

## **Ilula Lutheran Hospital Information for the Visiting Health Professional**

**Introduction:** The Ilula Lutheran Hospital (ILH) is a 70 bed facility located in the town of Ilula 45 Km east of Iringa on the Dar Es Salaam-Mbeya road. The ILH is owned and operated by the Iringa Diocese of the Evangelical Lutheran Church of Tanzania (ELCT). Information about the ELCT can be found at [www.elct.org](http://www.elct.org)-- navigate around the web site to services, health care, and hospitals to learn more about Ilula and Lutheran sponsored health care in TZ. The Iringa Diocese also supports 7 village dispensaries spread throughout a wide geographic area within a 100 Km radius around Iringa. The ILH recently completed an “upgrade” to “hospital status” and became the District Designated Hospital (County Hospital equivalent) for the Kilolo district of south-central Tanzania in 2008; this now provides an additional government support for the facility. The mission of the ILH is supported by Global Health Ministries ([www.ghm.org](http://www.ghm.org)). GHM is currently providing medical school scholarship funding for Yunfa Sovelo, technical advice for overseas missions, and ships medical supplies to Ilula. The first 40 foot shipping container was sent in October 2004 and contained supplies for the operating room. The 4<sup>th</sup> container arrived in Iringa in March 2009. Dental equipment from this container has been installed at Ilula. The ILH is also supported by the 501c3 non-profit organization, “Shoulder to Shoulder” (formerly the Ilula Health Center Task Force) ([www.ilulahealth.org](http://www.ilulahealth.org)) of the St Paul Area Synod (SPAS) of the Evangelical Lutheran Church of America. Shoulder to Shoulder is a direct off-shoot of the highly successful “BegaKwaBega” Companion Congregation Program of the SPAS.

**The BegaKwaBega Program:** “Shoulder to Shoulder” is the English translation of the Swahili phrase, BegaKwaBega, and appropriately characterizes the relationship that has developed between the SPAS and Iringa Diocese over the past 20 years. Under the current leadership of Pastor Don and Eunice Fultz, this program has become a model for cross-cultural exchange within the ELCA. The BegaKwaBega office is staffed year around by volunteers from Minnesota. The current email contact is [begakwabega@yahoo.com](mailto:begakwabega@yahoo.com). Groups from St Paul visit Iringa on a monthly basis. Companion congregation visits have led to numerous building projects, sponsorship of secondary education (over 900 students are currently sponsored) and the drilling of wells for clean water under the direction of St Paul Partners. In addition, a branch of Tumaini University was constructed in Iringa ([www.elct.org/iringa.html](http://www.elct.org/iringa.html)) under the leadership of Arne and Mary Bloomquist with financial support from donors in the St Paul area. It offers business, law and theology degrees. Rev Richard Lubawa has written a history of the BegaKwaBega Program. The book reference is listed in the appendix

**The King Foundation Center For Medical Education:** Generous funding has been received from the Peter J King Family Foundation ([www.kingcapitalcorp.com](http://www.kingcapitalcorp.com)) to construct a medical education center on the Ilula campus with a vision to eventually develop a nursing education program. This is designed as a step toward remedying the shortage of trained health care professionals in resource poor countries such as Tanzania

**Other NGOs in the Ilula Area:** Several other non-governmental organizations are doing important work in the Ilula area. Berit Skaare, a Norwegian national formerly living in Indiana ([bskaare@hotmail.com](mailto:bskaare@hotmail.com)) has organized the Ilula Orphan Program. Her program has recently completed construction of an orphanage in the Ilula area and also oversees care of more than 400 orphans in foster care in the Ilula area. The Clinton Foundation ([www.clintonfoundation.org](http://www.clintonfoundation.org)) began a rural HIV initiative in Tanzania at Ilula in 2006. The support of the Clinton Foundation has helped to build a rainwater storage facility, repair the back-up electrical generator, add additional equipment to the lab, and hire an assistant medical officer to help run the Care and Treatment Center (CTC) at Ilula. Several nurses and a pharmacy technician have undergone training to run the CTC. As of January 2006, Ilula is now a testing and antiretroviral treatment site. Ilula has a remote HIV outreach program where an HIV team visits remote villages by landrover on a weekly basis

**Facilities and Staff at ILH:** This 70 bed facility has a large maternal-child health (MCH) program and performs 600 deliveries/year. The campus includes an administration block with chapel/meeting room, an OPD, the MCH building, a 20 bed private ward, a lab building, staff housing, and a recently completed Operating Room and Multi-Purpose Clinic building. The existing in-patient ward (built in 1960s) underwent a \$25,000 renovation in February 2006. Diagnostic facilities are minimal at present: the lab can perform hemoglobins, blood groupings (Type and cross) UAs, malarial blood smears, sputum for AFB, stool examinations, urine pregnancy tests, blood glucose, VDRLs, Widal's tests for typhoid, and 2 rapid-antigen tests for HIV (Capillus and Determine Tests). Serum chemistry testing is available for patients in the CTC. CD4 counts are sent to the regional hospital in Iringa. Shoulder to Shoulder has helped purchase an ultrasound machine and portable x-ray unit for Ilula. The facility is run by a Doctor-in-Charge, a medical officer and several clinical officers (similar to Physician Assistants) as well as nurse midwives, public health nurses, nurses and nurse-auxiliaries (nursing-assistants). The facility has a hospital administrator whose training was funded from Minnesota as well as a treasurer. The previous years Annual Report is available on the ELCT website. The Operating Theater was completed in 2005 and surgery (predominantly cesarean sections) is now performed at Ilula. During a 2 week period in July, 2005, a 43-person short term medical mission group from Medical Ministry International ([www.mmint.org](http://www.mmint.org)) saw 909 patients, performed 60 major surgeries (c-sections, hernia repairs, TAH/BSA, exploratory lapa), saw 193 dental patients and performed 163 dental extractions at Ilula. Approximately 160-200 surgeries per year (mainly C-sections) are now performed at Ilula. Although an anesthesia machine is available at Ilula, most operations are performed by spinal anesthesia with intravenous ketamine due to the lack of expertise with inhalational anesthetics (halothane and ether are the only inhalation agents available in TZ). A Trauma/Xray building should be completed in 2009.

**Common Medical Conditions and Patients:** Patients often come great distances to receive health care at Ilula. The patients are very poor and thus Ilula performs a significant amount of charity care. Patient's families are often present to help care for and feed their ill relatives. Patient census fluctuates and is highest during the rainy

season (January to April) due to malaria. Respiratory illnesses (including TB), diarrheal illnesses (including typhoid), MCH, burns, trauma (Ilula is along a major 2-lane highway), complications of malnutrition and complications of HIV are common presenting complaints.

**HIV/AIDS:** The prevalence of HIV in the Iringa area is currently unknown but thought to be around 13%. As is true in much of sub-Saharan Africa, the prevalence is highest in larger cities, in sex-trade workers, along truck routes (of which Ilula is one), in hotel and bar workers, and in workers displaced from their homes (example: mine workers). With the recent institution of rapid HIV testing, it has been shown that nearly 50% of the in-patients at Ilula are HIV positive and nearly all of the T.B. patients are HIV positive. Virtually every family you will encounter has been touched in some way by this epidemic although there is still an incredible stigmatism attached to the diagnosis. As of January 2006, Ilula is now a Clinton Foundation designated site for HIV diagnosis and treatment. Patients undergo voluntary counseling and testing (VCT). HIV positive patients are enrolled in the Clinton Foundation CTC at Ilula and undergo CD4 count testing. For those meeting WHO criteria for stage 3 or 4 disease, or for those with CD4 counts < 200, anti-retroviral (ARV) therapy is initiated free-of-charge to patients. Triple drug therapy with Triomune (stavudine, d4T, lamuvidne, 3TC, and nevirapine) is initiated as well as daily PCP prophylaxis with Bactrim. All patients must have a “treatment partner”—a significant-other or friend who is aware of their HIV status and will be co-responsible for monitoring compliance with drug therapy and appointments. An emphasis is placed on confidentiality for these patients as is a holistic approach to patient care. A home-based care system termed “Alpha Dancing” involves volunteers in the community to provide patient education, support, and access to nutritional support and contraception counseling. Many patients are co-infected with tuberculosis. For these patients, the T.B. is generally treated for the first 2 months before initiating anti-retroviral therapy. The ARV regimen in TB patients often consists of AZT, 3TC and efavirenz to avoid overlapping toxicity from INH (neuropathy and hepatotoxicity from d4T and nevirapine, respectively).

**Tuberculosis:** There were 87 new cases of pulmonary TB during 2005 at Ilula. However, during our 1 week visit in January 2006, we also saw several cases of extra-pulmonary TB including TB pericarditis, scrofula, and suspected TB peritonitis. The TZ government has developed a FDC (fixed-dose combination) therapy for newly diagnosed patients with pulmonary TB. The advantage is the 4 drug 2-month induction regimen is combined in a single tablet and taken twice daily to improve compliance. The acronym for the 4 drug regimen is “RHZE” and includes rifampicin, INH, pyrazinamide, and ethambutol. After 2 months, patients are placed on a 2-drug regimen of rifampicin and INH for and additional 4 months (total 6 months of therapy). For resistant cases, streptomycin daily IM injections are added for the first month; the RHZE regimen is extended to 3 months and the 2 drug combination is given for 5 months (total 8 months of therapy). All drugs and testing are supplied by the government; Ilula has a “TB Officer” to supervise all TB cases.

**Malaria:** Malaria is still the number one cause of mortality in sub-Saharan Africa. There were 2209 blood-smear positive cases of malaria at Ilula in 2005. The peak was during the middle of the rainy season (300 cases in March 2005) and lowest at the end of the dry season (96 cases in December 2005). Malaria presents with fever and flu-like symptoms that can include cough, headache or abdominal pain. Serious complications including cerebral malaria, hypoglycemia with seizures, and hemolytic crisis (blackwater fever) can occur. Fever plus almost any other symptom is considered malaria until proven otherwise. Often a syndromic approach is used in presenting patients: patients with fever and respiratory signs may be started on anti-malarial therapy (quinine +/- doxycycline) plus an antibiotic for lower-respiratory tract infection (amoxicillin, bactrim, or chloramphenicol) until blood smear results are available. Patients with fever and CNS signs may be simultaneously treated for malaria and meningitis.

**Maternal Child Health:** MCH is a major part of health care in Tanzania. Ilula performs 2-4 deliveries per day and 3-4 c-sections per week. There is a large MCH clinic that offers comprehensive services. Ilula participates in an ELCT program “Acquire Program” (Access, Quality and Use in Reproductive Health) an outreach program sponsored by Engender Health ([www.engenderhealth.org](http://www.engenderhealth.org)), a USAID-sponsored program, to provide community outreach care to women including obstetric and contraceptive services.

**Geography and People of the Iringa/Ilula Area:** The Iringa and surrounding area is on the eastern edge of the Great Rift Valley at an elevation of 4000-6000 feet. The typical daytime highs are in the 80's-90's and lows occasionally in the 50s-60s. The elevation reduces mosquito (and hence malaria) incidence. As one travels outside the Iringa area (particularly west towards Ruaha National Park) you enter low lying areas where mosquitoes and malaria are much more prevalent. The main rainy season begins in late January and lasts until April or May—road travel to more remote villages and even Ruaha becomes nearly impossible towards the end of the rainy season. The people in this area are predominantly HeHe, with Massai, Bena and other tribes. All speak a tribal language as well as the national unifying language, Swahili; the language of business and education is English (most health care professionals speak English). Tanzania is one of the poorest countries of the world with a per-capita income of \$270. The average life expectancy (decreasing due to AIDS) is 45yrs. Most are subsistence farmers—the Ilula area is known for it's tomatoes, but farmers also grow onions, corn (made into a porridge called ugali), beans, and rice. The Massai are cattle herders; goats and chickens as well as milk and eggs provide an additional source of protein. The clay soil is suitable for making brick/mud huts/houses. Primary school education (as well as vaccinations) is provided by the government but few people can afford to go to secondary school or beyond. Social scientists believe that empowerment and education of women in Tanzania (and most developing nations) will be the key to overcoming poverty and improving health in this nation of 35 million. Muslim and tribal religions co-exist with Christianity (Catholic, Lutheran, Anglican, etc). The people are warm, open and generous, and put a high priority on personal relationships. Learn as much Swahili as you can before you go (check out Lonely Planet's Swahili phrase book or one of the on-line Swahili tutorials).

**Transportation In and Around Tanzania:** Most travelers arrive in Dar Es Salaam via the KLM flight from Amsterdam (arriving around 10 pm nightly). British Air, Kenya Airlines and others also serve Dar. We will arrange for an escort to pick you up at the airport after clearing customs and take you to lodging at the Free Pentecostal Church of Tanzania (FPCT) Hostel in Dar (cost about \$15/person/night includes breakfast and air conditioning!). Hotel accommodations are also available in Dar. For larger groups, the BegaKwaBega program can arrange a charter bus rental (cost approx \$200/day payable in US dollars—can hold around 12-15 persons); the Scandinavia bus departs downtown Dar for the 8 hour ride to Ilula/Iringa at around 8 am daily. Local taxis (kind of like minivans holding 10-12 people) can shuttle you from Ilula to Iringa for about \$1. A 12 hour bus ride from Iringa to northern Tanzania (Moshi/Kilimanjaro/Arusha) costs around \$25/person. Mission Aviation Fellowship (MAF) charters planes for non-profit groups at a cost of around \$2000 for a flight that can carry around 10-12 people on the 2-3 hour flight from Iringa to Arusha or one of the game parks in the north. I usually purchase evacuation medical insurance for the duration of my stay. Your travel plans should be arranged in advance and confirmed with the BegaKwaBega office in Iringa (begakwabega@yahoo.com).

**Entering the Country:** You will need a passport, VISA, and evidence of yellow fever vaccination to enter the country. Pack light—we often carry one bag with our personal items and 1 bag with gifts/medical supplies to leave in-country. Passing through customs has never been difficult for us. VISAs can be obtained upon entry, but for groups it is advised to obtain VISAs from the TZ embassy in USA ahead of time—allow several weeks for processing.

**Tourist Information:** About ¼ of the land of Tanzania is devoted to National Parks and preserves and is a significant source of revenue for the country. Indeed, Tanzanians are proud of these national treasures although few of the poor in Tanzania have ever visited them. On the drive from Dar to Ilula you will pass thru Mikumi National Park and have an opportunity to view wildlife from the road. Ruaha National Park is a 3 hour drive west of Iringa and is absolutely outstanding (google Ruaha or Mikumi). BegaKwaBega receives a special rate of about \$125/person/night at Ruaha that includes gourmet food and 2 game drives/day. Iringa is the local large city and has several good restaurants, an internet café (\$1/hour) and satellite phones to call home (time difference they are 9 hours ahead of us) and a fascinating central market (not-to-be-missed). It is also the headquarters of the BegaKwaBega program and Iringa Diocese of the ELCT; Arrangements can be made for a visit to the government hospital in Iringa and to Tumaini University. Accommodations for groups can be made through the BegaKwaBega program at the Kihese Life Skills Center in Iringa although hotels are also available. Textiles, art work and wood carvings are available in Iringa. You will have the opportunity to visit small villages and live and worship with the people that live there—this is perhaps the most special aspect of this experience. The island of Zanzibar is a unique cultural experience and was part of the slave trade in the 18<sup>th</sup> and 19<sup>th</sup> centuries. At 5895 meters (over 19,300 feet) Kilimanjaro is the highest peak in Africa and can be climbed by anyone in moderately good condition as long as they take plenty of time to acclimate to altitude. I highly recommend using the Marangu Hotel as an outfitter—it is

locally owned, has a beautiful lodge at the base of the mountain (8000 ft) where you can acclimate a day or two before hand and relax a day or so afterward. They guide and equip all of the major routes up the mountain. I have been pleased with the service of Suzanne Zapolski ([Suzanne@travelbeyond.com](mailto:Suzanne@travelbeyond.com)) a travel agent who specializes in TZ trips—she can arrange transportation in northern TZ, Kilimanjaro trips thru the Marangu Hotel, excellent accommodations in Arusha and trips to Tarangire, the Serengeti, Ngorangoro Crater, Gibbs Farm, etc. The gemstone, tanzanite, is available in shops in Dar, Arusha and Moshi—allow people we work with to direct you to reputable shops.

**Cultural Sensitivity Issues:** TZ is a modest country: men should plan to wear long pants at all times (shorts ok in game parks) and women should wear skirts/dresses with hem line below the knee (pants/shorts ok in game parks). Women should wear modest tops. Avoid wearing jewelry, expensive watches, etc. Most of our friends/coworkers will be proud to have their pictures taken, however, be cautious with those you do not know and be sensitive when taking pictures of patients. Do not take pictures of government institutions, or government officials/law enforcement personnel. A first visit to a very impoverished country can be unsettling for many people, but please refrain from making remarks about the level of poverty especially when in the company of our guides and TZ friends. Situations may arise where those you have met or work with may ask you for special assistance or requests to fund education, etc—channel all such requests thru the Doctor-In-Charge at the medical facility or to the Pastor at the church. You will become acutely aware that the level of health care practiced in TZ is different from what you are accustomed to in the USA. Before passing judgment, remember, these professionals are doing so much more with so much less than we have; this has been so eloquently expressed by Dr D Berwick in the British Medical Journal, 2004:

**“We will meet in the developing world a level of will, skill, and constancy that may put ours to shame. We may find ourselves not the teachers we thought we were, but students of those who work under circumstances that would have stopped us long ago”**

**Money Matters:** The national currency in TZ is the TZ shilling (Tsh) with an exchange rate around US \$1= Tsh1200. There is a money exchange at the Dar airport and should be one of your first stops once you have met up with your escort to transfer US dollars into Tsh. Money should be carried (along with your passport) in a concealed money pouch. Several restaurants in Dar and northern TZ accept credit cards but this is the exception. There are several ATM machines in Iringa. We can arrange wire transfer of money from the SPAS to the BegaKwaBega office in Iringa for you to pick up once you are there as well (checks should be made to the SPAS). Restaurant food in Iringa is typically \$2-5/meal. Lodging in Iringa is usually \$7-10/night/person. We request you gift the ILH \$10/person/night to cover costs of food/lodging/laundry during short-term visits. A lesser amount can be agreed upon for trainees staying a month or more. Consider bringing several hostess gifts (typically terri-cloth hand towel sets, etc) to give to those who invite you to stay in their homes. US dollars are required for the entrance fee to Ruaha.

**A Typical Day at Ilula:** If staying at Ilula, you will likely be house in one of the guest facilities and will awaken to sunlight and/or roosters. Water is intermittent and not potable but bottled water is available. The bathroom facilities may be latrine-style. Electricity is intermittent and 220volts (bring a converter). Breakfast may consist of coffee/tea, chapattis (a type of tortilla) ugali (corn mush), eggs, bread/jam, and fresh fruit (mangos, oranges, bananas). Morning report is held in the chapel at 8 am and lasts about 30 minutes. Morning in-patient rounds on the private and public wards and delivery area lasts 1-2 hours. This is followed by morning clinic and lunch (rice, soup, fruit, coke/fanta). Clinic in the afternoon lasts until 4 or 5 pm and 50-60 patients are seen in a typical day by the clinical officers, assistant medical officer and Medical Officer. Clinical officers take night call and admit patients. You may be called upon to help out if interesting cases come in after hours. There will be an opportunity to work in the lab (perform basic lab tests, malarial smears, etc) and work in the MCH clinic and assist in deliveries and surgeries. Special projects can be arranged at the adjoining Ilula Primary School or local orphanage (screening for malnutrition, vitamin supplementation, mass treatment of intestinal parasites, etc). Depending on expertise, blood pressure screening diabetes screening, HIV education and water/sanitation programs can be performed. Bring your stethoscope, a penlight (or portable oto-ophthalmoscope) plenty of Purel hand sanitizer and perhaps a blood pressure cuff. There will be an opportunity to visit the Iringa Regional Government Hospital, village dispensaries, and to perform home visits. A typical evening meal may consist of rice, vegetables (cabbage, onions, beans, carrots), soup, fresh fruit, and cooked greens. Anticipate numerous visitors from St Paul! Weekends should be free to travel to Iringa (a 1 hour ride).

**Health Care in Tanzania:** About 50% of the health care (total expenditure around \$10/person/year) is provided by the government and the remainder by NGOs including those with religious affiliation (Catholic, Lutheran, Muslim, etc). Despite being an impoverished country, there is a relatively organized medical system that tries to do as much as possible with the meager resources available. TZ has an essential drugs list, a Standard Treatments Guideline, a universal childhood vaccine program and has tried to implement the WHO's Integrated Management of Childhood Illness program. Inexpensive generic drugs (from manufacturers in Kenya, India, etc) are available in TZ but the cost may still be prohibitive for clinics and dispensaries to be fully stocked. TZ has 3 medical schools to train medical officers and specialists. There is a tiered level of health care providers: rural health care workers in villages, assistant clinical officers and clinical officers at dispensaries, assistant medical officers and medical officers at Health Centers, and medical officers and specialists (surgeons, OB/GYN for high risk OB, pediatricians) at Hospitals. The government has district hospitals, regional hospitals and referral hospitals with corresponding officials (District Medical Officers, Doctors-In Charge, etc). The Ocean Road Cancer Institute in Dar Es Salaam is the only center in TZ and one of the few in sub-Saharan Africa to specialize in cancer care, however there are more CT scanners with-in walking distance in downtown St Paul MN then there are in all of TZ. There are several outstanding models of mission health care in TZ including Selian Hospital in Arusha ([www.selianlh.habari.co.tz](http://www.selianlh.habari.co.tz)) and Kilimanjaro Christian Medical Center (KCMC) in Moshi ([www.kcmc.ac.tz](http://www.kcmc.ac.tz)). Tribal and traditional healers and

traditional birth attendants also provide a significant amount of health care particularly in rural areas.

**Health Care Advice For Travelers:** You should visit a Travel Clinic at least 1 month before departure to receive recommended vaccines prescriptions and advice. Yellow fever vaccine is requirement, Hepatitis A and B, typhoid, polio booster and tetanus are recommended while influenza and meningococcal vaccination is suggested. Rabies vaccine is not necessary for work at Ilula unless you plan to stay for several months. Knowledge of malaria prevention (including chemo prophylaxis with malarone or doxycycline) and prevention of food/water-borne illness is essential. A personal first aid kit including ciprofloxacin, cough/cold remedy, peptobismol, immodium, antacids, analgesics and antibiotic ointment is recommended. For more information go to the Center for Disease Control web site [www.cdc.gov](http://www.cdc.gov) or consult the CDC's "yellow book."

**Recommended Reading:** Below are books that I or others have found interesting:

Tanzania, Lonely Planet's Guide

Trekking in East Africa: Lonely Planet

Shoulder to Shoulder: BegaKwaBega: A Lutheran partnership between Minnesota and Tanzania; Richard Lubawa

Cross Under the Acacia Tree; Jim Klobuchar: a chronicle of the Simonson Family missionary work in TZ

Poisonwood Bible; Barbara Kingsolver: a fictitious tale of how not to do mission work

Don't Lets go to the Dogs Tonight; Alexandra Fuller: true tale of growing up in sub-Saharan Africa

End of Poverty; Jeff Sachs: a global understanding of economics by a leading economist

Mountains Beyond Mountains; Tracy Kidder: the story of Dr Paul Farmer's work in Haiti

The White Nile; Alan Moorehead: history of white exploration of Africa

Oxford Handbook of Tropical Medicine; Eddleston and Pierini

Guns, Germs and Steel; Jared Diamond: an understanding of human development across cultures

**What To Bring:** Check the airline regulations for overseas baggage weight limits. Check 2 bags (one containing your personal items and one containing gifts/medical supplies) and bring a carry on backpack with your most important belongings (travel

documents, medications, a change of clothes in case your bags are delayed). Pack light—appendix 1 is a sample packing list for a 3-4 week trip. Bring your stethoscope, consider bringing a blood pressure cuff and penlight/oto-ophthalmoscope. Examples of medical supplies to bring can be found on the GHM web site ([www.ghm.org](http://www.ghm.org)) indeed, if you are in the Minneapolis/St Paul area, GHM will pack a suitcase of medical supplies for you to bring such as disposable gloves, syringes, disinfectants, etc. Pocket handbooks such as Pharmacopias, Sanford's Infectious Disease Guide, The Oxford Handbook of Tropical Medicine, etc are wonderful things to leave at Ilula.

## Appendix 1: Tanzania Packing List

### Travel Documents

Passport, yellow card  
(photo copy of passport x 2—leave 1 copy at home)  
airline ticket  
money holder for under clothing  
travel insurance/medical insurance info  
money (approx \$500/person)

### Luggage/Airplane Stuff

2 suitcases (including one duffle bag) pack one with personal stuff, one with gifts  
backpack/carry-on bag  
ear plugs  
inflatable travel pillow  
change of clothes/toiletries

### First Aid /Medical Supplies

malarone or doxycycline  
cipro  
immodium  
supply of peptobismol tablets  
pseudoephedrine or cold tablets  
ibuprofen  
insect repellent (small bottle DEET)  
small tube antibiotic ointment  
small tube hydrocortisone cream  
small tube antifungal cream  
purel  
moleskin, bandaides  
disinfectant wipes  
Tums

### Personal Items

Toilet paper in ziplock bag  
Toothbrush/small toothpaste/floss  
Travel size soap/shampoo  
Deodorant  
Razor/shave cream  
Comb  
Small bath towel  
Swiss army knife or muti-tool  
Small flashlight  
Watch  
Sunglasses/sun screen/chap stick

### Clothing

(laundry can be done at Ruaha; hand-wash clothes at Ilula or in Iringa)

3-4 underwear

3-4 pr socks

2 pair long pants (wear 1 pr on plane) or skirts

2-3 short sleeve button-down shirts or blouses

1 long sleeve shirt (wear on plane)

1 long sleeve t shirt

light fleece jacket (optional?)

1 short sleeve soccer jersey-type t shirt (sleepwear/loungewear)

1 pr soccer shorts (sleep wear/loungewear)

walking shoes (wear on plane)

tennis shoes

flip flops for shower

nylon rain/wind jacket

cap/hat

small amt laundry detergent

cotton bandana

sleep sack: cotton or silk sheet sewn into a personal "bag"

### Snacks

1 box granola bars

crystal light powder drink mix

### Reflection Items

Bible

Devotions book

Journal book with pens

Picture of home/loved ones

Email addresses

### Recording Equipment

Cameras (group should have at least 1 digital and 1 "instamatic" camera)

12-15 X 24 rolls of film, film for instamatic camera

video camera with extra discs

extra batteries for cameras

recharger

220V adapter (2 for the whole group?)

ziplock bags for cameras

### Miscellaneous and Group Items

Binoculars

Rope/ clothes pins/duct tape

1-2 plastic garbage bags

