr>
</tbody>
</table>
| 1 month before | All: Contact Team Leaders with arrival/departure dates and one paragraph describing your global health experience, future global health plans, and career goals. | Matthew Turissini, MD (Medicine)  
mturissini@gmail.com  
John Humphrey, MD (Pediatrics)  
john.m.humphrey@gmail.com  
Connie Keung, MD (surgery)  
connie.h.keung@gmail.com |
| 1 month before | All: Confirm with Ron Pettigrew and Dunya Karama that ground transportation from Eldoret airport to IU House has been arranged | Dunya Karama AND Ron Pettigrew                              |
| 2 weeks before | Prepay housing costs Make checks payable to “IIGH, Inc.”            | Ron Pettigrew                                           |
| 2 weeks before | All: Let your credit card company and bank know the dates and locations of your travel. | Ron Pettigrew                                           |
| 3 weeks after return | **Students:** Submit 8-page reflection paper AND 2-page journal article analysis or book review  
**Residents:** Submit 3-page reflection paper. | See Orientation Manual for guidelines. Email to Ron Pettigrew and Jenny Baenziger. |
| 1 month after return | All: Complete debriefing session with Jenny Baenziger, MD            | See emails for dates. Ron Pettigrew / Jenny Baenziger, MD |
| 3 months after return | Get PPD                                                              | Campus Health or your physician                         |
History of the Program
The Partnership Between Indiana University School of Medicine and Moi University School of Medicine
by AMPATH staff, 2017

Introduction

The partnership between Indiana University in the United States and Moi University in Kenya represents a unique model. Since 1989, Indiana University School of Medicine and Moi University School of Medicine (MUSM) in Eldoret, Kenya have collaborated to promote collegial relationships between American and Kenyan medical doctors, scientists, and students, and to develop leaders in health care in Kenya and the United States. The mission of this new partnership was to develop leaders in health for the United States and Africa, foster the values of the medical profession, and promote health and well-being in both countries.

This medical school-medical school partnership is built on the premise that individual and institutional good derives from the integrity of individual counterpart relationships. The IUSM-MUSM partnership emphasizes bilateral exchange, mutual benefit, and long-term commitment. The partnership is departmentally based and integrated across multiple disciplines and throughout all levels of both institutions from student body to Department Heads and Deans. Funding comes from multiple sources including philanthropic support.

The IUSM-MUSM collaboration is an equitable partnership that helps to satisfy Moi University’s need for additional academic instructors, while at the same time creating opportunities for professional and personal development and scholarly achievements by medical faculty, staff, and students at both institutions. While demonstrating the power of medical education to improve the lives of vulnerable populations, the IUSM-MUSM partnership fosters the tripartite academic mission of care, education and research and promotes the values of the medical profession: integrity, service, intellectual inquiry, academic freedom, and responsible citizenship.

Institutional Partners

MUSM, one of only two medical schools in Kenya, enrolled its first class of students in late 1990, graduating them in 1997. Currently, MUSM admits 80-110 students per year, selected from the best and brightest high school graduates in a country with over 44.6 million people and only 18 medical doctors per 100,000 inhabitants. The school has adopted and refined an innovative, six-year curriculum designed to produce well-trained medical doctors to serve Kenya’s urban and large rural populations. This curriculum emphasizes problem-based learning and community based education and service (COBES).

Indiana University School of Medicine was established in 1903 and has developed into one of the nation’s largest and premier medical centers. IUSM occupies an 85-acre campus with four general medical-surgical hospitals, Indiana’s primary pediatric hospital, a psychiatric hospital and a number of unique teaching and research facilities. IUSM faculty and students also work in a large number of urban- and rural-based community health centers and offices. IUSM graduates over 275 medical doctors each year. Medical students pursue a four-year, competency-based curriculum.
Program Overview

Individual, collaborative relationships form the cornerstone of the IUSM-MUSM program. Each American visitor in Kenya endeavors to link with his/her appropriate counterpart. For example, IUSM physicians in Kenya work with their Kenyan colleagues under the direction of the Kenyan department head. IUSM medical students work and live with Kenyan medical students, and IUSM post-graduate physicians in training, or residents, work alongside Kenyan medical officers and interns. Counterpart relationships are similarly emphasized when Kenyan faculty and students visit IUSM.

Indiana University supports multiple positions on-site in Eldoret. The Executive Field Director maintains a permanent presence on site and oversees all of IU’s activities on-site in Kenya. The Executive Field Director is Adrian Gardner. The Medical Liaison or Team Leader supervises all visiting residents and students and coordinates the medical activities of all visiting faculty members. The Team Leader is Tim Mercer MD (Internal Medicine). Tim is joined by Katherine MacDonald, MD (Pediatrics). The Program Administrator, Dunya Karama, provides logistic/scheduling support and runs the IU Houses. John Sidle, MD (Med/Peds) and Suzanne Goodrich serve as co-Field Directors of Research. They oversee and coordinate on-site all of IU’s research activities. Sarah Ellen Mamlin heads the Sally Test Pediatric Center and supports outreach to children on the Nyayo wards and in several orphanages. IUSM’s Division of General Internal Medicine and Geriatrics coordinates all travel and work schedules, and maintains a fourteen-unit housing compound and a fleet of vehicles in Eldoret.

The IUSM-MUSM partnership enables the residents of IUSM’s training programs to take eight-week electives in Eldoret under the supervision of the IUSM Medical Liaison. Since 1990, nearly 500 residents have participated in elective rotations in Kenya. Most of the residents are in primary care training programs at IUSM. While at Moi University, the residents’ responsibilities include patient care, teaching, research and public health activities in the Moi Teaching and Referral Hospital and urban and rural health centers. While in Kenya, IUSM residents establish collegial relationships with junior Kenyan doctors and help teach Kenyan medical students. Residents consistently describe the experience in Kenya as “life-changing” and rate the elective as one of the premier experiences of their residency training.

In 1994, an elective opportunity for senior medical students was introduced. Since then, more than 400 senior students have taken clinical electives at Moi University. A two-month long summer “Slemenda Scholar” elective for sophomore medical students was introduced in 1998. Two to five sophomores participate in this program each year. Two sophomores will travel to Kenya in the summer of 2016.

The majority of IUSM faculty participating in the IUSM-MUSM program is from the Department of Medicine; however, additional IUSM departments and divisions have played significant roles. The Department of Pediatrics has contributed both faculty and financial support. IUSM’s Departments of Pathology, Otolaryngology, Oncology, Dermatology, Anesthesiology, Family Medicine, Psychiatry, Radiology, Obstetrics/Gynecology and Surgery have each contributed to Kenyan faculty development in Kenya and Indiana. One member of the IUSM Department of Surgery served five years in Eldoret. Currently, the IUSM Department of Surgery supports a full-time surgeon who oversees IU’s efforts and collaboration with MTRH surgeons. Basic scientists at Indiana University’s regional centers for medical education have supported bilateral faculty

Many internists from US academic medical centers other than IUSM have traveled to Eldoret under the auspices of the IUSM-MUSM program to participate in teaching and service activities. This has resulted in creation of the AMPATH (Academic Model Providing Access To Healthcare) Consortium, a collaboration of other institutions (Brown, Duke, Toronto, Purdue, Notre Dame, UMass, and UCSF) along with academically affiliated, medical training centers (Portland-Providence, Oregon; Lehigh Valley, Pennsylvania; Mt. Sinai Medical Center, New York) that have made long-term commitments with IUSM to MUSM.

While the majority of this exchange occurs from the US to Eldoret, IUSM and its North America partners in the AMPATH consortium provide full scholarship support each year for selected MUSM students (18 in 2015) to participate in 6 week electives in North America. More than 110 Kenyan faculty members and post-graduate trainees have also been supported by IUSM to visit Indiana medical centers for the purpose of faculty development and collaborative research.

While the underlying commitment to developing future leaders in health in both the US and Kenya remains the primary mission of the IU Center for Global Health, the IU-Kenya Partnership and AMPATH, combating the HIV/AIDS pandemic has been the current focus for the last ten years. For the past 4-8 years, we have been focusing on “lateral expansion”, that is, leveraging our success fighting HIV/AIDS to build more effective primary care systems that can respond particularly to the needs of women and children. Previously, AMPATH represented Academic Model for the Prevention of HIV and AIDS, but for the past eight years, it represents a more comprehensive approach to healthcare in Kenya and has become the Academic Model Providing Access to Healthcare. The ensuing document (pg.14) contains a more in-depth description of the work.

**Sustainability**

Funding for the IU-Kenya program and AMPATH comes from a number of sources. The program was initially contained in IUSM’s Division of General Internal Medicine and Geriatrics with funds coming from pooled clinical income and the Moore Foundation, a local private foundation. Currently, the partnership derives funding from a broad base including federal grants such as the Presidents Emergency Plan for AIDS Relief (PEPFAR), individual donations, local Indianapolis institutions and private and public foundations. Multiple departments at IUSM have provided departmental funds to support exchange of selected faculty and residents. Individual private donations have enabled a number of projects in Kenya. Indiana University faculty, residents, and students working in Eldoret do not accept any salary, travel reimbursement, or means of support of any kind from Moi University or the government of Kenya. Individual and foundation contributions have been essential in building this program, and donations are always needed and gratefully accepted.

**Outcomes**

**Scholarly Achievements**

Numerous grants from U.S. federal agencies and several foundations have funded faculty and student exchange and the development of clinical, teaching, and research personnel and programs in Kenya, especially for HIV prevention and treatment. The President’s Emergency
Plan For HIV/AIDS Relief (PEPFAR) pledged more than $60 million to ramp up HIV prevention and treatment efforts at over 61 sites in Kenya. The partnership has completed multiple collaborative projects including an extensive evaluation of the first decade of the curriculum at Moi University School of Medicine. The partnership has also produced numerous publications and presentations co-authored by Americans and Kenyans. Publications have focused on a range of topics including medical informatics, medical education, basic sciences research, and clinical, epidemiological and health services research.

Program Enhancement and Development in Kenya and at MUSM
Through philanthropic development spearheaded by IUSM, MUSM funds a work-study program for medical students in Eldoret, tuition reimbursement scholarships for impoverished medical students, leadership and merit scholarships for Kenyan medical students, and awards to promote Kenyan women in medicine. In the current year, using funds provided by IUSM, MUSM supports over 50 students in work-study and over 50 full tuition scholarships. IUSM with its US consortium partners also provides full funding to enable 18 MUSM and 2 dental students to take elective rotations in North America. Additional funds have supported Kenyan research and faculty development, community based education and service, and the limited procurement of educational resources, medical equipment, and medicines.

A new surgical suite, including four operating rooms and recovery facilities, was built at MUSM with the support of a unique collaboration between IUSM and Second Presbyterian Church in Indianapolis. The operating theatres were needed to fulfill both service and education needs. AMPATH recently opened the Riley Mother and Baby Hospital, located at Moi Teaching and Referral Hospital. In 2005, the AMPATH Centre, an 80,000 square foot building dedicated to HIV care, training and research opened to provide care and treatment to HIV-positive patients. Both of these major construction and building projects were funded mostly by private philanthropic donations. The development of the first outpatient electronic medical record in sub-Saharan Africa was a particularly key achievement for the partnership. The electronic AMPATH Medical Record System successfully bridged the “digital divide” and has evolved into the information system supporting clinical and research activities in the partnership’s HIV clinics. In October 2015, a new Chandaria Cancer and Chronic Disease Centre building featuring state of the art oncology and cardiac care units opened. Soon radiotherapy treatments will also be available on site, the first such facility outside of Nairobi. The new center has been constructed entirely from philanthropic support.

Personal and Professional Development
The IUSM-MUSM partnership promotes responsible citizenship and health for the human family and fosters integrity, service to others, and intellectual growth. All participants in the collaboration emerge as changed persons, enriched with these core values.

We have assessed the effect of the program on US faculty members, residents and students using survey instruments completed by selected participants, reports written by all students, and interviews with most of the participants upon their return to Indiana.

Program participants report that their experience in Kenya had some value in improving history-taking skills, broadening general medical knowledge and improving diagnostic skills.
Enhancement of teaching skills seems to be a significant outcome of the “Kenya experience.” Most faculty members who stayed for a month or more, indicate that the experience significantly enhanced their teaching or mentoring.

Most participants note improvement of stateside job satisfaction as an important outcome of their time in Kenya. How long they stayed does not seem to affect the impact of the international experience in this area.

For Americans, the experience affects their use of personal time and appears to influence community involvement and citizenship at home.

Personal beliefs and family relationships may be the areas in which participants feel that the experience is of most significance.

According to exit interviews and evaluations completed by Kenyan students and faculty members who spent time in the US, the experience reinforces their commitment to certain aspects of their own curriculum and exposes them to different attitudes toward work, different styles of teaching and leadership, and a different organizational construct.

The Kenyan faculty participants report that their experiences increase creativity in solving problems in health care delivery and make them less accepting of the status quo in Kenya. Importantly, Kenyan faculty and students note that the partnership is fair and equitable.

An NIH special emphasis panel charged with reviewing the partnership in the context of a grant review gave the partnership a superior rating. According to one of the reviewers, the partnership “serves as a model program for how collaboration between U.S. institutions and those in developing countries can be established, nourished, maintained, evaluated and enhanced....This linkage has been developed in such a way that the interests of Moi University and the people of Kenya have been kept uppermost.” [Personal communication, NICHD Special Emphasis Panel, ZHD1 DSR-R (TW), 1/22/2001]

Miscellaneous Achievements
Spouses and partners traveling with IUSM personnel working in Kenya have been involved in many community outreach projects. They have donated time and resources to several schools and orphanages. They have promoted hospice care for dying patients and provided hospitality, comfort, and educational services for children on the pediatric wards of the Moi Teaching and Referral Hospital. IUSM has also made it possible for selected patients to obtain lifesaving surgery in the U.S.

AMPATH

Our Model: Starts with Healthcare

The academic health centers that make up AMPATH are uniquely situated to pursue a tri-partite mission of care, training, and research, three components which are all essential for successfully addressing the short and long-term challenges of global health. While training and research are critically important to our program, AMPATH has always been determined to “lead with care.” Care is not only our most pressing obligation when faced with the needs of a horribly
under-served population, it is the foundation upon which the necessary training and research is conducted.

AMPATH was created in response to the challenge of providing life-saving care in the face of the HIV pandemic. AMPATH has enrolled over 160,000 HIV-positive persons, with almost 2,000 new patients being enrolled each month at over 500 urban and rural clinic sites throughout western Kenya. But, just as importantly, AMPATH has reached one million people through a home-based counseling and testing program that enjoys a 97+% rate of acceptance into the homes it visits, and has been able to lower mother-to-child transmission of HIV/AIDS to lower than 4%. Through prevention and early treatment programs like these, we are demonstrating a community-based effort that can virtually halt the spread of HIV/AIDS.

In partnership with the Kenyan Ministry of Health, AMPATH has expanded from an HIV focus to address the critical needs for primary healthcare, chronic disease care, and specialty care. Over 10,000 newborn deliveries take place each year in the new Riley Mother and Baby Hospital in Eldoret, nearly 10,000 patients visit the new oncology clinic annually, over 1,500 patients are enrolled in the program’s diabetes outreach, and Centers for Excellence have been developed in cardiovascular disease and mental health.

**Our Mission: Care, Research, Training**

Academic health centers are uniquely situated to pursue the tri-partite mission of care, training and research, three components which are all essential for successfully addressing the short and long-term challenges of global health. Training (over 1,200 Kenyan and American medical students have participated in the program and thousands of Kenyan health care providers have been trained by AMPATH) and research (AMPATH researchers have published over 275 peer-reviewed publications and attracted over $83 million in cumulative funding for AMPATH-related research projects from NIH, CDC, and other sources) are critical components of that effort, and we are dedicated to leading with care.

This mission of care, research, and training is embraced by institutions like Brown University’s Alpert Medical School, Purdue University, Duke University Medical Center/Hubert-Yeargan Center for Global Health, Lehigh Valley Hospital, Providence Portland Medical Center, Mt. Sinai Medical Center, University of Notre Dame, University of Massachusetts, UCSF and University of Toronto Faculty of Medicine, who all have joined together with Indiana University as the AMPATH Consortium to partner with the Moi Hospital and University, allowing the Kenyan leaders to draw upon the resources and talents of North American academic health institutions to tackle the challenges of disease and poverty.

**Our Programs: holistic, sustainable**

In AMPATH’s definition of “healthcare,” the focus is on the patient, not the disease. If a patient is hungry, or without a job, or is the victim of discrimination or abuse, AMPATH will respond, a commitment that leads inexorably toward holistic care. Therefore, AMPATH not only treats over 60,000 HIV-positive persons at more than 500 urban and rural clinic sites throughout western Kenya. We also have developed innovative programs to assure food and income security for thousands of individuals, including organizing more than 2,000 farmers into cooperatives that have successfully competed for contracts with the World Food Programme. We provide school fees, nutrition, and other assistance to over 20,000 children left orphaned or vulnerable due to HIV/AIDS. We also conduct prevention and early treatment programs that demonstrate a community-based effort that can virtually halt the spread of HIV/AIDS.

Local leadership is the key to sustainability of any global health effort, so all of AMPATH’s programming is led and implemented by Kenyans. Sustainability is a core component
of AMPATH at every level, as evidenced by the use of an advanced electronic medical record system to enable cost savings through task-shifting in clinical care (over 100 sites globally now host the AMPATH-originated Open Medical Records System, OpenMRS), overall program integration with the Kenyan government through our new partnership with the Ministry of Health, and our focus on developing income security for patients who will one day be able to pay for the care they receive.

**Conclusion**
The IU Kenya-AMPATH partnership provides an important affirmation of each medical school’s commitment to the world community. The success of the partnership reveals the promise such collaborative projects hold for the development of tomorrow’s medical leaders, both within Africa and North America.
Responding to the HIV Pandemic: The Power of an Academic Medical Partnership

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Abstract

Partnerships between academic medical center (AMCs) in North America and the developing world are uniquely capable of fulfilling the tripartite needs of care, training, and research required to address health care crises in the developing world. Moreover, the institutional resources and credibility of AMCs can provide the foundation to build systems of care with long-term sustainability, even in resource-poor settings.

The authors describe a partnership between Indiana University School of Medicine and Moi University and Moi Teaching and Referral Hospital in Kenya that demonstrates the power of an academic medical partnership in its response to the HIV/AIDS pandemic in sub-Saharan Africa. Through the Academic Model for the Prevention and Treatment of HIV/AIDS, the partnership currently treats over 40,000 HIV-positive patients at 19 urban and rural sites in western Kenya, now enrolls nearly 2,000 new HIV positive patients every month, feeds up to 30,000 people weekly, enables economic security, fosters HIV prevention, tests more than 25,000 pregnant women annually for HIV, engages communities, and is developing a robust electronic information system.

The partnership evolved from a program of limited size and a focus on general internal medicine into one of the largest and most comprehensive HIV/AIDS-control systems in sub-Saharan Africa. The partnership’s rapid increase in scale, combined with the comprehensive and long-term approach to the region’s health care needs, provides a twinning model that can and should be replicated to address the shameful fact that millions are dying of preventable and treatable diseases in the developing world.


As physicians and academicians, it is our privilege and our responsibility to provide services to our patients and their communities, to nurture and inspire our students and trainees, and to examine and understand the complexities of our world. The power of this tripartite academic mission is particularly evident in the collaborative response of some academic medical centers (AMCs) and large public hospitals to the health problems of uninsured populations in the United States. Over the last several decades, for example, the political and academic leaders of the city of Indianapolis leveraged the entrepreneurial and intellectual energy of the city’s academic community to respond meaningfully to the health needs of a broad swath of its most vulnerable population. A comprehensive care system was established in affiliation with the public hospital and a number of community-based health centers. Those sites, in turn, became laboratories for research and classrooms for training generations of health professionals dedicated to providing a single standard of care for all persons. Though much work needs to be done, we can look proudly at many such achievements of AMCs across the United States.

Sub-Saharan Africa, in contrast, is facing an HIV/AIDS crisis—one of the most devastating pandemics in human history—and has yet to realize the power of its AMCs. The reasons for this oversight are many: inadequate collaboration and communication between the ministry of health and ministry of education in many countries, inadequately prepared managers and leaders, systems that are ill equipped and/or inadequately structured to manage and deliver complex and comprehensive programs, and a pervasive, insidious feeling of fatalism. The failure of most African countries in the 1990s to control the HIV/AIDS pandemic is self-evident. And, even with the advent of the Global Fund and the President’s Emergency Plan for AIDS Relief in the current decade, the number of success stories in Africa is far too few. It is ironic that AMCs have failed to engage fully against the pandemic that is sweeping the African continent, because they are the only resource in Africa and the United States capable of simultaneously providing service, mobilizing manpower, teaching, and conducting research.

In this article, we will describe a unique and replicable model of a partnership between an American AMC and its African counterpart that created and implemented a successful, comprehensive system to control the HIV/AIDS crisis in western Kenya. We will describe the nature of the partnership, the growth of the HIV/AIDS-control system, our responses to the obstacles faced in building and sustaining the system, and the lessons we learned. We will illustrate the synergistic capacity of two AMCs to respond effectively to thousands of people dying of treatable and preventable diseases in Kenya, and we will challenge the donor community and our colleagues around the world to awaken the dormant power of AMCs across our globe.

The Indiana–Moi Partnership

At its inception in 1990, Moi University Faculty of Health Sciences (now named Moi University School of Medicine), the second medical school in Kenya, did not
have a sufficient number of Kenyan faculty members and was seeking expatriate clinical teachers and institutional partners. At the same time, three general internists from Indiana University School of Medicine (IUSM) with long-term volunteer experience in developing countries were seeking to develop a relationship between Indiana University and a medical school in sub-Saharan Africa. Their aim was to develop leaders in health, foster the values of the medical profession, and foster health for the human family in this developing region. Led by these three faculty members, Indiana University’s Division of General Internal Medicine committed to keeping at least one of its faculty members on site in Kenya. IUSM faculty members in Kenya serve under the direction of the Kenyan head of department and share with their Kenyan counterparts responsibilities for clinical care, community based education and service, teaching, and research. Though the partnership’s response to the HIV epidemic would not begin until 2000, the overarching focus on primary care and institution building during the partnership’s first decade formed the framework for its HIV-control program.

Counterpart relationships at both individual and departmental levels are the keystone of the Indiana–Moi partnership. The partnership currently involves collaboration among virtually all of the major disciplines at both medical schools, though the administrative issues of the IUSM portion of the partnership are handled primarily within its division of general internal medicine. After initial success with the Indiana–Moi partnership, IUSM sought to make a wider impact on academic medicine in sub-Saharan Africa. Since 1997, several other North American medical institutions have joined IUSM in a partnership called the America/sub-Saharan Africa Network for Training and Education in Medicine (ASANTE) Consortium. (Asante means thank you in Kiswahili, one of Kenya’s two national languages.) This consortium currently includes IUSM, Brown Medical School, Duke University School of Medicine, Lehigh Valley Hospital and Health Network, Providence Portland Medical Center, the University of Utah School of Medicine, and the University of Toronto Faculty of Medicine. In total, more than 800 Kenyans and Americans have participated in exchange of faculty members, postgraduate trainees, and students through the ASANTE Consortium. The partnership has had a major impact on delivery of health services, education, and research in Kenya, including dozens of jointly authored publications.

One of the philosophical underpinnings necessary to sustain the Indiana–Moi partnership is that all participants in the partnership expect and work for mutual benefit. We have discovered that altruism is a necessary but insufficient reason for either institution to continue in the partnership. To achieve mutual benefit, the institutional relationship strives for equity, not equality, because medical systems in the developed and developing world are inherently unequal. For example, IUSM does not expect financial commitment on the part of Moi University to support IUSM’s participation. However, IUSM does expect its trainees and faculty members to be given the opportunity at Moi to benefit personally and professionally from involvement in the program.

In part, IUSM’s role in the partnership follows a distinguished precedent of U.S. AMCs engaging their considerable resources in response to the needs of underserved populations. Many distinguished AMCs and large public general hospitals in urban areas of the United States have entered into relationships that produced mutual benefit for underserved populations and the collaborating AMCs. But there is substantially less evidence of similar success when U.S. AMCs collaborate with counterparts in the developing world. Collaborations inspired by financial incentives to U.S. medical schools during the 1950s through the early 1960s were phased out because of problems with sustainability and a disproportionate focus on tertiary care. Most current examples of successful collaboration between U.S. AMCs and their counterparts in the developing world have been limited to focused initiatives, especially shared research interests. These collaborations have largely failed to facilitate improvements in the developing country’s health care system and have tended to overemphasize curative care relative to disease prevention and health promotion.

The Moi–Indiana system-building efforts also stand in contrast to short-term commitments from individual health care workers traveling to developing countries from the United States. Of course, these efforts can offer value to both the health care providers and the patients served. However, lacking institutional backing and without connection to a long-term effort, these approaches cannot substantially contribute to the building of developing countries’ health care systems. In response to this need for sustained system building, there have been many recent calls for partnerships between institutions in developed and developing countries to confront poverty-related diseases in developing countries. AMCs should be the leaders in responding to these calls, because such centers are uniquely capable of fulfilling the tripartite needs of care, training, and research required to foster health of individuals and their communities in the developing world. Disappointingly, however, funding often does not exist to encourage North American medical schools to join with counterparts in Africa to respond to health care crises and build systems of care. Our experience strongly suggests that government and philanthropic support should be directed toward long-term institutional partnerships that contribute to system building.

**Academic Model for Prevention and Treatment of HIV/AIDS**

The tragic scope of the HIV/AIDS pandemic is well known. In 2005, an estimated 38.6 million people worldwide were living with HIV, and an estimated 2.8 million lost their lives to AIDS. In Kenya, it is estimated that 1.3 million people are living with HIV.

The once-high cost of antiretroviral drugs, along with concerns about therapy adherence and the possible negative effect of antiretroviral therapy on risk behaviors, posed barriers to widespread HIV/AIDS treatment in sub-Saharan Africa. Many of those concerns have been addressed in recent years, and delivery of antiretroviral therapy has been successful in several settings in Africa. However, sustaining effective antiretroviral therapy and controlling HIV/AIDS in a place like Kenya is a uniquely difficult challenge. Conditions in sub-Saharan Africa...
African countries require a system of care that must effectively address issues of poverty, hunger, gender discrimination, and stigma that present barriers to successful treatment and contribute to the spread of the disease. Establishing and maintaining that system of care is especially difficult in sub-Saharan Africa, which suffers from 60% of the world’s HIV/AIDS burden but can call on only 1.3% of the world’s health care workforce to confront the challenge.45

Throughout its first decade, the Indiana–Moi partnership failed to respond systematically to the HIV/AIDS crisis. In fact, by 2000, we had failed to treat even one person with antiretroviral therapy. However, our successful treatment of a young Kenyan medical student dying of AIDS in 2001 inspired us to formulate a systemic response to the pandemic. Leveraging the power of our academic medical partnership, we established the Academic Model for the Prevention and Treatment of HIV/AIDS (AMPATH).46

AMPATH has quickly become one of the largest and most comprehensive HIV/AIDS-control systems in sub-Saharan Africa, providing a complete system of care that has been described as a model of sustainable development.47 Delivery of services occurs in the public sector through hospitals and health centers run by Kenya’s Ministry of Health. Through community engagement, education, promotion of safe-sex practices, experience-sharing by persons living with HIV/AIDS, counseling and testing, and other prevention activities, AMPATH touches the lives of millions in a wide geographic area. AMPATH has treated over 40,000 HIV-positive patients at 19 urban and rural clinical sites across western Kenya, currently enrolling nearly 2,000 new patients each month. (Figure 1) AMPATH feeds up to 30,000 people weekly and provides antenatal services that aim to prevent mother-to-child transmission of HIV in nearly 25,000 pregnant women annually. All eligible pregnant mothers in AMPATH’s system are immediately referred for antiretroviral therapy. After delivery, all mothers are advised of the risks and benefits of exclusive breastfeeding or exclusive formula feeding with respect to transmitting HIV to their children. Eligible mothers who choose exclusive replacement feeding for their babies are provided formula at no cost. Furthermore, innovative efforts have been implemented to ensure access to safe water.

Starting an HIV-care system from scratch and expanding it in five years to serve comprehensively more than 40,000 patients and their communities was a daunting task. As we tackled the pandemic in our region of Kenya, we faced a series of obstacles. However, because of our academic medical partnership, we were able to craft effective responses to each challenge.

Stigma

At rural health clinics in particular, we discovered that the stigma associated with HIV/AIDS impeded access to care. However, our already existing strong ties with village elders, opinion leaders, and health providers (established through community-based work not related to HIV throughout the previous decade),
Food security

We found that, depending on location, between 20% and 50% of AMPATH’s patients were hungry and lacked food. It was apparent that the physical limitations of living with HIV/AIDS had made it difficult for patients to work their small farms or take on outside jobs, and this left them and their families impoverished and malnourished. In response, we initially created a demonstration farm on 10 acres of land donated by a local high school. This farm, which we called the HAART and Harvest Initiative (HAART stands for highly active antiretroviral therapy), had a dual purpose: it enabled farmers to learn how to increase their yields of crops, milk, and eggs, and the produce from the demonstration farm was distributed to our most needy patients. The farm serves as a focal point for the community and a gathering place where persons living positively with HIV/AIDS can engage with the greater community. The farm also gives the community more ownership in the response to the HIV epidemic. For these reasons, the farm had an unintended benefit of slashing HIV stigma in the community.

Over time, as AMPATH expanded to other sites, the HAART and Harvest Initiative evolved into four high-tech, high-production farms plus three demonstration farms. These farms currently produce more than five tons of fresh produce weekly, all of which is distributed to our hungriest patients and their families. The United Nations World Food Program complements the fresh produce from our farms with donations of corn, beans, corn/soy blend, and oil. AMPATH now provides food assistance to up to 30,000 people per week. Food distribution, however, is a formidable challenge. The daily measure of supply and demand must be translated into individual patient allocations, which are to be picked up at specific distribution sites spread over western Kenya. Industrial engineers from Purdue University have joined with AMPATH to create the proper computerized nutrition information system capable of getting the right food to the right place at the right time. In addition, this component of the AMPATH food program is complex, requiring trucks, storage warehouses, distribution centers, distribution workers, and data clerks.

Income security

We discovered that many patients had lost their jobs due to the physical limitations of their illness or because of the stigma associated with being HIV positive. The majority of our initial patients had been widowed by the disease and did not have the skills or capital necessary to support their families. Enabling these patients to earn a sustainable source of income to achieve well-being and sustain or restore human dignity was nearly as important as providing food assistance. In response to this need, the Indiana–Moi partnership created the Family Preservation Initiative. Up and running at four of AMPATH’s 19 sites and currently expanding to three more sites, the Family Preservation Initiative aims to address patients’ economic security needs through skills training, microcredit, agribusiness support, a fair-trade-certified crafts workshop and agricultural cooperatives.

Information system

The complicated and lifelong nature of HIV/AIDS care, monitoring patient adherence to antiretroviral therapy, and the need for reliable research demands accurate and detailed record keeping, a significant barrier to sustainable care in the developing world. Before the founding of AMPATH, Indiana and Moi had already created the first-ever electronic medical records system in sub-Saharan Africa. Now, in collaboration with Partners in Health, an organization that provides comprehensive health care to underserved communities throughout the world, this system has evolved into a shareware electronic medical record system called OpenMRS, a common framework on which medical informatics efforts in developing countries can be built. OpenMRS is already being used by AMPATH, in HIV/AIDS clinics in Rwanda, and in a hospital in South Africa.

Clinics, classrooms, labs

In many of our sites, as the number of patients treated increased beyond hundreds to thousands, we found that the necessary amount of care could not be provided in existing facilities alone. So, the partnership built a number of additional facilities, including the AMPATH Centre of Excellence for HIV Care, Kenya’s first facility solely dedicated to caring for HIV-positive patients. At this 80,000-square-foot facility in Eldoret, patient care is provided and medical school faculty, clinical officers, and nursing staff are trained in providing comprehensive multidisciplinary care to HIV-infected patients. The center also serves as a home for multiple research projects, a tuberculosis diagnostic laboratory, and an HIV reference laboratory.

Transparency and accountability

One of the most critical challenges we faced with AMPATH was to develop the administrative capacity to support an increase in staff numbers and to assure fiscal accountability in a time of rapidly increasing budgets. We did this by creating a research and sponsored programs office administered jointly by Moi Teaching and Referral Hospital and Moi University, housed in the AMPATH Centre. Administrators from IUSM’s research and sponsored program’s office played a key role in this process. Philanthropic support coupled with in-kind support from Indiana University enabled bilateral exchange and the eventual success of this endeavor.

Although many challenges remain in front of us, the partnership’s efforts to confront the HIV/AIDS pandemic have been successful. AMPATH is Kenya’s largest public sector HIV/AIDS program and has been designated by the ministry of health as the training site for providers
in western Kenya. Treatment of AMPATH’s patients has been shown to result in significant and persistent clinical and immunological benefit, with patients showing both weight and CD4 cell count increases well into the third year of follow-up.44

After IUSM, Moi Teaching and Referral Hospital, and Moi University articulated a shared vision and commitment to address the HIV/AIDS crisis in Kenya, funding followed. AMPATH has been supported by grants from the United States Agency for International Development, the President’s Emergency Plan for HIV/AIDS Relief, the U.S. Centers for Disease Control and Prevention, the Maternal to Child Transmission Plus Initiative, the Bill and Melinda Gates Foundation, and other private philanthropy. Importantly, since the inception of the Indiana–Moi partnership, in-kind support from Indiana University, private family foundations in Canada and the United States, and other private philanthropy. Importantly, since the inception of the Indiana–Moi partnership, in-kind support from Indiana University, private philanthropic support (including from the interfaith community), and a willingness to take calculated risks have been keys to the success of the partnership. We cannot overstate the vital role that private philanthropy has played in enabling the partnership to respond nimblly and effectively to problems at hand.

Institution Building and Risk-Taking in Kenya

Beyond the parameters of the HIV/AIDS response, the long-term commitment of the Indiana–Moi partnership has inspired a focus on sustaining the emerging health system in Kenya. Through Moi’s, IUSM’s and Moi Teaching and Referral Hospital’s access to a broad array of funding sources, the partnership enhances financial security and provides sustained support for Kenyan faculty members. IUSM has coordinated a program for United States-sponsored tuition scholarships and work–study opportunities for Moi University students. This support, along with support for programmatic and faculty development in multiple disciplines, works to increase the capacity of Kenya to address its own health needs while also combating the disturbing phenomenon of “brain drain” in Kenya and other developing countries.51

It is important to note the essential role that multinstitutional cooperation within Kenya played in creating and sustaining the partnership. Ministries of health and education in developing countries are routinely called on to respond to health crises, but too often, the ministries are not encouraged or empowered to combine forces and take advantage of their complementary resources. In our case, Moi University School of Medicine, under the banner of the Kenyan Ministry of Education, and Moi Teaching and Referral Hospital, part of the Kenyan Ministry of Health, accepted the risks of a partnership with each other and with IUSM. These risks included the possibility of a failed program, loss of prestige that comes with shared leadership, and diverting funds from other pressing needs. Of course, IUSM also accepted its own risks of lost resources and prestige. At its inception, the institutional partnership among IUSM, Moi University School of Medicine, and Moi Teaching and Referral Hospital resulted from personal, departmental, and institutional commitments and agreements. We did not begin at the level of the ministries and work down; rather, we effected relationships at personal, departmental and institutional levels and then involved the greater universities, ministries, and central governments.

Many institutions in North America and sub-Saharan Africa have not been willing to accept the risk of partnership in pursuing ambitious public health goals. But, in our case, key faculty members of both schools of medicine altered their time commitments to accept the partnership challenge, and the institutions made priority adjustments as well. All involved agree it is unlikely that the extensive cross-ministry cooperation within Kenya would have occurred without the catalytic role of IUSM, which was able to approach the health crisis from a broad and “neutral” perspective removed from, but not insensitive to, internal Kenyan political interests.

The Power of an Academic Medical Partnership

Although limited research has been conducted on best practice approaches to building health care systems in the developing world,52 the Indiana–Moi experience provides a model for institutional partnerships meeting the challenge of providing health care in a resource-poor environment. AMPATH’s success lies in its ability to achieve a rapid increase in required services and resources to meet the treatment needs of tens of thousands of HIV patients at multiple clinical sites, to combine care at rural and urban settings, and to provide a comprehensive system of care in an environment that hosts training and research. These capacities are directly attributable to the substantial resources created by the academic medical partnership between Moi and IUSM.

The current crisis facing sub-Saharan Africa demands a response from every available resource within Africa, joined with meaningful contributions from the full spectrum of resources available to developed countries. For African AMCs, this means discovering the dormant power that resides in the tripartite mission of patient and community service, teaching, and research. For U.S. AMCs, it means risking far more than collaboration in fully funded research and training ventures, and instead engaging in a committed and equitable relationship with their developing world counterparts.

It was an accident of epidemiology that caused our Indiana–Moi partnership to be confronted by the greatest pandemic of our time, but it is no accident that an academic medical partnership has been able to respond to the crisis quickly, comprehensively, and effectively. We call on other AMCs in North America and Africa, and the funders that support them, to discover their own potential for a similarly meaningful response.

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Did You Know?

With federal funding from the National Institutes of Health, researchers at Tulane University School of Medicine, in 2004, identified a cell that prevents the immune system from destroying cancer cells in the body.

For other important milestones in medical knowledge and practice credited to academic medical centers, visit the “Discoveries and Innovations in Patient Care and Research Database” at (www.aamc.org/innovations).
POPULATIONS AT RISK

AMPATH: Living Proof that No One Has to Die from HIV

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BACKGROUND AND OBJECTIVE: The HIV/AIDS epidemic in sub-Saharan Africa is decimating populations, deteriorating economies, deepening poverty, and destabilizing traditional social orders. The advent of the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) made significant supplemental resources available to sub-Saharan national programs for the prevention and treatment of HIV/AIDS, but few programs have demonstrated the capacity to use these resources to increase rapidly in size. In this context, AMPATH, a collaboration of Indiana University School of Medicine, the Moi University School of Medicine, and the Moi Teaching and Referral Hospital in Eldoret, Kenya, is a stunning exception. This report summarizes findings from an assessment of AMPATH staff perceptions of how and why this has happened.

PARTICIPANTS AND APPROACH: Semistructured, in-depth, individual interviews of 26 AMPATH workers were conducted and recorded. Field notes from these interviews were generated by independent reviewers and subjected to close-reading qualitative analysis for themes.

RESULTS: The themes identified were as follows: creating effectively, connecting with others, making a difference, serving those in great need, providing comprehensive care to restore healthy lives, and growing as a person and a professional.

CONCLUSION: Inspired personnel are among the critical assets of an effective program. Among the reasons for success of this HIV/AIDS program are a set of work values and motivations that would be helpful in any setting, but perhaps nowhere more critical than in the grueling work of making a complex program work spectacularly well in the challenging setting of a resource-poor country. Sometimes, even in the face of long odds, the human spirit prevails.

KEY WORDS: HIV/AIDS; program evaluation; primary care.

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For the past decade, HIV/AIDS has been decimating populations in sub-Saharan Africa while virtually all attempts to control the pandemic have failed. With the advent of highly active antiretroviral therapy in the mid-1990s, the number of deaths from HIV in the United States began to fall precipitously, but in sub-Saharan Africa the morbidity and mortality from HIV continued virtually unabated. In some parts of Africa, the prevalence of HIV in populations of economically productive adults is nearing 30%, antenatal clinics swell with HIV-infected women oblivious to their HIV status, and the ranks of orphans increase at a frightening rate as parents die without access to treatment. The international community has mobilized billions of dollars to help Africa respond to its HIV/AIDS problem, but there are limited examples of large-scale success.

The purpose of this report is to describe staff work dynamics in a system of HIV/AIDS care that has arisen in response to the daunting set of sub-Saharan HIV challenges, made its services accessible to an estimated population of two million persons in western Kenya, and demonstrated an exceptional record of successful program decentralization and growth in enrollment. This system, called AMPATH, the Academic Model for the Prevention and Treatment of HIV/AIDS, was founded in 2001 with private philanthropic support and has subsequently developed into one of the highest-performing HIV/AIDS control systems in sub-Saharan Africa.

ORGANIZATION OF AMPATH

The history, organizational structure, and health programs of AMPATH have been described in a recent publication. AMPATH emphasizes regional Kenyan leadership and a diverse consortium of providers. Founded upon a 17-year collaboration between Indiana University School of Medicine and Moi University in Kenya, AMPATH leads with care but leverages and hosts activities of all academic missions—clinical care, teaching, and research. The directors of AMPATH are the
Director of Moi Teaching and Referral Hospital and the Dean of Moi University Faculty of Health Sciences. One General Internist from Indiana University (JM) has served on-site in Kenya as coordinator of AMPATH clinical activities since the program’s inception.

AMPATH operates HIV/AIDS care clinics and screening programs in the city of Eldoret at Moi Teaching and Referral Hospital (Kenya’s second national referral hospital) and in a network of 18 other district hospitals and rural health clinics. Currently, it delivers care to more than 52,000 patients (of the estimated 200,000 HIV-infected persons in its service area), has nearly half of these patients on antiretroviral therapy (ART), and is enrolling more than 2,000 new patients per month. AMPATH mainly employs teams of Kenyan clinical officers (akin to physicians’ assistants in the U.S.), nurses, and nutritionists who work within facilities owned and operated by the Kenya Ministry of Health. These teams are formally supervised by medical doctors, but the bulk of the antiretroviral therapy is prescribed and monitored by clinical officers using standardized clinical algorithms.

Experienced observers of global HIV programs, including leadership in USAID, Kenyan Ministry of Health, WHO, and major philanthropies consider AMPATH’s record of enrollment growth in response to population need to be “best in class” among PEPFAR and other programs. In addition to remarkable growth, AMPATH’s patient retention, adherence, and restoration of immune competence among patients meeting criteria for ART have also been favorable.10 Interest in understanding the determinants of this success moved the principals of the Purpleville Foundation (PVF), a Canadian private family foundation, to request and sponsor an evaluation.

AMPATH EVALUATION—A FIRST STEP

In January 2006, work was initiated for the larger AMPATH evaluation. The initial qualitative field work was focused on staff dynamics that supported the program’s robust performance. How the program had been able to perform at such a high level and, in particular, what has permitted this performance to be sustained in a social environment often marked by organizational failure (and even corruption) was not self-evident. In effect, the qualitative evaluation sought to answer the question, “What makes AMPATH tick?”

METHODS

In January of 2006, one of the authors (TI) conducted 26 semistructured interviews with consenting AMPATH program personnel and closely related others. The general form of the interview was derived from the organizational development method of “appreciative inquiry” (AI).11,12 AI is an organizational development method that employs interviewing and storytelling to draw out the best of an organization’s past experience. It is a process designed to:

- facilitate the discovery of factors that give life to an organization;
- change the nature of conversations in an organization;
- stimulate the emergence of an organization’s collective “future vision”; and
- set the stage for future action.

The assumptions of AI are two: (1) something is working well for every person or group in an organization and (2) looking at what works well and doing more of it is more motivating and energizing than looking for what does not work and trying to fix it. In this setting, AI interview approaches that have been widely used in industry and academia were adapted to serve as the basis for exploring AMPATH performance from the diverse perspectives of a sample of AMPATH personnel. The actual interview protocol, in outline form, is available from the authors. This study’s activities were approved by the Moi IRB (Moi University’s NIH-approved Institutional Review Board [IRB]) and Indiana University’s IRB.

AMPATH personnel interviewees were drawn from a strategic sample of personnel, including occupants of leadership, administrative, and line positions. No person declined to be interviewed, although certain program personnel were in the field and unavailable during the interview period. Interviews were conducted at 3 program sites over a period of 2 weeks. All interviews were audiotaped and extensive field notes were taken. Interviews were approximately 60 minutes in length (ranging from 50 minutes to 85 minutes) and were conducted in office settings. Audiotapes of 2 interviews were technically flawed—one because of background noise and the second because the digital recorder exhausted available memory in midinterview.

The procedures followed by the analysis team are well-accepted qualitative research methods in the tradition of crystallization/immersion described by Crabtree and Miller.13 The recorded interviews and field notes were reviewed for “themes” within and across question responses by Inui. Twenty of the interview recordings were also reviewed by at least 1 other individual from the analyst group that included John Sidle, Richard Frankel, and Tadeo Miriuuki. Each of these reviewers listened to the recording of the interview and independently recorded “field notes” for comparison with Inui’s original notes. These independent analysts also extracted and compared themes. Themes independently identified from paired field notes revealed an extraordinarily high degree of concurrence between reviewers. Of all themes identified by either reviewer in an analyst pair, 90.1% were identified by both members. These themes are listed in the accompanying table, grouped by analyst consensus into 6 domains, shown as headers within the table. After consensus themes were codified, narratives from the interviews were identified as illustrative of the themes. Condensed versions of these stories were developed (to shorten them and preserve appropriate degrees of confidentiality) and were reviewed by the analysts to ensure that the meaning and natural language of each story were preserved. The condensed stories are presented to illuminate the themes.

CREATING EFFECTIVELY

Putting patients first

From the beginning we have tried to put patient priorities and patient treatment activities first in order of importance. Unless we succeeded with patients, nothing else we might say would convince anybody to trust us. When we did succeed with patients, many were astonished and wanted to help. [Physician]
Working between organizations
It has been helpful for AMPATH to work “between organizations” like the School of Medicine and the Moi Teaching and Referral Hospital. When one organization’s policy is a barrier, the other can sometimes create a more flexible environment. In the space between organizations nobody is really “in charge” and the program can make progress rapidly. [Hospital Director]

Providing transportation
In the beginning there was one driver, one car, many trips, and many people to transport. Although the work days were long, we somehow made it work. Now there are twenty cars and twenty drivers, twelve sites, a very large number of daily trips, and even more personnel than I could have imagined. Somehow we still make it work. You learn how to recognize other peoples’ strengths and to rely upon them. [Driver]

A number of personnel believe that having an opportunity to be innovative and creative in their work is highly effective in growing and improving the operational efficiency of the program. More than that, seeing such innovation be successful and sustainable is inspiring. Virtually all AMPATH employees said something about the importance of participating in “something that really works,” whatever risks and personal investment are required. In the beginning it was not clear that taking care of patients with AIDS would be beneficial at all. Seeing these individuals improve and participating in growing the program that helps them is thrilling for AMPATH personnel. Indeed, I interviewee expressed the opinion that—in some deeply ironic way—“HIV might be good for Kenya.” In a society with so much chaos, she ventured, where it is so very difficult for anything to really work, seeing an HIV program begin and succeed is “an important lesson for us all.”

CONNECTING WITH OTHERS—THE AMPATH TEAM, PATIENTS, AND OTHERS

Teamwork pays off
In a village one morning I was surprised to see that colleagues from several different AMPATH programs had, apparently by chance, all arrived there on the same day to pursue their different activities. For my part, I was to explain to people in the village a new form of nutrition—a powder that didn’t look like food at all. Because we had all come together, an impromptu large village gathering formed around us and gave us a chance to work together as a team. It was exciting and got the message to the people about why the different parts of the AMPATH program are each important and how we work as a team. [Nutritionist, Program Leader]

Leaving my wife in labor
This work is demanding and requires total commitment. The day came when I was supposed to go to work in clinic, but my wife was at home in labor with our second child. I was uncertain what to do. She was healthy, and I thought she would have a successful labor. My patients in clinic were often severely ill and needed me to be there, so I left her at home and went to the clinic. Twenty minutes into the clinic work there was a knock at the office door and Joe Mamlin was there, saying “Go home to your wife!” I did, and we successfully delivered the new baby—a boy named Joe Mamlin. [Clinical Officer]

Avoiding a crisis
When I came back from my maternity leave, I was proud that the pharmacy was working beautifully—my colleagues had successfully taken over my duties in my absence. When I reviewed the supply of medicines in the store room, however, I was stunned to realize that we were going to run out of medicine for our patients in about six weeks! I could not rapidly increase our supply from abroad because orders for new medicines often take a long time to be filled. I called a number of pharmacists I knew in HIV/AIDS programs in Kenya, asking whether they could loan me a small supply of antiretroviral drugs for a short period of time. Every single one of them helped, and with a little bit from here and there we made it through without putting any patient at risk. When my big supply came in I repaid the other pharmacists. Pulling together, acting in trust and faith, we avoided the crisis. [Pharmacy Director]

Everyone among the AMPATH interviewees emphasized the importance of strong relationships with one another and with patients and their families. Watching patients recover gives hope to all. Seeing the extraordinary commitment of the programs’ founders—perhaps notably the IUSM anchor physician Joe Mamlin’s example—has been an inspiration, but the stories of how various AMPATH personnel work together as a team, recognize and celebrate their interdependence and teamwork also abound.

MAKING A DIFFERENCE

Coming back
One of the most challenging patients I’ve ever cared for was pregnant, HIV positive, and developed head and neck cancer. When I first saw her in clinic I thought she would die before we could get her to the hospital. Putting her in the car, we drove to the hospital, delivered a healthy baby after spontaneous labor, started her on chemotherapy, and—once regression of her tumor permitted swallowing—started her on ARV’s. I thought she had truly come back from the dead. She remains tumor-free to today. I love seeing her and her healthy child in clinic. [Physician]

Presenting at a national conference
I was pleased, but somewhat surprised, to be asked to represent the AMPATH program at a gathering of the national leadership and officials in the Ministry of Health in Nairobi. It was in the early days of AMPATH and I did not consider myself to be a major figure or leading expert in the care of patients with HIV. I presented the approach we had developed at AMPATH, describing what we were doing as a doctor might—using cases—and was gratified to see how excited others became at our success. I think it was understood that
we were truly pioneers and had found a way forward that worked. Now we are regularly consulted on policy and program approaches. We are known for making something work. [Physician]

Reports of seeing people who “come back from the dead” are strong part of the narrative fabric of AMPATH. Beyond this “medical miracle” there is the sense that the emergence of AMPATH as a successful program has been a “pathfinder” development for the institutions involved in its founding, including Moi University School of Medicine, Moi Teaching and Referral Hospital, and Indiana University School of Medicine (as well as Brown University and other institutions from the northern hemisphere involved in AMPATH activities). Many feel that by its operation and success, the program is making a contribution to national and international policy as well as to the health of vulnerable populations.

SERVING THOSE IN GREAT NEED

Advocating for a patient

In the early days of AMPATH treatment, we had too few antiretroviral drugs to treat the many patients who actually needed them. I was working in the clinic every day and noticed one woman who came back and back begging for medicines, asking whether just a few pills might be available for her. Finally the day came in which we had a treatment slot for one more patient. I described this woman, her many visits to the clinic, and how I was sure she would completely adhere to all our requirements if she were given a chance to take the ARVs. When the team decided that she could now be treated, she could not stop crying—from happiness and relief. She is one of our best patients and takes wonderful care of her family. [Nurse]

Magic

I work in a number of locations that others in AMPATH may not see. Because I hear who is sick, hiding, and not coming at all to our clinics, I sometimes visit them in their homes to help them decide to get care. Some of them think there is no recovery from HIV. Others don’t want neighbors or other people in the village to know they are sick. Slowly, we are making progress even with these hard-to-reach patients and their neighbors. When I finally talked one man out of his house and, after treatment, he was restored to total health, his neighbor said to me, “What do you people do over there—magic?” [Director, Outreach Service]

The philosophic foundations of the program are easily identified in the interviews. Program personnel, from top to bottom, feel “called” by a service ideology. They particularly recognize the need to respond to the most vulnerable populations, including the sickest and poorest individuals in western Kenya, children, orphans, widows, and others. There is an explicit, shared belief in the need to put these individuals and their care first among all priorities.

PROVIDING COMPREHENSIVE CARE TO RESTORE HEALTHY LIVES

Getting tested

I saw a patient in clinic with abdominal pain and had to transport her to a hospital on an emergency basis in my car. She turned out to have a pelvic inflammatory disease and almost died from this, but she also had HIV when she was tested. When she recovered she brought her daughters to clinic for testing and more recently has brought other women to the clinic to be certain they are checked for HIV. I think she wants all women in the village to stay healthy. [Clinical Officer]

How far can he go?

I took care of a patient in our clinic whom I saw for a long time before he was eligible to start on antiretroviral drugs. Once he began to take the medicines, he regained his health and didn’t need to come in to the clinic as often, or to see me when he came. One day, when he was in clinic, he saw me and said, “Now I am too well for you to talk to me anymore, but do I have to be sick for you to say hello?” I felt sad about this and when it occurred to me that I needed help at home on my farm I asked him to come and do this work. Now he lives on my farm and looks after the animals. He is almost becoming a member of my family. He has come a long way, but I am interested to see how far he can go! [Clinical Officer]

AMPATH workers are proud of treating the whole person and attending to nutritional and income security as well as medical care. They are acutely aware that PEPFAR support for drugs will end and that patients must be ready to be self-supporting. They recognize the importance of this matter and are eager to work on prevention, behavior change, and employment as well as medical care.

GROWING AS A PERSON AND AS A PROFESSIONAL

Having the confidence of others

When we first started to do research, it was decided that a special office was important to provide standard administrative procedures and support services for research. I had some relevant experience, but not a great deal of it. When I sat with the two senior directors they asked, “Are you ready to take this challenge?” I was, and it felt good to have their confidence from the beginning. [Administrator]

Personal and professional growth is a significant part of work motivation and satisfaction among AMPATH workers. They have created a community of trust and teamwork, within which each person’s new skills, knowledge, and capacities serve everyone else. At every turn, they are eager to get and give training. The program environment supports this use of expertise, new and old, to the fullest, and provides resources for training and innovation.
DISCUSSION

This study has limitations that are important to cite. It was undertaken because AMPATH is a remarkable case which, if explored, might have heuristic value for other programs. Like all case reports it has unknown generalizability. Although we used our best efforts to triangulate data, all qualitative methods are subject to “observer bias.” The study concentrates on worker performance dynamics and isolates these from other determinants of program performance.

There are, of course, many explanations for AMPATH’s success. Some of the most important are the international organizational cooperation that undergirds AMPATH and the program’s systemic approach to HIV prevention and treatment—a holistic, biopsychosocial approach to health care that includes prevention, medical care, nutrition, psychosocial support, and income security. Clearly, the availability of PEPFAR funds and other resources (e.g., volunteered effort, food, land, and institutional infrastructure) have been critical to the capacity of the program to initiate, sustain, and expand its efforts.

Like all high-performing programs, however, AMPATH must operate, grow, and innovate through the efforts of its inspired workers. Rising to the challenge of Kenya’s HIV epidemic requires shared, sustainable staff commitment to a holistic vision of health, the belief that their work will succeed in spite of daunting circumstances, and efficient and effective use of resources, even in the face of daily tribulations. The odds are stacked against any such effort succeeding. Kenya, like many other developing countries suffers not only from the spread and adverse impact of HIV, but from substantial and entrenched health problems attributable to malaria, tuberculosis, malnutrition, poverty, unemployment, social violence, ineffective governance, untrustworthy institutions, ossified bureaucracies, low educational attainment, gender inequities, tribalism, and limited development of transportation infrastructure. The people of Kenya, including the AMPATH workers, know all of this.

The AI method does not highlight these negative contexts. As an organizational development and research method, AI focuses instead on “positive” stories because these success narratives show the way forward in spite of many challenges. Whereas they do not “pathologize” organizations, people, or social orders, AI narratives are not naïve. The stories collected for this study could also be read to reveal the program’s challenges. The “Working between organizations” story is remarkable precisely because several bureaucracies did not reduce AMPATH to a “least common denominator” organization, paralyzing it by requiring compliance with all their policies. “Putting patients first” reveals how AMPATH secured trust, a critical but scarce resource at the beginning of program operations. “Providing transportation” reveals the lack of basic infrastructure, including daily staff transportation to and from decentralized clinical sites. “Teamwork pays off” documents successful teamwork in spite of the risk for interdisciplinary conflict and chaos. “Patients give and get hope” simultaneously highlights the generally hopeless state of HIV-positive patients before the emergence of an aggressive ART program and how staff are inspired by patients (avoiding burnout). “Avoiding a crisis” documents the resiliency of a staff network, but also the tenuousness of the drug delivery supply chain. Other challenges visible in the stories include a background of folk beliefs that attribute HIV/AIDS to witchcraft, the risk of unemployment for HIV-positive persons, the need for a larger skilled workforce. AI does not neglect challenges and barriers, instead, it shows how people in effective programs have found ways to overcome them.

Against all these odds, the AMPATH workers know that they have made something work—and have done this together. From the highest levels of leadership to the critically important support staff, everyone within the program feels him or herself to be a vital participant in the work of the program, someone without whom AMPATH could not succeed. These individuals are spurred on by the daily experience of making a difference to individuals, their region, their country, and the world. In a highly challenging environment, they have created a trustworthy community of work and action. In an impoverished society, they have found a richness of spirit. Unlike mythical Camelot, AMPATH is a hardworking, sleeves-rolled-up enterprise marked by flexibility, innovation, and quick response to need. It succeeds because it serves. It inspires because it expresses in the daily round of intense AMPATH activities the core aspiration of humankind to help one another, especially the most vulnerable among us, whatever the challenges.

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APPENDIX

AMPATH Staff Interview Themes
“Creating effectively”
New challenges, new opportunities
Program innovation
Being flexible
Making something really work
Making “long shots” pay off, taking risks
Using the advantages of working between organizations instead of within them
Sharing credit for our achievements with others (e.g., the Ministry of Health)
Investing in training, education, counseling
Successful advocacy for patients and program
“Connecting with others”
Networking, liaising with community, including rural locations
Forming strong relationships to patients
Taking patients into our lives
Teamwork, trusting others, relying on others, partnering with other disciplines
Seeing other committed people work
The force of Joe Mamlin’s example, determination, confidence, success
Good, supportive working environment
“Making a difference”

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(continued)

Seeing people brought "back from the dead"
Growing a large program
Answering national-level questions
Being supported with what’s needed (various resources)
Responding to big needs

"Serving those in great need"
Believing in the potential of humankind
Serving the most needy, the most vulnerable
Treating children
Putting patients and their care first

"Providing comprehensive care to restore healthy lives"
Treating the whole person, being patient-centered
Working on prevention, behavior change
Fostering hope, recovery, independence
Providing psychosocial support, nutrition and income security

"Growing as a person and a professional"
Finding work
Being trusted with big responsibilities
Getting training, new skills
Having and using relevant expertise to the fullest
Experiencing pride of accomplishment
Being collaborative, truthful, totally committed, competent, confident, efficient
Becoming good at working with other people
Being in a good work environment, supportive and trustworthy
Being in a transformative community of care

REFERENCES

Getting There
& Logistics
Visa Application
Updated 7/6/18 JTB

Online application:
- Apply for an e-visa at: www.ecitizen.go.ke
- Cost: $50.00 US PLUS $1.00 processing fee (payable by credit card online)
- Application:
  - Contact info for IU House Manager in Kenya: Dunya Kamara: (0)721-724-633
  - Reason for travel: TOURISM
- After applying and paying for each e-visa, the e-visa form should be downloaded and printed. Ensure that the e-visa form contains a barcode near the upper right hand corner of the document.
- Keep the printed e-visa for presentation at immigration at the port of entry into Kenya
- Also, print a copy of the paid invoice/receipt for proof of payment if questioned.

If acquiring Visa through Kenya Embassy in Washington D.C.:
*send at least 6 months before departure from the US*
*Only required if you are processing your visa through the Kenyan Embassy in Washington D.C. If you choose to mail your Visa application to the Embassy, we recommend you send your Visa application to the Kenya Embassy at least six months before your scheduled departure date.

1. Valid passport with sufficient number of unused pages for endorsements abroad. Passport must be signed and valid for at least six months after anticipated return to the US.
2. Visa application form duly completed and signed by the applicant
3. Two recent passport size photographs attached to the application form.
4. Valid round trip ticket, your e-ticket or a letter from your travel agent certifying that the applicant holds prepaid arrangements.
5. A self-addressed stamped envelope for Priority Mail, Express Mail, FedEx, UPS, Airborne Express, or DHL. (Metered stamps are not acceptable.)
6. Be sure to include your home, work and cell phone (if applicable) numbers.
7. US $10.00 for rush or expedited service on documents

Other Required Documents

- For students and residents:
  Pupil Pass – 5,500 ksh and 2 passport photos
- For visitors staying in Eldoret >1 month:
  Foreign Registration Card – 2,000 ksh and 2 passport photos
- For faculty/staff spending >30 days in country:
  Special Pass – 15,000 Ksh per month (or portion thereof) for duration of stay. Applicable for faculty/staff spending >30 days in country. Include completed Special Pass application, color photo, passport face page, CV. (Submit to Ron Pettigrew for processing ... payment to be paid in Kenya when Special Pass is received)
* ALL travelers are required to have travel health insurance that includes:

- Health problems while traveling
- Repatriation
- Evacuation

Please note that travel health insurance (which is like normal health insurance but is applicable while traveling) is different than travel insurance, which covers the cost of your flights and travel arrangements if your plans change.

* Verification of coverage of travel health insurance including repatriation and evacuation must be sent to the Kenya Program Office (Ron Pettigrew) at least 2 months prior to departure.

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**IU medical residents:** The Anthem insurance provided to all residents through the GME office covers travel health insurance including repatriation and evacuation as part of the automatic Group Long Term Disability insurance plan. The service is currently provided through Assist America.

- Make sure to PRINT your travel health insurance ID card before you travel. See the bottom of this page for the link to your card: [http://hr.iu.edu/benefits/GME-disability.html](http://hr.iu.edu/benefits/GME-disability.html)

**IU medical students:** The Aetna plan offered by IU School of Medicine covers travel health insurance including repatriation and evacuation. Contact customer service for assistance printing a card for travel.

**Other:** If you are student or resident who has opted OUT of the standard plans offered by IU, travel health insurance is very likely NOT covered by your insurance plan. You will need to purchase it separately. Thankfully, it is relatively inexpensive and is usually a simple online application. Some recommended options:

- **Multinational Underwriters, Inc.**:[ www.mnui.com](http://www.mnui.com)
- **SOS Insurance**:[ www.internationalsos.com](http://www.internationalsos.com)
- **HTH WORLDWIDE INSURANCE**: Offered through IUPUI. ONLY for IU students (not residents). To purchase, follow instructions through iAbroad.
Exclusions in IUSM Aetna Student Policy

This Policy does not cover nor provide benefits for:

1. Expenses incurred as a result of dental treatment, except for treatment resulting from injury to sound, natural teeth or for extraction of impacted wisdom teeth as provided elsewhere in this Policy.

2. Expenses incurred for services normally provided without charge by the Policyholder's Health Service, Infirmary or Hospital, or by health care providers employed by the Policyholder.

3. Expenses incurred for eye refractions, vision therapy, radial keratotomy, eyeglasses, contact lenses (except when required after cataract surgery), or other vision or hearing aids, or prescriptions or examinations except as required for repair caused by a covered injury.

4. Expenses incurred as a result of injury due to participation in a riot. "Participation in a riot" means taking part in a riot in any way, including inciting the riot or conspiring to incite it. It does not include actions taken in self-defense, so long as they are not taken against persons who are trying to restore law and order.

5. Expenses incurred as a result of an accident occurring in consequence of riding as a passenger or otherwise in any vehicle or device for aerial navigation, except as a fare-paying passenger in an aircraft operated by a scheduled airline maintaining regular published schedules on a regularly established route.

6. Expenses incurred as a result of an injury or sickness due to working for wage or profit or for which benefits are payable under any Workers' Compensation or Occupational Disease Law.

7. Expenses incurred as a result of an injury sustained or sickness contracted while in the service of the Armed Forces of any country. Upon the Covered Person entering the Armed Forces of any country, the unearned pro-rata premium will be refunded to the Policyholder.

8. Expenses incurred for treatment provided in a governmental hospital unless there is a legal obligation to pay such charges in the absence of insurance.

9. Expenses incurred for elective treatment or elective surgery except as specifically provided elsewhere in this Policy and performed while this Policy is in effect.

10. Expenses incurred for cosmetic surgery, reconstructive surgery, or other services and supplies which improve, alter, or enhance appearance, whether or not for psychological or emotional reasons, except to the extend needed to:
    • Improve the function of a part of the body that:
    • is not a tooth or structure that supports the teeth, and
    • is malformed.
    • as a result of a severe birth defect, including harelip, webbed fingers, or toes, or
    • as direct result of:
    • disease, or
    • surgery performed to treat a disease or injury.
    Repair an injury (including reconstructive surgery for prosthetic device for a Covered Person who has undergone a mastectomy,) which occurs while the Covered Person is covered under this Policy. Surgery must be performed:
    • in the calendar year of the accident which causes the injury, or
• in the next calendar year.

11. Expenses incurred as a result of preventive medicines, serums, vaccines or oral contraceptive.

12. Expenses incurred as a result of commission of a felony.

13. Expenses incurred for voluntary or elective abortions unless otherwise provided in this Policy.

14. Expenses incurred after the date insurance terminates for a Covered Person except as may be specifically provided in the Extension of Benefits Provision.

15. Expenses incurred for services normally provided without charge by the school and covered by the school fee for services.

16. Expenses incurred for any services rendered by a member of the Covered Person's immediate family or a person who lives in the Covered Person's home.

17. Expenses incurred for injury resulting from the play or practice of collegiate or intercollegiate sports, including collegiate or intercollegiate club sports and intermurals.

18. Expenses incurred by a Covered Person not a United States Citizen for services performed within the Covered Person's home country.

19. Expenses for allergy serums and injections.

20. Treatment for injury to the extent benefits are payable under any state no-fault automobile coverage, first party medical benefits payable under any other mandatory No-fault law.

21. Expenses for the contraceptive methods, devices or aids, and charges for or related to artificial insemination, in-vitro fertilization, or embryo transfer procedures, elective sterilization or its reversal or elective abortion unless specifically provided for in this Policy.

22. Expenses for treatment of injury or sickness to the extent that payment is made, as a judgment or settlement, by any person deemed responsible for the injury or sickness (or their insurers).

23. Expenses incurred for experimental or investigative procedures.

24. Expenses incurred for which no member of the Covered Person's immediate family has any legal obligation for payment.

25. Expenses incurred for custodial care. Custodial care means services and supplies furnished to a person mainly to help him or her in the activities of daily life. This includes room and board and other institutional care. The person does not have to be disabled. Such services and supplies are custodial care without regard to:
   • by whom they are prescribed, or
   • by whom they are recommended, or
   • by whom or by which they are performed.
26. Expenses incurred for blood or blood plasma, except charges by a hospital for the processing or administration of blood.

27. Expenses incurred for the repair or replacement of existing artificial limbs, orthopedic braces, or orthotic devices.

28. Expenses incurred for or in connection with: procedures, services, or supplies that are, as determined by Aetna, to be experimental or investigational. A drug, a device, a procedure, or treatment will be determined to be experimental or investigational if:
   * There are insufficient outcomes data available from controlled clinical trials published in the peer reviewed literature, to substantiate its safety and effectiveness, for the disease or injury involved, or
   * If required by the FDA, approval has not been granted for marketing, or
   * A recognized national medical or dental society or regulatory agency has determined, in writing, that it is experimental, investigational, or for research purposes, or
   * The written protocol or protocols used by the treating facility, or the protocol or protocols of any other facility studying substantially the same drug, device, procedure, or treatment, or the written informed consent used by the treating facility, or by another facility studying the same drug, device, procedure, or treatment, states that it is experimental, investigational, or for research purposes.

However, this exclusion will not apply with respect to services or supplies (other than drugs) received in connection with a disease, if Aetna determines that:
   * The disease can be expected to cause death within one year, in the absence of effective treatment, and
   * The care or treatment is effective for that disease, or shows promise of being effective for that disease, as demonstrated by scientific data. In making this determination, Aetna will take into account the results of a review by a panel of independent medical professionals. They will be selected by Aetna. This panel will include professionals who treat the type of disease involved.

Also, this exclusion will not apply with respect to drugs that:
   * Have been granted treatment investigational new drug (IND), or Group c/treatment IND status, or
   * Are being studied at the Phase III level in a national clinical trial, sponsored by the National Cancer Institute, or
   * Are recognized for treatment of the indication of at least one standard reference compendium, or
   * Are recommended for that particular type of cancer and found to be safe and effective in formal clinical studies, the results of which have been published in a peer reviewed professional medical journal published in the United States or Great Britain. If Aetna determines that available, scientific evidence demonstrates that the drug is effective, or shows promise of being effective, for the disease.

29. Expenses incurred for gastric bypass, and any restrictive procedures, for weight loss.

30. Expenses incurred for breast reduction/mammoplasty.

31. Expenses incurred for gynecomastia (male breasts).
32. Expenses incurred by a **Covered Person**, not a United States citizen, for services performed within the **Covered Person’s** home country, if the **Covered Person’s** home country has a socialized medicine program.

33. Expenses incurred for acupuncture, unless services are rendered for anesthetic purposes.

34. Expenses for: (a) care of flat feet, (b) supportive devices for the foot, (c) care of corns, bunions, or calluses, (d) care of toenails, and (e) care of fallen arches, weak feet, or chronic foot strain, except that (c) and (d) are not excluded when medically necessary, because the **Covered Person** is diabetic, or suffers from circulatory problems.

35. Expenses incurred for hearing aids, the fitting, or prescription of hearing aids.

36. Expenses incurred for hearing exams.

37. Expenses for care or services to the extent the charge would have been covered under Medicare Part A or Part B, even though the **Covered Person** is eligible, but did not enroll in Part B.

38. Expenses for telephone consultations, charges for failure to keep a scheduled visit, or charges for completion of a claim form.

39. Expenses for personal hygiene and convenience items, such as air conditioners, humidifiers, hot tubs, whirlpools, or physical exercise equipment, even if such items are prescribed by a physician.

40. Expenses for services or supplies provided for the treatment of obesity and/or weight control.

41. Expenses for incidental surgeries, and standby charges of a physician.

42. Expenses for treatment and supplies for programs involving cessation of tobacco use.

43. Expenses incurred for massage therapy.

44. Expenses incurred for, or related to, sex change surgery, or to any treatment of gender identity disorder.

45. Expenses for charges that are not Reasonable Charges, as determined by Aetna.

46. Expenses for charges that are not Recognized Charges, as determined by Aetna, except that this will not apply if the charge for a service, or supply, does not exceed the Recognized Charge for that service or supply, by more than the amount or percentage, specified as the Allowable Variation.

47. Expenses for treatment of covered students who specialize in the mental health care field, and who receive treatment as a part of their training in that field.

48. Expenses for treatment of injury or sickness to the extent payment is made, as a judgment or settlement, by any person deemed responsible for the injury or sickness (or their Insurers).
49. Expenses arising from a Pre-Existing Condition, unless (a) no charges are incurred or treatment rendered for the condition for a period of six months while covered under this Policy, or (b) the Covered Person has been covered under this Policy for twelve consecutive months, whichever happens first.

50. Expenses for routine physical exams, including expenses in connection with well newborn care, routine vision exams, routine dental exams, routine hearing exams, immunizations, or other preventive services and supplies, except to the extent coverage of such exams, immunizations, services, or supplies is specifically provided in the Policy.

51. Expenses incurred for a treatment, service, or supply, which is not medically necessary, as determined by Aetna, for the diagnosis care or treatment of the sickness or injury involved. This applies even if they are prescribed, recommended, or approved, by the person’s attending physician, or dentist.

In order for a treatment, service, or supply, to be considered medically necessary, the service or supply must:

- be care, or treatment, which is likely to produce a significant positive outcome as, and no more likely to produce a negative outcome than, any alternative service or supply, both as to the sickness or injury involved, and the person's overall health condition,
- be a diagnostic procedure which is indicated by the health status of the person, and be as likely to result in information that could affect the course of treatment as, and no more likely to produce a negative outcome than, any alternative service or supply, both as to the sickness or injury involved, and the person's overall health condition, and
- as to diagnosis, care, and treatment, be no more costly (taking into account all health expenses incurred in connection with the treatment, service, or supply), than any alternative service or supply to meet the above tests.

In determining if a service or supply is appropriate under the circumstances, Aetna will take into consideration: information relating to the affected person's health status, reports in peer reviewed medical literature, reports and guidelines published by nationally recognized health care organizations that include supporting scientific data, generally recognized professional standards of safety and effectiveness in the United States for diagnosis, care, or treatment, the opinion of health professionals in the generally recognized health specialty involved, and any other relevant information brought to Aetna’s attention.

In no event will the following services or supplies be considered to be medically necessary:

- those that do not require the technical skills of a medical, a mental health, or a dental professional, or
- those furnished mainly for the personal comfort or convenience of the person, any person who cares for him/her, or any persons who is part of his/her family, any healthcare provider, or healthcare facility, or
- those furnished solely because the person is an inpatient on any day on which the person's sickness or injury could safely, and adequately, be diagnosed, or treated, while not confined, or those furnished solely because of the setting, if the service or supply could safely and adequately be furnished in a physician's or a dentist's office, or other less costly setting.

Any exclusion above will not apply to the extent that coverage of the charges is required under any law that applies to the coverage.
Medical License Application

TO: Kenya Faculty and Resident Travelers

FROM: Ron Pettigrew, Program Manager

SUBJ: Requirements for Kenya Rotation for Faculty and Residents

DATE: July 6, 2018

_______________________________________________________________

It is important that we receive the following documents in our office as soon as possible in order for you to receive a visitor’s license to practice during your overseas rotation. **This does not apply to students.**

1. License Fee – Currently $235 (Please contact Ron for updates on this amount)
2. A completed form for Medical Practitioners Permit
3. Curriculum Vitae
4. Copy of medical school diploma
5. Copy of U.S. medical license
6. Color 2”X2” passport-sized photo (Department photo is fine)
7. A copy of your passport
8. Full itinerary
9. Completed Emergency Contact Form

Address letters to:

Dr. Lukoye Atwoli
Moi University
School of Medicine
PO Box 4606
Eldoret, Kenya

**PLEASE SEND THESE LETTERS TO RON PETTIGREW. DO NOT SEND THEM TO DEAN ATWOLI.**

**PLEASE SEE THAT ALL DOCUMENTS ARE DELIVERED RON PETTIGREW FOR FORWARDING TO ELDORDET.**

Residents should submit documents 3 months prior to departure or earlier.
Forms to Complete

* Please see the final section of the Orientation Manual for forms that must be completed and sent to Ron Pettigrew at least 8 weeks prior to travel. *
Packing List
Updated 7/6/18 JTB

Note: There is a medium-sized hotel-type safe in each room in the IU House and hostel.
Note: There are several large stores in Eldoret that have household goods, toiletries, groceries, etc.

Travel
- passport: must not expire within 6 months of your return date
- printed-out copy of e-Visa
- 4 passport-sized photos: for Pupil Pass
- paper copies of passport, driver’s license, itineraries, contact info for program folks and friends/family: Keep all copies in a different place than the originals.
- money belt or pouch
- Debit card
- Credit card: Make sure to call ahead of time and let them know you’ll be traveling outside the U.S.
- A couple of checks
- Immunization records
  - Yellow international vaccination book is not needed for entry into Kenya, but may be needed if traveling to neighboring countries.
- Copies of prescriptions for medicines and glasses/contacts.
- Travel health insurance card (Link for the card for residents: http://hr.iu.edu/benefits/GME-disability.html)
- Contact card: Containing the street addresses, phone numbers, and e-mail addresses of the following:
  - Family member or close contact remaining in the United States
  - Health care provider(s) at home
  - Lodging at your destination
  - Hospitals or clinics (including emergency services) in your destination
  - US embassy or consulate in the destination country or countries

Attire
Notes about clothing:
- You will wash your own clothes (or pay to have it laundered) so bring enough for about 1 week.
- Layer! Temperatures are often cool in the mornings then quite warm by the middle of the afternoon.
- Pack a couple of days’ worth of clothes in your carry-on bag in case your checked luggage gets lost on the way.

Men:
- button-up dress shirts
- ties: required every day at the hospital
- dress pants
- undergarments
- sport coat: only for faculty

Women: Kenyan women do not show their thighs, midriff, or cleavage.
- dress pants or skirts (either is culturally acceptable; wear whatever is comfortable)
  - skirts should be at or below the knee
- shirts for work: avoid spaghetti straps and very short sleeves
- undergarments
Everyone:
- fleece, light jacket, or sweatshirt: it gets chilly in the evenings
- clothes to relax in while at “home” (IU House or hostel):
  - yoga/casual pants / jeans / shorts
  - T-shirts
- Shower sandals that have traction
- work shoes: ones that can get dusty/muddy then rinsed off (sometimes daily)
  - Crocs (ballet slipper version for women)
- hiking shoes: tennis shoes or sturdy sandals
- hats, gloves, thick shocks IF you plan to climb mountains
- zip-off hiking pants: optional, but nice for hikes
- headbands for windy car trips

General living
- Laptop: There is always a risk of something getting stolen (as there is anywhere) so lock it in your safe when not using it.
- Unlocked smartphone: get an old one to take with you if you don’t want to bring your regular phone
  - Buy a Kenyan SIM card in the airport or at other sites in Eldoret. This allows wifi access.
- Alarm clock (if not available on your phone)
- Towel: for students who will be living in the hostel
- Converter
- Universal adapter
- Sunscreen: not available there
- Sunglasses: inexpensive ones
- Lotion: it can be very dry there
- Chapstick with sunscreen
- Hygiene items you can’t live without (all other hygiene items can be bought at grocery stores there)
  - Razor
  - Tweezers
  - Fingernail Clippers
  - Water bottle
  - Feminine products: some are available there, but the quality is not as good
  - Books for pleasure reading
  - Multifunctional tool
  - Flashlight and/or headlamp
  - First aid kit: band aids, cipro or TMP/SMX, imodium, acetaminophen, ibuprofen, antibiotic ointment
  - Personal prescriptions: Take in the original pharmacy bottle. Airports don’t like unmarked bottles.
  - Malaria prophylaxis: take enough for your entire trip. Don’t fill your script at the last minute! You may need to work with your insurance company to get enough to last the whole trip.
  - Eyeglasses (consider bringing an extra pair) and/or contacts with sufficient solution for 2 months
  - Passport: cannot expire within 6 months of your return date
  - Bug spray: any DEET-containing product is effective. Picardin is an effective, safe non-DEET alternative.
  - Hand sanitizer: small bottle
  - Day pack for hiking or weekend trips
Rain coat
Umbrella
Bathing suit: for travel
Mesh laundry bag: especially for students who will be living in the hostel
Camera
Music and pictures from home: for your own comfort and to show others

Medical equipment
- IU name tag
- white coat
- stethoscope
- Forehead thermometer: forehead thermometer is useful for Peds wards (quicker and easier to use) [https://www.amazon.com/Innovo-Medical-Forehead-Thermometer-House/dp/B06XD7WB4P/ref=sr_1_1?ie=UTF8&qid=1492934137&sr=8-1-spons&keywords=forehead+thermometer&psc=1]
- Pulse oximeter with a waveform indicator to let you know if you are getting quality data
- Blood pressure cuff: with infant, pediatric, and adult cuffs
- Measuring tape in cm: for measuring mid upper arm circumference
- Notebook or notecards to keep notes on patients: can be bought there as well
- Pens: can be bought there as well
- Tongue depressors
- Reflex hammer: useful there as it is sometimes difficult to obtain imaging and lab results for patients with altered mental status and a detailed neurologic exam can be invaluable—best ones to bring:
  - Otoscope and ophthalmoscope (optional, but helpful)

If doing Peds:
- Hospital Care for Children (WHO Pocketbook): available in book form, as a PDF, or as free smartphone app [http://apps.who.int/iris/bitstream/10665/81170/1/9789241548373_eng.pdf]

If doing surgery:
- Scrubs x3
- Shoes for the operating room (for dedicated use only in the OR)
- Sterile gloves in your size (ORs only have size 7 and 7.5)
- OR glasses for splash protection
- Energy bars

Optional
- Gifts for Kenyan counterparts
  - For medical students: penlights, pulse ox, otoscope/ophthalmoscope that you are not using, IU gear, favorite medical textbook (ideas: Maxwell’s), BP cuff
  - For kids in the Sally Test Center/rural clinics: stapler w/ staples, bubbles, colored paper, colored pencils (with non-electric sharpener), crayons, markers, stickers, Sharpies, beads, feathers, balloons, yarn, song books, coloring books, learning activity books (ages 5-18 yrs), games, books (ideally featuring black people), CDs of kids’ songs, world maps
- Binoculars: optional, but a must if you plan to safari!
- Hat
- Chlorox wipes to wipe medical equipment clean
• Tegaderm: for dressing wounds
• Crystal Light, diet drinks, instant coffee (all difficult to find in Eldoret; bring if it’s important to you)

What NOT to bring
• Valuables that cannot be replaced
• Travelers cheques
• Significant amounts of U.S. cash
• Used, expired, or broken medical equipment
• Things provided for you at IU House: Towel, washcloth, sheets, blankets, pillow, laundry detergent, plenty of clean water
Arriving in Kenya
Updated 7/2018 JTHB

The first stop is immigration (visa station), then you enter the baggage claim area. If you are carrying an IU suitcase, make sure you have the customs exemption letter with you. Ron Pettigrew can provide that before you leave.

Before you leave the airport you should consider: a) Getting Kenyan shillings, and b) Purchasing a Kenyan SIM card and data.

Money
We recommend getting $100-200 worth of Kenyan shillings before leaving the airport. The best option is to use one of the ATM machines just inside the lobby after exiting baggage claim. The Kenyan shilling is currently about 100 Ksh to the US dollar. Eldoret also has many ATMs that are relatively dependable. Other than the airport, we highly recommend only using ATMs that are connected to a physical bank with a person working there in case there are issues with the ATM machine. Traveler’s checks are not easy to cash and give lower exchange rates, therefore they are discouraged. Credit cards are not usually accepted anywhere in Western Kenya, but may be where you might travel on weekends. Some travel agents will take personal checks but very few will take credit cards. Make sure to ask your travel agent of their preferences regarding payment before you arrive to Kenya. If they prefer to be paid in US Dollars, bring only US bills that were printed after 2000 (2001, 2002, 2003, etc.) Purchases with credit cards are usually subject to a 5%-10% additional fee.

Cell service
A Kenyan SIM card can be put in any unlocked smartphone. However, U.S. phone companies require you to unlock the phone before travel, and in general the phone must be paid off before they will unlock it. The major cell phone carriers in Kenya are Safaricom, Artel, and Telkom (previously “Orange”). All have sites within the airport and in Eldoret. If previous travel arrangements are made for your stay in Nairobi and you do not need cell service right away, it will probably be slightly cheaper to buy data and minutes in Eldoret.

Transportation
A driver from the agency with which you have made arrangements will meet you in the airport. If you arrive in the evening or at night, you will need to stay over in Nairobi until morning. If you stay over, you will have the option of staying at a nearby hotel. You are responsible for making all in-country arrangements for travel and accommodation. For a list of recommended and reputable travel agents and Nairobi hotels please contact Ron Pettigrew (rpettigr@iu.edu).

Students and residents are allowed to travel to Eldoret from Nairobi BY AIR ONLY. Flights depart daily from Jomo Kenyatta International Airport in Nairobi to Eldoret. There are early morning, mid-morning, afternoon and evening flights, Monday through Sunday. The costs of these flights are variable, but tend to be $75 to $145 one-way. Tickets can be purchased through Jambojet or Fly540 online, or
through either Endoroto Travel (endorototraveltd@gmail.com or damaricew@yahoo.com ~ Damarice Wathika) or Kwa Kila Hali Safaris (kkhssafaris@yahoo.com ~ Netta Ruthman). Count on about 1000 Kenya Shillings for each 20kg luggage piece. Arrangements for in-country travel should be made **at least four weeks before your trip to Kenya**. Copy both Dunya Karama and Ron Pettigrew on all final arrangements to ensure that you are met at the Eldoret Airport upon your arrival. Payment for these flights is due to either Endoroto Travel or Kwa Kila Hali Safaris upon your arrival. There is a luggage charge for each piece of checked luggage when raveling to Eldoret by plane. It is advisable to purchase your luggage carriage fee when purchasing your e-ticket for the flight from Nairobi to Eldoret.
Expected Costs / Budget for Kenya  
Updated 7/2018 JTB

- All costs are the responsibility of the participant.
- Students: Contact Jose Espada about applying for the International Elective student scholarship.
- Residents: Most programs allow you to use your CME/book money for travel expenses.

All prices are in USD.

<table>
<thead>
<tr>
<th></th>
<th>Low end</th>
<th>High end</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Travel</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passport</td>
<td>$0</td>
<td>$110+60 for expedited fee if needed</td>
<td>Must not expire within 6 months of return.</td>
</tr>
<tr>
<td>Flight to Nairobi</td>
<td>$800</td>
<td>$2000</td>
<td></td>
</tr>
<tr>
<td>Hotel in Nairobi</td>
<td>$0 (can opt to sleep in airport until next flight)</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td>Taxi to/from airport in Nairobi</td>
<td>$0 (if you stay at the airport)</td>
<td>$30 ($15 x2)</td>
<td></td>
</tr>
<tr>
<td>Flight to Eldoret</td>
<td>$100</td>
<td>$200</td>
<td>Scheduled in advance by letting Ron and Dunia know of travel plans.</td>
</tr>
<tr>
<td>Taxi to IU House from Eldoret airport</td>
<td>$10</td>
<td>$15</td>
<td></td>
</tr>
<tr>
<td>Flight insurance</td>
<td>$0</td>
<td>$50</td>
<td>Completely optional. Covers the cost of travel that has to be changed. Obtained through airlines or private companies.</td>
</tr>
<tr>
<td>Visa</td>
<td>$51</td>
<td>$51</td>
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<tr>
<td>Taxi to/from hospital after hours</td>
<td>$0</td>
<td>$15 ($3 x5)</td>
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<tr>
<td>Tips</td>
<td>$30</td>
<td>$60</td>
<td></td>
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<tr>
<td><strong>Lodging</strong></td>
<td></td>
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<tr>
<td>Students (IU House or hostel, depending on availability)</td>
<td>$320 ($40/week x 8)</td>
<td>$320 ($40/week x 8)</td>
<td>Does not include meals</td>
</tr>
<tr>
<td>Residents</td>
<td>$2115 ($45/day)</td>
<td>$2115 ($45/day)</td>
<td>Includes meals at IU House</td>
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<tr>
<td><strong>Health and Safety</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Immunizations</td>
<td>$0</td>
<td>$385 Shot Night</td>
<td>Check with your insurance company. For students only: the IUSM Aetna plan covers the cost of vaccines.</td>
</tr>
<tr>
<td>Travel insurance</td>
<td>$0</td>
<td>$200</td>
<td>MANDATORY. Must cover evacuation and repatriation.</td>
</tr>
<tr>
<td>Malaria prophylaxis</td>
<td>$20</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td><strong>Professional</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenyan medical license (residents and faculty only)</td>
<td>$235</td>
<td>$235</td>
<td></td>
</tr>
<tr>
<td>Passport pictures for pupil pass</td>
<td>$0 if you do it at home and bring them with you</td>
<td>$2 if you do it in the airport upon arrival</td>
<td></td>
</tr>
<tr>
<td>Pupil pass</td>
<td>$60</td>
<td>$60</td>
<td></td>
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<tr>
<td><strong>Personal</strong></td>
<td></td>
<td></td>
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<td></td>
<td>$181</td>
<td>$2965</td>
<td></td>
</tr>
<tr>
<td>Weekend excursions</td>
<td>$0</td>
<td>$2000</td>
<td>Depends on how many taken and the # of people traveling. A weekend safari is usually ~$100-300.</td>
</tr>
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</tr>
<tr>
<td><strong>Students</strong>: Food</td>
<td>$100 if all food is bought and prepped on your own</td>
<td>$280 if all meals eaten at IU House ($5/day for 3 meals a day)</td>
<td>(Estimated 56 days)</td>
</tr>
<tr>
<td><strong>Residents and students</strong>: Food not eaten at IU House</td>
<td>$50</td>
<td>$200</td>
<td>Includes food eaten while traveling and food eaten when there are not prepped meals at IU house. Ingredients for free are always available at IU House</td>
</tr>
<tr>
<td>Sim card for phone</td>
<td>$2</td>
<td>$10</td>
<td></td>
</tr>
<tr>
<td>Data for phone</td>
<td>$20</td>
<td>$40</td>
<td></td>
</tr>
<tr>
<td>Laundry</td>
<td>$0</td>
<td>$3/load at IU House if you have the housekeeper do it</td>
<td></td>
</tr>
<tr>
<td>Souvenirs</td>
<td>$0</td>
<td>$400</td>
<td>Just remember you have to get them home.</td>
</tr>
<tr>
<td>Swahili lessons</td>
<td>$0</td>
<td>$50</td>
<td>Approximately $5/lesson per person.</td>
</tr>
</tbody>
</table>

**Extra notes on food**
- For students: lunch at the hostel is 100 KSH.
- Fried bread at one of stands outside the hostel for breakfast 15 KSH
- Lunch at Mother and baby hospital, 50-80 KSH
- Meals at IU house, 500 KSH/day (included in cost of those living at IU House)
- Restaurants in town vary 400-1200 KSH per meal
1) The Kenya elective is a **two-month** elective. Exceptions are extremely rare and must be approved by Ron Pettigrew and Jenny Baenziger, MD six months in advance.

2) Students must start work in Kenya on a week day and must work for a **minimum of 6 weeks + 3 week days**. This is the highest priority for all scheduling.

3) **Travel time** to and from Kenya is **not counted as vacation**, but must not take longer than **3 days**. Students are expected to start work the fourth day after the rotation starts, and must leave no sooner than 3 days prior the end date of the rotation.

4) Students are allotted a **THREE weekdays of vacation** total during the two-month rotation in addition to all weekends (see #5). This time should usually taken at the end or the beginning of the two-month rotation. If a student wants to take the vacation in between their blocks (i.e. after 3 weeks of work), this is acceptable but must be approved by the Team Leaders. Vacation may not be taken during a block (for example: after 1 or 2 weeks of work).

5) Students must perform clinical duties for **two weekend days** (can be Saturday-Sunday, two Saturdays, or two Sundays) during the two-month rotation. Students are off all other weekend days.

6) For working days, students should be present in the hospital and actively doing patient care or educational activities from at least **8-4:30PM**.

7) Wednesday night **Fireside Chats** are required.

8) **Notification:**
   - **Travel information** for travel to/from Eldoret must be submitted to Ron Pettigrew at least **one month in advance**. This includes locations for travel before/after the elective. Ron Pettigrew and Jenny Baenziger, MD reserve the right to require you to change your plane tickets if you will not be in Kenya for the required amount of time. You are encouraged to check your dates with Ron prior to booking plane tickets to avoid issues.

   - **Weekend travel** must be submitted to and **approved by** the Team Leader and Dunya Kamara **3 days in advance**. The Team Leader has the right to cancel your travel plans for any safety reason. **DO NOT MAKE PLANS WITHOUT GETTING APPROVAL.**
Resident Vacation Policy for the Kenya rotation
Updated 7/6/18 JTB

1) The Kenya rotation is 2 blocks. Exceptions are made to this rule are very rare and must be approved by the program director, chiefs, and Jenny Baenziger, MD.

   - A two-month rotation in Kenya counts as 1 ward month and 1 elective.

2) Medicine, Med-Peds, and Peds residents are allowed to take 0, 1, or 2 weeks off. As for all other vacations during residency, 1 week = 7 days off including weekends (not 7 weekdays).

3) Residents must start work in Kenya on a week day and must be working for a minimum of 6 weeks.

   For example, if the resident starts on Monday, their last day will need to be Friday at least 6 weeks later.

4) Travel time to and from Kenya counts as vacation. This is offset by having no call, light or no weekend duty while there, and the opportunity to take ONE three-day weekend while in Kenya for a longer trip such as a safari.

5) Residents are required to work in the hospital a minimum of two weekend days (can be Saturday-Sunday, two Saturdays, or two Sundays) while in Kenya.

6) ONE 3-day weekend for travel is allowed IF one extra day of work is done (usually will be on an extra weekend day, in addition to the two required).

7) For working days, residents should be present in the hospital actively doing patient care or doing educational activities from at least 8-4:30PM.

8) Wednesday night Fireside Chats are required.

9) Weekend travel must be submitted to and approved by the Team Leader and Dunya 2-3 days in advance. The Team Leader has the right to cancel your travel plans for any safety reason. DO NOT MAKE PLANS WITHOUT GETTING APPROVAL.
Debriefing
Updated 7/8/18 JTB

* Debriefing is a crucial part of learning acquisition and emotional processing. You will be given the chance to debrief with a Team Leader prior to departure from Kenya. Also, when you return, you are REQUIRED to:

  - View the **debriefing powerpoint** on Canvas

  - Complete a **1-hour debriefing session** with Jenny Baenziger, MD or alternate within 3 months of travel. See email communication for available dates.

* Additional debriefing is available at any time regardless of the time since travel to Kenya. Contact Jenny Baenziger, MD ([jbaenz@iu.edu](mailto:jbaenz@iu.edu)).
Eldoret Living
Map of Local Area

For locations of restaurants, clubs, and other places in Eldoret, see Google map:

www.goo.gl/maps/gGBJZ
IU House
Updated 7/26/18

IU “House” is actually a misnomer. It is a gated compound of several houses along two shared streets, all within a larger gated compound of estates. Guests at IU House stay in rooms with shared bathroom or in former servant’s quarters that have a private bath.
Clean water refrigerator (included and always available) and refrigerator for soft drinks and beer (available for purchase) at IU House

Breakfast set-up at IU House
Dining room at IU House

Purity (standing) and Dunya
IU House Program Administration
Hostel Guide

The following 7 pages are the HOSTEL GUIDE written by former students.

Please note that only students stay in the hostel and that IU House and the hostel are different places.
KARIBU to the Moi University Medical Student Hostel - a wonderful place to get to know your fellow Kenyan students, your fellow Western students, and a chance to “live like the Kenyans” - or at least how the 4th - 6th year medical students live during their final years of medical school.
Facts of Life in the Hostel!

Work & Hostel Life

- The Hostel is convenient as it is directly across the street from MTRH (where you’ll be working very soon). It is EXTRA CONVENIENT when you are admitting. Admitting starts at 7pm and often you do not leave until 10pm or as late as midnight. Admitting is Q4.
  - At nighttime when you arrive at MTRH, the front gate you typically use to enter the Hospital (MTRH) compound is locked.
  - You must go around and enter a side gate. On your first day of medicine or peds, exchange numbers with your fellow Kenyan students. On your first admitting night (or night you choose to work), text a Kenyan student on your team, meet them at the hostel, and have them accompany you to the wards, so they can show you. (Difficult to explain without a map).
  - Also late into the night, the front door to the hostel will be padlocked. You need to go around the hostel (on the left when looking at the entrance) and use the back door. It’s where all the clothes lines are located.

- Kenyan students workday is very different than Americans
  - Rounds begin at 9am for medicine and typically 8:30am for Peds
  - Rounds end by lunchtime (1pm) most days
  - Kenyan students go back at night normally around 8pm to “pre-round” on their patients instead of pre-rounding in the morning

- Kenyan students do not typically take vitals on their patients in the morning, but American students are still expected to do so. It makes rounds go so much faster and smoother.
- Encourage your Kenyan medical students to take vitals with you in the morning.
- You are also encouraged to join your students with their nightly “pre-rounding” to establish better relationships and get to know your fellow students. How frequently you choose to do this is up to you.
- When in Kenya, try to live like your fellow students as much as possible. Shared experiences are the best way to form bonds.
- By living in the hostel, making dinner there and following your fellow Kenyan students’ schedule, you acquire serious STREET CRED and are incorporated as a real part of the team instead of a vacationing American student only here to safari.

Eating and Drinking

- You can eat all your meals at the IU house but it’s a fun experience to make your own meals at the hostel
- Perishable food can be stored in the mini fridge in Room A
- Each room has a kettle for tea/instant coffee. Definitely bring your own instant coffee! Starbucks Via will get you through your time at the hostel.
- Microwave is in Room B
- Hot plate and cooking utensils in Room A
- There are also several restaurants nearby – Better Health, Cool Stream where you can grab breakfast, lunch and dinner. We recommend the Rolex at Cool Stream for breakfast– it’s a chipati in an omelet. Amazing. And it costs 70 cents.
Showering

- The women’s bathroom is on the third floor and has 1 overhead shower that is typically warm in the evenings though no guarantee
- Bathrooms are VERY busy in the mornings so it is difficult to get a shower unless you wake up exceedingly early – so try to take a shower at night at the hostel
- If the one shower is unavailable, you can choose to take bucket showers or shower at the IU house
  - Each room has one large bucket. If you would like a warm bucket shower, you can use the teakettle to boil water in the room and carry to the bathroom with your bucket and cup.
  - Directions for bucket showering
    - Fill the bucket with cold water first from the spicket in the women’s bathroom
    - Add the boiling hot water to make a warm shower (no power outlets in the bathrooms so heat in your room)
    - Use the cup as your “shower head”
- The women’s bathrooms are on the 3rd and 4th floors
- The men’s bathrooms are on the 1st and 2nd floors
- BRING YOUR SHOWER SHOES – we recommend crocs as sometimes the bathroom floods from showering and regular flip-flops are too thin

Short Call (#1) and Long Call (#2)

- As you can see in the pictures, the toilets in the hostel are lacking a key feature, which we’re used to in the states – a toilet seat
- Some of the toilets flush and others require you to pour water in the toilet for flushing. This is what causes a lot of the excess water on the bathroom floor. If you have a non-flushing toilet, fill the bucket in the bathroom with water and pour into the toilet.
- The bathrooms do not have hand soap, toilet paper, or a hand towel
- Each room in the hostel has a shower caddy with hand soap, TP, and a hand towel to get you through those midnight long calls/short calls (you’ll have to bring your own newspaper)

Diarrhea/Constipation/Vomiting/otherwise GI Distress

- There is an unwritten rule: if you get sick in the hostel, Dunia will have a bed made up for you at the IU house, so you can sleep comfortably and have easy access to a toilet with a SEAT for the time you are ill. Do not hesitate to let Dunia or Tim know if you need this. We’ve all been there. And take your Cipro immediately. You’ll thank us later.

Sleeping

- The hostel can be louder than appreciated by early-bird North Americans since Kenyans tend to stay up later socializing or studying
- Bring ear plugs
- Alternatively, download a white noise app and listen to fan noises and sleep like a little baby during your time in the hostel
- Or, start staying up later and get to know your Kenyan colleagues
Grocery Shopping

- Before you move into the hostel, you can do a grocery shopping trip at Nakumat or Tuskeys and stock up on food items. At least plan to get breakfast items if you want to avoid a 15-minute trek back to the IU house at 6:30 / 7:00am.
- Kenyan grocery stores have most North American items, including shower products.

Internet

- We use the internet frequently here to read up on patients and chat with family/friends/sig others.
- Bring your computer!
- Each hostel room has one dongle for students to share to connect to the internet while living there
- You can purchase additional data on scratch cards from safaricom
  - Remove the simcard from the dongle and insert into your Kenyan phone to add data
- Alternatively, you can use the IU house’s wifi

Laundry

- You can be ambitious and wash your clothes at the hostel in a bucket, or, for $3 or 300KSH, you can bring your laundry to the IU house and have the nice ladies in the laundry room do it for you. They are amazing – they wash, hang dry, and iron EVERYTHING. Your white coat will be its crispest in 4 years.
- On weekends, you can do your own laundry for free but you may find yourself in a long queue as everyone has this same idea. Easy to do, just takes patience.

Befriending your fellow students!

- You can invite students from your team over for chai in the afternoon in your room, or, make them an American delicacy on your hot plate. We recommend French toast and Spanish omelets
- You can invite them to dinner (which also means pay for them). There are very affordable restaurants so you can take out a few friends for under $20. (2,000 KSH)
- The Kenyan system is very different than the US system but Kenyans know their stuff. Collaborating with them on patient care is one of the best parts of this time you have.

Things I wish I had brought with me

- Bring a converter, or you can buy one at Nakumat but there are none here
- Yoga pants or favorite lounge clothing
- Tongue depressors if you’re on Pediatrics
- Clorox wipes to clean medical equipment daily
- Crocs for the hostel bathrooms
- Mesh laundry bag
- Daypack for hiking and overnight adventures
- Binoculars for bird watching and safaris
- Extra equipment to give away to Kenyan students on your team
Hot Plate Recipes

1. Fluffy French Toast
   1/4 cup all-purpose flour
   1 cup milk
   1 pinch salt
   3 eggs
   1/2 teaspoon ground cinnamon
   1 teaspoon vanilla extract
   1 tablespoon white sugar
   12 thick slices bread

Measure flour into a large mixing bowl. Slowly whisk in the milk. Whisk in the salt, eggs, cinnamon, vanilla extract and sugar until smooth. Heat a lightly oiled griddle over medium heat. Soak bread slices in mixture until saturated. Cook bread on each side until golden brown. Serve hot.

2. Spanish Omelet
   4 eggs
   Grated cheese
   1 teaspoon salt
   pepper to taste
   1/2 tablespoon sweet chili sauce (optional)
   2 teaspoons olive oil
   1 small onion, chopped
   1 medium potato, cooked, halved and thinly sliced

Break eggs into medium bowl or measuring jug. Beat until well combined. Add cheese, salt, pepper and chili sauce if adding. Mix. Heat up frying pan to medium. Add oil and onion, cook until almost golden and add potato. Cook for 3 minutes.
Make sure the potato and onion are spread evenly over pan and gently pour the omelet mix into pan and leave for 5-10 minutes. Keep checking that the bottom doesn't burn.
Serve with salt, pepper and chili sauce
Photos from the Hostel!

Aerial View of Bunk beds, floor space

Closet Space

Entry to Hostel Rooms

Room A with fridge
Women’s bathrooms – typical toilet, shower stall, bucket with water to flush toilets and sinks

Laundry/Dish Cleaning room –
This is on the first floor, no need to go to the women’s floor. Continue down the men’s hall from your hostel room and you’ll find this room on the LEFT side of the hall. Take the stairs up flights from this room to reach the women’s bathroom on the 3rd floor. An additional flight of stairs will take you to the women’s bathroom on the 4th floor.
Running/Walking Routes in Eldoret

Short out and backs: 2 or 2.5 miles
This would be the easiest route to do from the IU House, so it might be a good one to start out on to get the lay of the land (or at least, Elgon View Drive). Just turn left out of the outer IU House gates on to Ramogi Road, it will split as it goes up the hill. Veer left to get on Elgon View Drive. Continue on this until you get to a large intersection with a sign for Greenvale Schools on your left. To the intersection is one mile, so an easy out and back. Going to the blue fence where Emmanuel school is would be 1.25m, so a 2.5m out and back.
http://goo.gl/maps/QlY9W

Short road loop: 2.7 miles.
From Elgon View Drive, turn right on Old Nairobi Road, which is the first major road you'll get to on the top of the hill (again, by the sign for Greenvale School). Old Nairobi Road is mostly dirt. You'll go a few hundred meters on that, then take a right on the first true dirt road on the right (don't get confused by driveways or small alleys). If you've gotten to the pavement, you're too far. Once you've turned right on this road, continue until it Ts, or runs into Nyerere Road. You'll take a right on a paved road. Then take a left at the quasi-roundabout and you'll end up with Momma Mia's on your right. Run down the hill to IU house. Good for rainy season.
http://goo.gl/maps/AVrO4

Short field run: 3.25 miles. After getting on Elgon View road, turn on the second dirt road on your left. After about 50m, there's a road that goes up a small hill on your right. Turn there and run up the little hill and make a left at your first opportunity. This will continue into a field. Once you get into the field, stay on the main path (or stay left) until you're nearing the treeline to your north and you're just about to head down a hill. The path forks, and you should take a right. Both ways will have you cross a creek, but the left fork is too marshy. After awhile on this path (right fork), you'll see two paths intersecting your path that lead up (south) to the green tin roof building. Take those up the hill. Once you get to the top, you'll find a dirt road. Take a right on that until it ends at Old Nairobi Road (or Plateau Road). Turn left, then follow the map back to IU house.
http://goo.gl/maps/phRW4

Run mostly on paved roads, but also heavy traffic on Kisumu Road, and also when you enter town. Not to be done during rush hours 3.75 miles
http://goo.gl/maps/QAeOJ

Five mile route that is mostly on pavement- but again Eldoret-Nakuru Road is pretty busy. You'll likely be running on the shoulder, but its fine and feels safe. You turn from Eldoret-Nakuru Road onto Nandi Road by making the second left at the round about. Then take that back to IU house.
http://goo.gl/maps/7RyRz

Or if you'd rather have a more quiet road that runs right into Nandi Road, turn left on a dirt road immediately before Eldoret-Nakuru bends to the left. Run to the end of the dirt road (online map says you can't, but you can) and turn right when it Ts. You'll run up a shaded street right into Nandi Road, and you'll turn left. (5.16 miles)
http://goo.gl/maps/LHQdJ
Your Health Abroad
Below is information about the major health risks abroad. These are not unique to Kenya, and with precautions and common sense, Eldoret is a very safe place to visit and study.

**Foodborne illness**
Foodborne illness is common. The ONLY safe water to drink in Kenya is bottled or boiled. IU House has an ample supply of boiled water at all times. **Do not use the tap water at IU House or the hostel** to drink or brush teeth. Avoid street food and fruits or vegetables that can’t be peeled (berries) or cut by you using a sterile knife. Wash your hands thoroughly before eating.

**Transportation / Vehicle Safety**
Motor vehicle accidents are the most likely route of injury while traveling in Kenya. Never ride without using a seat belt; if a taxi comes that doesn’t have seat belts, politely wait for another one. Parents should bring carseats or applicable booster seats for children and use them during all travel; taxis frequently have the usual carseat-strapping mechanisms. IU students are never allowed to ride in a matatu (15-passenger van) or on a motorcycle.

**Walking**
Wear shoes with proper soles due to glass, rocks, etc. on the ground. When walking on a roadside, be aware many cars may not have headlights. Per IU House policy, guests may not walk alone after dark outside of the IU House compound for any reason. If at the hospital after dark, take a taxi home.

**Mental health**
Those with mental health disease (depression, anxiety, PTSD, etc.) should be cautioned about travel to Kenya. If your disease is moderate/severe or is unpredictable in any way, do not travel to Kenya. If your condition is mild or stable, please talk to your loved ones, counselor, and physician about about coping mechanisms, treatment abroad, and contingency plans.

**Sex**
- Should you choose to have consensual sexual activity in Kenya, know your partner’s HIV status before you choose to proceed. Always use condoms regardless of their HIV status. Condoms and abstinence are the ONLY ways to protect against STDs of all varieties.
- Support and resources for sexual assault and nonconsensual sexual encounters. IU has a victim-supportive stance. See additional documents for more information.
- Zika virus: See the CDC site for more information. Currently, their recommendation is that pregnant women should not travel to Kenya. Women and men should avoid pregnancy for 6 months after traveling as even asymptomatic Zika is sexually transmitted.

**HIV post-exposure prophylaxis**
HIV post-exposure prophylaxis is available no matter how the exposure occurred (bodily fluid exposure in the hospital/clinic, consensual or nonconsensual sexual contact, etc.). See protocol.
**Tuberculosis**
Many patients have TB in Kenya, and masks are rarely worn. Yet, few trainees convert to TB positive (Article from AMPATH: [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3138970/pdf/11606_2011_Article_1669.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3138970/pdf/11606_2011_Article_1669.pdf)). Participants must obtain a PPD 3 months after return. We recommend that even non-medical accompanying travelers (i.e. spouses) also obtain a PPD.

**Malaria prophylaxis**
- **Use BUG SPRAY.** Any DEET-containing product is effective. Picardin is an odorless, effective, and safe non-DEET alternative.
- Bednets are available in every room at IU House and the hostel and we recommend using them.
- The CDC recommends malaria prophylaxis for to travel to all areas of Kenya. Drug options for prophylaxis include:
  - **Atovaquone-proguanil (Malarone):** This is usually the preferred choice.
    - Dosing: Daily
    - NOT for use in pregnancy
    - Adverse effects: GI upset, insomnia, HA, rash, mouth ulcers
  - **Doxycycline**
    - Dosing: Daily
    - NOT for use in pregnancy
    - Adverse effects: esophagitis
  - **Mefloquine**
    - Dosing: Weekly
    - Adverse effects: GI upset, lightheadedness, HA, difficulty concentrating, mood swings, strange dreams, neuropsychiatric effects (5%)
    - Contraindications: seizures, depression, anxiety, QT prolongation, bradycardia

- Prescription for whichever medicine you choose are written by Charlie Kelley, MD or Jenny Baenziger, MD. FILL YOUR PRESCRIPTION EARLY. Most insurance companies will only fill a 30-day supply unless you call and request preauthorization, which takes time. You will need enough for your entire travel time.

**Immunizations**
See the CDC webpage for the most up to date recommendations: [https://wwwnc.cdc.gov/travel/destinations/traveler/none/kenya](https://wwwnc.cdc.gov/travel/destinations/traveler/none/kenya). Currently recommended are:
- Hepatitis A
- Hepatitis B
- Typhoid
- Yellow fever
- Meningitis
- Tdap if you have not had a Td or other tetanus shot within the past 10 years

Immunizations are available at Campus Health, Marion County Health Department, travel clinics, and often through the IU Center for Global Health (given by Charlie Kelley, MD).
1) All IU staff, faculty members, residents and students are required to have tuberculin skin testing (PPD) within 12 months before departure for Eldoret.

2) ALL travelers should have a PPD 3 months after return.
   - If a traveler had a positive PPD before travel, they will be required to complete a symptom questionnaire and CXR if indicated after travel.
**AMPATH Consortium Post-Exposure Prophylaxis (PEP) Protocol for HIV, Hepatitis B and STIs**

*Updated 7/7/18 JTB*

**HIV Exposure:**

**Infectious vs Non-Infectious Exposures**
1. Blood, visually bloody body fluids, semen, vaginal secretions, cerebrospinal fluid, peritoneal fluid, pleural fluid, pericardial fluid, synovial fluid, and amniotic fluid are all potentially infectious.
2. Feces, urine, vomitus, nasal secretions, saliva, sputum, sweat, tears, urine are NOT considered to be infectious unless they are visibly bloody.

**Needle sticks, lacerations or exposure of non-intact skin (i.e., open wounds, abrasions, chapped skin or areas of dermatitis)**
1. Allow wound to bleed but do not squeeze enough to bruise and do not suck wound
2. Wash the affected area gently with soap and water but do not scrub strongly or use nail brush
3. Inform team leader / supervisor to be evaluated for PEP as soon as exposure occurs (see below)

**Mucous Membrane Exposure**
1. Irrigate the affected area (eye, mouth, etc) with clean water
2. Inform team leader / supervisor to be evaluated for PEP as soon as exposure occurs (see below)

**Sexual Exposure**
1. Inform team leader / supervisor to be evaluated for PEP as soon as exposure occurs (see below)

**Who to Inform**
1. Immediately contact the Medicine or Pediatrics Team Leader, and/or your immediate supervisor
   a. Medicine Team Leader – Dr. Matthew Turissini 011-254 (0) 715-886 543
   b. Pediatrics Team Leader – Dr. John Humphrey (0716 749 755)
   c. If a supervisor other than the Medicine or Pediatrics Team Leader is contacted, he or she should then inform either the Medicine or Pediatrics Team Leader
2. The Medicine or Pediatrics Team Leader should immediately contact Dr. Adrian Gardner (AMPATH Executive Field Director) or Dr. Suzanne Goodrich (Infectious Disease Consultant) for expert consultation
   a. In their absence, use the UCSF Clinical Consultation Center for PEP
      ii. +1 888 448 4911
3. If the exposed is a trainee from a U.S. institution, the U.S. institutional lead should be informed about the exposure in general in order to ensure appropriate follow-up care back in the U.S.
   a. The nature or details of the exposure need not be shared to ensure privacy of the exposed person
   b. This does not have to be done in real-time and should not delay PEP care. This can be done at a later date prior to the trainee’s return to the U.S.
4. It is the responsibility of the Medicine or Pediatrics Team Leader to facilitate the evaluation, treatment and follow-up care for the exposed person, with expert medical consultation from Dr. Adrian Gardner or Dr. Suzanne Goodrich
Initial Evaluation for HIV PEP:

Exposed Person
1. Exposed individual should undergo rapid HIV testing immediately after exposure
   a. During working hours (M-F, 8a-5p) the exposed person should be taken to the AMPATH VCT area where counseling and rapid testing are performed
   b. After working hours (nights and weekends), rapid HIV testing should be done by the team leader using the back-up kits stored at IU House
      i. The Medicine and Pediatric Team Leader are responsible for ensuring an adequate supply of non-expired back-up HIV testing kits at IU House
2. A brief medical history, medication list, and allergies should be obtained from the exposed to ensure no contraindications to ARVs and to tailor the regimen appropriately should there be any potential interactions
   a. The Medical Form that is part of the IU House Registration Packet should be reviewed by the Team Leader
3. A pregnancy test should be offered to all exposed females
4. ARVs should be started as soon as possible, ideally within 2 hours of exposure, up to 72 hours post-exposure for any of the following exposures listed above.
   a. During working hours (M-F, 8a-5p) the exposed person should be taken to the AMPATH Pharmacy to access ARVs. The AMPATH Pharmacy Contacts are:
      i. Beatrice Jakait, HOD AMPATH Pharmacy – 0722 603 485
      ii. Rebecca Akai, Deputy AMPATH Pharmacy - 0722565450
      iii. Sonak Pastakia, Purdue Pharmacy Team Leader – 0729 027 569
      iv. Rakhi Karwa, Purdue Pharmacy Team Leader – 0713 578 218
   b. After working hours (nights and weekends), ARVs can be accessed from the Pediatric or Medicine Team Leader’s house
      i. ARVs are stored in the Pediatric Team Leader’s house in the spare bedroom / office cabinet in the top drawer
         a. The back-up location for ARVs is in the Medicine Team Leader’s house in the spare bedroom built-in cabinet / closet
      ii. The Medicine or Pediatrics Team Leader have keys to each others houses, so are always available to access ARVs if needed
         a. In case both the Medicine and Pediatrics Team Leader are out of town, all the other team leaders (surgery, pharmacy, and reproductive health) as well as the Executive Field Director, have keys to the IU House Office which keeps back-up keys to all the houses, ensuring access to the Medicine or Pediatric Team Leader house to access ARVs
      iii. Back-up ARVs kept at IU House should be obtained from the AMPATH Pharmacy
     iv. The Medicine and Pediatric Team Leader are responsible for ensuring an adequate supply of non-expired back-up ARVs at IU House
        a. The TLs are also responsible for rotating ARVs between IU House and AMPATH pharmacy such that back-up medicines are not allowed to expire and be wasted

Source Patient
1. Rapid HIV testing should be performed on all source patients unless they are known to be HIV positive
a. If source patient is known to be HIV positive (regardless of viral load), and the exposed person is deemed to have an exposure necessitating PEP, then a full course of PEP should be offered
b. Initiation of PEP should not be delayed while awaiting results of HIV testing on the source patient

2. If the source patient is HIV positive, further clinical history should be obtained regarding the latest VL and any potential ARV resistance which will guide PEP treatment decisions for the exposed

Clinical Management of HIV PEP:

Anti-Retroviral Regimen

1. The standard regimen is Raltegravir-3TC-TDF
2. The regimen should be continued for a full 28 days if the source patient is confirmed positive or remains unknown
   a. The full 28 day regimen should be continued even if the source patient is positive but has an undetectable viral load as transmission can still occur
   b. If rapid HIV testing on the source patient is negative, and there is no evidence of acute retroviral syndrome, then PEP can be discontinued
3. Expert consultation should be sought for an exposed person who is pregnant or breastfeeding, but initiation of PEP should not be delayed
4. Alternate regimens due to medical contraindications or drug interactions among the exposed, or known source patient resistance patterns, should be tailored on a case-by-case basis under the guidance of Dr. Adrian Gardner, Dr. Suzanne Goodrich, or the UCSF Clinical Consultation Center as detailed above

Monitoring

1. The exposed person should be given a one-week supply of ARVs at a time, with weekly monitoring visits with the Medicine or Pediatric Team Leader to assess for toxicity.
   a. If the exposed person is leaving Kenya within 1 week (i.e., returning to the U.S.) then the full 4-week course should be given along with follow-up instructions
2. Blood counts, renal function and liver enzymes should be checked at baseline and 2-week follow-up
   a. The Medicine or Pediatric Team Leader should facilitate this testing and retrieval of results at the AMPATH Laboratory
      i. Other reliable private labs (e.g., St. Lukes or Lancet) can be used on the weekends or at the request of the exposed person and the discretion of the Team Leader
   b. Awaiting results of baseline laboratory testing should not delay initiation of PEP
3. If there are any adverse reactions or signs of toxicity, then the exposed person should see the Medicine or Pediatric Team Leader right away, and expert consultation from Dr. Adrian Gardner or Dr. Suzanne Goodrich should be obtained to decide what further monitoring is needed and whether a regimen change is necessary

Follow-Up

1. Follow-up HIV testing should be done at 6 weeks, 12 weeks and 6 months
Documentation
1. A clinic note should be written by the Medicine or Pediatric Team Leader, with input from the expert consultants as needed, detailing the following:
   a. Demographic details of the exposed
   b. Clinical history (PMH, medications, allergies) of the exposed
   c. Clinical history of the source patient
   d. Date, time and nature of exposure
   e. Initial HIV testing results of the exposed
   f. Pregnancy status of the exposed (if female)
   g. Baseline laboratory results
   h. ARV regimen selected, date and time of initiation
   i. Clinical status of exposed at monitoring visits, including laboratory monitoring results
   j. Recommendations for future follow-up and testing
   k. Contact information of clinician(s) managing PEP in Kenya for follow-up provider back in the U.S

2. Two copies of the note should be made:
   i. One given to the exposed person to take back home for follow-up care
   ii. One filed internally, and confidentially, with the clinical team at IU House / AMPATH

Sexual Exposure PEP
1. Follow Evaluation, Management, Monitoring and Documentation procedures as outlined above for HIV PEP
2. Consider use of MTRH Rape Crisis Center if sexual assault took place, provide counseling and pursue legal channels if warranted on a case by case basis.
3. Provide empiric treatment for STIs
   a. Ceftriaxone 250mg IM
   b. Azithromycin 1g PO once or Doxycycline 100mg PO BID for 7 days
   c. Benzathine Penicillin 2.4mu IM

Hepatitis B PEP
1. Follow Evaluation, Management, Monitoring and Documentation procedures as outlined above for HIV PEP
2. The assumption is that all AMPATH consortium trainees here in a clinical capacity will be immunized against Hepatitis B as that is required for all health care workers in the United States
   a. Confirm Hepatitis B immunization status of the exposed person
      i. Medical Form that is part of the IU House Registration Packet
      ii. Contact the trainee’s institutional lead to confidentially request immunization records of the exposed person
   b. If the exposed person has not received the full Hepatitis B vaccine series, or their status remains unknown, then the following should be done:
      i. The source patient should be tested for Hepatitis B with the HBsAg. If the source patient is HBsAg positive, or unknown, then the exposed should:
         1. Receive 1 dose of H BIG (Hepatitis B Immune Globulin) 0.06ml/kg IM
            a. This can be sourced from Nairobi at a cost of $184 per dose
         2. 1 dose of the Hepatitis B vaccine as soon as possible after exposure
3. Complete the Hepatitis B vaccine series according to the standard schedule

Cost

1. All costs of PEP will be paid for by the exposed person
   a. Individuals are responsible for following up with their own insurance companies for reimbursement. AMPATH consortium care providers involved in the case can provide documentation and support as needed by the individual and insurance company
   b. Fees will be waived on a case by case basis if there are financial barriers
   c. Initiation of PEP will not be delayed due to financial considerations

References:

2. CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection and for Administering Postexposure Management. MMWR. December 20, 2013 / 62(RR10);1-19
Approach to Emergencies

AMPATH’s strength lies in the overall acceptance of AMPATH and its missions among the community. However, despite the integration of AMPATH in the local community, situations may arise whereby AMPATH or its staff and students could be either targeted or caught up in unrest or violence. The AMPATH Consortium’s approach to responding to and managing emergencies is to ensure the safety and security of staff and visitors at all times by evaluating, and when necessary, responding to the security environment in Eldoret and the surrounding area through regular contact with other partners and sources of information. The overall approach will be to take measured, risk-based, decisions based on reliable information and a good understanding of the local political and social context. The program has always had a low threshold for pre-emptively evacuating short-term visitors including all trainees if there is a credible threat or if political unrest can be anticipated.

Emergencies Defined

An emergency is any circumstance that poses a serious risk to, or that has already threatened the safety and/or well-being of members or guests of the AMPATH Consortium in Eldoret, Kenya. Recognizing that different emergencies call for different responses, we have identified several emergency situations that are divided into personal/family, and environment/political/health epidemic. Emergencies include, but are not limited to, the following types of events and incidents:

Environment/political/health epidemic:
- Heightened security risk (terrorist threat or attack, political crisis) and local information received regarding such risks; civil unrest; U.S. State Department’s travel warning issued
- Natural disasters / severe weather
- Disease/outbreak
- Airport closing/flight cancellations as result of major incident

Personal/family
- Sudden need for evacuation of a faculty/staff/student in response to a personal emergency situation
- Injury, illness, or accident that requires medical professional care, hospitalization, or evacuation
- Being victim of theft; lost or stolen passport
- Being a victim of a serious crime or being accused of committing a crime;
- Serious issues with visa/permits (arrest or threat of deportation)

Emergency Response and Communication

Information about possible unrest and potential threats to safety is gathered from local, informal networks as well as through formal channels (Kenyan government, US, UK, Canadian Embassies). Any suggestion of a credible threat or anticipated unrest (eg around national elections) triggers pre-emptive closing of the program to short-term visitors including all trainees. This policy significantly reduces the likelihood of a mass, emergency evacuation.

The general scheme for management of an emergency situation is that the on-site Field Director, Adrian Gardner (alternate: Joe Mamlin, 2nd alternate Matthew Turissini), oversees the emergency
procedures and evacuation plan and all of the team leaders and faculty supervisors are responsible for notifying their respective learners / guests in case of any emergency. The IU Medicine and Pediatrics Team Leaders will oversee this notification process and be responsible for making sure everyone is notified, especially those who don’t have a team leader or faculty supervisor on the ground. Contact is maintained with Adrian/Joe in Eldoret, and Bob Einterz in Indiana, who would then liaise with the other North American institutional leads. We will also liaise with the Kenyan leadership on the ground as well as the US and Canadian Embassy. Please refer to two supplemental documents titled, AMPATH Emergency Contact/Notification Plan and Threat Escalation Protocol for further details and schema.

For personal/family emergencies or issues, it may be more appropriate for the Field Director and/or Team Leaders to notify the North American institutional leads directly, rather than via Bob Einterz at Indiana University. The Field Director and Team Leaders will determine this on the ground in Eldoret, Kenya if deemed appropriate. We keep track of everyone in Eldoret by two formal mechanisms:

1. The traditional IU House Registration Form, which guests fill out in the IU House office on arrival. This information is then put into the AC House Guest Roster excel sheet which we keep on Dropbox, accessible by the Field Directors and all Team Leaders on the ground. As a back-up, the IU House Office Manager (Dunya Karama) keeps the paper copies of the registration forms of all current guests in a pile under her desk. All of the Team Leaders can access this in case of an emergency as we have keys to the office.

2. The Google spreadsheet contains their Kenyan phone number, email, and arrival / departure date. This is accessible at all times on our mobile phones via the Google sheets app. Ideally, guests complete this form before they arrive, and then update it with their Kenyan phone number the day they get their phone. If not completed before / on arrival, then the TLs and Faculty Supervisors ensure this is completed once guests arrive.

Some additional tracking mechanisms also exist:

1. Sarah Ellen Mamlin, the Eldoret Area Warden, registers all the guests staying at IU House longer than 3 months with the US Embassy. Keith Allen Gafner (0723636911, kggafner@gmail.com) is a missionary and has lived in Eldoret for 20+ years. He has also served as warden and is now a back-up to Sarah Ellen.

2. All visitors are encouraged to register themselves with the US Embassy / State Department via the STEP program (Smart Traveler Enrollment Program).

3. All guests at IU House are added to the group email listserv during the registration process (facilitated by the Team Leaders and Dunya Karama) and housing mates / colleagues / friends exchange mobile phone numbers and Whatsapp contact information.

Using the two mechanisms outlined above, we have the email address and Kenyan mobile number, as well as State-side emergency contact information for all guests, readily available. In an emergency situation, we can communicate with everyone in Eldoret through the following mechanisms:

1) We would start with phone calls / text messages to notify all guests of any emergency
2) We use a google-groups listserv, which all guests are added to so we can send out mass emails

3) All of the TLs and long-term guests have a WhatsApp (text-messaging) group called "IU House Emergency" that we would use to communicate with each other in case of any emergency

4) All of the TLs and long-term guests have a separate google-group listserv that we can use to communicate with each other via email

5) We have access to a satellite phone for remote / international communication in the event of an emergency where traditional telecommunications systems are down.
## Threat Escalation Matrix

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>EXAMPLE OF THREAT</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>No threats directed at IU, MTRH, AMPATH or Western interests.</td>
<td>Students and staff may move about freely in accordance with standing IU/AMPATH policies.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Verifiable or anticipated threat to public facilities in Eldoret (rallies, demonstrations that become, or have the potential to become violent and threaten public safety).</td>
<td>All short-term guests avoid areas where rallies or demonstrations are occurring or are anticipated.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Generalized violence in Eldoret town or region (major security incident)</td>
<td>Lockdown at AMPATH Consortium house. Consider increasing guard presence and consider evacuation of short-term guests</td>
</tr>
<tr>
<td>Level 4</td>
<td>Violence in Eldoret region targeting Western interests that could result in harm to occupants of AC House, or a threat against AMPATH/IU.</td>
<td>Evacuate short-term guests and non-essential long-termers. Consider evacuation of essential long-term staff vs. lockdown at AMPATH Consortium house with armed guards</td>
</tr>
<tr>
<td>Level 5</td>
<td>Reported violent, specific, and credible threat against MTRH, AMPAT, AMPATH Consortium House or other local facilities</td>
<td>Relocate or evacuate all staff to another site within Kenya (airport) or outside of Kenya</td>
</tr>
</tbody>
</table>
Specific Actions for Threat Escalation Matrix

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Normal operations per standing IU/AMPATH policies</td>
</tr>
</tbody>
</table>
| Level 2 | a) Convene meeting of long-termers to:  
1. Provide an overview of the threat; and  
2. Brief on the precautions to be undertaken  
b) Inform all short-term guests to avoid areas of concern and provide an overview of the threat  
c) Contact security sources to verify threat and to ensure channels of communication remain intact for updates  
d) Contact Bob Einterz/North Americans to provide a briefing of the situation and actions taken. |
| Level 3 | a) Contact security sources to verify threat and to ensure channels of communication remain intact for updates  
b) Convene meeting of long-termers to:  
1. Provide an overview of the threat; and  
2. Brief on the precautions to be undertaken  
3. Initiate evacuation preparation (fuel vehicles, pack bags)  
c) Convene meeting of short-termers to:  
1. Provide an overview of the threat; and  
2. Advise everyone to stay on campus  
3. Review evacuation procedures  
d) Contact Bob Einterz/North Americans to provide a briefing of the situation and actions taken.  
e) Consider initiation of evacuation procedure for short-term guests and consider increasing guard presence at AMPATH Consortium House |
| Level 4 | a) Contact security sources to verify threat and to ensure channels of communication remain intact for updates  
b) Convene meeting of long-termers to:  
1. Provide an overview of the threat; and  
2. Initiate evacuation of all non-essential long-termers and any short-termers still present  
c) Contact Bob Einterz/North Americans to provide a briefing of the situation and actions taken.  
d) Contact police and County to request armed guard escort to airport or presence at AMPATH Consortium House |
| Level 5 | a) Convene meeting of long-termers to:  
1. Provide an overview of the threat; and  
2. Initiate/coordinate evacuation or relocation of all staff  
b) Contact police and County to request armed guard escort to airport or other location (* see below)  
c) Contact Bob Einterz/North Americans to provide a briefing of the situation and actions taken. |
AMPATH Armed Attack Protocol

Applicable to: Terrorist attack of AC house by armed personnel

✓ Activate emergency response
  o Push KK alarm button
  o Call National Emergency Response
    ▪ 999 and 112
    ▪ State need for ARMED RESPONSE
  o Call KK Control Room or National Control Center
    ▪ 0720609999, 0733622622, 0734651571, 0734651573
    ▪ State need for ARMED RESPONSE
  o Call OCPD (Chief of Police) of Naiberi Police station
    ▪ Nelson Talit- 0722838115
    ▪ Deputy: Samson- 0722942836
  o Call County Commissioner/County Security Team
    ▪ Abdi Hassan: 0728157553, 0726677291
    ▪ Jeremy Laibuka: 0706449226
  o Call Dunya: 0721724633
  o Call U.S. Embassy
    ▪ Business Hours: 0203636451
    ▪ After Hours: 0203636170

✓ Alert all members of the Community
  o Call Field Director/Team Leader on call to activate call chain
  o Send message on What’s app: “IU House Emergency”
  o Send message on e-mail: ampath-general@googlegroups.com
AMPATH Emergency Notification Plan
Updated 7/20/18 JTB

Discuss with IUSM
Bob Einterz
317-278-0831 (office)
317-840-3185 (cell)

Contact Field Director
Adrian Gardner: 0708400176
Joe Mamlin: 0722374558
-Initiate Crisis Management-
-Activate evacuation plan if needed-

Discuss situation with Associate Team Liaisons in Kenya
In the event no Associate Team Liaison is available, decision-making will default to IU Team Liaison
IU: Matthew Turissini (0795 946 289), John Humphrey (0716-749-755), Connie Keung (0716 827 131), Julie Thorne (0791 421 007)
Brown: Jane Carter
Duke: Wendy O’Meara
Purdue: Sonak Pastakia (0729 027 569), Rakhi Karwa (0713 578 218), Tina Tran (0717 874 473)
University of Toronto: n/a
Notre Dame: n/a
Mt. Sinai: n/a
UCSF: n/a
Vanderbilt: n/a
Johns Hopkins: n/a
Dell Medical School (Texas): n/a
Columbia: Beth Hochman

Notify officials
Local warden
Sarah Ellen Mamlin
0733-580-495
US Embassy (business hours)
0203 636 451
US Embassy (after hours)
0203 636 170
Canadian embassy
0203663000
0734420366

Discuss with Local Leadership
Kimaiyo
Ayuo
Atwoli
Aruasa

Bob Einterz alerts all North American Associate Executive Directors and Program Managers
IU: Ron Pettigrew, Jenny Baenziger
Brown: Jane Carter, Janet O’Connell
Duke: Ralph Corey/Cynthia Binanay
Purdue: Ellen Schellhase
University of Toronto: Rachel Spitzer
Notre Dame: Kathy Taylor
Mt. Sinai:
UCSF: Toby Maurer
Vanderbilt:
Johns Hopkins:
Dell Medical School (Texas): n/a
U of Alberta: Regan Guilfoyle
Columbia: Beth Hochman

Associate Executive Directors and Program Managers inform future travelers and respective institutional contacts

Team Liaisons and Field Director alert IU house occupants, IU house staff, and AMPATH collaborators
Dunya Karama: 0721724633

Local Responders
KK Security: 0720609999, 0733622622, 0734651571, 0734651573
County Commissioner: 0728157553, 0726677291
Police: OCPD and Deputy:
0722838115, 0722942836
AMPATH Consortium Evacuation Plan from Eldoret
Updated 7/13/18 MLT

Who does this apply to?
- All North American individuals and their families who are based in Eldoret through the AMPATH Consortium.

What criteria would prompt an evacuation from Eldoret?
- Interreligious violence in Kenya
- Bonafide act of terrorism in Eldoret
- Consortium-mandated evacuation of personnel
- Violence erupting in Eldoret that threatens safety of personnel in Eldoret

How will I be notified? Who am I responsible for notifying?
- All learners / guests will be notified by one of the Team Leaders from their respective institution or by the IU Team Leader.
- If you are a Team Leader, you are responsible for getting in touch with the faculty and learners that are in Eldoret from your institution to confirm their safety and location. IU Team Leaders are responsible for contacting any learner / guest who does not have a team leader from their institution on the ground.
- As a secondary back-up measure, each individual should also notify their family members and colleagues.

How can I establish emergency preparedness within my home?
1. Evacuation Bag – Maintain this bag in easily accessible area of your home, containing at least the following for rapid evacuation:
   - Passport for each member of family
   - Travel/Evacuation Insurance information
   - Money in KSh and/or USD
   - Bottle of water
   - Food (granola bars, dried fruit, other non-perishables)
2. Keep vehicle tank over ½ full at all times
3. Maintain extra water and food store in your home at all times
4. Develop specific “safety plan” within your family, including meeting spot
5. Keep emergency contact information readily available (post “AMPATH procedure for Emergency” and this “AMPATH Evacuation Plan” in easily-accessed areas).
6. Make sure the IU House Office has your complete, up-to-date emergency contact information, including your Kenyan mobile phone number
7. Make sure you have completed the Google Sheets Visitor Form and/or let your respective team leader / faculty supervisor know your complete and up to date emergency contact information, including your Kenyan mobile phone number.

Who should I call first to report an event of terrorism/disaster or in the case of an emergency?
Call Executive (or Acting) Field Director
Adrian Gardner (Executive Field Director) – 0708.400.176
Joe Mamlin – 0722.374.558
If unavailable contact, AMPATH Team Leader
What is the protocol for an evacuation from Eldoret?
In the event that Eldoret International Airport or the roads thereto are inaccessible or otherwise deemed inappropriate by Executive (or Acting) Field Director, coordinated transport through Uganda will be employed (specific point of exit deemed by Field Director).

Medical Evacuation Contacts

AMREF Flying Doctor Service:

+254 20 6992299 / 6992000 / 3315454 / 3315455 / 6002492

+ 254 (0) 733 639 088 / 736 035 9362 / 722 314 239
Cultural and social attitudes toward sexual harassment, sexual assault, rape and sexual assault victims, vary greatly in different countries. Be aware of potential differences in Kenya, and take safety precautions at all times.

In the event you, or someone you care about, experience relationship or sexual harassment/violence while abroad, you are strongly encouraged to seek the support of your onsite team leader, staff or affiliate. Seek safety first, then consider notifying your local contact, and getting medical attention.

Indiana University is committed to leading the fight against sexual violence in compliance with Title IX. Reporting the incident to law or university officials is completely up to you. Understanding that reporting is an intensely personal process, and the University respects your right to decide whether or not to report.

Learn more at: http://stopsexualviolence.iu.edu/index.html


General Safety Tips:

We encourage you to protect yourself and others whenever possible. Understand that no matter how safe or unsafe you are, sexual violence is not your fault.

Taking these actions may increase your safety and the safety of others.

- Be aware of your surroundings.
- Listen to your intuition. If you feel like something is wrong, it probably is. Try to get out of the situation.
- Don't be afraid to make a scene and yell, scream, or run for protection. Some people’s physiological response may not be to fight, if that is the case, if possible ask to use the restroom or cause a distraction.
- Remember, alcohol and drugs can impair perceptions of and reactions to situations. Be especially careful when you drink, and when you're with someone who has been drinking. Remember that someone who is intoxicated cannot give consent by IU’s
definition. If you aren’t sure you have a “yes,” then try and remove your friend from the situation and don’t engage in sexual activity.

• Watch your beverage at all times. Date rape drugs are tasteless, colorless, and odorless. People often don't know they have ingested these drugs until the effects are well under way.

• Go with a group of friends when you go out to a party or to a bar, and look out for each other.
Overall Crime and Safety Situation in Kenya

Kenya remains critically rated for both Crime and Transnational Terrorism. The greatest threats in Kenya continue to be road safety, crime and terrorism. The most common crime in Kenya's major cities, and in particular Nairobi, is carjacking. In virtually every instance, carjackers use weapons to rob their victims. Most victims, if they are completely cooperative, are often released unharmed with their vehicles. However, victims are sometimes tied up and put in the back seat or trunk of their own car. Criminals who commit these crimes will not hesitate to shoot victims who are the least bit uncooperative or who may appear to hesitate before complying with their assailants.

Street crime is a serious problem and more acute in Nairobi and other larger cities. Most street crime involves multiple armed assailants. In some instances, large crowds of street thugs incite criminal activity, which has the potential to escalate into mob-like violence with little notice. Pick-pockets and thieves often carry out "snatch & grab" attacks on city streets in crowded areas, as well as from idle vehicles in traffic, and commit other crimes of opportunity. Vehicle side mirrors are a favorite prize of street boys, who can pull them off in a matter of seconds while a vehicle is stopped or in slow-moving traffic. Visitors are advised not to carry expensive valuables such as jewelry, electronics, etc., or large amounts of cash on their person, but rather store them in their hotel safety deposit boxes or room safes. However, it is not prudent to travel with such items at all, since hotel safes can be broken into or taken out of a room and might also be accessible by hotel personnel even when locked. Walking alone is not advisable especially in downtown areas, public parks, beach areas, and other poorly lit areas, especially at night.

Terrorism remains a high priority concern for Americans in Kenya. The porous border with Somalia has been of particular concern as certain fundamentalists travel between Somalia and Kenya. A recent counterterrorism operation conducted by Kenyan authorities in the coastal town of Malindi failed to apprehend the highly sought-after al-Qa’ida operative Harun Fazul, but revealed his previously unknown support network. Since then, several al-Qa’ida linked supporters have been questioned or detained. Several persons (possibly tied to al-Qa’ida) suspected of involvement with the 1998 East Africa Embassy attacks and the 2002 Kikambala attacks in Mombasa remain at large and potentially dangerous to U.S. citizens and interests. In January 2009, Usama al-Kini and Sheikh Ahmed Salim Swedan, Kenyan nationals on the FBI's most wanted terrorist list for their alleged role in the East Africa Embassy attacks, were killed in Waziristan near the Afghan border.

Political Violence
Kenya is generally a peaceful country in terms of political activism, but it is common during elections, referendums and other political votes for sporadic campaign violence to occur around the country. On 29 December 2007, the day after Kenya’s National Parliamentary and Presidential Elections, violence erupted in major cities across Kenya, to include Nairobi, Mombasa, and Kisumu. Clashes were reported throughout Kenya, which resulted in the deaths of over 600 Kenyans. None of these incidents was targeted against Americans or the expatriate community. With the formation of the Grand Coalition Government in February 2008, the violence ceased.

There are limited numbers of significant radical Kenyan and third-country national elements that are openly hostile to U.S. influence. The perpetrators of the 1998 U.S. embassy bombings in Nairobi and Dar es Salaam resided mostly in the coastal regions of Kenya (Lamu, Malindi, and Mombasa). The suspected perpetrators of the terrorist attack on the Paradise Hotel in Mombasa and the unsuccessful missile attack against an Israeli charter jet included Kenyan nationals.

**Post-specific Concerns**

Road safety and crime is clearly the most significant threat to persons residing in or visiting Kenya. Vehicle travel is extremely hazardous under normal conditions in Kenya, but particularly so at night. Defensive driving is a must for all drivers. Traffic laws are routinely ignored by most local drivers, who possess poor driving skills and/or training. In particular, many of the "matatus," or small passenger vans, show little courtesy and drive erratically and dangerously. Many vehicles are in poor mechanical condition with worn tires and broken or missing tail lights, brake lights, and headlights. Road conditions are considered poor at best and worse in outlying or rural areas. This is especially the case after the rainy season, when roads deteriorate at a rapid rate, causing extensive potholes and other road hazards.

**Police Response**

The Kenyan Police Service (KPS) is almost solely a reactive force and demonstrates moderate proactive law enforcement technique/initiative to deter or investigate crime. Police often lack the equipment, resources, training, and personnel to respond to calls for assistance or other emergencies. The police have a poor record of investigating and solving serious crimes. Inadequate legislation results in lack of prosecution or large numbers of acquittals. Corruption occurs at all levels, which results in an ineffective legal and justice system.

**Medical Emergencies**
Kenya's country-wide emergency number is 999. There are three hospitals in Nairobi which U.S. personnel and other western expats typically use: Nairobi General Hospital, Aga Khan Hospital, and Gertrude Garden Children's Hospital. The quality of care at each is considered good, and U.S. embassy personnel assigned to Kenya often use their services. However, the blood supply in Kenya is generally considered unsafe and the use of blood products is not recommended. It is advised that those needing blood utilize trusted sources such as family or friends.

**Tips on How to Avoid Becoming a Victim**

Normal crime prevention methods will help lessen the likelihood of becoming a victim of crime while in Kenya. Being aware of one's surroundings has been the time-tested method for avoiding becoming an inviting target of opportunity for crime. Carjacking and burglaries and the occasional home invasion are the most serious crimes in Kenya, but if the necessary measures are taken, they can generally be avoided. Perpetrators are likely to be armed and any resistive behavior causes more violence by the attackers. Ensure vehicle doors and windows are locked at all times while traveling, even during daylight hours. The best way to avoid being a victim of a carjacking is to be aware of your surroundings at all times, particularly during late night or early morning hours, though carjacking occurs during all times of the day and night.

If you see something or someone suspicious, be prepared to react quickly. Allow sufficient distance between you and the vehicle ahead of you while stopped in traffic. If you believe you are being followed, don't drive directly to your intended destination, but rather detour to a public or well-lit and guarded area and seek help. It is important to limit the amount of valuables and cash you carry with you, specifically ATM or credit cards. Should you be carrying an ATM card or credit card, the criminal will prolong the incident so they can take the victim to multiple ATM machines for withdrawals.

Travelers should only use banks and ATMs in well-lit locations and never at night. Credit cards can be used in certain establishments, such as major hotel chains and some local restaurants, but caution in use is advised. Although there are a number of security and private guard companies throughout Kenya's larger cities, it is advisable to research any prospective security company for quality and reliability when considering hiring their services.
Rotation Goals, Expectations, and Roles
Elective Requirements, Expectations, and Role for **MS4 Students**
Updated 7/7/2018 JTB

**Learning Objectives**
Understand the clinical presentation and management of common diseases in Kenya by participating in daily rounds and related patient care activities at Moi Teaching and Referral Hospital.

1. Deepen proficiency in history and physical examination skills.
3. Develop skills in effective cross-cultural communication. Develop collegial relationships with Kenyan healthcare professionals and students.
4. Learn skills that will facilitate the practice of compassionate, cost-effective medicine in the U.S. by enhanced sensitivity to culture and diversity and increased reliance on physical diagnostic skills.

**Contacts**
Jenny Baenziger, MD: Clinical preceptor
Ron Pettigrew: Program manager
Matthew Turissini, MD: Internal Medicine team leader
Connie Keung, MD: Surgery team leader
John Humphrey, MD, Internal Medicine/Pediatrics, Infectious Disease: Pediatrics team leader

**Expectations / Daily Role**
- All students will do at least 1 month of Internal Medicine or Pediatrics. Most will switch to the other one after 1 month, but a few students may do Surgery if interested; this is arranged with the team leaders in Kenya.
- Your day-to-day life there will feel very much like an internal medicine or pediatric inpatient rotation here. You are expected to:
  - Pre-round and write a note on your patients every day.
  - Participate in admissions on admitting days – pick up 1-2 patients to follow during each admitting day.
  - Actively contribute in rounds and patient care activities daily.
  - Work in partnership with the Kenyan medical students and registrars who lead the team.
  - Be culturally sensitive throughout all interactions. Be especially sensitive to not being arrogant or rude while in the hospital.

A sample day’s schedule (Mon-Fri):
- **8-9AM** Pre-round on your patients: Often medical students take the vital signs if the nurses have been too busy to do it overnight. Get an assessment of your patient and make a plan with the intern.
- **9AM-12PM** Rounds: You will present the case to the Kenyan registrar or U.S. resident, or the consultant (attending).
- **12-1PM** Write notes, do procedures
- **1-2PM** Lunch
- **2-5PM** Lectures, check on patients, admit (“clerk”) new patients
- **5-6PM** Swahili lessons, work on papers, prepare morning report, etc.

You are off on the weekends but are required to work in the hospital one weekend. This helps your team care for those patients over the weekend, build comradery with the team, and gives you a glimpse of the hospital “after hours.”

**Requirements**
- ALL must be completed in order for the student to receive a grade for this elective.
- All are due within **3 weeks** of returning from Kenya.
- Turn in all documents to Jenny Baenziger, MD (jbaenz@iu.edu), Ron Pettigrew (rpettigr@iu.edu), Matthew Turissini, Connie Keung, and John Humphrey (humphrjm@iu.edu).

**PRIOR TO ARRIVAL**
1) Attend May **orientation sessions**: If absolutely unable to attend, must arrange a make-up session with Ron Pettigrew and Jenny Baenziger, MD.

2) Two to four weeks prior to arrival, email all team leaders with brief explanation of why you are taking the rotation, career interests, and arrival/leave dates.

**IN KENYA**

1) **Activities** required:

- Attend all lectures as directed by the team leaders. These usually include:
  - **Global health lectures**: given by team leaders, usually on Tuesday afternoons
  - **Fireside Chats**: Wednesday evenings. Discussion on social, political, ethical or cultural topics related to global health. Please read articles in advance.

- Attend at least 1 **remote AMPATH clinic**
  - Mosoriot (Wednesdays) with Joe Mamlkin — depart 7:40AM from Joe's House
  - Turbo (Fridays, morning) with Joe Mamlkin — depart 7:50AM from Joe's House

- Attend **outpatient clinics** as discussed with Team Leaders

- Activities that are optional but strongly encouraged:
  
  **Participate in the Heart and Harvest Initiative (HHI)**
  - Visit to Buffett Farm. Manual labor volunteer work.
  - Contact: Abraham Boit - HHI Manager - in charge of all AMPATH food production farms.
  - Wear work clothes. Bring sunscreen, water. There is limited space to store belongings.
  - Monday mornings from 9-1 pm. Sign-up at least one week in advance.

  **Visit Imani Workshops**
  - Thursday 3:30-5pm. Sign-up at least one week in advance.

  **Visit Neema House, children's orphanage**
  - Wednesday from 2-5 pm. Sign-up at least one week in advance.

  **Tumaini Center for Street Youth**
  - Soccer every Friday
  - Contact TL for further involvement

2) **Evaluation** from clinical observation on the wards

   The on-site preceptor in Kenya will complete a clinical performance evaluation form.

3) **Completed case log**: A list of patients (initials only) and their diagnosis (suspected or confirmed).

   Example: T.K.: 13yo M presented with SOB, found to have mitral regurgitation. Dispo: discharged to home.

4) **Case report** presented during morning report in Kenya

5) **Written reflection** on clinical experience and healthcare delivery in Kenya.

   - Guidelines: Must be 8 pages minimum, double spaced, 1” margins or less. Write in prose format with proper punctuation and grammar.
   - Topic: Reflect on and analyze your clinical experiences in Kenya. Do not simply summarize/re-tell what you saw; explain what you think about it or how it changed your perspective. Describe how you think you will be a better physician because of your time in Kenya.
   - Ideas/topics for in-depth analysis could include (other ideas are welcome):
     - Consider the social determinants of health and how they relate to the patients you have cared for both in Kenya and in the U.S.
-Consider an evidence-based practice that is standard of care in the U.S. and describe its application (or lack thereof) in Kenya/other resource-limited settings.

6) Two-page scholarly analysis of a journal article OR a two-page book review (from the list of books provided below).

POST-TRAVEL
1) Complete a debriefing session within 3 months of travel: See communications from Ron Pettigrew or Jenny Baenziger regarding the available dates.

Format for journal article analysis
Chose an article that relates to the care of a patient you saw while in Kenya. Randomized controlled trials are strongly suggested if available; cohort or case-controlled studies are an option if no RCT is available. Meta-analyses (i.e. systematic reviews) should not be chosen.

**Title:** of the article

**Reference:** of the article

**Objective:** The objective of the paper (one sentence)

**Why this article:** Why you chose it and why it’s an important topic

**Funding:** Who funded the research?

**Background:** Don’t just copy it from the article. Summarize relevant information.

**Results/Conclusion:** Summarize and analyze. Include your opinions of the article including its strengths and limitations.

**Application to Kenya:** If this research was done in a resource-plentiful country (e.g. the US, Europe, etc.), analyze how its findings are/should be applied in Kenya given the Kenyan health system and socioeconomics. How should evidence from in resource-plentiful countries be applied to resource-limited settings? (If this research was done in Kenya, analyze how its findings are/should be applied to patients in the U.S.).

Options for Book Review

- Walking Together, Walking Far (Fran Quigley)
- Unbowed: A Memoir (Wangari Maathai)
- It’s Our Turn to Eat: The Story of a Kenyan Whistle-Blower (Michela Wrong)
- Things Fall Apart (Chinua Achebe)
- Health, State, and Society in Kenya (George Ndege)
- Weep Not Child (Ngugi wa Thiong’o)
- Kenya: Between Hope and Despair (Daniel Branch)
- The Poisonwood Bible (Barbara Kingsolver)
- When Helping Hurts: How to Alleviate Poverty Without Hurting the Poor…and Yourself (Steve Corbett and Brian Fikkert)
- AIDS in Africa (Max Essex)
- Training in Developing Nations (John Daly)
- AIDS in the Twenty-First Century (Barnett and Whiteside)
- The Flame Trees of Thika (Elspeth Huxley)
- Red Dust on Green Leaves (John Gay)
- Class and Economic Change (G.N. Kitching)
- The Joys of Motherhood (Buchi Emecheta)
- Ben Okri (Stars of the New Curfew)
- A Grain of Wheat (Ngugi wa Thiong’o)
- Kenya’s Democratic Transition (Andrew Mullei)
Grading for Student Elective

All requirements must be completed in order for the evaluation to be completed and a grade assigned.

Evaluations are done by the Team Leaders in Kenya and Jenny Baenziger, MD.

Grading Rubric:

- **Pass**: Satisfactory participation and satisfactory reports.
- **High Pass**: Above average participation and above average reports.
- **Honors**: Exemplary participation and performance and excellent reports.
Expectations and Role for Residents
Updated 7/7/18 JTB

Learning Objectives
Understand the clinical presentation and management of common diseases in Kenya by participating in daily rounds and related patient care activities at Moi Teaching and Referral Hospital.
1. Deepen proficiency in history and physical examination skills.
3. Develop skills in effective cross-cultural communication. Develop collegial relationships with Kenyan healthcare professionals and students.
4. Learn skills that will facilitate the practice of compassionate, cost-effective medicine in the U.S. by enhanced sensitivity to culture and diversity and increased reliance on physical diagnostic skills.

Contacts
Jenny Baenziger, MD: Clinical preceptor
Ron Pettigrew: Program manager
Matthew Turissini, MD: Internal Medicine team leader
Connie Keung, MD: Surgery team leader
John Humphrey, MD, Internal Medicine/Pediatrics, Infectious Disease: Pediatrics team leader

Expectations
- **Attend May orientation sessions**: if absolutely unable to attend, must arrange a make-up session with Ron Pettigrew and Jenny Baenziger, MD
- **Hospital duties**
  - Actively contribute in rounds and patient care activities daily. Work with your counterpart (the Kenyan registrar) to lead the team and care for the patients.
  - Participate in admissions on admitting days – pick up 1-2 patients to follow during each admitting day
  - Be culturally sensitive throughout all interactions. Be especially sensitive to not being arrogant or rude while in the hospital.
  - Give at least one bedside teaching session per week for medical students or interns
- **Present 1-2 morning reports** (standard case presentation)
- **Attend at least 1 remote AMPATH-HIV clinic**
  - Mosoriot (Wednesdays) with Joe Mamlín — depart 7:45AM from Joe’s House
  - Turbo (Friday morning) with Joe Mamlín — depart 8:00AM from Joe’s House
  - Teso (Thursdays) with JJ – depart at 6:45am from IU House Gate
- **Attend 1-2 non-HIV AMPATH specialty outpatient clinics.** Please plan ahead and use your pre-call day for these clinics.
  - Assigned 1 day CCU Rounds and Cardiology Clinic (Tuesday 8:30am)
  - At least 1 other clinic including: Oncology, Diabetes, Anticoagulation, Neurology, Chest, and Medical Outpatient Clinic at MTRH (with your co-registrar).
    - Please discuss with the TL to arrange
- **Medicine Registrar Mini-Rounds (case conference)**: every Wednesday at 8AM in AMPATH tutorial room 2
- **Medicine Registrar Journal Club or Protocol Presentation**: every Thursday at 8am in AMPATH tutorial room 2
- **Global Health Talks (Tuesdays and/or Thursday, 2:15PM)**
  - Lectures / Discussions on global public health or tropical medicine topics
- **Fireside Chats (Wednesday evenings)**
  - Discussion of public health, social, ethical or cultural topics. Read relevant articles before discussion.
- **Work on ward protocols or other quality improvement projects with the assistance of the team leader**
- **WRITTEN REFLECTION PAPER**: 3 pages minimum. (1” margins, 11 pt font, double spaced or less).
  - **Prompt**: Reflect on and analyze your experiences in Kenya. Do not simply summarize or retell what happened; explain what you think about it, what factors were at play, or how it changed your perspective.
• Complete a debriefing session within 3 months of travel: See communications from Ron Pettigrew or Jenny Baenziger regarding the available dates.

-A sample day’s schedule (Mon-Fri):
  8-9 AM   Pre-round on sick patients.
  9AM-12PM  Rounds: Lead the team in collaboration with the Kenyan registrar. There may or may not be an attending (consultant) present.
  12-1PM   Write notes, do procedures
  1-2PM     Lunch
  2-5PM     Teach Moi trainees, lectures, check on patients, admit (“clerk”) new patients
  5-6PM     Swahili lessons, work on papers, prepare morning report, etc.

You are off on the weekends but are required to work in the hospital one weekend. This helps your team care for those patients over the weekend, build comradery with the team, and gives you a glimpse of the hospital “after hours.”

Activities that are optional but strongly encouraged
  Participate in the Heart and Harvest Initiative (HHI)
  Visit to Buffett Farm. Manual labor volunteer work.
  Contact: Abraham Boit - HHI Manager - in charge of all AMPATH food production farms.
  Wear work clothes. Bring sunscreen, water. There is limited space to store belongings.
  Monday mornings from 9-1 pm. Sign-up at least one week in advance.

Visit Imani Workshops
  Thursday 3:30-5pm. Sign-up at least one week in advance.

Visit Neema House, children’s orphanage
  Wednesday from 2-5 pm. Sign-up at least one week in advance.

Tumaini Center for Street Youth
  Soccer every Friday at 4PM
  Contact TL for further involvement

Common Procedures
* NEJM Procedure Videos and associated explanations are a great place to review prior to travel (https://goo.gl/fqRNMi).
  • IV placement
  • LP
  • Paracentesis
  • Thoracentesis
  • Bone marrow biopsies: if not trained, do not do unsupervised

Common cases

<table>
<thead>
<tr>
<th>Pediatrics</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Diarrhea</td>
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<td>-Malaria</td>
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</tr>
<tr>
<td>-HIV</td>
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</tr>
</tbody>
</table>
Clinical Preparation
Clinical Orientation: How to thrive and help patients
Updated 7/19/18 JTB

Everyone:

- Be gentle AND be persistent: Be humble. Assume there are cultural layers to decisions and things you don’t understand. However, respectfully speak up when you know there is something that needs to be done for patient care.
- Defer to Kenyan hierarchy: The Kenyan consultant (equivalent of our attending) has the final say on all patient care matters.
- Do something every day to advance the care of each patient. It may not be everything you would do at home, but at least do something. Don’t give up.
- Work with your counterpart. Learn from them. Have a teachable attitude, but also be confident in what you know.
- Be very intentional about cultivating a relationship with your Kenyan counterpart early on. Take them to lunch. Get tea together. This will go a long way toward making patient care more effective and enjoyable.
- Talk to the team leaders to debrief, process, and ask for help with difficult cases/situations.
- Remember that you cannot change the system in two months, but you can definitely impact an individual patient’s story.
- Be aware that “codes” as they exist in U.S./Canada for sudden cardiac or respiratory arrest do not exist in Kenya. Urgent epinephrine, shocks, and emergent intubation are generally impossible. Talk to Jenny Baenziger and the Team Leaders about how to handle life-threatening conditions.
- Be prepared to witness actively dying patients and have a higher patient mortality than you are accustomed to. Have some debriefing strategies prepared: reflective writing, email a clinical mentor back home, talk with a Team Leader, email Jenny.
- This can be an exhausting rotation because of jet lag, being in the cultural minority, complex and serious clinical situations, and higher than usual morbidity and mortality. WORK hard when you’re responsible for patient care. Rest hard other times.

Residents:

- You and your counterpart—a Kenyan registrar (or two)—will be leading the team. Expect more autonomy and responsibility than at home. Kenyan consultants (attendings) usually round one or two days a week and are not available for calls at other times. The AMPATH Team Leader is always available to you as support.
- You will be caring for all patients on the team. There are no team caps, and the Kenyan system has no duty hours. There is very little, if any, hand-off of patient care on evenings/weekends.
- The team will be comprised of you, the Kenyan registrar(s), a medical intern, 1-2 clinical officers (equivalent of a PA or NP), medical students, and occasionally CO students.
- Your duties are to:
  o Care for the patients
    - You will need to either make notecards for each patient or keep your own patient list.
Teach all other members of the team.

- **Sample schedule (M-F):**

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8-9AM</td>
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<td>5-6PM</td>
<td>Swahili lessons, work on papers, prepare morning report, etc.</td>
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Medical students:

- Your role very closely mimics your role at home. You will be assigned 3+ patients and will be responsible for:
  - Obtaining vitals in the mornings
  - Pre-rounding: checking the chart, obtaining lab results, reading consult notes, etc.
  - Doing a physical exam on the patient
  - Presenting the patient on rounds
  - If permissible by your team, scribe orders (and have a resident sign them)
  - Writing a note on the patient. Unlike in the U.S., your note “counts” as the official note for that day.
- Be actively engaged in rounds and try to learn from all patients. Excellent students have found that making notecards or their own list of all the patients helps them keep all the patients straight and facilitates learning.
- Read, read, read about what you are seeing. It can be difficult to know if what you are seeing is how it would be done at home if you aren’t used to the condition. READ and find out what the standard of care is. Talk to the Kenyan students/COs about what is possible in Kenya, and advocate for your patient.

- **Sample schedule (M-F):**

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<td>8-9AM</td>
<td>Pre-round on your patients: Often medical students take the vital signs if the nurses have been too busy to do it overnight (which is almost always). Get an assessment of your patient and make a plan with the intern.</td>
</tr>
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<td>9AM-12PM</td>
<td>Rounds: You will present the case to the Kenyan registrar or U.S. resident, or the consultant (attending).</td>
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Clinical Resources

- UpToDate remains as useful there as here. You will need to use a VPN. Wifi can be spotty, however.
- Lecture Notes: Tropical Medicine: A solid clinical resource for tropical diseases. Easy to read. Helpful as a resource for didactics sessions and for patient care.
- Oxford Handbook of Tropical Medicine: very useful to have in your pocket during the rotation
- Pediatrics: WHO Pocket book of Hospital Care for Children
  - Guidelines for the Management of Common Illnesses with Limited Resources
  - WORTH having with you! This is what Kenyans carry around.
- Medicine: In this Manual is a MTRH Medicine Ward Handbook.

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Common Procedures

* NEJM Procedure Videos and associated explanations are a great place to review prior to travel ([https://goo.gl/fqRNMj](https://goo.gl/fqRNMj)).
* Ethical guidelines mandate that you should NOT do procedures of any kind unless properly trained.
* Common procedures:
  - IV placement
  - LP
  - Paracentesis
  - Thoracentesis
  - Bone marrow biopsies
Shoe 4 Africa (children’s hospital)
Tips and Tricks from Prior Students
Updated 5/2017 JTB

- You are expected to round at least one weekend during your rotation; rounding on other weekends is not required but is encouraged. You will form stronger relationships with your intern(s) and registrar(s) if you round with them on the weekends. Just get their phone numbers the Friday before, and ask what time rounding will begin. After just one weekend of rounding, I went from an observer to an active participant on the team.

- Early in the rotation, try to learn where all of the different labs and radiology facilities are located. You can offer to take blood to the hematology lab, or biopsy specimens to the histopathology lab. Take the opportunity to learn how to do LPs well (they are done almost daily), and then tag along with a Kenyan medical student to perform CSF studies with microscopes in the medical student lab. If a patient of yours has a head CT done, you can go to radiology and get the film yourself instead of waiting for it to be delivered by a patient attendant – this may speed up the care of your patient by 1-2 days. Learn where the Cardexes (vitals/nursing notes) are located, and take your own BPs on patients in the morning.

- Take a few hours to look at the archive of malaria parasite slides in the medical student lab.

- TAKE SWAHILI LESSONS!!! They are only 300 Ksh/1-hr lesson for group lessons or 350 Ksh/1-hr lesson individually. It is well worth it to take 5-6 lessons right at the beginning of the rotation so that you can understand some of the Swahili that is spoken on the wards. The patients really appreciate every effort that you make to speak Swahili, however poorly. The contact person is Wycliffe who frequents the IU House; he can be reached at 0720.133.575 but he will probably find you first!

- The hostel gets a really bad rap... sure, it is pretty “cozy,” and the bathrooms are less than great, but it is the absolute best option if you want anything close to an immersion experience. You can easily (unfortunately) spend all of your two-month elective in Mzungu-land up at IU House, missing the wonderful opportunity to really get to know your Kenyan colleagues. Spend as much time at the hostel as possible – the friends you will make will be well worth any hardship you endure with bathrooms and such.

- Try to “clerk” patients as early and often as possible. To clerk in Kenya means to do the patient’s complete history and physical. Tag along with a Kenyan 4th or 6th year student on the ward and ask them to help you translate when you get new patients. On medicine, teams admit every other day, and on peds they admit every 4th day. Also, be ready and willing to present on rounds (consultant dependent). If you clerk a patient, try to write a SOAP note in their file every day.

- The best time to clerk on admitting days is at night. Kenyan students usually come in after visiting hours, around 6-9pm. Tag along with one or more of them coming from the hostel. You must use the buddy system, as walking alone at night is forbidden. Try to get phone numbers of students on your team before admitting days.
o Make sure the team knows your level of training. Some of the registrars and consultants will never ever pimp you, because they don’t know where you fall. If you tell them it is okay to pimp you, and you try to present patients like the 4th or 6th year students, the team will be more likely to acknowledge you in an appropriate role.

o Go out of your way to try to inform patients and their families of what is going on. The Kenyan training system does not put much emphasis on informing patients. Please try to engage your 4th and 6th year colleagues in talking with the family, as many of them will continue this practice after you leave.

o Don’t be afraid to help your intern with the discharge paperwork! The interns have SO much on their plate – any help with paperwork is much appreciated!

o You can get dress pants made, tailored to your size, for less than $10. Clothing repairs are very inexpensive as well. Just talk to Penina, one of the IU House cooks.

o Learn how to cook Kenyan food! The IU House guards are more than happy to teach you how to make Kenyan Chai, and if you observe the cooks, you can learn to make staple Kenyan foods like Sikuma wiki, ugali, chapati, etc.

o There is a list of Kenyan medical student lectures every week in the hostel. You are more than welcome to attend any or all of these, even in other disciplines than medicine or pediatrics. Ask your Kenyan colleagues about time and place, and be forewarned that these lectures are frequently moved and/or cancelled.

o **BE FLEXIBLE,** it will make your experience so much better.

o Bring toilet paper wherever you go, there will be NONE in any bathrooms (except at IU House and nice restaurants).

o Toilet seats do not exist so squatting is a reality of hostel life (again this is except for at IU House).

o **Call home from the cell phones** that are given to you or skype with IU House Internet at off-peak hours. The cost per minute on the phones is about 5 shillings (2.5 cents per minute); it will cost your family much more to call you from the States. Check the rates for calls to the US from the major Kenyan carriers when you arrive (usually safaricom and Airtel, Airtel was 3.68 shillings per/min while safaricom was 5 per/min while we were here).

o **Keep all valuables with you** or stored in a safe at all times. If you leave something out and it gets taken, everybody loses. Building relationships with Kenyans is the major goal of this project so don’t let carelessness jeopardize building lasting relationships.
- Don’t buy a European electric adapter in the US, they are about $110 shillings (or $1.30 USD) here vs. about $15 if you buy them in the States.

- Baby wipes are nice (for your face) after long road trips, it is dusty everywhere here.

- Be prepared to be stared at by everyone, this is out of curiosity not out of an attempt to be rude.

- Learn the basic Swahili greeting and use them with everyone, it will let people know you are interested in being part of the community not just an outside observer. Also, whenever you hear a word that is used frequently ask whoever said it what it means and repeat it, showing that you are trying to learn the language. This means a lot to the Kenyan people you will be working with and for.

- When living at the hostel use the wireless network called “somnet” (school of medicine network). The password is “mainhostel” with no spaces and no capital letters. If this doesn’t work ask the medical students what the network and password is, they will know.

- Spend as much time as you can with students at the hostel, it will truly enrich your experience. I found that going to dinner with a small group of students every week or every other week really made connections so much more solid (be careful how you invite people otherwise they will think you are planning on paying for them, which is ok too).

- Hand sanitizer is a must, you shake hands with everyone here and everyone has germs…just saying.

- Take a few weekends outside of Eldoret exploring.

- WHEN you get sick, hunker down and hydrate—you will recover quickly that way.

- Enjoy this rotation! It’s an amazing experience.
**Lab Units Conversion**

Most of the laboratory results at MTRH are reported in standard international (SI) units which can differ quite markedly from the normal values of laboratory tests in America. Important conversions are listed below including how to convert between values. Any common laboratory test not listed below generally has normal reference ranges or units similar in both settings. We do encourage you to check the normal values as reported for each lab result to ensure proper interpretation ultimately.

<table>
<thead>
<tr>
<th>Test</th>
<th>SI Units</th>
<th>Conversion Factor</th>
<th>NL USA Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albumin</td>
<td>35-55 g/L</td>
<td>Divide by 10</td>
<td>3.5-5.5 g/dL</td>
</tr>
<tr>
<td>Bilirubin (total)</td>
<td>5.1-20.5 µmol/L</td>
<td>Divide by 17</td>
<td>0.3-1.2 mg/dL</td>
</tr>
<tr>
<td>Bilirubin (direct)</td>
<td>0-5.1 µmol/L</td>
<td>Divide by 17</td>
<td>0-0.3 mg/dL</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>2.9-7.1 µmol/L</td>
<td>Multiply by 2.8</td>
<td>8-20 mg/dL</td>
</tr>
<tr>
<td>Calcium (serum)</td>
<td>2.2-2.6 mmol/L</td>
<td>Multiply by 4.1</td>
<td>9-10.5 mg/dL</td>
</tr>
<tr>
<td>Creatinine (serum)</td>
<td>61.9-115 µmol/L</td>
<td>Divide by 88</td>
<td>0.7-1.3 mg/dL</td>
</tr>
<tr>
<td>Glucose (fasting)</td>
<td>3.9-5.6 mmol/L</td>
<td>Multiply by 18</td>
<td>70-100 mg/dL</td>
</tr>
<tr>
<td>Lipids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cholesterol</td>
<td>3.88-5.15 mmol/L</td>
<td>Multiply by 39</td>
<td>150-199 mg/dL</td>
</tr>
<tr>
<td>LDL</td>
<td>≤3.36 mmol/L</td>
<td>&quot;</td>
<td>≤130 mg/dL</td>
</tr>
<tr>
<td>HDL</td>
<td>≥1.04 mmol/L</td>
<td>&quot;</td>
<td>≥40 mg/dL</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>&lt;2.82 mmol/L</td>
<td>Multiply by 89</td>
<td>&lt;250 mg/dL</td>
</tr>
<tr>
<td>Magnesium (serum)</td>
<td>0.62-0.99 mmol/L</td>
<td>Multiply by 2.4</td>
<td>1.5-2.5 mg/dL</td>
</tr>
<tr>
<td>Phosphorous (serum)</td>
<td>0.97-1.45 mmol/L</td>
<td>Multiply by 3.6</td>
<td>3.4-5 mg/dL</td>
</tr>
<tr>
<td>Protein (total)</td>
<td>60-78 g/L</td>
<td>Divide by 10</td>
<td>6-7.8 g/dL</td>
</tr>
</tbody>
</table>
Kenyan (MTRH) Medical Abbreviations & Terminology

HOB = Hotness of body (fever)
DIB = Difficulty in breathing (SOB)
ISS = Immunosuppressed state (HIV+)
O/E = On Exam (Physical Exam)
P₀ = no pallor; P⁺ = pallor
J₀ = no jaundice; J⁺ = jaundice
LN₀ = no lymphadenopathy
Cy₀ = no cyanosis; Cy⁺ = cyanosis
DeH₂O₀ = no dehydration; DeH₂O⁺ = mild dehydration; DeH₂O++ = severe dehydration
O₀ = no oedema (British English)
FGC = Fair general condition (NAD)
PBERL = Pupils bilaterally equal & reactive to light (PERRL)
"JVP increased" = JVD
Vesicular breath sounds bilaterally = clear to auscultation (CTAB)
P/A = Abdominal Exam
DWR = Daily ward rounds
Ascitic tap = diagnostic paracentesis
2/7 = 2 days
2/12 = 2 months
2/52 = 2 weeks

CCF = Congestive cardiac failure (CHF)

Labs:
FHG = Full Hemogram (CBC)
U/E/C = Urea, Electrolytes, Creatinine (closest equivalent to BMP)
DTC = Diagnostic testing & counseling (HIV test)
PITC = Provider-initiated testing & counseling (HIV test)
GXM = Blood group & cross-match
PBF = Peripheral blood film
BS for MPS = Blood smear for malaria parasite

Meds:
Paracetamol = acetaminophen
X-Pen = penicillin-G
Diflucan = fluconazole
Kenyan Laboratory (MTRH) Reference Ranges:

FHG: (CBC)
- WBC: 4.5-10.5 per µL
- Hgb: 11-18 g/dL
- Hct: 35-60%
- Plt: 150-450 per µL
- RBC: 4-6 per µL
- MCV: 76-96 fl
- MCH: 27-31 pg/cell
- MCHC: 33-37 Hgb/cell
- RDW: 11-13.7
- MPV: 7.8-11

U/E/C: (BMP)
- Urea: 1.7-8.3 mmol/L
- Creatinine: 44-80 µmol/L
- Na: 136-145 mmol/L
- K: 3.5-5.1 mmol/L
- Cl: 98-107 mmol/L

Serum Glucose: RBS <11.1 mmol/L (200 mg/dL)
Serum Glucose: FBS <7.0 mmol/L (126 mg/dL)

LFT:
- SGPT (ALT): <32 U/L
- SGOT (AST): <31 U/L
- Alk Phos: 64-306 U/L
- Bilirubin: <17.1 mol/L
- Protein: 64-83 g/L
- Albumin: 35-50 g/L

CSF:
- WBC 0-5 per µL
- RBC 0 per µL
- Glucose 2-5 mmol/L
- Protein: 15-40 mg/dL

Other:
- Creatinine Kinase (CK): U/L
- LDH: 225-450 IU/L
Cultural Preparation

If you want to go fast, go alone.

If you want to go far, go together.

- African proverb
Recommended Reading for AMPATH participants

**HIGHLY RECOMMENDED FOR ALL PARTICIPANTS:**

This new resource, written by our own Fran Quigley, talks about how a U.S. and African Medical school partnership is winning the fight against HIV/AIDS. This must read explains how the combination of American resources and Kenyan ingenuity along with their shared determination to care for patients, has created a model for how to tackle huge challenges. Foreword is written by Paul Farmer. This reading is required because it describes some of the origins of AMPATH in the IU-Kenya Partnership. It is a quick and easy read likely taking only a few hours.

**SUGGESTED READING**

2004 Nobel Peace Prize winner Wangari Maathai recounts her extraordinary journey from her childhood in rural Kenya to the world stage. When Maathai founded the Green Belt Movement in 1977, she began a vital poor people’s environmental movement, focused on the empowerment of women that soon spread across the African continent. Persevering through run-ins with the Kenyan government and personal losses, and jailed and beaten on numerous occasions, Maathai continued to fight tirelessly to save Kenya’s forests and to restore democracy to her beloved country. Infused with her unique luminosity of spirit, Wangari Maathai’s remarkable story of courage, faith, and the power of persistence is destined to inspire you and generations to come.

This book tells the story of John Githongo, a Kenyan journalist and civil society activist who, in 2002, took on a senior anti-corruption role within the newly elected government of President Mwai Kibaki. In this role, Githongo uncovered widespread evidence of corruption (notably the Anglo-Leasing scandal) located high up within the Kibaki government. The book also discusses the role of ethnicity in Kenyan politics and is strongly critical of the response of the international aid community to the Githongo case.

Ngugi wa Thiong’o is one of Kenya’s best authors. He writes on political themes, so many of his books have been banned in Kenya. This novel is about the effects of the infamous Mau Mau uprising on the lives of ordinary men and women, and on one family in particular. Two brothers, Njoroge and Kamau, look into their futures: Njoroge is to attend school, while Kamau will train to be a carpenter. But this is Kenya, and the times are against them: In the forests, the Mau Mau is waging war against the white government and its collaborators, and the two brothers and their family need to decide where their loyalties lie. For the practical Kamau, the choice is simple, but for Njoroge the scholar, the dream of progress through learning is a hard one to give up. Other highly recommended titles by Thiong’o include *Detained, Petals of Blood, A Grain of Wheat and Writer in Politics.*

Examines conflicts brought on by western biomedicine in Kenya. Notions that the damage done by European imperialism in Africa was balanced by the provision of biomedical services is becoming harder to sustain. Studies have demonstrated several core indictments of colonial medicine: it was provided in a stingy manner; when it was provided to Africans, it was to help sustain the labor needs of the colony; and it provided better care for Europeans. Where some have argued that modern biomedicine has an inherent tendency to objectify the patient, students of colonial contexts have only seen such a tendency to be equal if not greater, because it was overlaid with dehumanizing racial ideologies. The colonial period coincided closely with the rise of the germ theory of disease,
but the most noticeable effect of this in colonies was the theory’s use as a rationale for racist segregation policies. Ndege elaborates these themes for the Kenyan context, and adds several others. Although Ndege argues that epidemic disease had a major role in spurring the colonial state to pursue segregationist policies, he also argues that germ theory played a minor role in this process. He shows that insensitivity to local cultural differences led to failures in preventive medicine. Finally, Ndege argues there has been continuity between colonial and postcolonial medical history. Colonial medical policies sought above all to promote the health of the colonial state itself. It is only a slight exaggeration to say that public health benefits for Kenyans were incidental.

On December 12, 1963, people across Kenya joyfully celebrated independence from British colonial rule, anticipating a bright future of prosperity and social justice. However, during its first five decades Kenya has experienced assassinations, riots, coup attempts, ethnic violence and political corruption. The ranks of the disaffected, the unemployed and the poor have multiplied. Daniel Branch sheds light on the nation's struggles and the complicated causes behind them. Branch describes how Kenya constructed itself as a state and how ethnicity has proved a powerful force in national politics from the start, as have disorder and violence. He explores such divisive political issues as the needs of the landless poor, international relations with Britain and with the Cold War superpowers, and the direction of economic development. Tracing an escalation of government corruption over time, the author brings his discussion to the present, paying particular attention to the rigged election of 2007, the subsequent compromise government, and Kenya's prospects as a still-evolving independent state.

The seminal African novel in English. Although there were earlier examples, notably by Achebe's fellow Nigerian, Amos Tutuola, none has been so influential, not only on African literature, but on literature around the world. Its most striking feature is to create a complex and sympathetic portrait of a traditional village culture in Africa. Achebe is trying not only to inform the outside world about Ibo cultural traditions, but to remind his own people of their past and to assert that it had contained much of value. All too many Africans in his time were ready to accept the European judgment that Africa had no history or culture worth considering.

History of Kenya
Any history of Kenya It is absolutely essential that every student, resident, or faculty who visits Kenya have a reasonable understanding of Kenyan history, cultures, and traditions. Acquiring this understanding before going to Kenya will make it more likely that you will have a successful and rewarding time in Eldoret. Some good Kenyan historians are Atieno Odhiambo, Tabitha Kanogo, David Anderson, Jean Davidson, and Charles Hornsby.

Tropical Medicine
Lecture Notes: Tropical Medicine: A solid clinical resource for tropical diseases. Easy to read. Helpful as a resource for didactics sessions and for patient care.

Oxford Handbook of Tropical Medicine: very useful to have in your pocket during the rotation
Other Books

Africa

It has been reprinted many times and has some interesting things on Kenya.

Africa: Dispatches from a Fragile Continent

Controversial book. It has some unkind things to say about Moi.

Global Inequalities

This book, published in 1996, was written by two professors of sociology at IU-Bloomington. If you do not have time to read the entire book, read the chapter “A Continued Decline?” The chapter gives a succinct overview of many of the problems Africa faces.

The Poisonwood Bible

AIDS in Africa (2nd Edition)

Training in Developing Nations

AIDS in the Twenty-First Century

The Lunatic Express

Ethics and AIDS in Africa. The Challenge to our Thinking

The Flame Trees of Thika

Red Dust on the Green Leaves

Class and Economic Change

(Kenya)

A Grain of Wheat

Kenya’s Democratic Transition

(Kongo)

King Leopold’s Ghost: A Story of Greed, Terror, and Heroism

In Colonial Africa

The story of how King Leopold II of Belgium seized the vast area surrounding the Congo River.

(Nigeria)

The Joys of Motherhood

Stars of the New Curfew

(Zimbabwe)

Nervous Conditions

Witches, Westerners and HIV: AIDS and Cultures of Blame in Africa

(South Africa)

In the Fog of the Seasons End

None to Accompany Me

Playing in the Light

(Cameroon)

Life and Death in Kolofata: An American Doctor in Africa

General Global Health

-Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World

(Tracy Kidder)
Kiswahili and Travel Resources
There are several Kiswahili language texts/primers on the market, including Twende by Joan Maw and Teach Yourself Swahili by D. V. Perrott. Twende is a standard textbook and Teach Yourself Swahili is a basic primer. For purposes of quickly learning on your own a basic understanding of the language and rudimentary vocabulary and phrases, Teach Yourself Swahili is best. Some prefer Simplified Swahili, published by Longman Ltd. in England. It may be difficult to obtain in the US, but new Swahili textbooks can be found on the NALRC website at U. Wisconsin-Madison.

There are several guide/tourist books on the market as well. A favorite has been The Real Guide to Kenya (also printed overseas as the Rough Guide to Kenya). Many travelers use the Lonely Planet guide to Kenya. They also publish a good map. There are usually extra copies of these at the IU House in Eldoret, but please do not take them with you on your travels.

Websites
Daily Nation (Kenya newspaper)  
https://www.nation.co.ke/  
US Embassy in Kenya  
https://ke.usembassy.gov/  
US State Dept.  
CDC: Kenya information  
USAID Country Profile  
Lonely Planet  
www.lonelyplanet.com/destinations/africa/kenya/  
Regional Maps  
www.reliefweb.int/mapc/afr_east/

Movies
* The First Grader (2010)  
The story of an 84 year-old Kenyan villager and ex Mau Mau veteran who fights for his right to go to school for the first time to get the education he could never afford.

* Babies (2010)  
A look at one year in the life of four babies from around the world, from Mongolia to Namibia to San Francisco to Tokyo.

* Have suggestions for the recommended reading list? Email Jenny Baenziger, MD (jbaenz@iu.edu)
Cross-cultural Medicine

A Teaching Framework for Cross-cultural Health Care
Application in Family Practice

ELOIS ANN BERLIN, PhD, and WILLIAM C. FOWKES, JR, MD, Stanford, California

Significant demographic changes in patient populations have contributed to an increasing awareness of the impact of cultural diversity on the provision of health care. For this reason methods are being developed to improve the cultural sensitivity of persons responsible for giving health care to patients whose health beliefs may be at variance with biomedical models.

Building on methods of elicitation suggested in the literature, we have developed a set of guidelines within a framework called the LEARN model. Health care providers who have been exposed to this educational framework and have incorporated this model into the normal structure of the therapeutic encounter have been able to improve communication, heighten awareness of cultural issues in medical care and obtain better patient acceptance of treatment plans.

The emphasis of this teaching model is not on the dissemination of particular cultural information, though this too is helpful. The primary focus is rather on a suggested process for improved communication, which we see as the fundamental need in cross-cultural patient-physician interactions.

Health care providers are finding themselves dealing with increasingly diverse patient populations. Fueled by armed conflict, political unrest and economic instability, the influx of immigrants into the United States is prompting a structural shift in the demographic representation of minorities. The impact is especially acute in states like California, which are subject to secondary migration or relocation after preliminary resettlement. These migration patterns, in combination with reproductive patterns, set a trend that is predictive of what has been termed minoritization.

In addition to language and socioeconomic barriers recognized to stand between minority populations and the health care system, there is an increasing awareness of the impact of diverse health and disease belief systems on the interaction of health care providers and patients of a different cultural heritage.

Overcoming these obstacles is aided by the incorporation of new tools for cross-cultural communication.* At the Family Practice Residency at San Jose Health Center, we have begun to develop a set of guidelines for health care providers in a practice that serves a multicultural patient population. We have structured these guidelines around the following mnemonic:

Guidelines for Health Practitioners: LEARN

L Listen with sympathy and understanding to the patient's perception of the problem
E Explain your perceptions of the problem
A Acknowledge and discuss the differences and similarities
R Recommend treatment
N Negotiate agreement

*Cross-cultural curriculum development was supported in part by the South Bay Area Health Education Center, San Jose, California.


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It should be emphasized that the LEARN model is not intended to replace completely the normal structure of the medical interview. Rather, it is intended as a supplement to history taking. The difference in focus is between a patient’s factual subjective report of onset and duration and characteristics of symptoms and a patient’s theoretical explanation of the reasons for the problem.

Discussion of Guidelines

Listen. Interview techniques have been proposed that aid in elicitation of a patient’s conception of the cause, process, duration and outcome of an illness as well as healing strategies and resources that the patient considers to be appropriate.4 Understanding a patient’s conceptualizations and preferences constitutes the first step. Questions such as, What do you feel may be causing your problem? How do you feel the illness is affecting you? and What do you feel might be of benefit? are examples of the shift in focus.

Explain. Explanation or communication of a “Western medicine” model is the next step. This may be a biomedical model but often the provider is making an educated guess, for example, that a patient’s diarrhea is indeed due to an intestinal virus as opposed to toxins from contaminated food or psychosocial stress. In the primary care setting, treatment is frequently initiated without a definite diagnosis or biomedical model. However, it is critical to the success of the interaction that the care-giver have a strategy and that the strategy be conveyed to the patient.

Acknowledge. Acknowledgment of a patient’s explanatory model occurs next or is integrated into the previous explanatory step. Based on an understanding of the explanatory models of both patient and provider, areas of agreement can be pointed out and potential conceptual conflicts understood and resolved. Resolution may involve bridging the conceptual gap between disparate belief systems. In many instances there is no therapeutic dilemma involved and a patient’s own model can be incorporated into the system of care. If the provider feels that a patient’s explanatory model and its consequences may have possible deleterious effects, such as a toxic medicinal substance, then an attempt must be made to market a more appropriate model leading to the next step. An example of a counterproductive explanatory model and resultant intervention is the consumption of pickle brine for hypertension—called “high blood” by some southern blacks. “High blood” is characterized by too much blood and treated by avoiding rich foods and consuming pickle brine, an “astringent” substance. The high sodium content of pickle brine would likely be deleterious in the face of blood pressure elevation.10

Recommend. Within the constraints imposed by a patient’s and provider’s explanatory models, a treatment plan can be developed. Patient involvement in the treatment plan is important. This step constitutes an extension of such an effort to include cultural parameters when appropriate culturally relevant approaches can be incorporated into the recommendation to enhance the acceptability of the treatment plan.

Negotiate. Negotiation is perhaps the key concept of the proposed LEARN model. It is necessary to understand a patient’s perceptions and to communicate the provider’s perspective so that a treatment plan can be developed and negotiated. There may be a variety of options from the biomedical, psychosocial or cultural approaches that could be appropriately applied. The final treatment plan should be an amalgamation resulting from a unique partnership in decision making between provider and patient. A patient can truly be involved in the instrumentation of recovery if the therapeutic process fits within the cultural framework of healing and health.

Application of Guidelines

To illustrate the application of the LEARN model, we have selected examples from the experiences of our staff and students. We have chosen a separate case to exemplify each concept of LEARN. Although all or most steps in the model are involved in every clinical encounter, the cases were chosen to best illustrate each concept specifically.

Listen

A 28-year-old Vietnamese woman, a social work student, was first seen in the Family Practice Center in autumn of 1982 because of weight loss, mood swings, nervousness, sweaty palms and an increased number of bowel movements. She had lived in the United States for five years. Initially she volunteered that she had been extremely depressed ten years earlier and had once attempted suicide. She had an established diagnosis of retinitis pigmentosa and was legally blind. She was living with her mother and two siblings and was entering college to study social work. On initial examination there were findings consistent with retinitis pigmentosa. Lid lag was also noted. Initial laboratory studies elicited values consistent with mild hyperthyroidism and she was started on a regimen of propranolol hydrochloride taken orally.

She was seen regularly and had a constellation of symptoms including abdominal pain, mute attacks during which she could not open her mouth, twitching and palpitations. After taking propranolol she felt very fatigued and weak and had an episode of syncope after which she refused to take further medication. Additional symptoms developed including squeezing substernal chest pain. Repeat thyroid function testing was normal.

There was no apparent physical explanation for the symptoms and it was felt that she was suffering from anxiety and depression related to her disability and life stress. Supportive approaches were instituted with regular counseling visits. Relaxation training and a life journal were begun. The technique used for relaxation included both breathing exercises and visualization.

Shortly after these measures were instituted the patient presented in a very agitated state and said that
the pleasant visual images she attempted to conjure turned “dark and scary.” She also related that a childhood diary had been taken from her by one of her sisters and that the contents had been ridiculed. This made it very difficult for her to keep the recommended life journal. At this time, with encouragement, she related some very important events in her childhood. When she was 8 to 10 years of age her affliction was felt by her family to be due to her possession by an evil spirit, and a healer was summoned. The attempt at exorcism failed and this was interpreted as a sign that her illness was a form of punishment for her transgressions in a past life. She was virtually locked away in a back room for several years before the events that led to her immigration.

She stated she no longer held this set of beliefs, but she continued to worry about whether she was a good person. Her physician agreed with her rejection of the ideas held by her family and suggested that her studies in social work and her commitment to help people were indeed evidence of her goodness and worth.

She moved out of her home to campus housing and has improved somewhat. She continues to visit the Family Practice Center for supportive care.

Cultural context. The medicoreligious beliefs of Vietnam derive from such a variety of sources that specification of exact religious context of the healing rituals of this patient’s early life is difficult.

There have been historical interchanges of Ayurvedic medicine, with its roots in Galenic humoral pathology, influenced by Hinduism and Buddhism, especially in Southeast Asia.11-16 Chinese medicine, which is more closely related to Confucian and Taoist religious philosophies, has made an additional contribution. More recent influences come from Catholicism and Western medicine. Local indigenous beliefs and practices also no doubt exert some influence.17 (pp avili-xxi)

Attribution of illness to possession by spirits or demons is consistent with all of these religious traditions (including Catholicism, at least historically). Whichever temple and priest or shaman the patient’s family applied to for help, her status as a victim of a malevolent source would have been validated by successful exorcism. This would have been confirmed by the return of her eyes to normal appearance. Failure of repeated exorcistic rites to alleviate the symptoms led to the conclusion that her deviant appearance was a mystical mark, a sign of evil committed in a former life. This conclusion transformed her from victim to perpetrator. In a family whose members include all of the living, dead and as yet unborn, the final diagnosis shamed the family in perpetuity. This was the justification for confining the child in the house and restricting her social interactions. The family was, literally, attempting to hide their shame. The psychologic burden that this explanation placed on the patient resulted in somatization of complaints. Mental illness, which bears strong negative sanctions for similar reasons, would have constituted yet another mark against the family.

The patient migrated with her family to the United States when she was an adolescent. The process of acculturation and an alternative biomedical diagnosis provided a context for a change of attitudes and perception of self-worth. Although several people whom the patient had consulted over time (social workers and health care providers) had felt that there was a troubling “cultural component” in her medical history, the patient had never been able to discuss it fully. Careful probing and an open, nonjudgmental attitude on the part of the resident physician allowed the patient to divulge the complete background information and to acknowledge the lingering self-doubt these experiences had produced. She was then able to initiate steps for improvement such as removing herself from the family context, which produced continuing stress and reinforced a negative self-image, and continuing her studies in a helping profession, which confirmed her goodness.

- Explain

A 21-month-old Mexican-American male infant with recurrent onset of fever, runny nose and noisy breathing was brought to the clinic by his mother. The mother noted that the child had been sleeping restlessly and making sighing noises while asleep.

On physical examination, he was found to have edematous mucous membranes and mucoid nasal discharge consistent with an upper respiratory tract infection (URI).

The mother stated that she was very concerned because two months earlier the child had had a major motor seizure that she associated with a high fever. She felt that the seizure had precipitated susto (fright disease), as evidenced by the sighing and restlessness during sleep, and wanted a regimen to control fever and prevent a worsening of the child’s susto.

The resident physician discussed upper respiratory tract infections and their effects on breathing. He suggested a decongestant for relief of symptoms. He also confirmed the relationship of fever to seizures and advised continued use of antipyretics. He demonstrated the use of sponge baths to reduce fever and emphasized the importance of fever control in preventing seizures. In addition, he suggested that the mother consult a curandera (folk healer) concerning her questions about susto. The patient has subsequently been seen for routine visits and has had no further seizures or other significant problems.

Cultural context. Susto is a Latin-American folk illness that is caused by fright.18-22 The source or cause of fright might be anything from a simple startle response to an encounter with spirits. Children are particularly susceptible to susto. Symptoms vary widely, but the sighing and restlessness or poor sleep pattern exhibited by the patient are common manifestations. The mother’s explanatory model for this case of susto was as follows:

URI → fever → seizures → susto → sleep disturbance

The provider was able to give a detailed biomedical explanation of that portion of the patient’s explanatory
model to which it was applicable and to recommend consultation with a folk specialist for that portion that lay outside the purview of modern medicine.

**Acknowledge**

A 25-year-old Vietnamese woman was seen for a routine prenatal examination. As part of her evaluation she had blood drawn for laboratory testing. Within the next few days she returned with a variety of symptoms including weakness, fatigue and coryza. She attributed this to having blood removed, feeling that removal of blood weakens the system and causes illness.

Her provider, a Vietnamese physician, was aware of the belief and acknowledged it, but also explained how much blood volume she actually had and gave the example of persons donating blood, a much larger volume, without symptoms.

She was pleased with the explanation, seemed to feel less fearful and her symptoms abated.

*Cultural context.* The probable influence of Chinese medicine or Ayurvedic medicine (or both) in Southeast Asia is seen in this patient's response to blood tests. Edwards describes the following physiological process from Chinese medical theory: "The connection between food, [blood], sex and health is found in the transformational formula in which seven units of the precursor yields one unit of the subsequent product:

Food → blood → jing → qi → shen"

Edwards defines the terms as follows: jing = "sexual fluid," which is a vital substance; qi = "breath" or "life energy" (also written chi); shen = "ethereal energy." A similar process has been described from Ayurvedic medical theory, which could be outlined as follows:

Food → chyle → blood → flesh → fat
bones → marrow → semen

Because several physiological systems are involved in the production, transportation and storage process—that is, digestive, genitourinary, circulatory and respiratory—symptoms can be diffuse and varied. Since all descriptions indicate a geometric reduction between precursor and product, the consequences of interruption of the cycle would increase geometrically in seriousness at each earlier step in the process.

The patient's and the provider's explanatory models were similar in that they both believed blood loss to constitute a potential threat to health. Their explanations differed in the amount of blood that must be lost to pose a problem. By relating the amount of blood removed to the total blood volume and comparing this with the much larger quantities safely removed from blood donors, the physician was able to reassure the patient and to effect alleviation of symptoms.

**Recommend**

A 38-year-old Mexican-American man was seen in the Family Practice Center for chronic genitourinary problems. He had experienced hematuria and right flank pain two years before. In addition there had been recurrent episodes over 18 years of right flank pain and dysuria, diagnosed as urinary tract infections. He did not use analgesics. Examination of the external genitalia and prostate was unremarkable. He had no abdominal or flank tenderness. Analysis of urine showed 50 to 100 leukocytes per high dry field. An intravenous pyelogram showed a localized hydronephrotic area in the upper pole of the right kidney.

He was seen by a urologist who carried out retrograde pyelograms. These showed a large calyceal diverticulum connected with the right collecting system, with hydronephrosis of the upper pole of the kidney.

Surgical treatment was recommended. The patient expressed considerable reluctance to have an operation. When questioned by his family physician he expressed concern that his "blood was low" and that he would have trouble going through an operation under the circumstances. His physician discussed the amount of blood that could be expected to be lost with a partial nephrectomy and also the total available blood supply in the body. He suggested that a surgical procedure be delayed for a period to allow the patient to "build up his blood" with appropriate medication. This was quite acceptable to the patient and the consultant urologist.

He subsequently underwent uneventful partial right nephrectomy.

*Cultural context.* Blood is "hot" according to the hot-cold system of humoral pathology as practiced in Latin America. Blood is also associated with strength, both in the health and the sexual sense. Having a large supply of blood makes one strong and healthy, but is also associated with virility and hence with machismo. Menstrual blood, semen and sexual activity are very hot. Men's blood is hotter than women's blood.

The patient felt a need to build up his blood supply in order to have reserve strength for an operation because he expected a significant amount of blood to be lost during it. He was willing to accept the recommendation that he take iron to help build blood. However, an equally acceptable way to build blood would have been to eat blood products such as fried blood or blood sausage. Organ meats are good for building up strength and blood supply. In the Mexican-American folk system, an abundant and varied diet builds physical reserves, including a healthy supply of blood.

By describing the surgical procedure, including control of bleeding, the resident physician was able to alleviate some of the patient's concerns about blood loss. The provider was then able to recommend a treatment plan acceptable to the patient by prescribing "blood building" medicines and by scheduling the operation following a delay of fixed duration that the patient concurred would be adequate to prepare himself.

**Negotiate**

A 48-year-old black man was seen because of severe hypertension and congestive heart failure associated
with far-advanced renal insufficiency. Initially he was managed conservatively. It became obvious, however, that he had reached a stage at which renal dialysis was his only hope for survival.

When he was approached about the possibility of hemodialysis he declined, stating that he was a devout Christian and felt that the will of God was of prime importance and that he would wait for God's intervention rather than accept dialysis.

His physician acknowledged the importance of God's influence, but suggested that the opportunity for dialysis as a means to control his condition might be the way God had intended for him to survive. Indeed, there was nothing in the Bible that prohibited dialysis and God helps those who help themselves.

The following day the patient consented to hemodialysis and now has a functioning bovine shunt and is doing well.

Cultural context. The socioreligious context of this patient's explanatory model was fundamentalist Protestantism. The direct intervention and control of health by God is supported in the Old Testament (Exodus 4:11): "... who maketh the dumb or deaf, or the seeing or the blind? Have not I the Lord?" The New Testament contains dozens of examples of the healing powers of Christ. While one common alternative to treatment is faith healing, this patient seemed to be relying on the Old Testament with healing based on direct intervention by God. He suggested that he felt that God did not intend him to die yet and would intervene on his behalf. The provider was able to call on other aspects of Christian beliefs such as "the Lord helps those who help themselves" and that God sometimes works through human agents: "For to one is given by the Spirit the word of wisdom; ... to another the gift of healing by the same Spirit" (I Corinthians 12:8-9).

The implication was drawn that the physicians and dialysis might be the instruments through which God intended to intervene. Medical intervention was thus translated into a construct that did not violate the tenets of the patient's faith. By using beliefs from the patient's own religious background, the provider was able to negotiate acceptance of recommended biomedical treatment.

Summary and Conclusions

Given current demographic trends it is probably unrealistic to assume that health care providers can gain in-depth knowledge about the health-affecting beliefs and practices of every ethnic or cultural group they are likely to encounter in practice. The processes of acculturation, interethnic variation and social change also serve as confounding agents in predicting knowledge, behavior and attitudes. Social class differences, too, provide striking variability. We have, therefore, chosen a process-oriented model by which the cultural, social and personal information relevant to a given illness episode can be elicited, discussed and negotiated or incorporated.

However, it is common in our experience for patients of different beliefs to be reluctant to discuss this problem for fear of criticism or ridicule. It is certainly of value for providers who deal with culturally diverse patients to have some understanding of common basic conceptions of health, illness and anatomy held by these persons. Much work needs to be done in codifying these conceptions and making them available to professionals in medicine.

The foregoing examples serve to illustrate some of the means the members of a family practice residency program have used for enhancing communication and promoting the integration of patients' and providers' perceptions of needs and solutions into the therapeutic process.

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20. O'Neil CW: An investigation of susto or 'heso,' as reported 'fright' as a factor in the etiology of susto, 'Magical Fright.' Ethos 1975; 3:41-63
Cultural Vignettes

During your elective overseas, you will confront many different problems – medical, psychosocial, economic, cross cultural, interpersonal, etc. Enumerate problems that might arise in the following situations. Suggest ways to recognize, avoid, and/or manage these problems:

1) A patient presents with signs and symptoms of meningitis. The patient has no money. The hospital has run out of penicillin. The nurse tells you that the local pharmacy has penicillin in stock.

2) Your patient has cerebral malaria. You order quinine. The next morning, the patient’s condition has deteriorated. On review of the record, you note that he failed to receive Quinine overnight due to a nursing oversight.

3) Your patient presents with signs and symptoms of AIDS. An HIV ELISA test, ordered without his knowledge, is positive. Neither the patient nor his family is aware of the diagnosis.

4) Your counterpart in your host country is a clinical officer who has worked in the hospital for more than a decade. The clinical officer has diagnosed a newly admitted patient with malaria. He has treated the patient with Chloroquine only. After you have examined the patient, you decide that the patient has pneumonia. X-ray is not available.

5) Your counterparts, the medical and clinical officers, are responsible for phlebotomy on your ward. They leave for four days in order to get new assignments. The head nurse asks you to draw blood. Gloves are not available.

6) You are called because a one-month-old child with malaria is not doing well. As you reach the bedside, the baby stops breathing.

7) You’ve just arrived at Jomo Kenyatta International Airport in Nairobi, Kenya with your three IUSOM classmates. Amidst the hustle and bustle of a frenzied environment, several gentlemen decide they want to grab your bags and carry them for you. Not really knowing what to do, you hesitantly follow them and point out where you are going. When you arrive at your taxi, you have no one around to tell you what is polite or customary as far as gratuity. The men direct a blank stare at you and wait for you to do something.

8) You have been invited to the home of one of your hosts. During your visit it becomes quite clear that much fuss has been made over your visit. At dinner you are given a seat at the head of the table and are served several different portions of food. While everything smells quite nice, you are not quite sure what any of it is. Upon asking your friend you find out that one dish is fried goat intestines and another is the gizzard of the chicken, which always goes to the guest of honor and is a large rubbery thing that seems impossible to chew. Now it is time to dig in. What do you do?

9) Before every meal, your counterparts have someone say a prayer. One night, a member of your group decides that you should pray for the person next to you. You
feel very uncomfortable praying out loud and for someone you don't know very well. Furthermore, you are not of the same religious background whereas everyone else there shares the same religion. You don't want the other students to question your morals or even reproach you, yet you feel terribly uncomfortable. What do you do?

10) You have finished your rotation and are now out and about touring Kenya. During your stay in Nairobi, you decide to head out to the clubs for dancing. On the way to club, your driver makes a wrong turn and has to stop in order to turn around. At that moment, Kenyan police officers pull you over and force you to get out of the car. You smell liquor on their breath and they ask you if you're American. You remember that some American tourists have recently been killed in neighboring Uganda and mugged in Kenya b/c they appear to be rich and good targets. How do you respond?

11) While in your host country, you decide to go out and do some shopping. While walking on the streets and as you come out of a store in which you just purchased several items, several young children dressed in tattered clothing come up to you and hold out their hands asking for money. You've been told during orientation that you should not give out money because more people will come and beg you. At the same time, these young kids look hungry and are (in your mind) too young to be hanging on the streets. You have lots of change in your hand. What do you do?

12) During your stay at the rural health center, you meet a gentleman at a restaurant in town who states that he is the Chairman of the Health Center for Vihiga District. You don't remember seeing him during the first week at the health center, and when you ask, he says he was out of town on business. After talking just a little more, he invites you to his house (about a 20 minute walk from the health center) for chai, bread, maize and eggs. You're a bit apprehensive since you haven't seen him around before so you tell him you'll get back to him. You talk to your Kenyan friends and they state that they've never seen him before and don't know him. However, one Kenyan friend says he will go with you if you'd like to go.

13) At the beginning of your stay in Kenya, the U.S. government has made a decision that is very unfavorable with many Kenyans. While walking around in the student hostel, you see several signs posted that blatantly scold Americans for their aggressive involvement in international affairs. Frankly, the sign makes you a bit uneasy since you have just arrived in Kenya and are unfamiliar with many of the students.

14) Two Kenyan students invite you to the labor wards one night to view deliveries. Having not ever witnessed a delivery, you gladly accept and are eager to witness a new birth. When you arrive that night, you are absolutely frightened by what you see. Nurses are carelessly delivering babies and showing very little respect to the birthing mothers. There seems to be no supervision at night as the situation is extremely different during the day. You shudder as a mother hurriedly delivers her baby and is then pulled off of the bed and whisked to the next room in a matter of minutes.

15) During the final week of your rotation, you and your group are writing the report on your findings from the rural community health survey. Because you've had a few more years of experience in terms of writing papers and presenting information, you
find that some of work of the Kenyan students are grammatically incorrect and are also wordy and superfluous. You know that you yourself could make the corrections and insert them in to the paper (because in all probability, you'll be typing) but your Kenyan counterpart has insisted to the group that the way he/she has worded it is the way he/she wants it. Do you let it slide b/c its really for their grade and not yours? What do you do?
Here is a beginning list of words you might find helpful as you work. Kiswahili is NOT a language that one can begin to speak readily since nouns are divided into eight classes, which do not always make sense to the English speaker. Prepositions, verbs, adjectives, etc. must agree with the class of the noun being modified – AND it gets worse before things fall into place (IF they ever do!).

If you ask a question of a patient, you may find it difficult to understand his or her answer. Still, knowing a few words may help you to understand the jist of the conversation occurring at bedside. Generally, if a patient or Kenyan counterpart is referring to a certain person within the hospital, the following holds true:

“Sisters” = nurses
“Nursing officers” = male nurses
“Matron” = head nurse
“Medical Officer” (MO) = post intern physician assigned to the District Hospital
“Clinical Officer” (CO) = similar to a physician assistant
“Intern” = interns
“Consultant” = consultants

All of the above mentioned speak English and will happily interpret for you IF they can be found.

If you think of other words or phrases you would like to have, let us know, and we’ll try to research them for you...

Editors: Diana Menya
Caroline Jepkorir
Eunica Kasay
Peninah Musula Soita
Wycliffe Odongo

BODY PARTS:
Mwili/miili = body/bodies
Moyo/mioyo = heart/hearts
Mkono/mikono = hand/arms, hands
Kiko cha mguu = elbow
Kionwa/vichwa = head/heads
Bega/mabega = chest/chests
Titi/matiti = breast/breasts
Ubavu/mbavu = rib/ribs
Tumbo/matumbo = stomach/stomachs
uume, [vulgar, mbco] = penis
Actually, one NEVER refers to genitals by name. One says “down there” which is ukochini. IF one has to be more specific one refers to the mans...

Mguu/miguu = leg/legs, foot/feet
Goti/magoti = knee/knees
Kidole/vidole = finger/fingers, toe/toes
Uso/nyuso = face/faces
Jiono/macho = eye/eyes
Sikic/maskio = ear/ears
Pua/mapua = nose/noses
Mdomo/midomo = mouth/mouths
Ulimi/ndimi = tongue/tongues
Jino/meno = tooth/teeth

“thing” as kitu kuma or uke = vagina
One can also refer to the birth canal as mjia va uzazi
**MEDICAL WORDS:**

Kidonda/vidonda = Sore (noun)
Mganga/waganga = (native?) Doctor/s
(ku)ganga = To treat
Mgonjwa/wagonjwa = Patient/s, sick person/s
Mafi = Feces (not often used – considered rude [shit]) (usually “choo” is used for a “heavy load”)
Mkocho = Urine (“light load”)
Kifo = Death
Sumu = Poison
(ku)tapika = To vomit
Dawa = Drug
Hospitali = Hospital
Magonjwa = Diseases
Ugonjwa = Illness, sickness
Uzee = Old age
Angalia pale = Look there
Ukuta = Wall
Tazama = Look
Pumua = Breathe
Pumua nje = Breathe out
Pumua ndani = Breathe in
Pumua tena = Breathe again
Toa shati nyako = Take off your shirt
Toangua = Take off things
Vuaangua = Take off your clothes
Wacha kupumua = Don’t (to) breathe
Kohoa = Cough
Shika = Hold, catch, keep
Sema = Say
Pinduka = Turn around (oneself)
Kati = Sit
Ka = Sit
Simama – Stand up
Nyamaza = Be quiet
Fungua = Open
Funga = Close
Jilegeze = Relax
Daktari = Doctor
Sabuni = Soap
Kiwete = Cripple/deformed person
Cheka = Laugh
Ngozi = Skin (of human or animal)
Toa ulimi nje = Stick out your tongue
Viini = Germs
Kifua Kikuu = TB

**VERBS** (which have to agree with the noun class):

(ku)na = to have
(ku)sema = to say
(ku)lala = to sleep
(ku)meza = to swallow
(ku)ja= to come (Kuja hapa! = Come here!)
(ku)kwenda = to go
(ku)tamba = to walk
(ku)sikia = to listen
(ku)sikia = to listen
(ku)andika = to write
(ku)tenda = to do
(ku)la = to eat
(ku)nywa = to drink
(ku)dhuku = to taste

**NUMBERS** (these also agree with the associated noun class):

Moja = one
Mbili or wili = two
Tatu = three
Nne = four
Tano = five
Sita = six
Saba = seven
Nane = eight
Tisa = nine
Kumi = ten
Nusu = one half
Kumi na moja = eleven
Kumi na mbili = twelve
Ishirini = twenty
Thelathini = thirty
Arobaini = forty
Hamsini = fifty
Sitini = sixty
Sabini = seventy
Themanini = eighty

Kisonono = GC
Tago = syphilis
Ukimqi = AIDS
Kwa muda gain? = How long?
Kwa siku gapi? = How many days?
Damu = Blood
Tisini = ninety
Mia = one hundred
Elfu = one thousand

Pole pole = slow
Pole = sorry
Kwaheri! = Goodbye!

NON-MEDICAL WORDS AND PHRASES
THAT MAY RELATE TO YOUR WORK:

Words:
Na = and
Au = or
Ndiyo = yes
La = no
Kitabu/vitabu = book
Chakula/vyakula = food/s
Choo = latrine
Kiti/viti = chair/s
Mwalimu/walimu = teacher/s
Mwanume/wanume = man/men
Mwanamke/wabawaje = woman/women
Mwana/wana = son/s, child/children
Mtoto/watoto = child/ren
Mzee/wazee = old or respected man/men
Mwavuli/mivuli = umbrella/s (for IF you are
traveling to Kenya during the raining
season)
Mkate/mikate = bread/s
Mlango/milango = door/s
Nyumbani = home
Tea = Chai
Milk = maziwa

PHRASES:
Tafadhali = Please
Jambo = Hello
Ndiyo = Yes
Hapana = No
Kulia = Right
Kushoto = Left
Kidogo = Little
Sawa = OK
Tena = Again
Moto = Hot
Baridi = Cold
Asante = Thank you
Karibu = Welcome
Sana = A lot
Bas = That’s all

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MEDICAL SWAHILI

This is a crib sheet for medical personnel.
Take it with you to the wards and use it to
assist in communicating with your patients.
We’ve made it as condensed as possible so
you can fold it up and stick it in your pocket.

Greetings:
Je, unajua Kingereza = Do you know
English?
Habari yako? = How are you?
Nzuri, na wewe? = I’m fine, and you?
Jina lako ni nani? = What is your name?
Jina langu ni Daktari Dukes = My name is
Doctor Dukes
Unatokana Kijiji gani? = What village are you
from?
Una umri gani? = How old are you?

History:
Unasikiaje leo? = How do you feel today?
Unaguaje? = How are you sick/suffer?
Tangu lini? = How long?
Unaumwa wapi? = Where do you hurt?
“kitchwa? = Does your head hurt?
“macho? = Do your eyes hurt?
“mapua? = Does your nose hurt?
“sikio? = Does your ear hurt?
“koo? = Does your throat hurt?
“kifua? = Does your chest hurt?
“tumbo? = Does your stomach hurt?
“mgongo? = Does your back hurt?
“mkono? = Does your arm hurt?
“mguu? = Does your leg hurt?
“Viungo? = Do your joints hurt?
Una Homa? = Do you have a fever?
Unatapika? = Are you vomiting?
Unahara? = Are you having diarrhea?
Unakohoa? = Are you coughing?
Unapumua haraka? = Are you breathing
faster (SOB)?
Una sikia jasho usiku? = Do you have night
sweats?
Unapunguza uzito? = Are you losing weight?
Unakula na kunywa vizuri? = Are you eating and drinking well?

**Review of Systems:**

**HEENT:**
Unaweza kusikia na kuona vizuri? = Can you hear and see O.K.?
Ulikuwa na una damu kwa mapua? = Are you having a nosebleed?
Maji katika masikio? = Do you have drainage from the ears?
Unaumwa koo? = Are you having pain in the throat?

**CHEST/CORE:**
Je, Unapumua haraka kwa kulala/kutembia? = Are you SOB lying/walking?
Je, Unakohoa makohozi? = Are you coughing phlegm?
Je, Rangi gani? = What color?
  - Mayai = Yellow
  - Nyeupi = White
  - Nyekundu = Red
  - Damu = Blood

**G.I./G.U.:**
Je, Unaenda haja kubwa? = Have you have a B.M? (gone for a ‘long call’)
Je, Unaenda haja ndogo? = Have you urinated? (gone for a ‘short call’)
Je, Unahara damu? = Are you having bloody diarrhea?

**EXT:**
Je, Unafura miguu? = Any swelling of the legs?
Je, Una kidonda? = Do you have a sore/ulcer?
Je, Unavipele? = Do you have a rash?

**CNS:**
Usingizi mzilo = coma
Kifafa = Epilepsy/fit
Dhaifu = Weakness
Kufaganzi = Numbness
Hakuna kutemba vizuri – I can’t walk right

**PMH:**
Una allergy kwa dawa? = Are you allergic to medicine?
Unapata dawa? = Are you getting medicine?
Unanunua dawa? = Can you by medicine?
Shida yeyotea zamani? = Have you had illness in the past?
Unavuta sigara? = Do you smoke?
Unakunywa pombe? = Do you drink alcohol?

**Physical:**
Sasa nitapima wewe = Now I will examine you.
Tafadhali, toa shati/koti/viatu = Please take off your shirt/coat/shoes
Keti = Sit up
Lala = Lie down
Fungua mdomo = Open your mouth
Sema ah = Say ah
Unaumwa hapa = Does it hurt here? (tenderness)
Pumua ndani/nje = Breathe in/out
Wacha kupumua = Stop breathing
Unainua mguu/mkono = Lift up your leg/arm
Legeza = Relax
Ina misha kichwa = Bend your head
Beyond Medical “Missions” to Impact-Driven Short-Term Experiences in Global Health (STEGHs): Ethical Principles to Optimize Community Benefit and Learner Experience

Melissa K. Melby, PhD, MPhil, MA, Lawrence C. Loh, MD, MPH, Jessica Evert, MD, Christopher Prater, MD, Henry Lin, MD, and Omar A. Khan, MD, MHS

Abstract

Increasing demand for global health education in medical training has driven the growth of educational programs predicated on a model of short-term medical service abroad. Almost two-thirds of matriculating medical students expect to participate in a global health experience during medical school, continuing into residency and early careers. Despite positive intent, such short-term experiences in global health (STEGHs) may exacerbate global health inequities and even cause harm. Growing out of the “medical missions” tradition, contemporary participation continues to evolve. Ethical concerns and other disciplinary approaches, such as public health and anthropology, can be incorporated to increase effectiveness and sustainability, and to shift the culture of STEGHs from focusing on trainees and their home institutions to also considering benefits in host communities and nurturing partnerships. The authors propose four core principles to guide ethical development of educational STEGHs: (1) skills building in cross-cultural effectiveness and cultural humility, (2) bidirectional participatory relationships, (3) local capacity building, and (4) long-term sustainability.

Growing interest in global health has promoted the expanding phenomenon of short-term experiences in global health (STEGHs). Historically undertaken by licensed professionals, trainees are increasingly involved. Trainee participation in STEGHs can drastically vary in scope, but considered elements include short duration abroad (1–30 days),1 nature of activities undertaken (e.g., clinical care, education, research, public health efforts),2 and philosophy of the facilitating organizations.

Almost two-thirds of matriculating medical students expect to participate in a STEGH during medical school.3,4 This has driven a proliferation of programs in the form of alternative spring breaks, service trips, and medical electives.5 STEGH participants often have multiple objectives ranging among education, training, social responsibility, medical service, and/or tourism.6 Of note, STEGHs have been shown to provide significant educational gains that are foundational for preparing globally engaged health care workers from higher-income countries (HICs).7 Common educational objectives for HIC trainees include exposure to diseases uncommon in HIC settings, increased clinical acumen, development of professional networks, fulfilling a social responsibility, and providing care to the underserved.8 However, STEGHs focused solely on clinical service, and participant learning may constrain the broader aim of international development, elimination of health disparities, and public health, particularly if the experiences are not associated with a capacity-building agenda.1,9,10

In the absence of clear definitions, standards, impact data, and appropriate conduct, STEGHs may represent a suboptimal use of time and resources,1 harm the host community,11 and even perpetuate global health inequities.12 Present literature pertaining to STEGHs by practitioners and learners from HICs is primarily descriptive1 and is limited to case studies, reflections, ethical discussions, and descriptions of curricula. In this Perspective, we propose recommendations for the ethical implementation of STEGHs especially relevant for those involving trainees; however, many concepts are generalizable for all STEGHs. These principles require shifting from a primary focus on trainees’ experience, to preventing harm and effectively addressing the agenda of host communities, who, through this model, become participatory partners. These principles provide an overarching framework for a needed paradigm shift on which practical “how-to” guides can be based.13

The “Medical Missions” Tradition and Contemporary Global Health Experiences

Medical missions historically accompanied missionary work and colonization efforts. Dr. David Livingstone, the well-known 19th-century medical missionary, primarily aimed to spread Christianity but also performed obstetrical procedures...
and surgeries. Medical missionary work often garnered local goodwill and allowed proselytizing, thereby facilitating colonial governments’ management and exploitation of their territories. Similarly, Dr. Norman Bethune’s surgical missions during the Spanish Civil War and World War II in China were inspired by political ideology (i.e., avowal of communism).

In turn, travel and colonization gave rise to the field of tropical medicine. In the late 19th century, Albert Dock Hospital established the London School of Hygiene and Tropical Medicine, which provided care for ill travelers returning from abroad. One predecessor of contemporary STEGHs could be the school’s first epidemiological research expedition in the Roman Campagna in 1900, which documented that mosquitoes were required for the transmission of malaria.

A move beyond faith-based medical missionary traditions began with the secular, population-based approach exemplified by the International Committee for the Red Cross and Red Crescent. Created in 1863, the organization provided care without regard to affiliation and formed the basis for modern humanitarian assistance. Medecins Sans Frontieres (Doctors without Borders) follows this model as well.

Global health work was transformed in the mid-20th century with the founding of the World Health Organization (WHO), in addition to advances in hygiene and the development of antibiotics and vaccines. Large-scale international development programs were created around these interventions, undertaken by national governments in cooperation with organizations like the WHO, nongovernmental firms, and universities. With a shifting focus from patient care to population-based efforts, the role of physicians became less about clinical acumen and more about public health, capacity building, and program administration.

Medical missions gained prominence in the late 1970s and 1980s, owing to the ease of modern air travel and growing awareness of health challenges in low- and middle-income countries (LMICs). By the late 1990s, the advent of the Internet facilitated the growth of numerous community groups and nonprofit organizations offering STEGHs, leading to discussions around their educational and ethical considerations. Modern-day “medical missions” can be either faith based or secular in their underlying ideologies.

**STEGH Ethical Principles: Focusing on Community Benefit**

Accredited and extracurricular opportunities for STEGH participation have arisen in response to the widespread interest within undergraduate, medical, and postgraduate training programs. Many of these STEGHs operate under flawed assumptions that such programs are relatively innocuous and meet specific community needs. However, this is not always true. For example, local partners desiring preventive health promotion activities may not be well served by STEGHs that focus on providing reactive approaches to diseases. Suboptimally conducted STEGHs may also lead to inappropriate volunteer medical care (including unregulated provision of medications, equipment, and surgeries). If not integrated with broader plans for health and development, STEGHs can potentially undermine long-term community health outcomes by shifting responsibility from local governments to STEGH providers, which in turn may lead to some patients waiting for subsequent STEGHs to receive care while their conditions worsen. Likewise, narrow focus on clinical learning objectives for trainees may be a missed opportunity for the development of unique, broad-based, interprofessional global health competencies. Finally, without standardization and guidelines, STEGHs can harm local community health systems and social capital by sidelining local health professionals or working in a disjointed fashion, which may cultivate negative sentiment toward visitors, further limiting impact.

We have identified four principles that highlight key ethical areas in STEGH planning and execution to mitigate harms and optimize benefits for host communities: (1) emphasis on cross-cultural effectiveness skills and cultural humility, (2) bidirectional participatory relationships, (3) local capacity building, and (4) long-term sustainability (see List 1).

**Principle 1: Skills building in cross-cultural effectiveness and cultural humility are critical components of successful STEGHs**

Health care providers and students receive limited education regarding cultural beliefs and health practices. Health professions educators may assume that cultural competency can be taught as a technical skill and focus on “static culture traits.” However, anthropologists teach an “explanatory models” approach, cultural humility, and communication skills that may be more effective when not only cultural but also language, economic, and power differentials exist between local communities and STEGH participants. The Listen, Explain, Acknowledge, Recommend, Negotiate (LEARN) framework is a medical anthropology model that has been used successfully in interprofessional training in cultural competency. Predeparture training for STEGHs involving role-play and discussion can use cross-cultural effectiveness resources such as the Worlds Apart film series.

Without significant understanding and preparation of cultural diversity and cross-cultural communication methods, STEGHs are more likely to cause harm and less likely to contribute meaningfully to learner and community development. Didactic sessions about cultural beliefs and ethnographic techniques can improve learner skills in cross-cultural effectiveness and cultural humility, allowing them to recognize and value local partners’ knowledge and advice over preconceptions and hubris.

The underlying principle of any STEGH is that participation is a privilege, not a right. Complementing cultural humility, the principles of humility, nonmalefice, and professionalism demand that STEGH stakeholders guard against trainees providing suboptimal or inadequately supervised clinical care under the guise of appropriate training opportunities or unsubstantiated community health gains. Students and trainees can be allowed to learn, deliver, and participate in clinical care, but only under supervision and with necessary redundancies, such as those that exist in their home training environments. Each trainee’s abilities and degree of independence should be...
List 1
Summary Guidelines for Implementing Short-Term Experience in Global Health (STEGH) Principles

Principle 1: Skills building in cross-cultural effectiveness and cultural humility are critical components of successful STEGHs

- Understand that (HIC) health care professions medical education is limited in fully preparing one for work abroad; predeparture training and other extracurricular professional development is necessary preparation.
- Promote “explanatory models” and communication skills (e.g., Listen, Explain, Acknowledge, Recommend, Negotiate [LEARN] framework).
- If locally allowed, HIC trainees may provide supervised services within scope of training and ability as assessed in the local LMIC setting.
- Recognize that trainee independence is often decreased because of language and cultural discordance, lack of familiarity with formularies, resource level, and local standards of care.
- Recognize that ethics and professionalism should travel across borders.

Principle 2: STEGHs must foster bidirectional participatory relationships

- Adopt paradigm focusing on local capacity building and participatory program priority setting between HIC and LMIC stakeholders.
- Determine scope of STEGHs through bipartisan collaboration and community engagement rather than unilateral “aid”.
- Engage other disciplines (e.g., anthropology, public health) to help develop bidirectional relationships between local community and visiting institution.
- Support reverse innovation and reciprocity of opportunities.
- Focus on community development rather than solely learner skills or visiting institution prestige.

Principle 3: STEGHs should be part of longitudinal engagement that promotes sustainable local capacity building and health systems strengthening

- Optimize resources to address locally identified needs.
- Avoid operating STEGHs as short-term “fixes” to long-term complex problems.
- Create new funding models to increase participation, access, and exchange and to minimize power imbalances and inequities.
- Focus on creating long-term capacity in public health, primary health care, and health systems.

Principle 4: STEGHs must be embedded within established, community-led efforts focused on sustainable development and measurable community health gains

- Understand the roles of poverty and inequality, public health infrastructure, and human resources for health in promotion of long-term population health.
- Understand that downstream clinical efforts may serve to delay morbidity or mortality rather than reduce them, and give consideration to a more upstream, root-cause focus.
- Understand the limitations of repeated and/or isolated short-term efforts.
- Ensure development and monitoring of appropriate outcome indicators.
- Employ long-term planning to address development goals.

Abbreviations: HIC indicates high-income countries; LMIC, low- and middle-income countries.

reassessed once in LMIC host settings, rather than assuming that levels of independence in novel LMIC settings mirror those afforded in familiar HIC training environments. Because of language and cultural discordance between STEGH participants and host communities, as well as novel formularies, standards of care, and treatment algorithms, it is often appropriate that trainees have less independence and scope of practice when abroad. In other words, simply crossing international borders should not degrade professional and ethical standards and often requires trainees to take a step back in their scope of independent activities.

Principle 2: STEGHs must foster bidirectional participatory relationships

STEGHs have sometimes been referred to as “medical voluntourism,” which may exacerbate economic and power differentials between provider and host communities. Short-term voluntourists and recipients can be characterized, respectively, as “people who travel easily and people who do not.” The latter also often lack access to health care, food, and economic and political power and may feel unable to say no to charity in any form offered. Programs that do not actively combat this inequality gap will not sustainably address the long-term needs of those they aim to help. It is the responsibility of those who travel from more developed settings to ascertain the needs of those they desire to help, without preconceived notions of their own, and to partner with these communities to create mutually beneficial programs, such as the Medical Education Partnership Initiative (MEPI).

Health professionals traveling abroad may bring needed skills or equipment to LMICs, but unidirectional STEGHs run the risk of creating dependency by providing short-sighted fixes to long-term, complex problems. Furthermore, physicians may not always be able to tackle these problems alone; multidisciplinary teams including public health experts, development practitioners, engineers, anthropologists, and others are often necessary.

For certain surgical specialties (e.g., cataract, cleft palate/lip, oral, and obstetric fistula repair surgery), providing downstream services by STEGH volunteers commonly removes pressure on local governments to provide and respond to health needs with long-term solutions, thereby “masking deeper ills of social, political and economic inequities.” They also may create new and unforeseen issues (e.g., infections due to lack of appropriate follow-up) and perpetuate the illusion that foreigners are better able to address local needs. Longer-term solutions engage local providers in identifying areas to augment training capacity and developing plans to address these priorities, eventually phasing out external support within a defined timeline in favor of locally developed resources. Successful examples include the Himalayan Cataract Project, which pairs local ophthalmologists with visiting experts to provide cataract procedures in rural areas of the world, and partnerships through MEPI. Participatory bidirectional relationships also encourage “reverse innovation”—the adaptation of health care and innovative
Capacity development includes strengthening of long-term comprehensive primary health care in communities abroad, requiring that STEGH participants understand structural and social determinants of inequitable conditions. Consequently, creation of effective capacity-building plans requires training and/or a familiarity with principles of international development, social determinants of health, and public health systems. A broader understanding of community health would optimize engagement with health systems development efforts. Although inclusion of capacity development in STEGHs may significantly alter learner expectations—from direct delivery of medical/surgical care to one of partnership, mutual education, and sustainability—such STEGHs hold the most promise for impact in the host community. This approach may prove ultimately more fulfilling for the returning learner, who might also apply such approaches at home.

**Principle 4: STEGHs must be embedded within established, community-led efforts focused on sustainable development and measurable community health gains**

Many populations in LMICs and subpopulations in HICs suffer from poor health and lack of access to health care, arising commonly from poverty, inadequate infrastructure, and HRH shortages. These provide a commonly seen impetus for STEGHs: to provide health care for people who otherwise would have limited or no access. Yet, long-term solutions for these communities need to involve local infrastructure and human resource development to avoid dependence on a repetitive and often disjointed cycle of STEGHs.

Downstream clinical efforts serve to delay morbidity or mortality rather than prevent the underlying condition. Population health measures including education or awareness campaigns, or public health programs for vaccination or sanitation, might reduce the need for short-term outsiders filling in for local HRH. Global health organizations that have had success improving local population health and health care delivery often commit to long-term community engagement.

Traditional “medical missions” (both secular and faith based) reflect a certain paternalism by using HIC health care standards as a benchmark for health in LMIC contexts. This tradition has the risk of prioritizing the needs of the sending institution over local realities and approaches. For instance, institutions may use their resources toward enabling the participant experiences and technical skills rather than focusing on long-term population health or HRH capacity building in communities abroad. This problematic approach is also evident in the mind-set that any LMIC can suffice to provide STEGH opportunities to learners. The locations for possible STEGH partnerships must be seen as more than an undifferentiated mass of “underdeveloped” communities with poor health. Participatory programs that emphasize increasingly common development principles of strength-based approaches with local control may provide new models and paradigms for STEGHs to empower locals while avoiding the pitfalls of “philanthropic colonialism.”

Monitoring STEGH sustainability and effectiveness requires the use of appropriate indicators, which must incorporate a longitudinal perspective. For example, if success is measured using process indicators (e.g., number of patients seen, successful surgeries, or prescriptions dispensed), service-focused STEGHs could be considered highly effective. However, if assessed in terms of health outcomes (e.g., change in disease occurrence or improved access to consistent medical services), STEGH effectiveness is less clear-cut, highlighting the need for a more longitudinal planning focus.

With appropriate indicators and principles, STEGH stakeholders can then identify program limitations and ensure program sustainability and impact. Some academic institutions have faculty members living and working abroad; this can augment local bandwidth for supervision of HIC trainees and STEGH impact assessment. Community-based organizations providing STEGHs can also invest in local capacity building in conjunction with STEGH operations.

Focusing on sustainability also supports efforts to address the rise of chronic disease in LMICs. STEGH preparation should reinforce training participants on the epidemiologic shift and an expanded definition of “tropical medicine” beyond infectious disease.
Applying STEGH principles: Focusing on community benefit

Applying these principles toward obtaining maximum benefit within host communities requires deployment of appropriate strategies across the entire spectrum of STEGH planning. These key strategies include assessment, data collection and dissemination, standards of quality, bidirectionality of agreements, formal curriculum definition, and ethical considerations.

Assessment. Existing professional groups should assess objectives, structure, monitoring and evaluation, cultural issues, and ethical concerns of STEGHs as they relate to medical education, as well as community impacts (both positive and negative). The American Public Health Association, American Academy of Family Physicians Global Health Workshop, Consortium of Universities for Global Health, and Network Toward Unity for Health are forums for this discussion. However, there is a need for increased focus on robust applications, which could include the use of assessment data to accredit STEGHs, develop uniform program standards (e.g., with respect to preparing trainees), and facilitate a paradigm shift that focuses on promoting participatory research and programming that prioritize elevating the voice and input of LMIC-based stakeholders.

Data. Professional organizations must take the lead in vetting STEGHs and providing this information to their members and the public. Internet searches reveal diverse STEGH opportunities, with no evidence on whether they conform to norms of practice. Although some organizations have created directories of STEGH programs, these are rudimentary and often lack sufficient information about program quality. This information gap also highlights the need for objective data on effective STEGH models that positively influence community health outcomes. Pouring resources into programs without transparency and quality improvement is not encouraged in any system. Effective deployment of online databases could allow the global health community to evaluate the ethics and sustainability of STEGHs. The first step to developing any such database would be for constituent stakeholders to identify best practices for which data can be collected and analyzed against defined metrics, supported by medical education and global health funders.

Standards. STEGH practices should conform at minimum to defined quality standards established by regulators in the origin HIC, and must not be promoted as an opportunity to advance trainees’ procedural skills or function clinically with reduced supervision. Local mentors of clinical activities during STEGHs should be compensated or otherwise recognized for their contributions to participants’ education. Refinement of standards informed by data and assessment processes will act as a benchmark on which STEGHs can be measured. Programs that fail to meet expectations should not be supported by any stakeholder to continue without targeted improvements toward adherence with defined principles.

Bidirectionality. Identifying all stakeholders in STEGH opportunities is critical to avoid exacerbating existing inequalities within and between communities abroad, and between the host LMIC and sending HIC. Relevant models can be found in the community-based/community-driven and community engagement development literature. There should be explicit expectations by all parties through a memorandum of understanding, which should also include a timeline for sustainability, clarity of financial obligations and resource allocation, and mechanisms for conflict resolution.

Curriculum. Organizations and institutions sending trainees on STEGHs should define formal global health curricula, including competencies, predeparture training, on-site orientation, and cross-cultural effectiveness/cultural humility education for participants, along with robust postreturn evaluation and debriefing mechanisms. Where possible, STEGHs should be embedded into broader international development efforts; this focus necessitates faculty development on community-based education principles.

Ethics. At all times, STEGHs should respect local laws, and focus as identified by local community partners, and should remember that broader ethical principles extend beyond international boundaries.

Conclusions: STEGHs Moving Forward

Growing interest in STEGHs should be channeled into interventions and programs demonstrated to be useful in improving global health and educating about complex determinants of health. To accomplish this improvement, the discourse around program implementation should refocus on STEGHs’ impact on host communities, as well as the limitations of short-term trainee activities and necessity of longitudinal institution-level engagement. STEGHs must address, rather than perpetuate, underlying power imbalances, ethical pitfalls, resource differentials, and inequities that the global health movement seeks to eliminate. These principles must be consistently applied to capture the enormous potential of STEGHs to nurture globally engaged health professionals and institutional partnerships necessary to achieve global health targets and reduce health disparities locally and globally.

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References

Global Health Training
Ethics and Best Practice Guidelines for Training Experiences in Global Health

John A. Crump, and Jeremy Sugarman, and the Working Group on Ethics Guidelines for Global Health Training (WEIGHT)†
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Abstract. Academic global health programs are growing rapidly in scale and number. Students of many disciplines increasingly desire global health content in their curricula. Global health curricula often include field experiences that involve crossing international and socio-cultural borders. Although global health training experiences offer potential benefits to trainees and to sending institutions, these experiences are sometimes problematic and raise ethical challenges. The Working Group on Ethics Guidelines for Global Health Training (WEIGHT) developed a set of guidelines for institutions, trainees, and sponsors of field-based global health training on ethics and best practices in this setting. Because only limited data have been collected within the context of existing global health training, the guidelines were informed by the published literature and the experience of WEIGHT members. The Working Group on Ethics Guidelines for Global Health Training encourages efforts to develop and implement a means of assessing the potential benefits and harms of global health training programs.

PREFACE

Educational institutions, foundations, and governmental and non-governmental organizations have shown a growing interest in applying their technical expertise, energy, talent, research capability, and resources to addressing global health challenges and disparities. Students increasingly request global health content in curricula and often wish to experience global health challenges firsthand. Accordingly, global health educational programs frequently include field experiences that often involve crossing international borders and during which trainees often encounter ethical challenges related to cultural and professional differences.

Health science students participating in global health field experiences have been shown to be more likely to care for the poor and ethnic minorities, to change focus from sub-specialty training to primary care medicine, to report improved diagnostic skills, and to express increased interest in volunteerism, humanitarianism, and public health. For these and other trainees, such experiences may form the foundations for a career focused on or oriented toward global health or may help them to decide against such a career. By offering short-term global health field experiences, sending institutions may strengthen their position to recruit trainees interested in global health and to benefit from the appeal of such programs to funders and philanthropists.

Because global health is inherently interdisciplinary and multidisciplinary, students from a growing range of disciplines directly and indirectly related to health seek training in short-term experiences. Students also represent a range of levels and experience and may include undergraduate students, graduate students, and faculty wishing to expand their work into the global health arena. Bi-directional exchange programs offer trainees the opportunity to experience health issues in each other’s environments. Experiences may vary in duration from as short as a few days to as long as 12 months and may vary considerably in quality. The goals of training experiences also vary; some can be viewed as training opportunities for the primary benefit of the trainee, whereas others claim to provide some form of service to the host or may involve research. However, little is known about the benefits and unintended consequences of global health training experiences to host institutions and host trainees and, if a component of service is anticipated, whether benefit is realized and at what cost. Although global health training that benefits the trainee at the cost of the host is clearly unacceptable; mutual and reciprocal benefit, geared to achieving the program goals of all parties and aiming for equity, should be the goal. Exploitation of one partner for the benefit of another must be avoided.

Although global health training experiences offer potential benefits to trainees and to sending institutions and appear to be growing rapidly in scale, these experiences are sometimes problematic and raise ethical challenges. Such challenges include substantial burdens on the host in the resource-constrained setting; negative impact on patients, the community, and local trainees; unbalanced relationships among institutions and trainees; and concerns related to sustainability and optimal resource utilization. Although considerable attention has been given to ethical issues surrounding research conducted across international borders and under circumstances...
of unequal wealth or power, much less attention has been given to the ethical issues associated with education and service initiatives of global health programs and no formal ethical guidelines are available for global health training experiences. To develop ethics and best practice guidelines, we formed the Working Group on Ethics Guidelines for Global Health Training (WEIGHT). The WEIGHT members were selected by JAC and JS through a process of consultation with leaders in global health and ethics. The goal was to select members with experience and expertise with global health training and ethics from a range of perspectives and geographic locations. Of 13 initial membership invitations, 10 (77%) accepted. Those who declined were replaced by persons with similar expertise and experience to create a balanced membership.

GUIDELINE DEVELOPMENT PROCESS

The international, peer-reviewed literature was searched for publications relevant to ethics of global health training and a paper was published raising ethical concerns for global health training experiences. A comprehensive accounting for costs associated with programs; the goal of mutual and reciprocal benefit; the value of long-term partnerships for mitigating some adverse consequences of short-term experiences; characteristics of suitable trainees; the need to have adequate mentorship and supervision for trainees; preparation of trainees; trainee attitudes and behavior; trainee safety; and characteristics of programs that merit support by sponsors.

To refine the guidelines, WEIGHT encourages work aimed at developing and implementing means of assessing the potential benefits and harms to institutions, personnel, trainees, patients and the community in host countries of global health training programs.

SUMMARY POINTS

- Academic global health programs are growing rapidly in scale and number.
- Global health curricula often include field experiences that involve crossing international and socio-cultural borders.
- Although global health training experiences offer potential benefits to trainees and to sending institutions, these experiences are sometimes problematic and raise ethical challenges.
- The Working Group on Ethics Guidelines for Global Health Training (WEIGHT) developed a set of guidelines for institutions, trainees, and sponsors of field-based global health training on ethics and best practices in this setting.
- The WEIGHT guidelines address the need for structured programs between partners; the importance of a comprehensive accounting for costs associated with programs; the goal of mutual and reciprocal benefit; the value of long-term partnerships for mitigating some adverse consequences of short-term experiences; characteristics of suitable trainees; the need to have adequate mentorship and supervision for trainees; preparation of trainees; trainee attitudes and behavior; trainee safety; and characteristics of programs that merit support by sponsors.
- To refine the guidelines, WEIGHT encourages work aimed at developing and implementing means of assessing the potential benefits and harms to institutions, personnel, trainees, patients and the community in host countries of global health training programs.

SCOPES OF THE GUIDELINES

The guidelines are structured to address the multiple stakeholders involved with global health training experiences. The main stakeholders are host institutions, including program directors, mentors, other faculty, and support staff based at the receiving institution; trainees both foreign and local; sending institutions, including program directors, mentors, administrators, and managers; patients and the community at the host site; sending countries, including committees or councils responsible for medical and research ethics, and other health professional education; and sponsors of global health training. The guidelines are designed to apply to multiple levels of trainees, including undergraduates, graduate and medical students, postgraduate students, and others such as faculty or other professionals seeking to apply or expand their skills in the global health arena. Although the guidelines are predominantly focused on ethical issues for programs sending trainees from wealthier to less wealthy settings, many of the principals also apply to bi-directional trainee exchanges. The guidelines encompass the multiple disciplines and multiple activities that take place under the umbrella of global health including in the clinical, public health, research, and education arenas. Although these guidelines were developed in response to the global health activities of educational institutions, the principles are applicable and adaptable to informal programs and individual global health efforts. They also apply to programs of varying duration, while recognizing that duration can affect the nature of issues encountered. Although the guidelines can apply to exchange programs locally and internationally, they are not intended to address ethics issues encountered during long-term (> 1 year) global health service or by experts providing technical assistance. The WEIGHT recognizes that the evidence available to inform the guideline development process was limited and expects that the proposed approach to global health training will be refined in the future as new data are accumulated.

GUIDELINES

**Sending and host institutions.** Well-structured programs seem to be the optimal means of ensuring optimal training programs in global health. Developing and maintaining well-structured programs generally involves a sustained series of communications and seems to have a common set of attributes as listed below, and may include clear delineation of roles and responsibilities of all parties, budgets, duration of attachments, participation in and distribution of written reports, and other products. We recommend that sending and host institutions should do the following:

1. Develop well-structured programs so that host and sender as well as other stakeholders derive mutual, equitable benefit including:
   a. Discuss expectations and responsibilities of both host and sending institutions and agree on terms before program implementation; the terms may be outlined within a memorandum of understanding. Revisit the expectations and responsibilities on a periodic basis;
b. Consider local needs and priorities regarding the optimal structure of programs;
c. Recognize the true cost to all institutions (e.g., costs of orientation, insurance, translation, supervision and mentoring, transportation, lodging, health care, administration) and ensure that they are appropriately reimbursed;
d. Aspire to maintain long-term partnerships so that short-term experiences may be nested within them; and
e. Promote transparency regarding the motivations for establishing and maintaining programs (e.g., to meet an educational mission, to establish a relationship that might be used to support research, to meet student need) and identifying and addressing any conflicts of interests and conflicts of obligations (e.g., to local patients, communities, or local trainees compared with the global health trainees) that may result from such a program.
2. Clarify goals, expectations, and responsibilities through explicit agreements and periodic review by
a. Senders and hosts;
b. Trainees and mentors; and
c. Sponsors and recipients.
3. Develop, implement, regularly update, and improve formal training for trainees and mentors, both local and foreign regarding material that includes:
a. Norms of professionalism (local and sending);
b. Standards of practice (local and sending);
c. Cultural competence, e.g., behavior (local and sending) and dealing effectively with cultural differences;
d. Dealing appropriately with conflicts (i.e., professionalism, culture, scientific and clinical differences of approach);
e. Language capability;
f. Personal safety; and
g. Implications of differential access to resources for foreign and local trainees.
4. Encourage non-threatening communication to resolve ethical conflicts as they arise in real-time and identify a mechanism to involve the host and sending institutions when issues are not readily resolved.
5. Clarify the trainees’ level of training and experience for the host institution so that appropriate activities are assigned and patient care and community well-being is not compromised.
6. Select trainees who are adaptable, motivated to address global health issues, sensitive to local priorities, willing to listen and learn, whose abilities and experience matches the expectations of the position, and who will be good representatives of their home institution and country.
7. Promote safety of trainees to the extent possible (e.g., vaccinations, personal behaviors, medications, physical barriers, security awareness, road safety, sexual harassment, psychological support, insurance and knowledge of relevant local laws).
8. Monitor costs and benefits to host institutions, local trainees, patients, communities, and sponsoring institutions to assure equity.
9. Establish effective supervision and mentorship of trainees by the host and sending institution, including the selection of appropriate mentors and supervisors and facilitating communication among them.
10. Establish methods to solicit feedback from the trainees both during and on completion of the program, including exit interviews, and track the participants post-training to evaluate the impact of the experience.

Trainees. Trainees themselves play an important role in the quality of global health experiences. It is essential that trainees understand their responsibility in this regard, not only to ensure their personal experience is a good one, but that their actions and behaviors can have far-reaching and important implications. To help meet such responsibilities, we recommend that trainees should do the following:

1. Recognize that the primary purpose of the experience is global health learning and appropriately supervised service. The duration of the training experience should be tailored so that the burden to the host is minimized.
2. Communicate with their local mentor through official channels regarding goals and expectations for the experience before the training, and maintain communication with mentors throughout the experience.
3. Learn appropriate language skills relevant to the host’s locale as well as socio-cultural, political, and historical aspects of the host community.
4. Seek to acquire knowledge and learn new skills with appropriate training and supervision, but be cognizant and respectful of their current capability and level of training.
5. Participate in the process of communicating to patients and the community about their level of training and experience so that appropriate activities are assigned and patient care and community well-being is not compromised.
6. Recognize and respect divergent diagnostic and treatment paradigms.
7. Demonstrate cultural competency (e.g., personal dress, patient privacy, culturally appropriate and inappropriate gestures, gender issues, traditional beliefs about health, truth telling, social media) and engage in appropriate discussions about different perspectives and approaches.
8. Take measures to ensure personal safety and health.
9. Meet licensing standards, visa policies, research ethics review, training on privacy and security of patient information, and other host and sending country requirements.
10. Follow accepted international guidelines regarding the donation of medications, technology, and supplies.
11. If research is planned as part of the training experience, develop the research plan early and in consultation with mentors, focus on research themes of interest and relevance to the host, understand and follow all research procedures of the host and sending institution, obtain ethics committee approval for the research before initiation of research, and receive appropriate training in research ethics.
12. Follow international standards for authorship of publications emanating from the global health experiences and discuss these issues and plans for presentations early in collaborations.
13. When requested, be willing to share feedback on the training experience and follow-up information on career progression.
14. When seeking global health training outside of a well-structured program, potential trainees should follow the guidelines for institutions (above) so as to maximize the benefits and minimize potential harms of such training experiences.
**Sponsors.** Sponsors of global health training programs understandably desire high quality experiences for trainees as well as minimizing any potential adverse consequences related to programs they support. By requiring recipients to be involved with high quality global health training programs as a condition of receiving funds, sponsors can play an important role in creating and maintaining such programs. Where practicable, we recommend that sponsors should do the following:

1. Promote the implementation of these guidelines.
2. Consider local needs and priorities, reciprocity, and sustainability of programs.
3. Ensure that the true costs are recognized and supported (e.g., costs of orientation, insurance, translation, supervision and mentoring, transportation, lodging, health care, administration, monitoring and evaluation).
4. Execute explicit agreements with recipients, with periodic review, to help clarify goals, expectations, and responsibilities.
5. Aim to select trainees who are adaptable, motivated to address global health issues, sensitive to local priorities, willing to listen and learn, whose abilities and experience match the expectation of the position, and who will be a good representative of their home institution and country.
6. Promote safety of trainees to the extent possible (e.g., vaccinations, personal behaviors, medications, physical barriers, security awareness, road safety, sexual harassment, psychological support, insurance, and knowledge of relevant local laws).
7. Encourage effective supervision and mentorship by the host and sending institution.
8. Require that sponsored programs comply with licensing standards, visa policies, research ethics review, training on privacy and security of patient information, and other host and sending country requirements.
9. Encourage the collection and evaluation of data on the impact of the training experiences.

**CONCLUSIONS**

Global health training programs are associated with a range of ethical issues for all stakeholders. These ethics and best practice guidelines set out a range of measures designed to minimize the pitfalls of such programs. It is hoped that these guidelines will be used to reassess and improve existing programs, be applied in the design of new programs, and, where necessary, promote the discontinuation of programs or activities that cannot meet best practices described in these guidelines.

Although these guidelines are based on a range of published data and the unpublished experience of WEIGHT members in consultation with stakeholders, they have limitations. The principal limitation is the lack of available systematic data collected within the context of existing global health training programs reflecting the scope of programs and challenges experienced by partners. WEIGHT encourages work aimed at developing and implementing means of assessing the potential benefits and harms to institutions, personnel, trainees, patients, and the community in host countries of global health training programs. Data from such assessments would inform and support future refinement of these guidelines. Although efforts were made to ensure that WEIGHT represented a range of perspectives and geographic locations, membership could be further expanded to include other groups such as trainees.

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**REFERENCES**

Forms

* Return all to Ron Pettigrew
at least 8 weeks prior to travel *
EMERGENCY CONTACT INFORMATION
IU-MOI UNIVERSITY PROGRAM

Name (Last, First) ______________________ Dates in Eldoret ________________

Passport Number ______________________ Place of Birth ______________________ Date of Birth ________________

Date Issued ______________________ Place Issued ______________________

PRESENT ADDRESS: Street, Apt. No., Etc.

City/State/Zip ______________________ Telephone ______________________ Email ______________________

Pager ______________________ Cell Phone ______________________

NEXT OF KIN: Name ______________________ Relationship ______________________

Street Address ______________________

City/State/Zip ______________________ Home Telephone ______________________

Office Telephone ______________________

Cell or Pager ______________________

NAME OF PERSON/S TO NOTIFY IN CASE OF EMERGENCY (if other than person listed above)

NEXT OF KIN: Name ______________________ Relationship ______________________

Street Address ______________________

City/State/Zip ______________________ Home Telephone ______________________

Office Telephone ______________________

Cell or Pager ______________________
Vehicle Use Policy in Kenya

The policies of Indiana University prohibit travel in 12-15 seat vans anywhere in the world. IU’s policy is very clear: 12-passenger and 15-passenger vans will not be used by any Indiana University personnel (faculty, staff, or student).

Furthermore, any person found in violation of this policy is subject to the university's disciplinary policies. In addition, any person who violates this policy will be deemed to be acting outside the scope of the Trustees Officer's Liability Insurance policy. In the event of a claim or suit arising from an accident involving the use of a 12-passenger or 15-passenger van employees and/or agents in violation of this policy will not be indemnified.

If a 12 or 15 passenger van arrives to transport me and/or any of my fellow travelers while I am in Kenya and participating in any IU Kenya elective or program, I will make other arrangements for transportation. I understand that the IU Kenya program will either cover the costs of alternative transportation or reimburse me for the costs of acquiring an alternative form of transportation to the 12-passenger or 15-passenger van option (receipt required).

IU House policy also prohibits the use of or riding of motorcycles (piki piki), bicycles (boda boda) or 3-wheel taxis (toot toot) for any transportation anywhere in Kenya.

I have read these policies and agree to comply.

Printed Name: __________________________________________

Signature: __________________________________________

Date: __________________________
The Rules and Regulations regarding all IU House guests are few, but important. Please read and sign this document in the space indicating acknowledgment that you are aware of and agree to these rules and regulations. IU House is a communal living facility provided by Indiana University offering a temporary home and safe haven for medical faculty, medical residents, medical students and other affiliates of Indiana University and its AMPATH Consortium. IU House is also the home for several long-term faculty personnel providing oversight and consistency to the mission of the IU-Kenya partnership. In order to maintain a friendly and coherent supportive atmosphere, specific rules and regulations are provided to ensure a safe atmosphere and contribute to the positive experience of all visitors to IU House.

1) Guests are allowed on the compound when accompanied by house guests. A special sign-in sheet must be completed and maintained by the guards for each visitor. Each visitor is responsible for the behavior of their own guest. All guests are welcome to visit IU House guests within the confines of the IU House common areas, but guests are NOT allowed in the personal living spaces at IU House after 10 PM.

2) Dress Code Policy:
   a.) At hospitals and clinics:

   In general, Kenyans wear professional business attire in the hospital setting. All visitors should strive to dress in a similar fashion. White coats are worn by all medical providers unless the provider is a consultant/attending and is instead wearing a suit.

   Females: Pants and shirts are acceptable for most wards and clinics. Some wards and supervisors prefer that women wear skirts. All skirts should have a length below the knees. When going into the field, a long skirt/dress may be more acceptable as it is what women traditionally wear. Please avoid wearing any items that may be considered revealing when at work or in rural areas. This includes exposed shoulders, low necklines, and skirts above the knee.

   Males: Men are expected to wear dress pants, shirts, and ties at MTRH hospital. Clinic settings may not require men to wear ties.

   All clothes should be in good condition and pressed.

   b.) When outside of the hospital:

   Kenyans wear a wide variety of clothing, which is very dependent on location. Dress in cities is less conservative than in rural areas. When traveling outside of Eldoret for work or pleasure, effort should be made to dress conservatively including nothing showing bare shoulders or more than two inches above the knees. Of note, shorts are not worn by adults in Kenya except when
participating in a physical activity. Even then it is best to reserve shorts to the football field.
Runners on the roads wear long or ¾ length running pants. Visitors should make efforts to
practice cultural sensitivity in regards to their dress while in Kenya.

3) Matatus may not be used at ANY time by any IU House guest.

4) Boda bodas may not be used at ANY time by an IU House guest. Personal bikes are only allowed
for people here on a long-term basis after discussing with a team leader and signing the bicycle
policy.

5) Motorcycles may NEVER be ridden by any IU House guest.

6) Commercial busses may be used, but each traveler accepts personal responsibility and
understands the risks associated with public transportation.

7) No guest may walk alone after dark outside of the IU House compound.

8) Students must use a personal taxi after dark to return or leave the hostel.

9) The Team Leaders (Matthew Turissini, John Humphrey, Connie Keung) and Dunya Kamara must
be informed of all extra excursions or safaris planned by visitors at least 2 days in advance of the
safari.

a.) While excursions to Uganda are not prohibited, they are strongly discouraged due to
the risk of severe injury or death rafting Class 5 rapids.

b.) Parasailing is strongly discouraged and frowned upon. If you do elect to participate
in this non-approved activity, please show proof of insurance coverage to Team
Leader, Executive Field Director and Program Administrator (Dunya) prior to making
arrangements.

c.) Extreme sports riders should be obtained to cover activities including but not
limited to: White Water Rafting, Bunjee jumping, Paragliding, etc. IU House will not
require an extreme sports rider, but recommends the purchase of said rider if the
guest anticipates participating in any risk-taking activities beyond those covered by
standard evacuation insurance.

10) All visitors are expected to plan any daytime travel to allow for return to IU House before 7:00
PM. If return is expected after 7:00 PM., the visitor must contact the on-call staff member to
inform him/her of the expected time of arrival. A decision will be made whether or not the
journey should continue or overnight accommodations be made.

11) Kenya Office personnel will provide a list of drivers and safari companies that been vetted by
AMPATH. IU House does not endorse any driver or safari company. Safari drivers must be made
aware of the rules regarding curfew at IU House. Rates for travel should be negotiated with the
driver/company.
12) All room & board fees are expected to be paid to the Program Manager prior to the visitor’s departure for Kenya.

13) All visitors are expected to share room facilities at IU House.
   a. Meals are available at IU House according to the following schedule:
      i. Breakfast (on your own in the IU House dining room) Sunday-Saturday
      ii. Lunch M-F
      iii. Dinner Sunday-Thursday

14) Food contained in the pantry is NOT available for consumption away from IU House. No guest is allowed to take pantry food for weekend safaris. Pantry food is not available to any guest unless (s)he is preparing a meal during times when IU House has not provided a meal (Wednesday evening, Friday evening, Saturday, Sunday lunch). This rule shall not apply if the guest arrives after a meal that has been served and subsequently removed by kitchen staff due to the lateness of the hour (after 8 PM).

15) IU House cooks do not prepare meals for Wednesday, Friday or Saturday evening dinners, or for Saturday and Sunday lunch. However, Wednesday dinner is provided either at IU House or a local restaurant where all guests are invited.
   a. Food is available in the IU House kitchen and may be prepared by each individual for meals that are not prepared by IU House cooking staff.
      i. Specific foods may be requested for self-preparation by contacting the Program Administrator with at least 24 hours notice.
      ii. Requested food will be purchased and made available to replace any meals not prepared by IU House cooking staff.
   b. Due to the availability of food for self-preparation, any meals eaten away from IU House at any time are not included in the Room & Board Fee.

16) Occupancy at IU House is a privilege and is offered on a space available basis only.

17) Interaction with Kenyan counterparts is encouraged, particularly on weekends when specific hospital duties are not expected to occur.

18) Each individual at IU House is looked upon to be a true role model representing not only IU but their own respective institution. Cultural mores are expected to be observed and diligence toward understanding cultural differences is encouraged.

It is understood that the Team Leader and Executive Field Director have final authority about the discipline of each of these rules and regulations and may decide to expel any person from the program if these rules and regulations are not followed. Team Leaders may elect to inform faculty and/or the Associate Executive Director/Associate Program Manager of any incident or behavior that may jeopardize the individual, program, or institution.
I certify that I have read and understand the rules as outlined above. I absolve Indiana University, IU House personnel, and IIGH, Inc. of any responsibility should I not follow these rules and understand that I may be expelled from the compound and the program if I choose to disregard these regulations.

Name_________________________________________  Date: __________________________

Signature: ______________________________________________________________________
Indiana University Students Intending to Study in Kenya
2018-2019 Liability Waiver

I hereby acknowledge that I have read the Overall Crime and Safety Situation as well as the U.S. Department of State Travel Warning regarding travel to Kenya by United States citizens at:


and that in spite of such warnings I have made the decision to travel to Kenya for an educational program abroad in 2018-2019 semester as a registered Indiana University student.

I understand that I am solely responsible for my safety. I agree to exercise my best judgment and to follow the advice of my program organizers, both at IU and abroad, but I recognize that in spite of such advice, no one can guarantee my safety.

Further, I recognize that should I decide to come home before the end of the semester because of security concerns there is no guarantee that I will receive credit or a refund of tuition or any other fees paid for the program.

______________________________   __________________
Student Signature     Date

______________________________
Student Name Printed
Each year a number of students and residents participate in credit-bearing activities outside of the United States as both organized courses and independently arranged experiences. In many cases, the countries where these activities take place present a variety of challenges and risks to students for which they may not be prepared. These risks include unfamiliar cultures and languages, political instability, and infectious diseases and other health hazards that are uncommon in the United States.

To assist students in preparing for these eventualities, the Indiana University School of Medicine requires that all students enrolled in a credit-bearing course or independent activity with an international component perform the following prior to departure from the United States:

1. Participate in a course, seminar series, or supervised self-study for cultural orientation and preparation for the trip.

2. Register online at www.iabroad.iu.edu and complete all materials at least two months prior to departure.

3. Complete (if required) any documents required for permission to practice medicine in a foreign country at least three (3) months before your departure date.

4. Obtain medical travel advice and immunizations appropriate for the country to which travel is planned at least three (3) months before your departure date. Insure that arrangements have been made for flights with Jambojet or Fly540 airlines for mandatory flight to Eldoret.

5. Obtain medical/accident insurance which includes provision for emergency evacuation to a United States medical facility Provide proof of special evacuation insurance offered by MNUI (www.mnui.com), SOS (www.sosinternational.com), IUPUI Office of International Affairs, or your personal insurance carrier to Ron Pettigrew at least 2 months before departure.

6. Prepay room and board costs at least 1 month before your departure date to Ron Pettigrew. Check should be made payable to Indiana Institute for Global Health, Inc.

7. Designate persons in the United States who may be contacted in the event of an emergency and return form to Ron Pettigrew at least two months before your departure date.

8. Abide by all program expectations and rules or decisions established by the Kenya Program Manager and/or Professor of Clinical Medicine, understanding that failure to comply may result in failure to receive academic credit and/or involuntary repatriation to the United States.

Completion of these steps is the responsibility of the individual student or resident and not that of Indiana University School of Medicine.

I, __________________________________________, have read and understand the above guidelines. I further understand that the decision whether to undertake study abroad is mine alone, and Indiana University School of Medicine bears no responsibility for health or safety risks presented by such study.

(Signed)_________________________________ Date_________________
PHOTO

REPUBLIC OF KENYA
THE MEDICAL PRACTITIONERS AND DENTISTS ACTS
(NO.20 of 1977)
APPLICATION FOR TEMPORARY LICENCE FOR FOREIGN DOCTORS

1. Surname ............................................................... Other Names ..........................................................

2. Date of Birth ............................................................ Nationality ...............................................................

3. Address ........................................................................ Code ................................................ Town ................. Tel ..............................................

4. Email ........................................................................

5. Degree, Diploma or Licence held (provide official translation)
..............................................................................................

6. Name of medical/dental school ........................................ Dates qualified ..........................................................

7. Particulars of Experience (e.g. posts held, type of practice in which the applicant has been engaged, countries in which the applicant has practiced):
..............................................................................................

8. Testimonials Covering the Period(s) of Experience
..............................................................................................

9. Name of employer ......................................................... Address ................................................................. Code ..........................................................

.............................................................. Tel No ..........................................................

10. Is this New Application or Renewal? .......................... Licence No ..........................................................

Requirements
(i) Copy of ID/Passport
(ii) Coloured passport size photo
(iii) Certified copies of professional certificates and transcripts
(iv) Certificate of Status
(v) Introduction letter/job offer from the institution
(vi) Copy of registration certificate from respective medical Board/Council
(vii) Copy of current/practice licence
(viii) Copy of current CV
(ix) Licence fee Kshs.20,000.00
(x) All payments should be made at any KCB Branch countrywide to Board’s account No. 1103158643, Milimani Branch.

I hereby certify that the above information is correct to the best of my knowledge and I have met the above requirements.
Signature of applicant ........................................................................................................ Date ..........................................................

FOR OFFICIAL USE
The process will take a maximum of two weeks.

PREPARED BY: -  

Name: ........................................ Designation: ................................................

Signature: ........................................ Date: ................................................

CHECKED BY: -  

Name: ........................................ Designation: ................................................

Signature: ........................................ Date: ................................................

APPROVED/NOT APPROVED

Name: .................................................................

Designation: .................................................................

Signature: ........................................ Date: .................................................................
Kenya Participant Agreement 2018-2019

Name: ______________________________________________________________

____ I attended the May 3, 2018 orientation session.
____ I attended the May 17, 2018 orientation session.

Medical students only

____ I acknowledge that I will live at least half my time in Kenya at the hostel.
____ I acknowledge that the hostel may not always have running water, working toilets, electricity, or be free of rodents or insects.
____ I acknowledge that I need to tell Ron or Jenny 6 months in advance if interested in spending time on OBGYN or Surgery.
____ I acknowledge that I am required to submit an 8-page reflection paper, a 2-page journal article analysis or book review, AND a case log within 3 weeks of returning from Kenya. I am aware my grade cannot be issued without these requirements being met.

Residents only

____ I acknowledge that I am required to submit a 3-page reflection paper AND a 2-page journal article analysis or book review within 3 weeks of returning from Kenya. I am aware my course evaluation cannot be issued without these requirements being met, and I am aware that my program may require these to be submitted before travel money is reimbursed.

Everyone

____ I have access to the Kenya Rotation Canvas site.
____ I have access to the orientation manual on the Canvas site.
____ I have read and understand the vacation policy. I acknowledge that I will be required to change my flights at my own personal cost if I purchase tickets that do not allow me to be in Kenya for the time required.
I acknowledge that I am expected to work at least two weekend days in Kenya.

I have received a malaria prophylaxis prescription or have declined a prescription.

I have been counseled on the personal health risks in Kenya and ways to prevent them including HIV post-exposure protocols.

I am aware I need to have a PPD placed 3 months after I return.

I acknowledge the risks of traveling to a Zika-endemic area, especially for pregnant women and both men and women who may become pregnant.

I acknowledge that there is an optional but encouraged monthly refresher orientation every month on the 3rd Thursday from 4-5PM in the Rotary building, room 101.

I acknowledge that I am required to present for a debriefing session after return from Kenya. The dates of the debriefing sessions will be emailed several months in advance.

I am aware I will be educated on the rules of living at IU House when I arrive in Kenya and will comply with them or be asked to return home.

I am aware I can email or call Jenny, Ron, or the team leaders at any time while in Kenya, before, or after with any clinical, personal, or programmatic issues.

I acknowledge this is an amazing opportunity and I am so excited to go! Hurray!

Signature: ___________________________________________ Date: ________________