

University of Washington

DEPARTMENT OF GLOBAL HEALTH



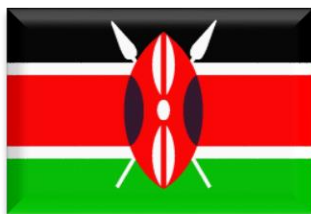
GHCE

Global Health Clinical Elective



2020

GUIDE TO YOUR CLINICAL ELECTIVE IN



Naiivasha, KENYA

Disclaimer:

This booklet is provided as a service to UW students going to Kenya, based on feedback from previous students. The Global Health Resource Center is not responsible for any inaccuracies or errors in the booklet's contents. Students should use their own common sense and good judgment when traveling, and obtain information from a variety of reliable sources.

TABLE OF CONTENTS

CONTACT INFORMATION.....	4
THE BASICS	6
Rotation Basics	6
Flight Arrangements	6
Visa & Student Permit.....	6
Money	6
Housing	7
Transportation	7
Communication	7
Prices and Tipping.....	8
Weather	8
Clothing.....	9
What to Bring	10
BACKGROUND.....	11
History	11
Culture	12
Language	12
Health Care.....	12
Naivasha County Referral Hospital.....	13
The Clinical Rotations.....	14
SAFETY AND HEALTH	16
Safety and Security.....	16
Health	17
Traveler's Insurance	18
Emergency Information.....	19
FUN THINGS TO DO	20
Naivasha	20
Parks/Safaris	23
Safari Tips	24
Kenyan Coast	24
Nairobi.....	24
Reading List	25
CULTURAL ADJUSTMENT.....	26
Guidelines for Management of Body Fluid Exposures.....	28
Kenya Map.....	32

CONTACT INFORMATION

U.S. CONTACTS

	Name	Address	Telephone	Email or Website
UW International Emergency #	In case of emergency: 1. Notify someone in country 2. Notify CISI (see below) 3. Call 24-hr hotline 4. May call Scott/McKenna		+1-206-632-0153 (24-hr hotline)	www.washington.edu/globalaffairs/emergency/ dbrencic@uw.edu travelemergency@uw.edu
GHCE Director(s)	Dr. Scott McClelland Dr. McKenna Eastment		+206-473-0392 (cell, Scott) 001-254-731-490115 (Kenya, Scott)	mcclell@uw.edu mceast@uw.edu
GHRC Director	Daren Wade	Harris Hydraulics Building, Room #310A 1510 San Juan Road Seattle, WA 98195	+1-206 685-7362 (office) +1-206 685-8519 (fax)	dghsom@uw.edu ghrc@uw.edu dwade@uw.edu
Insurance	CISI		24/7 call center available at 888-331-8310 (toll-free) or 240-330-1414 (accepts Collect calls)	ops@us.generaliglobalassistance.com
Hall Health Travel Clinic	Anne Terry, MN, ARNP	315 E. Stevens Circle Box 354410 Seattle, WA 98195	+1-206-543-8915 +1-206-685-1011	travel@uw.edu
Post-Exposure Prophylaxis	Harborview Madison Clinic	325 Ninth Ave Box 359930 Seattle, WA 98104	1-888-448-4911 (CDC hotline) +1-206-744-5100 (clinic)	
Kenya Embassy in US	Kenya Embassy Washington DC	2249 R St NW Washington, DC 20008	202-387-6101 (Tel) 202-462-3829 (Fax)	http://www.kenyaembassydc.org/ information@kenyaembassydc.org
Previous Site Attendees (2019)	Amanda McCormick (Johnson)			amlejo@uw.edu

The following is a brief manual that will provide answers to frequently asked questions. Please feel free to contact your mentor for more information.

Core Kenya Program Faculty Contacts

Carey Farquhar, MD, MPH
Vice Dean for Education, School of Public Health
Professor, Departments of Global Health, Medicine, and Epidemiology
University of Washington
Email: cfarq@uw.edu
Work: 206-542-4278

Judd Walson, MD, MPH
Vice Chair, Department of Global Health
Professor, Departments of Global Health, Medicine (Infectious Disease), Pediatrics, and Epidemiology
University of Washington
Email: walson@uw.edu
Work: 206-744-3695

Staff Based in Kenya

Collette Abbott, MD
CEPI Chief Resident of Global Health
Department of Internal Medicine
Naivasha County Referral Hospital, Kenya
University of Washington

Email: ceabbott@uw.edu
US Cell/WhatsApp: +1-858-349-6748
Kenya Cell: +254-716-849-765

THE BASICS

1. ROTATION BASICS: You will do most of your work at Naivasha District Hospital during your rotation. The work week is Monday-Friday. Your typical day will be from around 8am-5pm. It is about a 20 minute walk from the house to the hospital. You will be able to take part in inpatient rounds, outpatient clinic, and community outreach clinics. There will be medical officer interns (MOIs), clinical officer interns (COIs), and medical officers (MOs) on all the specialties that can help with translation. Students will work with the current chief resident to put together a weekly schedule based on their interests and the availability of opportunities. Clinical rotations are usually 4-6 weeks, although can be longer. You may wish to consider adding some of your personal vacation onto your scheduled international trip, although if you do this you should make sure that your insurance will cover you for the additional time.

2. FLIGHT ARRANGEMENTS: Flights to Nairobi are expensive from the United States. Expect to pay anywhere from \$1300 to \$1800 for your roundtrip ticket. Remember to try different resources when purchasing your ticket, such as consulting a travel agent while also checking online fares. Several major airlines serve Nairobi from Seattle, including British Airways and KLM/Delta/Kenya Airways with stops in either London or Amsterdam, respectively. There is a direct flight with Kenya Airways from New York to Nairobi. You may be able to find a cheaper flight through Dubai, and if paying on personal funds (not NIH grant money), these are fine.

Travel to Naivasha: If your flight lands in the evening, you may spend the night in a guest house in Nairobi before taking a taxi to Naivasha the next day. Please communicate with your Naivasha contact to arrange a taxi driver from the airport to the guest house in Nairobi for the night, and a driver to bring you to Naivasha the next morning. Drivers usually pick up around 9 AM and you will arrive in Naivasha by noon. The Global Health Chief Resident will meet you in Naivasha and go through an orientation.

3. VISA & STUDENT PERMIT: Although a \$50 single-entry visa is available upon arrival at Kenyan airports, travelers to Kenya are highly recommended to apply for and receive an eVisa (<http://evisa.go.ke/evisa.html>) online prior to travel. The cost is \$50 plus a \$1 processing fee for a single entry tourist/business visa that is valid for 3 months. These visas are generally ready by departure if you apply at a minimum 1 week, preferably 2 weeks, before you leave. Once issued, the eVisa can be printed at home and brought with the traveler to be shown to passport control upon arrival in Nairobi. Of note, sometimes the website has issues with payment or processing; if this is the case, try again at a later date or with a different payment method.

Please note that as of January 2019, customs will give you a 30 day visa by default instead of a 90 day visa. On the e-Visa you receive, it will say that length of the visa will be determined when passing through customs in the airport. If you plan to stay > 30 days, just ask the agent for the full time you will be in country and show your return ticket. If you only get 30 days, no worries, the chief can arrange to make a day trip to Nairobi to extend the visa to 90 days.

4. MONEY: The currency in Kenya is the Kenyan shilling (KES). As of October 2019, the exchange rate is approximately 100 Kshs to \$1.00 USD. Bring your ATM card as it is the easiest and safest way to get shillings (some have gotten a Charles Schwab or Fidelity checking account for international travel as they have no foreign fees). There are ATM machines and Forex exchange in the Nairobi airport after going through passport control and customs. Your bank may provide foreign currency services; check with your bank directly. (AAA also provides this service for an added fee). Of note, some Forex bureaus and banks do not accept US bills older than year 2010 (older than 10 years) or bills with small blemishes, because older bills are harder to resell and have a lower exchange rate.

Consider bringing crisp \$100 USD bills to use on safaris and avoid credit card/ATM fees. Although many establishments accept credit cards, you should be aware that significant credit card fraud has occurred in Kenya over the last few years. If you do use your credit card, check your activity online frequently. Travelers are cautioned against doing any financial transactions via the web from internet cafes or public Wi-Fi hotspots. Remember to call your banks and credit cards before you leave to tell them to expect international transactions. Traveler's checks are very difficult to cash, and are NOT recommended.

5. HOUSING: You will live in a house with other UW students/residents who are doing electives in Naivasha. The house is gated and has a security guard 24 hours/day. It is furnished with beddings/linens, mosquito nets, and towels provided. There are two refrigerators, a microwave, clean water dispenser, flush toilets, and hot showers. Bring flip-flops for indoor/shower shoes. **Bring earplugs and/or white noise app to cope with the noise of barking dogs at night.** The house is located in a safe area of town and is a 20 minute walk from the hospital. The roads are rocky, so bring comfortable walking shoes.

There are multiple grocery stores in Naivasha, with a large one (Naivas) within easy walking distance from the hospital and house. Most food is cheaper than in the US, with the exception of "western" items like cereal and cheese. There are small fruit/vegetable stands next to the hospital where you can get the freshest and least expensive produce. You may order food via the app Jumia Foods which is like Uber Eats. It is not currently safe to drink the tap water in Kenya so all drinking water must be bottled. Some students/residents bring their favorite granola/power bars with them from home as these are expensive and difficult to obtain in Naivasha. You can hand wash your own laundry or pay to have your clothes hand-washed once weekly (300-500 Ksh per load). Clotheslines and clothespins are available at the house. There is also a dry cleaner at the small mall in town.

6. TRANSPORTATION: Buses and matatus (shared mini-buses) run along major routes throughout the country, and are cheap (KSh 20-250 per ride). You can ask around at the matatu stage to find out which matatus are going to your destination. There are rarely scheduled departure times; instead, matatu drivers wait for the van to fill before leaving. Ask other people getting on the matatu about the price before you get on since people may overcharge non-locals. Taxis are also easily available, and it is recommended you use drivers trusted by the program (see below). Nothing is metered except app-based taxis, so insist on negotiating and finalizing the fare before you get into the taxi. While in Nairobi and Mombasa, Uber is a safe, easy, and negotiation-free taxi ride option. In Naivasha, Wasili cab (similar to Uber or Lyft) is available.

A few safety tips:

--Don't board an empty matatu or bus. Wait for the next one.

--After nightfall, avoid public transportation and use taxis instead. UW residents have been using taxi driver Paul for several years in Naivasha; his cell number is 0721.641.066, and a list of his pre-negotiated prices are in the resident house. A newer, but wonderful Wasili driver with better prices that many residents have used in 2019 is Moses (0714.229.959).

--Riding a motorcycle is absolutely forbidden in Naivasha

7. COMMUNICATION: The best scenario is that if you have a smart phone, check with your carrier if it will work in Kenya (most newer ones do) and unlock it prior to your arrival. If you brought your own unlocked phone, the best opportunity to buy a 4G SIM card (50 Ksh) is from the Safaricom store in the airport (they will request both your original passport to verify your identity), as well as credits to buy airtime (can be used for either phone airtime or data). Two 1000 KSh scratchcards (one for voice, one for a data plan) should suffice to get you started and last 3+ weeks. The staff in the Safaricom store will install the SIM card for you, load airtime and internet bundle credits, and ensure your phone is working. Once activated, your home phone essentially works as

usual. There is internet at the Naivasha house, but you can use your phone as a WiFi hotspot for your laptop. The Chief Resident can easily send you additional data/voice as needed at a later time.

Former students have chosen the data plan with unlimited WhatsApp (and unlimited WhatsApp calls). The data will roll over 1 month if you get too much (15 GB for 2000 KSh had extra even after 2 months, so may purchase a little less). Ask to register for the M-PESA mobile money app when you get the SIM card. You can then use the WAVE app to transfer money from your bank account to M-PESA and never run out of cash.

WhatsApp is useful for texting your colleagues in Kenya **and** people back home, so it is advisable to install the app before you leave Seattle. Skype or Google hangouts are also useful (you can call 1-800 numbers on Skype for free). Many Kenyans prefer to use WhatsApp rather than standard text messaging (SMS) because it uses less air/data time. Both WhatsApp and SMS are less expensive than phone calls; placing calls costs money, but receiving calls is free. International calls on your cell phone are usually fairly cheap, less than \$0.10 per minute. FaceTime and iMessage are also free of charge (over Wi-Fi) to other iPhone users. There is Wifi available at the residents' house and at many local restaurants and resorts.

Telephone Instructions:

Kenya Country Code: +254

Dialing Instructions:

To US from Kenya: From a cell phone: +1, area code, number

Within Kenya: area code, number. Can also include +254, but remove '0'.

Example: 0729 048 847 is the same as +254 729 048 847

Time Zone: East Africa Time (EAT)

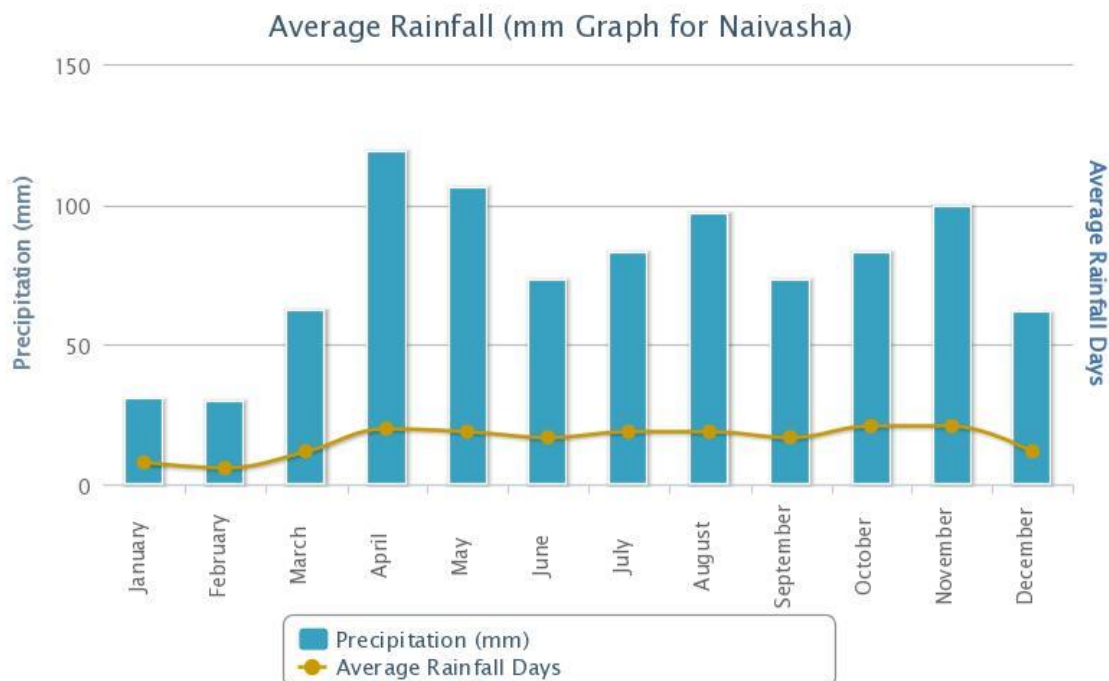
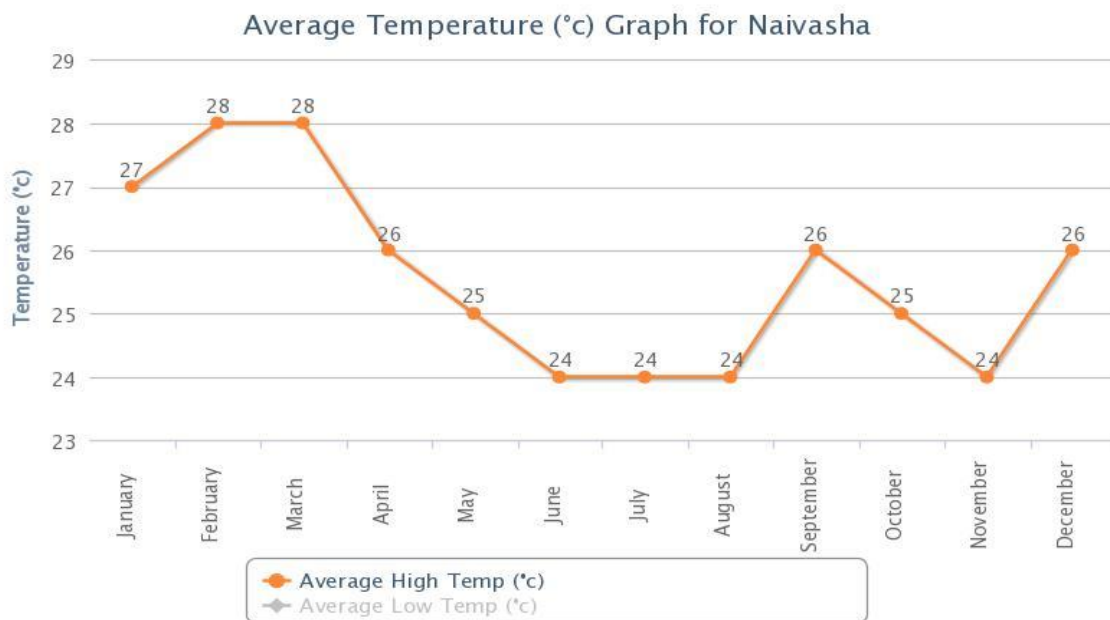
Time Difference to Seattle: 10 or 11 hours (depending on Daylight Savings Time)

March-November: 10 hour difference (12:00 noon in Seattle = 10:00pm in Nairobi)

November-March: 11 hour difference (12:00 noon in Seattle = 11:00pm in Nairobi)

8. PRICES AND TIPPING: Prices in Kenya can range anywhere from significantly cheaper than the US to significantly more expensive. For taxis, prices are roughly similar to what they would be for equivalent trips in the US. Always agree on the price before embarking. Once a price is agreed upon, there should be no additional charges. Do not pay for gas or a tip. Uber is easy and safe to use in Nairobi. If you get a non-Uber taxi ride – typical prices to negotiate are as follows: from the airport to central places in Nairobi (ACK guest house, Ngong Road) should be around KES 2000. For a 10-15 minute ride, KES 500 is reasonable. For a 30 minute ride, KES 1000 is reasonable. At upscale, touristy or expat-centered restaurants tipping is expected, and a 10% tip is adequate. For more local, cheap spots tipping is not expected, though always a welcome bonus and not a bad part of American culture to bring with you.

9. WEATHER: Naivasha typically experiences two seasons: Dry and Rainy. There are two distinct rainy seasons, with one being more significant than the other. Temperatures are generally warm but not hot, and much cooler at night.



10: CLOTHING: You should bring clothing that can be layered. Know that certain clothing is discouraged in most professional settings in Kenya. This includes sleeveless tops on men or skirts above the knees on women. The dress code in hospitals and clinics is dressy casual. Men should wear button down shirts with slacks (ties are optional), and women can wear a nice top with pants or skirts that are at least knee-length. Basically, professional dress in the hospital is the same as in the US (maybe even slightly fancier than in Seattle).

Nairobi and Naivasha can be cool in the early mornings and late evenings; even though you are next to the equator you will need warm layers—bring a sweater or fleece pullover. January through March are hot, you'll want lightweight clothes and shorts/skirts. March through May is the main rainy season, although it can rain any time during the year, so bring a raincoat no matter when you travel. Comfortable closed-toe shoes are expected for clinical work. Note, don't bring Danskos or other shoes with heels as you are at high risk of spraining an ankle walking on rough terrain.

11: WHAT TO BRING:

Travel Items:

- Passport, valid for 6 months beyond your estimate return date to the US
- Travel itinerary with addresses, receipts, copy of tickets. Bring a copy of your return ticket itinerary as occasionally Customs asks to see this.
- Credit and debit cards, including the one you used to purchase your airplane ticket
- Yellow fever vaccine card, copies of all your prescriptions

Personal Items:

- Extra contact lenses, solution, back-up pair of glasses if needed
- Plenty of sunscreen and mosquito repellent (DEET)
- Medications: can buy almost everything here, but may be convenient to have your own supply of medications you use frequently. Benadryl is not sold in Kenya, so if you use this regularly, bring your own. Pepto-Bismol tabs are also not easy to find and are very helpful for preventing traveler's diarrhea.
- Headlamp (power outages are common)
- Scrubs (several pairs available at house, bring more if you plan to go to the operating room on the Obstetrics/Gynaecology service)
- Raincoat
- Warm clothes for cold nights
- Athletic shoes for weekend trips, everyday walking shoes, work shoes.
- Digital camera with extra memory
- USB Flash Drive
- Power adapters and voltage converters (British Type G 3 prong outlets—house has a few universal power strips that accept US plugs).
- Fun reading books (no large bookstores in Naivasha)
- Snacks you can't live without (granola bars and cheesy snacks are hard to find here)
- Camping/fishing gear may come in handy (if you have a specific adventure in mind check in with the chief as some equipment is already at the resident house or could easily be borrowed)
- Earplugs (a nearby house has loud guard dogs that bark all night)
- Portable external phone charger
- Binoculars (for wildlife viewing)
- Athletic clothes and shoes (for playing soccer or touch rugby, or even gym)

Hospital/Work Items:

- This booklet
- Pocketbooks/references: see reading list at end of this guide
- A bottle of ultrasound gel
- If you will work in the operating room, 15 pairs of sterile gloves in your size
- Pocket hand sanitizer and a large bottle of hand sanitizer for refills
- Pocket notebook for rounding and patient tracking

- White coat, stethoscope, and anything you regularly use on the wards (reflex hammer, pen light, **pulse oximeter**, blood pressure cuff, nitrazine paper, tape measure, ECG calipers, etc.)
- Consider talking to the chief or previous resident to see if there are any specific supplies that would be helpful to bring with you

BACKGROUND

12. HISTORY: Kenya's early prehistory was characterized by large migrations of various nomadic people, including the Cushitic and the Bantu, who arrived around 1000 AD. Additionally, Islam arrived along Kenya's coast around 1000 AD, creating the Swahili civilization. *Swahili* refers both to the language that is still shared along the East African region from Tanzania to Somalia, and to the Islamic culture that became established there in the first century AD. Europeans first arrived in East Africa in 1498, followed by Arabic explorers in the early 18th century. As the slave trade grew prominent along the Tanzanian coast, British colonials took increasing interest in the region, eventually establishing Kenya as their colony in 1890. The colonial state continued until the mid-1950s, when the Mau Mau rebellion began an organized anti-colonial movement coordinated between multiple different Kenyan ethnic groups. Pressure against colonization continued, and Jomo Kenyatta emerged as a leader of the new Kenyan African Movement. Independence was won in 1963, and Kenyatta (now of the Kenya African National Union, or KANU) was elected president. Upon Kenyatta's death in 1978, Vice President Daniel Moi assumed the Presidency. His 24-year tenure in the position was fraught with corruption and he effectively established an autocracy by banning opposition parties and arresting both opposition leaders and journalists. In 2002 he voluntarily retired power, and Mwai Kibaki (National Rainbow Coalition, or NARC) was elected.

In 2007, a general election was held in which the primary candidates were Kibaki (for re-election) and Raila Odinga, the main opposition leader. Leading up to elections Odinga held the lead with public opinion polls showing a strong advantage. However, Kibaki was declared the winner, although multiple third-party observer groups revealed illegalities and malpractices in the election. The results of the elections incited riots throughout the Rift Valley, Western Highlands and Nyanza province. Violence was largely ethnic, with Kikuyus supporting Kibaki and Luos supporting Odinga (see below). Over 1000 people died, with areas of violence in Eldoret, Nakuru and Naivasha.

For further reading about the history of tribalism in Kenya, we recommend the following article 'Who are the Kikuyu and why do Kenya's other tribes resent them so much?' by Michela Wrong in 2008.

http://www.slate.com/articles/news_and_politics/dispatches/2008/02/who_are_the_kikuyu.html

In March 2013, presidential elections were again held. Kibaki was not allowed to run due to term limits. There was a wide field of candidates, but the two main players were Uhuru Kenyatta, son of Jomo Kenyatta, the first president, and Raila Odinga, who ran previously in 2007. Uhuru won by a slim margin; however, his victory was tainted by the fact that he and his running mate, Ruto, were recently on trial at the Hague on charges of inciting ethnic violence in the 2007 elections.

In an effort to decentralize power away from Nairobi and the national government, a new constitution was passed in 2010 which created 47 counties (similar to American states) in a process termed Devolution. The counties began assuming responsibility for their own health centres (previously these were managed centrally by the Ministry of Health). This restructuring had far-reaching implications for government hospital operations, most visibly in availability of funds,

payment and promotions of staff (frequently late or completely absent, leading to at least an annual healthcare workforce strike that includes doctors) and supply chain interruptions and stockouts.

To read more about the history of health care in Kenya, I recommend reading the Case Study on Kenya (pages 52-58) in Globalization and Health System Change by Lister.

<http://www.globalhealthequity.ca/electronic%20library/Globalization%20and%20Health%20Systems%20Change%20Lister.pdf>

In August 2017, the next elections were held, and the incumbent President Uhuru Kenyatta was re-elected with 54% of the vote. There were many irregularities leading up to the election (including violence against the deputy president and head of the election commission), and there was concern for vote tampering so the main opponent Raila Odinga contested the election, and in September 2017 the Supreme Court annulled the results. A new election was held 60 days later, but opposition leader Odinga did not participate in protest as no reforms were made following the contested election. Therefore, Kenyatta won the second election overwhelmingly. There were many protests following this election and Odinga briefly formed a counter government as the “people’s president,” but there was no wide-spread violence as in 2007. In March 2018 Odinga and Kenyatta had a “handshake agreement” that recognized Kenyatta as the president and the leaders agreed to cooperate to form a governing coalition and fight corruption, but many of the underlying issues and conflicts remain unresolved.

13. CULTURE: Kenya is home to 42 different ethnic groups, each of which comprises its own individual identity. Many Kenyans feel more drawn to their ethnic heritage than to their Kenyan nationality. The largest groups are the Kikuyu (22%), Luhya (14%), Luo (13%), Kalenjin (12%), and Kamba (11%). Non-Africans, including Asians, Indians, Arabs, and Europeans comprise a total of about 1% of the population.

The majority of the population (~85%) is of various Christian denominations, while those along the eastern, northeastern, and coastal parts are largely Muslim (~10%). There is a significant Muslim population in Mombasa and the rest of the coast.

There are several staple foods that you will find in most restaurants (and homes): *nyama choma*, or “barbecued meat,” usually goat; *ugali*, or maize porridge (which tastes like plain polenta or thick grits) served as a starch with the main dishes, and *sukuma wiki*, or stewed greens.

Kenyans love soccer (called football), and you will find people playing everywhere you go – English Premiere League football is the go-to watchable sport. Music is also ubiquitous, and there are numerous Kenyan artists whose styles range from traditional African folk to modern hip-hop.

14. LANGUAGE: There are significantly more languages spoken in Kenya than there are distinct ethnic groups. Each group named above has its own language; in addition, national languages are Swahili and English, both of which are taught in school. Although English is a national language, people speak it with varying degrees of fluidity (often not at all in the rural areas). As such, it is helpful to have a fundamental understanding of Swahili prior to arrival. It is a good idea to buy a Swahili-English dictionary and familiarize yourself with the basics. In the hospital, your Kenyan medical colleagues will translate for you.

15. HEALTH CARE: Medical education in Kenya follows the European system, which goes like this:

- Undergrad + Medical School: 6 years (Degree conferred is MBChB, or Bachelor’s of Medicine and Surgery)
- Internship: 1 year
- Medical Officer: Automatic title after completing internship.

- Registrar (or Residency): 3-5 years (Degree conferred is Master of Medicine)

After completion of medical school, new doctors must complete a 1 year internship to become an independently practicing Medical Officer (MO). Most Kenyan doctors spend several years as an MO, or general practitioner, after completing internship and before going to residency. As such, they have many more years in general practice than in our system. MOs function similarly to senior residents at the Naivasha County Referral Hospital, directly supervising interns.

There are five medical schools in Kenya, three public and two private. The public schools are Moi University and University of Nairobi. Both accept students on government scholarship in addition to students paying full tuition, which is quite expensive. It is much more difficult for students to be accepted into the program on scholarship than it is for paying students, thus typically only wealthy families can send their children to medical school. The majority of physicians in Kenya have been trained at University of Nairobi. Two new private universities recently opened: Egerton University in Nakuru and Kenyatta University in Kahawa.

In addition to medical doctors with MBChB degrees, Clinical Officers (COs) and nurses assume a large portion of clinical responsibility in various facilities throughout the country. COs provide a role similar to our nurse practitioners or physicians' assistants, although their schooling is shorter. They have not attended formal medical school but are trained in two years of school and have a required internship year as CO interns (COIs) before entering independent practice. Although the COI year is predominantly inpatient and very similar to the MO intern (MOI) year, COs are intended to practice mostly in outpatient settings and are authorized to prescribe standard medications. At NSCH, COIs work alongside MOIs on the inpatient wards.

Kenya's national health care system is a tiered referral structure organized by region. Dispensaries, or small clinics, are the first point of contact for many rural Kenyans and are staffed by COs and registered nurses. Complicated cases are referred from there to sub-county hospitals, which are the first referral level where patients are seen by medical doctors. These are also equipped with pharmacies, laboratories, radiology services, and social workers.

In 2016-2017, there were a series of strikes by healthcare workers asking for better wages (most doctors have to moonlight at private clinics to supplement their income from public hospital jobs), more resources devoted healthcare and improved conditions for patients. During this time doctors, then nurses, then registrars have all gone on strike. Although a 5 year collective bargaining agreement was signed in mid-2017, not all of the demands were met satisfactorily and many of the underlying problems that led to the strike still exist.

16a. NAIVASHA COUNTY REFERRAL HOSPITAL: Your rotation will take place at Naivasha County Referral Hospital. NCRH is a 273-bed government hospital notable for a nationally renowned maternity wing called the Friends of Naivasha Women's Centre that opened in 2013 with the support of local philanthropy. In July 2015, NCRH opened an emergency department (called Accident & Emergency, aka A&E or Casualty) to manage the high volume of road traffic accidents brought in from the nearby highways. In December 2015, the Radiology Department was renovated and received brand new ultrasound and X-ray machines, including a portable X-ray. There are two CT scanners available in town at a private clinic called L&L and a branch of Nairobi Women's Hospital, though it usually takes at least several days for families to raise the funds necessary to pay for the CT before it is performed. MRIs are only available in Nakuru or Nairobi.

The hospital has 9 attending physicians, termed consultants: 2 surgeons, 1 internist, 1 radiologist, 1 anesthesiologist, 1 obstetrician-gynecologist, 1 ENT, and 2 pediatricians. The bulk of the inpatient clinical work is performed by MOIs and COIs under the supervision of MOs and

oversight by the consultants. COs work in the hospital clinics, particularly the Outpatient Department (OPD) HIV Clinic, which in Kenya is called the Comprehensive Care Centre (CCCs), and the TB Clinic, called Chest Clinic. There is a pharmacy and a laboratory that offers most of the routine tests we would order in the US.

Patients pay a fee for each individual service provided to them (i.e. one liter of normal saline, laundry, etc.) and they often cannot afford more complicated, pricey procedures, necessitating that some clinical decisions will be made with incomplete data or with the patient unable to pay for the usual therapy we would recommend. Patients are required to pay the entire balance of their hospital bill before they are discharged home or transferred to another hospital, causing some patients to stay on the ward for weeks pending availability of funds. There are two social workers for all of NCRH who can assist in defraying part of the bill in very extreme cases, but that process takes quite a while to pursue.

Naivasha is a town of over 180,000 people in Nakuru County. Nakuru is about 45 miles northwest of Naivasha, which is about 60 miles northwest of Nairobi. Nakuru is home to the county hospital covering the Naivasha Sub-County. Patients requiring subspecialty care or (if available) an ICU bed can be transferred via referral to Nakuru County Hospital, although referrals from Naivasha more commonly go to the national referral hospital in Nairobi, Kenyatta National Hospital (KNH), due to the wider array of services available there and close proximity.

16b. THE CLINICAL ROTATIONS (NAIVASHA)

1) ORIENTATION:

When you arrive for your first day in Naivasha you will be oriented to the resident house and town, and will be introduced to Kenyan culture and expectations in the hospital. On your first clinical day you will be paired with the chief resident or an MO to shadow, and there will be an orientation lunch that will cover the Kenyan health care system, the history of the UW relationship with the Naivasha County Hospital and University of Nairobi, and how to be successful in your role as a clinical educator in the hospital. This is an excellent time to discuss your educational goals for the rotation, concerns, aspirations, and of course will be the start of an ongoing dialogue to make this an excellent experience.

2) ROLE IN THE HOSPITAL:

First and foremost, the role of visiting clinicians (residents, attendings, and even students) in the hospital is to be educational consultants. This may be different than other global health experiences that are focused on providing direct patient or have a similar structure to practicing on the wards in the US. It is important to understand that the purpose of the partnership with the hospital is to build the capacity of the Kenyan medical workforce, not to replace or take over care from the providers in the hospital. This rotation was deliberately located in a rural county hospital, and not a major academic center, to try to provide educational support where it is truly needed.

This means that the role of visiting clinicians can ill-defined, and at times challenging. As educational consultants, we ask visitors to focus primarily on building relationships with learners at the hospital in order to provide support educationally, personally, and professionally. The goal is that the impact of your time here will be felt by the thousands of patients the Kenyan trainees will take care of throughout their career, not just the patients admitted to the hospital while you are here. Of course, the rotation is also a chance to do hands-on clinical work in a resource limited hospital, and in the process learn about the kinds of challenges faced by poor people all over the world. It is an opportunity consider the huge disparities in health and health care inherent in our global economy. While residents and students will likely see things they've never seen before and learn about many tropical diseases, it is not a short-course in tropical medicine or an opportunity to practice outside the scope of your training.

During this rotation residents and students will be part of the clinical team, paired with MOs and consultants who will be in charge of running rounds and are the primary medical decision makers for the patients. The bulk of the clinical work will be performed by the MOIs/COIs assigned to that ward (they will present patients, write notes, perform most procedures, and communicate with patients/families). Therefore, the practical role for residents and students will be to provide clinical teaching on rounds, help with medical decision making on tough cases, supervise or help with procedures, and to give CME or core curriculum lectures to the Kenyan learners. Every rotation and the roles residents/students inhabit will be different based on staffing levels at the hospital, needs of the patients at the time, and the interpersonal dynamics of the team members on the wards. Please be flexible, humble, and take the long view of building relationships to build capacity in order to find your role.

3) ON THE WARDS

Depending on your specialty, the ward you are assigned, and the dynamics discussed above, each clinical rotation will be highly variable. With that in mind, most days will begin at 8am and clinical duties will be completed by 5pm. Residents and students will have the weekends off. Taking night or weekend call is not required or encouraged but can be arranged if it meets your personal educational goals (you will need transportation as it is not safe to walk to the hospital at dark).

Similarly, the best way to prepare for the rotation clinically is to talk to others who have done the rotation recently. Questions about what topics to brush up on, skills to improve before arriving, or good learning resources will be variable, so reach out to your colleagues or contact the chief resident beforehand for insights into the best ways to prepare.

Being part of the medical team on the wards can be challenging, especially given the volume and acuity of patients, very limited resources, and frequently low staffing levels. Sometimes, residents and students will be confused as to whether we are here to “teach” or “do.” The truth is it’s impossible to do one without the other. Part of teaching is role modeling, whether that is demonstrating a thoracentesis, using guidelines or evidence to make a medical decision, treating patients with respect, or simply showing up every day with enthusiasm, on time. Ideally, whenever you are “doing” something, residents should bring Kenyan trainees along to observe and learn. In reality, however, this doesn’t always happen, and residents are occasionally confronted with either caring for a patient themselves or watching that patient go without care. In most circumstance, it is appropriate to help out, per the ethics concept that if one can prevent a bad thing from happening “without sacrificing anything nearly as important,” then one is morally compelled to do so. Emphasis on helping is key as students and residents should not be assuming primary clinical care for patients long term. If you are confused about your role or are frustrated that you are not having the full impact you envisioned, that is ok and normal. Global health is a continuous process of reflection and examination of yourself and your role. Ask for help, ask for support, ask the chief resident or someone else with experience in the Kenyan healthcare system how to best navigate these challenges. UW has a strong commitment to the Naivasha County Hospital, but it is still a rather new and developing relationship. Your expertise and energy are highly valued at the hospital, but it is still an ongoing process to figure out how to best harness your advanced skills on the wards.

4) COMMUNITY OUTREACH

Part of the goal of the rotation is to introduce visitors the Kenyan health care system from the community level to the major referral hospital KNH in Nairobi. A few afternoons during the rotation students and residents will have opportunities to visit and observe providers outside the hospital, in the past these have included:

Drop-In-Center: Drop In Center is a USAID funded through changing NGO leaders, currently K-NOTE aimed to tackle the HIV epidemic in sex workers on the trucking highway. They do intermittent outreach activities at brothels and bars to encourage condom use, HIV

testing/treatment, and care seeking behaviors. They also have a MSM outreach coordinator, and they're seeing more men in clinic though still predominantly women. They see anywhere from 0 to 20 patients in clinic each day and they enjoy having UW residents assist and collaborate for clinic visits.

Dispensary Visit:

UW residents and students frequently visit the Karati and Karagita dispensaries (local health clinics) in order to see how medicine is practiced at the local level. They are mostly staffed by COs and MOs, and any patients that require more advanced care are referred to Naivasha County Hospital. Karati is rural, up on the escarpment, while Karagita is based the large slum just southwest of town.

CTC/CHW and Trucker clinic:

The Roadside Wellness Center is a shipping container converted into a clinic which begins seeing patients at ~6 pm. Residents can see patients with the CO (Steve), spend time with the HIV counselor (models an excellent and deliberate testing and counseling session), as well as outreach to the ~600 truckers and 400 Sex workers who are the primary target population of the clinic. Residents observe peer educators, commonly former sex workers, while handing out condoms and promoting HIV testing and safe sex practices.

District Ministry of Health:

If the District Ministry of Health is doing an outreach that week and they have room in the van, residents can go along and help staff a "pop-up" clinic somewhere in the NDH catchment area. Residents have really enjoyed these trips, which provide an opportunity, as at the dispensaries, to see a lot of pathology, and do health screenings and preventive care.

5) WELLNESS

Given the resource limitations at the hospital, patients presenting with late stage or advanced diseases, and high number of patients seen daily, this can be a challenging rotation that is far different than what is seen in Seattle. You will see a striking amount of suffering at the hospital, and residents will process this in different ways and on different time frames. A very important part of this rotation is to recognize that our Kenyan colleagues and trainees are experiencing the same thing, and to be supportive to them as much as possible.

It is also important to be deliberate and reflective on your experiences. The chief resident and your peers are your best resources, and the chief will have periodic informal "check-ins" to see how you are doing personally and emotionally. After returning to Seattle we recognize you will continue processing the experience, or even experience reverse culture shock. Likely many alumni of the rotation have experienced the same thing, so it is recommended to reach out to peers or others who understand what kind of experiences you have had. The chief resident is also available for phone conversations well-after your rotation has ended. If you prefer discussing with someone independent of the rotation, the GME office's Wellness Center is a great, confidential resource that is free to all residents for counseling and linking to other services. Their information is found at the link below:

<https://www.uwmedicine.org/education/gme/residents-fellows/gme-wellness-service>.

SAFETY AND HEALTH

17. SAFETY & SECURITY: There are a number of safety concerns that you should be aware of prior to travel to Kenya. Overall, follow your instincts. **If your gut tells you a situation is unsafe, listen to that feeling,** find a way to remove yourself from that situation to an area of safety, and contact the Chief Resident immediately with any concerns.

A. Petty Crime: Pick-pocketing and other petty crimes are common generally, though rare in Naivasha. Take basic safety precautions, such as not carrying valuables in a visible or easily-accessible manner. If you are approached by a thief, just give them your wallet or whatever they ask. **Do not resist.**

B. Terrorism: There have been a number of terrorist attacks throughout Kenya in the past few years, largely motivated by Kenya's military presence in Southern Somalia. The Westgate Terrorist attack in September 2013, claimed by al-Shabaab, was the one of the worst terrorist attacks in Kenya's history. There was also an attack in January 2019 at the Dusit Hotel in Nairobi. In recent years, kidnappings have occurred along the coast and the Eastern border with Somalia. IED attacks continue to occur in Mombasa, and more recently in Nairobi. It is not advisable to take public transportation (especially buses, matatus are less risky) in these cities. Please visit the US State Department websites for updated information:

<https://travel.state.gov/content/passports/en/country/kenya.html>

<http://www.state.gov/r/pa/ei/bgn/2962.htm>

Please register with the Smart Traveler Enrollment Program (STEP) by the US State Department prior to your departure, so that the US government can more easily assist you in Kenya in case of an emergency. <https://step.state.gov/step/>

C. Road Safety: Roads in Kenya are in poor condition and traffic laws are not enforced, resulting in a high rate of morbidity and mortality related to road safety, particularly along the two highways that connect to Naivasha. There are several ways to avoid high-risk situations. First, traveling in private vehicles is safer than public vehicles. Insist on having working seat belts in any vehicle in which you ride – if there is no seat belt, get out and take another vehicle. If you are traveling via matatu, avoid sitting in the front seats as they are the most dangerous. Do not travel at night, as there are no street lights on most roads causing the majority of drivers to use their high beams all the time. Similarly, crossing roads as a pedestrian is very hazardous due to reckless driving and high speeds, so look carefully before crossing the street. **Most dangerous are the motorcycle taxis (called boda bodas), and for that reason, riding on a motorcycle is EXPLICITLY FORBIDDEN during your rotation.** Per the GME office directive, if you are found riding on a motorcycle you will be sent home.

Kenya UW Safety Contact Number: +254 704 206 163

This number is available 24/7, rotated among UW employees living in Kenya.

Cultural Services Insurance International 24/7 Global Response Center: +1 888-331-8310 (in US). +1 240-330141 (call collect from outside US)

UW Global Emergency Phone Line: +1 (206) 632-0153

Naivasha Chief Resident Contact Number:

Collette E Abbott, MD.

Kenyan number: +254 716 849 765

US Number connected to WhatsApp: +1 858 349 6748

18. HEALTH: Please visit the UW travel clinic prior to departure. There is minimal risk of malaria in both Nairobi and **Naivasha** due to the altitude (6200 ft and 7000 ft respectively), but remember to bring prophylaxis if you are planning any trips outside of Nairobi or Naivasha (including safaris).

The CDC recommends using atovaquone/proguanil (Malarone), doxycycline, or mefloquine (Lariam). Chloroquine is not an effective option. Bring insect repellent containing DEET with you,

as well as sunscreen (especially if you are taking doxycycline). You will be provided with mosquito nets.

Note that yellow fever is a recommended vaccination but not required in order to come to Kenya, but you may need it when entering another country from Kenya, as Kenya is considered an endemic Yellow Fever area. WHO recently revised (June 2016) recommendations for yellow fever vaccine to be a lifelong vaccine rather than every 10 years. See CDC's Traveler's Health page for more information: <http://wwwnc.cdc.gov/travel/destinations/kenya.aspx>.

The water in Kenya is not potable. Bottled water is inexpensive at the grocery store. This is recommended for drinking as organophosphates and other pesticides are present in the tap water and are not removed by boiling. The water at the Naivasha resident house is primarily rainwater. Should you need to boil water to prevent microbial infection, remember that the water will boil quickly in Naivasha due to the high elevation. Let the water boil for a full 2 minutes. All fresh produce should be washed with clean water and veggie wash solutions, which are very mild detergents that can be purchased at the major Naivasha groceries.

Even though many medications can be found cheaply at local pharmacies, bring whatever you anticipate you might need. Suggested items: pain reliever, oral re-hydration salts, pepto bismol, antibacterial ointment, hydrocortisone cream, anti-diarrheal agents. If you have a blood exposure in Naivasha, post-exposure prophylaxis will be provided to you by the hospital, so only plan to bring those medications if your insurance provides it at very low cost (generally you can get waivers from the drug companies for PEP before you leave the US). If purchasing medicine at a local pharmacy, use a reputable pharmacy recommended by the Chief Resident, as there are large numbers of counterfeit medications in circulation. Douglas Osoro is the pharmacist at the Naivasha hospital and he would also be happy to help you find a reputable pharmacy to obtain prescriptions, his contact number is +254 724 759 153.

It is recommended you bring a small bottle of hand sanitizer and a larger bottle from which to refill. Small pocket bottles of hand sanitizer are available at the local groceries, but not large bottles.

If you should become ill, notify the Chief Resident **immediately**. Travelers' diarrhea is common and should resolve by itself within 24-48 hours, however if your symptoms also include fevers, sweats/chills, abdominal pains, bloody stool, or vomiting, you may need medical evaluation at one of the clinics in Naivasha. Both B&L Laboratories or the Aga Khan Clinic in Naivasha offer reliable lab tests. For serious illness or injury, you will need to be transported to Nairobi for treatment at either Nairobi Hospital or Aga Khan Hospital, both of which provide care and resources similar to what you would receive in the US.

19. TRAVELERS' INSURANCE

This is mandatory and should be applied to through UW Study Abroad at <https://www.washington.edu/globalaffairs/global-travelers/global-insurance/insurance/>. This plan includes:

- A 24/7 call center
- Comprehensive medical coverage
- Medical, security, and natural disaster emergency evacuation services
- Travel assistance service

20. EMERGENCY INFORMATION:

When calling in an emergency situation, be prepared to provide the following:

- Your name
- Number you are calling from
- Current location
- Name(s) of persons involved
- Description of emergency
- Actions taken
- Assistance needed

Minor emergency (e.g., petty theft, minor accident):

Consider going to B&L Healthcare or Aga Khan Clinic in Naivasha for evaluation

Call +254 716 849 765, for Collette Abbott, the Naivasha Chief Resident

Call +254 704 206 163, the on-call UW Emergency Line in Kenya

Major emergency:

Call +254 716 849 765, for Collette Abbott, the Naivasha Chief Resident

Call +254 704 206 163, the on-call UW Emergency Line in Kenya

Call the **UW Global Emergency Line +1 (206) 632-0153**

Call **CISI Insurance +1 888-331-8310**

Arrangements will be made for transportation for treatment at either Nairobi Hospital or the Nairobi Aga Khan Hospital

National emergency:

Call +254 716 849 765, for Collette Abbott, the Naivasha Chief Resident

Call +254 704 206 163, the on-call UW Emergency Line in Kenya

UW local staff will coordinate activities and evacuation, if needed, in the event of a national emergency

Other resources:

US Embassy in Nairobi: 0203 363 6451 emergency

+254 20 363 6000 off-hours

Website: <https://ke.usembassy.gov/>

Insurance provider for travel or evacuation assistance

U.S. Embassy/Consulate Services

When you are in a foreign country, you are subject to its laws. If you are arrested, immediately ask to speak to a consular officer at the nearest U.S. Embassy or Consulate. Under international agreements, the U.S. government has a right to provide consular assistance to you upon your request.

The U.S. Embassy/Consulate **can**:

- Provide a list of attorneys who speak English if you require legal assistance
- Assist in contacting your family in the U.S. if you wish it
- Help you obtain money from your family in the U.S.
- Monitor your health and welfare if you're in a hospital or in jail
- If you are a victim of a crime, the embassy/consulate can:
 - replace a stolen passport
 - contact family, friends, or employers
 - help you obtain appropriate medical care
 - provide information about the local criminal justice process and the case itself

The U.S. Embassy/Consulate **cannot**:

- Demand the immediate release of a U.S. citizen arrested abroad or cause the citizen to be released
- Represent a U.S. citizen at trial or give legal advice
- Pay legal fees and/or fines

FUN THINGS TO DO

This is in no way a complete or thorough guide! Check any guidebook or talk with locals for more information and suggestions. Only the Masai Mara National park accepts cash dollars; other national parks and most tourist areas accept credit card only so recommend you bring no more than \$250 USD that will cover a safari to the Masai Mara and emergencies.

21. NAIVASHA

- Boat Safari/Crescent Island Walking Safari: Easy to arrange from any one of numerous local boat operators. Most residents use the public beach (make a right at the yellow “Boat Safari” sign on South Lake Rd, just past Karagita. Boats here are KSH 2000-3000 with captain and life vests, you can put up to 6 people in a boat.) Usually takes a few hours, including a walk on Crescent Island, entry fee is \$25 USD. Because there are no predators on Crescent Island, you can walk around amongst the animals. Takes about a half-day. Matatu ride from town is about Ksh 50, taxi is Ksh 600.
- Hell's Gate National Park: Excellent wildlife, scenery, and birding. Most people rent bikes (Ksh 700, make sure you test it thoroughly first) at the front gate, bike in, and then hike the gorge with a guide (KWS guide, Dennis cost Ksh 1000-2000 and is hired at the ranger station at the gorge entry point – ask Chief Resident for his number to plan ahead). You should always hire a guide – there are frequent flash floods and 7 people died in 2019. Tomb Raider 2 was filmed here, and the scenery of the Lion King is based upon its topography. Also takes about half a day. Think carefully before doing the Buffalo Circuit, which is a long, hot climb. Matatu ride to Hell's Gate from town is Ksh 100, taxi is Ksh 1200. Entry fee is \$26 USD. You can also camp overnight for \$20-35 USD, and the views of some of the watering holes and sounds of hyenas at night make it well worth it.
- Longonot National Park: Mt. Longonot is an active volcano and excellent for hiking. It's about an hour to the top, then 2-3 hours to go around the crater ring (or you can just go back down). It can be quite strenuous given the heat and altitude, the full crater hike is ~8.5 miles. Bring lots of water and a jacket, rain and hail are common. Beautiful views on a clear day. Matatu ride here from town is KSH 100, roundtrip taxi is KSH 3000. Entry fee is \$26 USD.
- Crater Lake Sanctuary: Part of Lake Naivasha National Park. About 1 hr drive from town. Great day hike around crater, moderately strenuous, ~2-3 hours, with some nice views. Can also do a short game drive (entry KSH 1000-4000). Crater Lake lodge/resort has a pleasant restaurant with view of lake/flamingos, but the food is overpriced and bland. Better to stop here for a beverage after your hike and eat elsewhere.
- Sanctuary Farm: Privately owned farm on the lake with camp ground. Popular for horseback riding (with zebras and giraffes, and in the shallows of lake), KSH 3000 for 1 hour, 5000 for 2 hours. Touch rugby on Thursdays from about 6pm if you've ever wanted to play a team sport with giraffes, wildebeest and zebras watching you.
- Lake Nakuru: About one hour's drive north of Naivasha, this lake is famous for thousands of pink flamingoes on the lake, rhinos, lions, and beautiful landscape. Nice views from the baboon cliffs. Cost is \$80 USD per person to enter. Residents have used the taxi driver Paul in the past, who will drive you the whole way, safari and all for KSH 8000-12000 depending on your negotiating skills. Pack a lunch or, stop at Java House, near the park in Nakuru town.

EATING AND LIVING IN NAIVASHA

In Town:

- **Grocery Stores:** The major ones are Naivas and Tusky's. Naivas (called Naivas Kubwa or "Big Naivas" since there is a smaller one as well) is in town, a 15 min walk from the hospital and a 40 min walk to the house, and carries most things you need. Tusky's is outside downtown at Buffalo Mall, and carries a comparable (though not identical) selection, but is easier to park if you have a car. You can refill the large water bottles for the Resident House by bringing the empty bottles to the front desk. Vegetables need to be given to a staff member to weigh and put a price tag on before bringing them to checkout. You can also get clothing, basic electronics, and non-grocery items at both Naivas and Tusky's (at Naivas, it is upstairs on the 2nd floor).
- **Fruit Stands Outside the Hospital:** Noted by the residents to have the freshest produce for a fraction of the supermarket prices. Prepare to bargain, but no matter what you buy, it will be ridiculously cheap compared to the US, usually pennies per piece of produce. Turn left just outside the hospital gate, and the fruit stands are there, stretching up the hill on Kenyatta Ave.
- **Alcohol:** Not available in the groceries above. Go to Tot's (next to Naivas Kubwa), Jamaa (a smaller supermarket in town), or at Buffalo Mall, the Naivasha Wine Gallery (directly across from the Tusky's front entrance). Top Kenyan beers are Tusker, White Cap, and Summit (the latter is brewed in Naivasha);); craft beers by Battleur brewery and 254 are good and becoming more available! Imported beer is available at a premium. Look out for Leleshwa wines, which are made at a winery near Naivasha.
- **Panorama Park:** Large resort with some of the best views of Lake Naivasha, 10 minute walk from CEPI house with Wi-Fi, swimming pool (day pass KSH 700), restaurant, but no alcohol. Popular with wealthy Nairobians on weekends, western prices, decent food but often slow service (be prepared to wait for food).
- **Mother's Kitchen:** Universally acclaimed by our Naivasha colleagues as the best Kenyan restaurant in town. Busy, noisy, and (importantly) fast service. About a 10-15 min walk from hospital, located down a side road past the crowded Nairobi matatu stage and next to the small Naivas.
- **Grapes Café:** Across from Naivas, 10 min walk from hospital. Cheap, passable Kenyan food. Caters the morning CMEs at the hospital. Run by Eunice, who is always friendly.
- **GGG's Nyama Choma:** For those locals who have been there, they say it's the best nyama choma in town. A classic "hole in the wall" that makes only one thing, and makes it well – nyama choma, and its accompaniments. On Moi S Lake Rd across from OiLibya, in a non-descript shack with light blue trim. Trust me, it's good.
- **Silver View Hotel:** Pink building, just down Kenyatta from the hospital, towards the old highway. Excellent food, more menu options than many other places, with prices comparable to Mother's.
- **Blue Sky:** Butchery (highlighted as the best in town by locals) and restaurant serving nyama choma (Kenyan BBQ) with quiet, off-street courtyard. Across from big Naivas referred to above.

Buffalo Mall

- **Tusky's:** Like a K-Mart with a grocery, see above.
- **Mama Jane's Grocery:** Fresh produce, a little on the pricey side but high quality. Directly across from Tusky's.
- **Naivasha Wine Gallery:** Alcohol shop with knowledgeable, friendly staff, very good option for stocking up the resident house with beer, wine, and liquor, both domestic and familiar name-brand imports.

- Java House: The ubiquitous coffee/house restaurant seen throughout Kenya, a cross between Starbucks and TGI Fridays with coffeehouse food and American and Mexican-style entrees. Western prices, good, consistent food if you're really missing American dishes. Free Wi-Fi.
- Spur: A famous steakhouse chain in Nairobi. Steak here is okay (we have heard it tastes better at the Nairobi locations), but not stellar, with a large American-style menu.
- Other Mall Shops: juice stand, ChapaCopy (copy and print shop, good for making laminated pocket cards for the wards – Moses, the main staff member, is very friendly), Micos Dry Cleaners (Western prices, takes a few days to get clothes back, but they do a good job), CityWalk (shoes), health food shop (good for getting granola bars, though pricey), pharmacy (though Axita is preferred, per above), Rift Valley Leather (expensive but high quality), Optica (eyeglasses), and a few other expensive boutique clothing shops.

Farther Afield:

- Carnelly's: Popular expat restaurant/campground on South Lake road, just past Hell's Gate, renowned among tourists. Excellent food and drinks (pizza is a specialty), laid-back ambiance with couches and lounge chairs. Western prices. Taxi roundtrip from town is KSH 2800.
- Fisherman's: Similar to Carnelly's, but bigger and closer to water, and more of a hippie/rasta vibe. Nice big comfy deck for eating on. Food is not quite as good as Carnelly's. Western prices.
- Enashipai: One of the most elegant and expensive resorts in all of Kenya is located just across from Karagita, the large slum on Moi South Lake Rd. Has coffee shop with Wi-Fi, nice pool (day pass for a fee), well-equipped gym, and opportunities for hippo watching. World-class spa services at Western prices. Lavish buffet is expensive (KSH 2600 to 3000 per person), but a la carte is at more manageable standard Western prices. Taxi is KSH 500 one way.
- Delamere Nyama Choma: Classic Kenyan nyama choma joint with outdoor gazebo seating, huge grill, and plenty of alcohol. Frequented by Marabou storks and Vervet monkeys, who are happy to eat your leftovers. Best visited before dark. A bit expensive, but you get a ton of meat, though sometimes a bit tough (and GGG's nyama choma is better and cheaper).
- Curry-On Indian Restaurant: Excellent (and the only) Indian restaurant near Naivasha, but great food for lunch and dinner. Located at the Delamere Shopping Center just outside Naivasha town and Buffalo Mall along the highway going to Nakuru. Also with a small selection of Chinese dishes and pizzas, all of which are good. Vegetarian entrees available. Western prices, but still pretty cheap. Wide alcohol selection.
- Kikopey Nyama Choma Stalls: About a 45 minute drive from Naivasha going to Nakuru, Kikopey is famous throughout Kenya and in international travel guides for having the best nyama choma in the country. The high quality is for two reasons – the restaurants focus on nyama choma and nothing else, and there is so much competition that with poorly cooked meat are run out of business very quickly. The downside is your vehicle will be mobbed with shopkeepers knocking on your windows, begging for you to eat at their stand. Despite their aggressiveness, the area is safe during daylight hours, and enduring the hassle of the aggressive shopkeepers will be rewarded with possibly your best meal during the whole rotation. Take the time to compare prices at a few stalls, then pick the price, atmosphere, and shopkeepers you like the most – it's hard to go wrong.

Souvenir Shopping:

- Naivasha Children Shelter: Has a gift shop that sells beaded animals and jewelry made by the street boys who live here. Is a little off the beaten path (behind Flower Business Park/Panda Flowers, Northeast of town), but very nice items for a good cause and you can get a brief tour of the orphanage if you give enough advanced notice.

- Bird's Souvenir Shop: Just south of town, on the old highway, across from the entrance to Moi South Lake Road. Way overpriced. Haggle prices down by a factor of 5 to 10 if you choose to shop there.
- Elementaita Weavers: Small, relatively expensive shop on South Lake Road. High quality, nice stuff.
- Basket makers along South Lake Road: Large baskets and rugs/animal skins. Location varies. Haggle.
- Nairobi has lots of shopping options, the most famous of which is the huge Maasai Market, which is in a different spot in the city each day, and is full of all manner of everything. Again, haggle aggressively (bid down everything to 25% of their initial price at a maximum, and negotiate up from there), no matter what sob story they tell you, they will never sell you anything at a loss. Do your best to tour the whole market as you will often find a higher quality version of the item you want at a different vendor further on in the market. Get to know the personal stories of the vendors, and support the artists who created the art pieces themselves. Be prepared for very aggressive vendors pestering you constantly, and don't let them pressure you – take your time and find what you really want. Be prepared to walk away from any deal and hold your ground – you will find that most vendors will follow after you when you start to walk away and agree to your final price, so long as they don't have to sell at a loss.

22. **PARKS/SAFARIS**

- Maasai Mara: The best animal park in Kenya. Crowded in July through September during the Great Migration, when thousands of wildebeest migrate from Tanzania followed by their predators. However, any time is a good time to visit. Recent residents have enjoyed taking safaris with Bonfire Adventures (contact Annabelle +254 708 402224) for 3 days all-inclusive room and board for \$200-250 per person USD. Residents have used DK Grand Safaris in the past (info@dkgrandsafaris.com, www.dkgrandsafaris.com). Another resident recommends doing 2 days max (lots of bumpy riding) and used Mara Explorers (maralexplorerscamp@gmail.com), which had a nice camp with tent and cabin options (2 person, 4-day safari \$1000 total with private game drives for 2 days and taxi transfers from Nairobi). Park fees are \$80 per person without resident status (\$160 for 3-day safari) and cheaper if you're a resident. Can stop at Hell's Gate for \$30 and bike with safari animals.
- Mount Kenya: A ~5 day, beautiful hike to the 3rd highest peak in Africa. Climbing Mt. Kenya is relatively inexpensive and is not a "technical climb" (porters can carry your gear) although you should probably be in relatively decent shape. Residents have used Mt. Kenya Guides and Porters Safari Club (mtkguidesp@wananchi.com, www.mtkenyaguides.com, +254 (0)20 3524 393). Popular 5-day Sirimon-Chogoria traverse is around \$700 including food and park fees, not including transport to/from Naivasha. 4-day treks also available. One resident organized a 5 day solo hike (Kenya resident) with a guide and cook for \$350 (cash or MPesa) which included all meals, camping in huts, and departure from Nairobi. For this option, contact Ken at +254 722 443 126 or email Nancy Yogo with EastPoint Safaris at jradula@gmail.com. You can rent a warm jacket/sleeping bag for ~700 KSh but bring your own hiking boots. If you're an avid rock climber, you could attempt Battion peak (2nd highest in Africa) which is a 6-day, 5-night trip. You may request a Diamox prescription from the hospital.
- Aberdares: Close to Naivasha (take the Kinangop road, just south of where Kenyatta Ave meets the new highway). Beautiful mountains and waterfalls, lots of wildlife, including elephants, bongos, and jaguars. Fun to stay in the Fishing Lodge or Tusk Camp Bandas, but call early as these book up well in advance. Requires a 4x4, roads not passable in rainy season. There is some decent fly-fishing for brown trout.

- Amboseli: Famous for elephants and beautiful views of Mt. Kilimanjaro. In the high season, elephants are everywhere but in the low season they are difficult to spot. Can be very dusty if there is a drought.
- Nakuru, see “Fun Things To Do” above.

23. SAFARI TIPS

- Understand that for a large proportion of your safari time, you will be sitting in a safari van. There is very little ambulatory activity. For this reason, you may decide on a shorter safari (i.e. less than one week). There is a lot of downtime during a safari. Bring a book to read, or just enjoy gazing at the landscape. A good pair of binoculars is highly recommended.
- Safaris are relatively easy to arrange on short notice, with the exception of going to the Maasai Mara in August, when many camps/resorts may be full. Several local taxi drivers can help you arrange transport and even lodging (we’ve had great luck with Paul doing this).
- Camping safaris are obviously cheaper, but you might need to bring along your own gear (although some companies will provide it). It also might not be comfortable in the rainy season. Lodge safaris, on the other hand, include three hot meals a day (usually all-you-can-eat feasts) in nice hotels but do not provide an actual African bush experience. Tented camps are a nice alternative, and can range from quite basic to luxurious.

24. KENYAN COAST

- Lamu: On US State Dept list of places US citizens should not be traveling. A beautiful old Swahili town with rich history. Famous for great beaches, tasty seafood, no vehicles (just donkeys). Many people stay in Shela, which is calmer than Lamu town. 90-minute flight from Nairobi, usually around \$350. Visitors have stayed at Diamond Beach Village, a little pricey (~\$150/night for double) but highly recommended.
- Malindi: Beautiful coastal town, usually very quiet, with white sand beaches and turquoise water. Flights are ~\$300 round trip. Residents have stayed at White Elephant Sea Lodge (~\$100/night for double), which is rustic-luxe, and right on the beach.
- Mombasa: Old town at night is on US State Dept list of places US citizens should not be traveling.. Old town during the day is an interesting visit, especially the old spice Market. The best place to buy Kikoys, Kenyan clothes, and beaded Maasai sandals. Kenya's second largest city and the largest port town. Watamu to the north of Mombasa and Diani to the south have some of the most unspoiled beaches in Kenya. Amazing ocean side restaurant at the Mtwapa ruins for fresh seafood, spectacular views, and a peaceful swim during a long lunch.
- Near Diani: Likoni ferry is on US State Dept list of places US citizens should not be traveling. Mbuyu cottages has thatched bandas near the beach and is simple and well run for about \$55 USD per night. Baobobs is an affordable all-inclusive resort on the beach about \$75 USD per night.

25. NAIROBI

- National Museums of Kenya, Nairobi Museum: varied natural history and art collections in a recently renovated building on Museum Hill. Extensive collection of Kenya’s bird life (stuffed) and includes famous fossils unearthed by the Leakey family and other anthropologists in Kenya.
- Nairobi National Park: A huge game park right on the edge of town, surprisingly high quality given its proximity to the city. All of the big five can be viewed except for elephants. There are locations for picnics, including one on a hill overlooking the Athi Plains. Animals are more plentiful at dawn and just before dusk. Adjacent to the national park is a small animal orphanage requiring a separate entry fee where you can pet cheetahs.

- Giraffe Center: A nice place to spend an hour or so. This is a rehabilitation center for the endangered Rothschild's giraffes. The center allows you to pet and feed the giraffes and also has a small exhibit explaining their mission.
- Elephant Orphanage: Located in Karen, alongside the Nairobi National Park, and only open between 11 am and noon each day. Officially called the "David Sheldrick Wildlife Trust."

26. READING LIST

Reference:

- *Oxford Guide to Tropical Medicine* (very useful, updated in 2014)
- *Hospital Care for Children*, WHO
- *Evidenced-Based Physical Diagnosis*, Steven McGee
- Any pocket reference books you regularly use

Global Health:

- *Reimagining Global Health*, Paul Farmer, Arthur Kleinman, Jim Yong Kim, Matthew Basilico, 2013. The first book of its kind to attempt to address the discipline of Global Health in its entirety, from the history and roots of international medicine through discussions of aid, failed strategies, and successful programs, and a look into the future of global health. Can be a bit Harvard/PIH-centric, but an excellent introduction to the field.
- *Walking Together, Walking Far*, Fran Quigley, 2009. Describes the partnership between Indiana University and Moi University (in Eldoret) that built one of the most comprehensive and successful programs in the world to control HIV/AIDS, AMPATH, which has been nominated for a Nobel Peace Prize.
- *A Heart for the Work*, Claire Wendland, 2010. Wendland, an obstetrician and physician-anthropologist, explores the realities of medical training in Malawi in what is the first ethnography of medical training in the global south. The resulting book is compelling and extremely relevant to CEPI and global medical education.
- *Pathologies of Power: Health, Human Rights, and the New War on the Poor*, Paul Farmer, 2003. An emerging classic in global health, Dr. Farmer illustrates through the experiences of his patients how political and economic injustice are forms of structural violence which cause the sickness and disease among the global poor. Definitely many principles that are translatable to the experience of our Naivasha patients and physicians.

Books on Kenya:

- *Unbowed: A Memoir*, Wangari Maathai, 2006. Maathai discusses her life from childhood until she was awarded the Nobel Peace Prize in 2004, against the backdrop of colonialism, independence, and struggle for democracy. Maathai stresses the connection between environmental conservation and good governance.
- *I Laugh So I Won't Cry: Kenya's Women Tell The Story Of Their Lives*, Helena Halperin, 2005. Covers marriage, childrearing, work, and getting by when there is no work, women's self-help groups, genital cutting, ethnic tensions, and the new government that has promised huge reforms. *I Laugh* shows the full panorama of women's struggles in sub-Saharan Africa. Subsistence farmers, herders, beggars, sex workers, office workers, hawkers, business executives and a few friends who stopped an ethnic war all speak in *I Laugh So I Won't Cry*.
- *Petals of Blood*, Ngugi wa Thiong'o, 1977. Tells the story of an investigation of a spectacular triple murder in upcountry Kenya. As the intertwined stories of the four suspects unfold, a devastating picture emerges of a modern third-world nation whose frustrated people feel their leaders have failed them time after time. Thiong'o was

- imprisoned without charges by the Kenyan government when the novel was first published in 1977.
- *Nine Faces of Kenya*, Elspeth Huxley, 1992. Drawing on her knowledge of Kenya and its literature, Huxley presents a portrait of a nation, its peoples and wildlife, history and landscape, and the men and women who made their mark upon it. Isak Dinesen, Ernest Hemingway, the Leakeys, Beryl Markham, Winston Churchill, Evelyn Waugh, and Theodore Roosevelt are among the many writers in this anthology.
 - *Imperial Reckoning: The Untold Story of Britain's Gulag in Kenya*, Caroline Elkins, 2005. Winner of the 2006 Pulitzer Prize for General Non-fiction, this book relates the gruesome, little-known story of the mass internment and murder of thousands of Kenyans at the hands of the British in the last years of imperial rule. Elkins exposes the hypocrisy of Britain's supposed colonial "civilizing mission" and its subsequent cover-ups. Elkins's account was also the subject of a 2002 BBC documentary entitled *Kenya: White Terror*.
 - *It's Our Turn to Eat: The Story of a Kenyan Whistle-Blower*, Michela Wrong 2009. Written from a British investigative reporter's perspective, this book chronicles the story of corruption in Kenya and one man's crusade to expose it. The book gives a great (but outsiders) perspective on Kenyan history, culture and the generational divide in the country.

S A F A R I S A L A M A !

CULTURAL ADJUSTMENT

- Look for a cultural broker, someone who has an understanding of both U.S. culture and the local culture. An expatriate who has spent many years living in the host country, or a local who has lived in the U.S. can be invaluable in helping you negotiate and understand your host country.
- Learn as much as you can about your host country's history, values, language, culture and norms.
- Resist the urge to assume that people are just "doing things wrong" in your host country, and that you know better. Try to understand the reasons why things might be handled differently.
- Remember that, in general, developing countries tend to be more formal than the U.S. and communication is more likely to be indirect. Value is placed on respecting social hierarchies, "saving face" and avoiding embarrassment.
- Be aware that needing to re-learn even simple routines in a foreign culture is stressful. Give yourself time to adapt, and don't be afraid to make mistakes.

In her book, *Foreign to Familiar*, (2000, McDougal Publishing), Sarah Lanier discusses the differences between "Hot-Climate" and "Cold-Climate" cultures. Although this distinction is a vast oversimplification, they do represent spectrums of cultural norms that can provide a useful framework for understanding cultural differences. The chart below is loosely adapted from her work.

	"Cold-Climate" Cultures	"Hot-Climate" Cultures
Social Interactions	Efficiency is valued. It is acceptable to be businesslike with people you don't know, and personal questions are to be avoided.	Relationships are valued more than efficiency. It is important to acknowledge people and not rush interactions. Getting to the point too quickly is rude, and personal questions are welcome.

Emotions	Logic, restraint and objectivity are valued, and displays of emotion are rare.	People are emotionally demonstrative. Subjective feelings and intuition are given credibility.
Communication	Accurate, truthful information is valued. Communication is direct, words are to be taken at face value, and people say what they mean. "No" means "no," and things are not meant to be taken personally.	Maintaining harmony is important, and disagreeing, complaining or causing offense or embarrassment is to be avoided. Indirect methods of communication are frequently used. It is impolite to directly say "no" or not give the answer a person expects to hear.
Individuality	Individuality, autonomy, personal initiative and self-reliance are valued. Individual likes and dislikes are important. People are expected to speak their opinions, and look after their own needs. People see themselves as "free to do as they please."	Community cohesion and group identity are valued over individuality. ("I belong, therefore I am.") The needs of the community are more important than personal desires. A person's opinions should reflect those of the group. One's actions should reflect well on the group.
Hierarchy	Society is fluid. People generally see themselves as equals, and authority is earned and can be openly questioned. What you know is more important than who you know, and the value of an idea depends on its utility, not its source. "Low-power distance"	Society is hierarchical. Class and social distinctions are maintained, acknowledged and deferred to. Authority is not to be questioned, and the value of one's opinion increases with social rank. "High-power distance"
Formality	Interactions are casual. First names are used. Clothing choices reflect personal tastes and comfort. "Low context"	Interactions are formal, and it is important to follow protocols and demonstrate respect for elders and superiors. People are referred to by their titles. Greetings carry great importance, and clothing should reflect one's place in society. "High context"
Privacy	People have a "right to privacy," their own personal space and time to themselves.	People have a right to be included. Privacy is considered rude. Plans and conversations should include all.
Property	Personal property is considered sacred. People pay their own way, are responsible for their own things, and there is no obligation or expectation to share.	Property is communal and belongs to the group. This is particularly true for food, which is expected to be shared by all.
Planning	Planning is expected, and schedules are adhered to except in extreme circumstances.	Spontaneity is preferred. Schedules are always subject to change. Flexibility and patience are valued. It is acceptable to show up unannounced or not follow through on plans.
Hospitality	Visitors are expected to make arrangements for their own food, housing and transportation, and payments are negotiated ahead of time. When people are invited out, it is expected that they will all pay their own way. Social events usually take place at public establishments.	Hospitality is important. Visitors need to be taken care of, and it is not appropriate to ask them to pay, although it is expected that they will leave gifts in exchange. When people are invited out, it is expected that the person who gave the invitation will pay. Social events usually take place in the home.
Gender	Gender differences are minimized. Women are judged on the same	Gender differences are important, and women are expected to be submissive to men. Traditional roles are respected.

	criteria as men. Traditional roles are less respected.	
Time	Time is a linear phenomenon, measured by clocks. Punctuality and planning are valued. It is important to respect someone's time: Time is money. "Monochronic time"	Time is relative, and is measured by events. It is important to be living in the moment and to deal with things as they come up. Attending to people's needs is valued, regardless of how long it takes. "Polychronic time"

Culture Shock

"Culture shock" is real, and it is important to be prepared for it and to recognize when it is occurring. What people generally mean by culture shock is the stress that occurs from being away from familiar surroundings and continually having to struggle to understand what is going on around you. What begins as discomfort and confusion can subtly progress to frustration, anxiety, irritability, loneliness and withdrawal. More often than not, anger is the result, and it is not uncommon for this to lead to unprofessional behavior and lashing out at the local community. When you find your frustration mounting, be sure to take a step back and find productive and healthy ways to manage your stress. Remember, you are ultimately just a guest in their country. Above all, try and keep a sense of humor.

Be aware that you will also likely have some "reverse culture shock" upon returning to the U.S.

Guidelines for the Management of Body Fluid Exposure

Background

When working in clinical environments, there exists the possibility for exposure to bloodborne pathogens, particularly in environments where universal precautions and sharps disposal practices may not be followed with the same rigor as in the US. Exposure to blood and other bodily fluids can transmit Hepatitis B, hepatitis C, and HIV, as well as other illnesses such as viral hemorrhagic fevers, including dengue. Transmission of malaria can also occur through needlestick, as can transmission of other parasitic diseases such as trypanosomiasis and visceral leishmaniasis.

Pre-departure advice

PREVENTION: Obviously, the most important aspect of blood and body fluid exposure is prevention. Students should use gloves and other personal protective equipment if there exists the possibility of contact with a patient's blood. All students should bring with them a box of non-sterile gloves. You are also encouraged to bring some form of eye protection and face masks. If in a malarious area, tablets for malaria prophylaxis and attention to insect precautions can prevent this potentially fatal disease.

VACCINATION: Hepatitis B is highly transmissible through needlestick injuries (about 1 in 3 people exposed will seroconvert) - all students should have completed their hepatitis B vaccination series before leaving for their GHCE. You should be sure you are protected against measles, mumps, rubella, hepatitis A, tetanus, diphtheria, typhoid, and varicella, and polio. Depending on location, yellow fever and/or meningitis may be appropriate as well. Although there are as of yet no efficacious vaccines for hepatitis C or HIV, in case of a needlestick it is helpful to know your baseline serostatus for these infections.

POST-EXPOSURE PROPHYLAXIS: You are required to purchase and bring with you two different HIV prophylactic medications. The exact number of pills will depend on where you are going.

In the event of a needle-stick injury with a contaminated needle, or other significant exposure, you would generally begin taking treatment right away, while arranging for the patient to have HIV testing. If the patient is HIV positive, you should then complete a full 30 days of medications. This would involve obtaining an additional supply of medications and arranging for follow-up evaluation and monitoring. In many cases, it may be best to return to the U.S. to ensure proper care.

Specific prophylactic regimens should be discussed during your Travel Clinic visit, and you should ask for a prescription during your visit for a 3-5 day supply.

What to do in the event of a body fluid exposure:

1. **Don't Panic.**

The vast majority of exposures result in no harm. For example, the seroconversion rate of an untreated needlestick injury from an HIV positive patient is less than 0.3%, and from a mucosal exposure less than 0.09%. With prompt initiation of antiretroviral medications, this risk is further reduced 85% or more.

2. **Wash the exposed area.**

Remove all soiled clothing. Wash skin and wounds with soap and water. Irrigate wounds copiously with water. Flush eyes or mucous membranes with water or sterile saline.

3. **Let someone know.**

Inform your clinical supervisor that you had an exposure. Contact a medical provider with experience in post-exposure prophylaxis (CDC Post-Exposure Prophylaxis Hotline, Harborview Madison Clinic, Dr. McClelland, etc.)

4. **Decide if you need to start medications.**

This will depend on the severity of the exposure and the HIV status of the patient. If the patient is HIV positive or of unknown status in a high-prevalence area, *antiretroviral medications should be started as soon as possible* in the event of a needlestick injury, or if visibly bloody fluid is splashed into your eyes or mouth. (See the attached CDC algorithm for specifics). Do not wait for the source patient's blood testing to come back before starting meds. If the patient has suspicion for *P. falciparum*, consider taking a presumptive treatment of malaria if you are not on malaria prophylaxis.

5. **Arrange for testing.**

If possible, arrange for HIV testing of the source patient and a malaria smear (if in an endemic area). If serologies for hepatitis B surface antigen and hepatitis C antibody are readily available, send these too. If you do not know your own HIV, hepatitis C, or pregnancy status, these should be checked. It is helpful to get a CBC, chemistry panel, and hepatic panel if you are going to be starting medications. This will allow your physician to have baseline labs in the event you develop side effects from your antiretroviral medications.

6. **Decide if you need to come home.**

If the source patient tests **negative** for HIV, and you think it unlikely that the patient contracted HIV in the past few months, you can *stop treatment*. If the patient is HIV **positive**, cannot be tested, or is felt to be at high risk of HIV despite a negative test result, continue treatment. *It is generally recommended to arrange for medical evacuation back home* for proper evaluation and monitoring while on prophylaxis. However, many countries now have doctors and facilities that are experts in treating patients with antiretroviral medications. The decision to stay at your post or return home is a serious one that should be discussed with a qualified medical provider. The GHRC is happy to work with you on ways to fulfill your GHIP/III requirements in the event an evacuation is needed.

7. Get support.

Having a body fluid exposure is often a deeply unsettling experience. It is recommended that you talk it over with someone to help put things in perspective. Most people feel extremely frightened and vulnerable right after an exposure. The CDC's "PEPline" is an excellent resource. This is a national hotline that provides around-the-clock expert guidance in managing healthcare worker exposures to HIV and hepatitis B and C. Callers receive immediate post-exposure prophylaxis recommendations and counseling. The phone number is +1-888-448-4911. You should call the Naivasha chief resident ASAP and may also call Dr. McClelland at +1-206-473-0392.

TABLE A1. Human Immunodeficiency Virus (HIV) Postexposure Prophylaxis (PEP) Regimens

Preferred HIV PEP Regimen	
Raltegravir (Isentress; RAL) 400 mg PO twice daily	
Plus	
Truvada, 1 PO once daily	
(Tenofovir DF [Viread; TDF] 300 mg + emtricitabine [Emtriva; FTC] 200 mg)	
Alternative Regimens	
<i>(May combine 1 drug or drug pair from the left column with 1 pair of nucleoside/nucleotide reverse-transcriptase inhibitors from the right column; prescribers unfamiliar with these agents/regimens should consult physicians familiar with the agents and their toxicities)^{a,b}</i>	
Raltegravir (Isentress; RAL)	Tenofovir DF (Viread; TDF) + emtricitabine (Emtriva; FTC);
Darunavir (Prezista; DRV) + ritonavir (Norvir; RTV)	available as Truvada
Etravirine (Intelence; ETR)	Tenofovir DF (Viread; TDF) + lamivudine (Epivir; 3TC)
Rilpivirine (Edurant; RPV)	Zidovudine (Retrovir; ZDV; AZT) + lamivudine (Epivir; 3TC);
Atazanavir (Reyataz; ATV) + ritonavir (Norvir; RTV)	available as Combivir
Lopinavir/ritonavir (Kaletra; LPV/RTV)	Zidovudine (Retrovir; ZDV; AZT) + emtricitabine (Emtriva; FTC)
The following alternative is a complete fixed-dose combination regimen, and no additional antiretrovirals are needed: Stribild (elvitegravir, cobicistat, tenofovir DF, emtricitabine)	
Alternative Antiretroviral Agents for Use as PEP Only with Expert Consultation^b	
Abacavir (Ziagen; ABC)	
Efavirenz (Sustiva; EFV)	
Enfuvirtide (Fuzeon; T20)	
Fosamprenavir (Lexiva; FOSAPV)	
Maraviroc (Selzentry; MVC)	
Saquinavir (Invirase; SQV)	
Stavudine (Zerit; d4T)	
Antiretroviral Agents Generally Not Recommended for Use as PEP	
Didanosine (Videx EC; ddI)	
Nelfinavir (Viracept; NFV)	
Tipranavir (Aptivus; TPV)	
Antiretroviral Agents Contraindicated as PEP	
Nevirapine (Viramune; NVP)	

Preferred 3-drug regimen:

Truvada (tenofovir 300 mg/emtricitabine 200 mg) 1 tab po daily

PLUS

raltegravir 400 mg po daily OR dolutegravir 50 mg po daily

Preferred alternative regimens:

Truvada (tenofovir 300 mg/emtricitabine 200 mg) 1 tab po daily

PLUS

darunavir 800 mg po daily OR atazanavir 300 mg po daily OR
fosamprenavir 1400 mg po daily

PLUS

ritonavir 100 mg po daily

