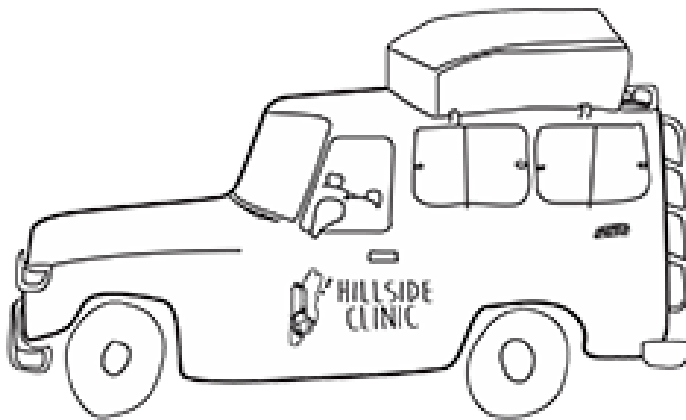


Hillside Health Care International

Orientation Manual for Hillside Medical Volunteers





HILLSIDE MISSION STATEMENT:

Hillside Health Care International (HHCI) is a faith based, non-profit organization dedicated to serving God by providing health care and disease prevention to the people of Southern Belize. HHCI is devoted to improving the Belizean quality of life through medical care, health education, and community outreach. HHCI promotes healthy global attitudes by offering a culturally-rich educational program for medical volunteers that challenges them to better understand their role in international health care.

HILLSIDE VISION STATEMENT:

To ensure HHCI dynamically fulfills its mission by striving to build bridges to the medically underserved, to the people living in our service areas, to our volunteers (medical and non-medical) who serve others through our program, to our partners, to our staff, and to long term financial sustainability.

Table of Contents

- I. General Orientation and Background
 - A. Preparation Before Arrival
 - B. Major Hillside Programs
 - C. Hillside Volunteer Responsibilities
 - D. Cultural Awareness
 - E. Hillside's History and Structure

- II. Overview of Healthcare Delivery in Belize

- III. Hillside Activities
 - A. Medical/Nursing Programs
 - B. Pharmacy Program
 - C. Physical Therapy Program
 - D. Community & Public Health Program
 - E. Education Curriculum

- IV. Guidelines for Student/Resident Oversight

- V. Clinic Procedure

- VI. On-campus housing

Appendix

- 1. Packing List
- 2. Belize Malaria Protocol
- 3. Oral Rehydration Solution
- 4. Diabetes Evaluation
- 5. Hypertension Evaluation
- 6. Asthma Classification
- 7. Pharmacy Quick Tips

I. General Orientation and Background

A. Preparation Before Arrival

- **Read through this entire document** for information on Hillside Clinic, your responsibilities during your term here, overview of healthcare in Belize, services/referral areas in the Toledo district, and other important information.
- **Read through the website** www.hillsidebelize.org. This site has been reviewed and approved by the Hillside Health Care International Board of Directors and is utilized by visiting students/volunteers to help them become familiar with Hillside.
- **Read through the clinic procedure (Section IV)** as the students will rely on medical volunteers to know Hillside's proper documentation procedures (SOAP notes), clinic flow, health protocols, referral procedures for lab tests, x-rays, and consults, etc. Quality clinical care is our top priority.
- **Read through the Community Health Education (Section III - E)**. You may be asked to give a presentation on a topic from the Hillside curriculum or based on your area of expertise during your stay.
- **Medication transport** - Currently we are purchasing medications within the country of Belize due to increased difficulty with procedures to get medications through customs. Please dialogue with the pharmacy director (pharmacydirector@hillsidebelize.org) about this process if you would like to bring donations.
- **Medical supplies** - are welcome and can usually come through customs with very little problem. Contact us for a wishlist. (clinicsupervisor@hillsidebelize.org)
- **Talking to previous volunteers** who have served at Hillside is an excellent way to get a sense of what your experience will be like and what you need to be prepared for. Please contact the Medical or Students and Volunteers Director for contact information for these volunteers.
- **See the recommended Packing List in Appendix 1**
- **Come prepared to work within the established system and be flexible.**

B. Major Hillside Initiatives

- There are three main programs through which we try to achieve our goals:
 - a) **Clinical**- Direct patient care including acute illnesses, disease prevention, and referrals
 - b) **Community and Public Health** - Outreach and education to communities and schools, including public health initiatives and community service in the villages
 - c) **Education**- Teaching our learners how to practice in a resource challenged, rural, and culturally diverse setting.
- Hillside works in close partnership with the Belizean Ministry of Health and Ministry of Education and attempts to provide services that will augment those

already available through those organizations.

C. Hillside Volunteer Responsibilities

- Oversight of medical care delivered during all of Hillside's clinical activities including Eldridgeville (home) clinics, mobile clinics and home health visits.
- Precepting medical, physician assistant, pharmacy and physical therapy students and medical residents (as appropriate based on preceptor's discipline) during patient encounters for Hillside clinical activities. Responsible for all care delivered by the same.
- Facilitating the medical education of Hillside medical, physician assistant, pharmacy and physical therapy students and residents through patient encounters, talks, case presentations, community health program oversight, etc.
- Ensuring that student and resident participants adhere to established clinical policies including documentation guidelines.
- Facilitate excellent communication between students, staff, administration, and the MoH.
- Presenting or helping to present on certain health related topics included in the rotation curriculum of Hillside.

D. Cultural Awareness

- It is important to remember that you are spending time in a foreign cultural environment. Just because most people here speak English does not mean that they have the same values, the same ways of looking at the world, or the same ways of dealing with the problems of life. There are also differences between the various ethnic groups within Belize. Please do not make judgments or comments that only reflect your world outlook. It is much better to observe and process what you see and then discuss these in our evaluation times. *If you are not certain what is appropriate, ask one of our Belizean staff members.*
- Dress appropriately when out in public. You reflect Hillside whether on or off campus. If you are in a professional setting, long pants and sleeved shirts are necessary. When working in the clinic or mobile, most students and providers wear scrubs which are available on campus if you did not bring your own.

E. Hillside's History and Current Structure

- Hillside opened in 1999 as a collaboration between the Jericho Road Foundation International (JFRI) based in the Chicago area and the Medical College of Wisconsin (MCW). The Sisters of Mercy (SOM) subsequently became a third partner. The organization underwent reorganization in early 2005 and is now called Hillside Health Care International (though the clinic continues to be known as Jericho Road by some of the local population). The organization has a stateside board of directors. The Board chairperson and the stateside board oversee the operations of the organization.
- The Hillside Clinic team is headed by the Medical Director and the Clinic Director. They report directly to the executive director and board. The remaining staff at Hillside consists of salaried local employees and volunteer health professionals.

- The clinic is supported financially through student tuition fees (70%) and private individual and organizational donors (30%). The clinic currently provides all services at no cost. We do ask all patients who are financially able to donate to help support the clinic.
- Medical and Physician Assistant (PA) students with at least one year of clinical experience and medical residents have been completing elective rotations at Hillside since its inception and are an integral component of the Hillside health care team. Participants are primarily from the US and UK with other students coming from Australia, Canada, New Zealand, and across Europe. In 2009 Hillside started a pharmacy program and hosts pharmacy students on a monthly basis. Hillside initiated a physical therapy rehabilitation program in 2012 which includes physical therapy students. The most recent addition was the Public Health program which has been hosting students since 2015.

II. Overview of Health Care Delivery in Belize

A. Hillside is one of a few primary care providers other than the MoH and their providers in the Toledo District

- There are currently several retired Belizean doctors who run their own private clinics. Drs. Morenco and Legra charge for their services while Hillside's services are free or donation based.
- Hillside works in areas that the MoH is unable to adequately cover with the system below. We work closely with the MoH to determine our mobile clinic sites and schedules, and coordinate referrals and services.

B. Ministry of Health

- The Belize Ministry of Health (MoH) manages a country wide system of hospitals and clinics. The MoH divides Belize into 4 regions with each region possessing a lead hospital. Hillside presides in the Southern Region which includes the Toledo and Stann Creek districts. The Southern Regional Hospital is located in Dangriga, Stann Creek District, and is the main referral site within the region; the Toledo district hospital is located in Punta Gorda. Karl Heusner Memorial Hospital, located in Belize City, is the MoH tertiary hospital for the country. Patients may receive free/low cost care at MoH facilities throughout the country, or opt for more expensive private facilities.
- Belize has a **National Health Insurance** program that provides care to all registered citizens. Hillside is considered an "out of network" provider for the NHI system. However due to our close partnership with the MoH we can send our patients to the MoH facilities in order to have tests done on our patients, including XRs/USs and certain lab tests. Some tests still require our patients to see the MoH doctors for orders.
- **Southern Regional Hospital** in Dangriga is the main referral point for patients requiring a higher level of service of care in the Toledo district. Southern Regional Hospital provides general surgical services, and its staffing includes a general surgeon, OB/GYN, an internist and a pediatrician. Most other specialties

are only found in Belize City. The exception is orthopedic surgery cases which are referred to Belmopan, and any high level cases, which are referred directly to Karl Heusner.

- **Punta Gorda (PG) hospital** provides basic inpatient services and maternity care; it is staffed by primary care physicians, the majority of whom are trained in other countries in Central America and the Caribbean; there is no medical school in Belize. Regular surgical services are not offered; however, there are occasionally surgical teams that come from the U.S. There are occasional specialists that visit PG hospital and the PG polyclinic staff generally knows that schedule.
- **Outpatient care** is coordinated through one of two Primary Care Clinics (PCPs) or “Polyclinics.” These are located in PG and San Antonio. Public Health (Maternal and Child Health or MCH) Nurses are responsible for immunizations, prenatal clinics, and well child exams. In PG they have TB, hypertension and diabetes clinics, a vector control unit (malaria, dengue, etc), a public health inspector (water standards, restaurant inspection, etc) and the district health education office (HECOPAB). There are two psychiatric nurses who provide mental health services to the district under the supervision of a psychiatrist currently practicing in Belize as well as HIV care.
- Each PCP has two or three **rural health/satellite clinics**. These are staffed by a rural health nurse and/or a physician. The physician often is there only one day a week. The rural health nurse acts in many ways like a family nurse practitioner. These villages have “Health Centers”, which are good sized buildings equipped with living quarters for the nurse or physician. PG’s clinics are in Santa Ana and Big Falls, and San Antonio’s clinics are in Columbia, Pueblo Viejo, and Santa Teresa.
- Each village in Toledo (and elsewhere in Belize) is intended to have a **Community Health Worker (CHW)**. The CHWs work out of a village “Health Post” which frequently is a small one-room structure. CHWs have varying levels of training, but are generally limited to very basic medical care. They are provided with medications like Tylenol and benadryl and with the ability to perform malaria smears, wound dressing, etc. Some of them are trained to perform COVID swabbing. CHWs are paid a small stipend and usually perform unrelated work to support themselves. The CHWs provide the first line of care to the villagers; they refer patients to a higher level of care when necessary. Some villages also have volunteer Traditional Birth Attendants (TBAs).
- Many births are performed in the home, particularly in the furthest villages. The MoH encourages women to have their children (especially first pregnancy) at the PG Hospital and this is becoming more of the norm. Deliveries in the hospital are normally attended by midwives and the nearest OB/GYN is at Southern Regional Medical Center in Dangriga.

C. Other Organizations/Medical Practitioners

- **Universal Health Services and Belize Medical Associates** are private clinics/hospitals in Belize City with most medical subspecialties represented.

Those able to afford to do so often choose the private facilities over MoH facilities. **Loma Luz** is another such facility in Cayo District. **St. Lukes** is in Belmopan.

- **BCVI** (Belize Council for the Visually Impaired) is a countrywide NGO which provides affordable eye care for the MoH. There is an office in Punta Gorda next to the hospital which is supervised and staffed by an optometrist on certain days. (This changes but the clinic staff has access to the schedule.) There is a technician who is able to perform basic vision screening at all other times. Generally ophthalmologic cases are referred to Belize City.
- **“Bush Doctors”** are utilized by many residents of the Toledo population, particularly in the rural areas. Much of the Toledo population will try home herbal remedies prior to visiting a health care provider.
- Short-term volunteer health care providers (missionary teams, US surgical teams, individual providers, etc) often visit the Toledo District to conduct clinics with the approval of the MoH.

III. Hillside Activities

A. Medical/Nursing Programs

- Clinical activities currently consist of the onsite clinic, mobile clinic and the home visit program.
- **On-site clinic** is conducted Monday through Friday morning from 8 am - 12 pm
 - a) Patients are seen on a number system; first come, first served. Intake opens at 7:30 - 11:30. Clinic remains open until the last patient is seen.
 - b) The morning hours are designed to coincide with the regional market conducted in PG in the morning. Villagers from throughout Toledo District bus into PG early in the morning and return to their villages on buses that depart PG around noon. Hillside attempts to make itself available to these villagers. Because patients from rural and urban areas attend the onsite clinic, the patient mix (and therefore the conditions encountered) tends to be diverse.
- **Mobile clinics** to villages are conducted 2 days per week. Mobiles leave between 7 - 8 am and expect to return between 2 - 5 pm. The villages are chosen by the MoH with our consultation. Presently Hillside covers:
 - a) **San Antonio catchment area:** Aguacate, Corazon, Dolores, Otoxha, and San Jose
 - b) **Punta Gorda catchment area:** Barranco, Laguna, and San Marcos
 - c) **Home Health** - Visits are provided for those people in the PG area who are unable to easily access a medical facility. Hillside is the only clinic to provide such services as the MoH does not have the capacity to do so. Currently there are approximately 30 patients; these include the elderly, disabled children and adults. Home visits are conducted by a Hillside registered nurse with students accompanying. During each month, all patients are visited at least once, though frequently a patient’s condition

will require multiple visits. Home visits are designed to provide medical care while also providing an opportunity for social interaction for persons who are often very isolated.

- **Home Hospice and Palliative Care** - Hillside is one of only 2 organizations in Belize providing care specific to the end of life. We partner with the Belize Hospice and Palliative Care Foundation in Belize City to provide this care. These patients are seen as part of the Home Health program.

B. Pharmacy Program

● **Medications**

- a) Medications dispensed by Hillside are purchased in Belize or provided free-of-charge by the Ministry of Health. Occasionally they are donated and brought to us by students/volunteers. This requires special permission and a letter from MoH which the pharmacy director would arrange for you if possible.
- b) Although we try to maintain consistency in our inventory it is often necessary to substitute one medication with another from the same class, i.e. captopril for enalapril.
- c) Controlled substances are generally not kept at the clinic. Those on the Belizean formulary can be obtained, if necessary, through the PG Hospital pharmacy.
- d) Remember that there is far less resistance to common antibiotics here in Belize than in the U.S

● **Prescriptions**

- a) All written prescriptions need to be signed by the licensed medical preceptor/provider to verify proper dose and length of treatment
- b) Prescriptions written in the clinic should be written so patients can understand them with no abbreviations.
- c) Since our supplies are limited, you must restrict the amount of medications given. Generally, a one month supply is given. Refills may be written on the prescription if it is appropriate. Acute "PRN" medications should be restricted to 20 doses.
- d) If there is a choice in medications, prescribe the ones that will expire first. At the beginning of each month an updated formulary with expiration dates is printed and available. There are some medications available at the PG polyclinic that Hillside does not have and we are able to prescribe those and have them filled by the patient there.

● **Staff**

- a) Consists of a full time Belizean Pharmacy Director, Belizean Pharmacy manager, occasional volunteer pharmacists, a number of staff members who have had training as pharmacy assistants, and pharmacy students. The pharmacy program accepts 1-3 students each rotation.

- b) All are available for consultation with the medical providers to help in choice of the correct medication given the formulary constraints. Use their knowledge to guide you.
- See Appendix 6 for Pharmacy Quick Tips

C. Physical Therapy Program

- **Staff:**

- a) Consists of a full time Physical therapist/Rehab Director, occasional volunteer Physical therapists, and a Belizean Rehab Tech.
- b) The Physical Therapy program accepts 2 students for each rotation.

- **Activities:**

- a) Outpatient evaluation and treatment at the Hillside clinic.
- b) Outpatient evaluation and treatment, and Home Health visits on mobile clinics with the medical team.
- c) Home Health visits in the Punta Gorda area for those people who are unable to easily access a medical facility.
- d) Educational sessions in schools and the community including various topics like; back pain and posture, physical exercise and disability awareness.
- e) The Physical Therapy program works with Community Based Rehabilitation and volunteers are encouraged to read about it beforehand: <http://www.who.int/disabilities/cbr/en/>
* See part A for more information on outpatient and mobile clinics.

- **Volunteer Physical therapists**

- a) Are expected to supervise and teach 3rd year DPT students in all Hillside activities.
- b) Evaluate and treat patients if necessary.
- c) Drive during mobile clinics and Home visits if driving is approved.

- **Common conditions treated include:**

- a) Musculoskeletal disorders (fracture, amputation, muscle strain/sprain, deconditioning, bursitis), neurological disorders (stroke, spine injury), pediatric disorders (cerebral palsy, spina bifida, Down syndrome, developmental delays) and elderly conditions (arthritis, loss of balance, deconditioning).

- **Durable medical equipment:**

- a) Hillside works with local woodworkers and has equipment built in order to support the local economy.
- b) Equipment is also donated and at times restored to be reused.
- c) Donations of braces, thera bands, and other equipment is highly appreciated, ask the Rehab Director about what is needed.

D. Community & Public Health Program

- The public health and community education efforts are primarily coordinated by the Public Health Director in conjunction with the rest of the Hillside leadership team
- **Key Purposes:**
 - a) To serve the local community by providing education and community services
 - b) To provide students opportunities to gain experience providing public health outreach and community health education in Belize.
- **Key objectives:**
 - a) Understand and appreciate the uniqueness of the many cultures of southern Belize including the Maya, Garifuna, East Indian and Creole cultures.
 - b) Recognize the benefits and challenges of working with multicultural communities, develop strategies to overcome the challenges, and understand how this knowledge can be applied to a practice in the participant's home countries.
 - c) Recognize the unique challenges of healthcare delivery in a developing country and gain an understanding of government's role in improving population health.
 - d) Compare and contrast Belizean population health statistics and health disparities with that of the region and more developed countries.
 - e) Recognize global health efforts worldwide and identify key players in improving population health both in Belize and internationally.
 - f) Understand and appreciate how factors beyond healthcare—social, economic, psychological, spiritual, and biological—impact health outcomes.
- **Student Experiences:**
 - a) Students develop presentations for schools, organizations, and village health fairs. Hillside has developed working partnerships with the MoH, Ministry of Education, and other organizations involved in providing health and social services for people of the Toledo district. These organizations include HOPE (for the elderly), CARE Belize (disabled children), PLENTY (sustainable jobs, school gardens), Toledo HIV/AIDS committee, and LOL (orphanage).
 - b) Students will be provided population health data for Belize and the Toledo District, and learn of health disparities found in Belize relative to the region and more developed countries. Ultimately, students will learn to consider what forces impact health beyond the health system, and the context of an individual's life on his/her health and wellbeing.
- The Public Health Director also oversees MPH student projects. Hillside strives to have 1-3 MPH students every rotation. Such projects in the past have included assessment of Hillside's current follow-up system, needs assessment of family planning preferences among patients, oral hygiene school-based program design,

monitoring and evaluation plan proposed, assessment of gender-based violence in the Toledo district and understanding resources available for such victims, development of sexual reproductive health education in the school setting and clinic, facilitated quality improvements not just clinically but also at a community level.

- We ask that you contribute to the implementation of the community health program by helping students to consider social context and social determinants in individuals' and community health. Continuous reinforcement by a medical professional supporting the need for linking community health and clinical medicine demonstrates to students that both are necessary in order to pursue health.

E. Education Curriculum

- Lectures are given by faculty, staff, students and occasionally others.
- **Short-term volunteer preceptors are encouraged to lead one or more short presentations** on a medical subject that they have prepared.
- Lectures are typically from 3-4 pm or on Friday noon and topics covered include:
 - a) Common Medications used at Hillside, Social Determinants of Health, Usual and Common Diagnoses in Toledo, Common Dermatology, Differential Diagnosis Lumbar Spine, Community Based Rehab, Lepob and Machete, Overview to Contraception, Belizean Culture, MacGyver Medicine, and a Photomapping activity.
- Each Friday the students and volunteers are provided lunch in conjunction with case presentations, reflections, feedback, and goal-setting.

IV. Guidelines for Student/Resident Oversight

- A. Oversee all patients being cared for by students based on your area of practice (medical, PA, PT, Pharmacy, other)
- B. Encourage professional behavior and appearance at all times.
- C. Stress confidentiality at all times.
- D. Medical preceptors:
 - All student charts and prescriptions need to be reviewed and cosigned. Give feedback to participants early and often.
 - Licensed Senior residents (3rd year or higher) may be allowed to precept under the supervision of a licensed practitioner in certain situations under the discretion of the Medical Director - usually after a couple weeks of experience at Hillside.
 - Encourage students/residents to be thorough while also working on efficiency during the patient visit. At onsite clinics, patients often have to catch a bus.
 - Encourage the students/residents to keep their notes concise; if the clinic becomes busy, students/residents are still required to record a complete note but may work on the chart after the clinic is over.

- Help the students/residents to develop their ability in thinking through and writing out an assessment and plan for every patient. Remember that a clearly documented assessment and plan on each patient is *essential* in providing continuity of care between rotating physicians.
- The Ministry of Health does require a licensed practitioner in room with each student at time of their obtaining history and performing physical. If patient is seen in curtained rooms, preceptor can stand outside of curtain and listen. Be sure to introduce yourself to each patient as student brings them to a room. MoH allows the patient education and explanation of plan to be delivered to the patient by the student alone (without preceptor in room). **All procedures require the presence of a licensed practitioner.**

V. Clinic Procedure

A. Daily Clinic Hours:

- Eldrigeville (home) Clinic: Monday through Friday 8am –noon
- Mobile Clinic: Tuesday and Thursday or Friday (2 days weekly). Leave between 7-8 am and return between 2-5 pm.

B. Intake: Staff checks in patients in order of arrival and gets basic vitals including a malaria smear if indicated per Belize Ministry of Health Guideline (smear for any pt with fever 99.6 or higher). Charts are placed in an inbox in the order that they should be seen. Students are to pick up charts in order (sometimes families are seen together). Students are required to get any additional vitals (respiratory rate, pulse, pulse oximetry).

C. Charting: All charting is done in order to provide consistent quality patient care. The left hand side of the chart holds the patient’s medical history if they have been seen at Hillside before. A current problem list should be kept on all patients - students are responsible to update the list as needed. Some acceptable abbreviations, appropriate SOAP notes and examples of chart notes are listed below. All medical students are provided with this charting information via email before arriving at Hillside and in paper form upon arrival.

D. References: There are reference books in the cabinets in the clinic. Wifi is also currently available on campus.

E. Prescriptions: Students will write prescriptions, but preceptors must sign them in order for the Hillside pharmacy to fill them. Please ensure prescriptions are legible and are written in simple English so the patient can read them at home and take their medication appropriately. Please be sure to check the patient’s allergies. All dispensed meds should be clearly listed in the chart with dose, instructions, and quantity (Done by the Pharmacy Team). (For more see Appendix 6)

F. Testing: There are a limited number of tests available to be run at the clinic. These include: Urine dipstick, capillary glucose, EKG, and pregnancy tests. HbA1c is available from June 2022 along with screening for diabetes. Document results in the SOAP note.

- **Lab tests:** Most basic tests can be performed at the PG hospital for free and these are posted in the consultation room.

- a) There is a form to complete, including test requested, diagnosis, and signature.
- b) **Hillside does phlebotomy at our home clinic.** If the test is on the MoH lab request form, form can be filled out by the medical team and given to the Clinic Staff. Patient will be called back and blood drawn. Samples will be delivered to PG hospital lab the same day. (Not currently done on mobiles)
- c) Most tests not on the form will cost the patient around \$40/test. For these labs, complete the same form and have the patient go to PG Polyclinic where one of their MDs will have to see the patient and place the order.
 - (1) When the PG lab has the capability, pts with diabetes can have their HbA1C done twice yearly for free, they still need to have test order entered at PG Polyclinic. (Hillside is now offering HbA1c to our DM patients in an initiative started in 2022 with Northwestern University.)

● **Imaging:**

- a) X-rays are done at PG Hospital. If there is a fee it is quite affordable. A form needs to be filled out and the patient will get film and bring it back to Hillside for reading (no Radiologist).
- b) US are done 2-3x month at both PG and San Antonio Polyclinics. They will come with an interpretation. A referral form must be filled out, patient will be told to go for an appointment with MD at Polyclinic first and then have the US. There is a fee for the US. Check with our Staff.
- c) CT, MRI, etc are all done in Belize City only and incur patient cost.

G. Referrals: Consultation forms can be filled out for most specialties. The majority of specialists are in Belize City with an OB/GYN, General Surgeon in Dangriga and an Orthopedic MD in Belmopan. Patient will incur consultation fee and further cost based on evaluation.

- Fill out referral form and give it to the Clinic Staff who will call and schedule an appointment for the patient. Must include patient phone number on form to alert them to timing of appointment.

H. Information on our malaria protocol, oral rehydration protocol, a temperature conversion chart, clinical evaluation of diabetics on oral hypoglycemics, clinical evaluation of chronic hypertension and asthma classification and treatment can be found below in the Appendices.

VI. On-Campus Housing

A. On-Campus Apartments

- There is one on-campus apartment with two rooms available by reservation. There is a fee of US \$15/ day or US \$100 per week. Currently there is wireless internet available on campus.
 - a) **“Tree House”** - This apartment is located above the maintenance office. It consists of a kitchen/dining room unit with refrigerator, stove, coffee maker, microwave, and sink. There are two separate bedrooms, one with two single beds and the other with one single bed. You can expect to share bathroom/kitchen/dining quarters with another volunteer.

B. Security

- There is security on campus at all times.
- Please be mindful of your safety at all times. Although Toledo is a relatively safe environment, it is easy to fall into a relaxed mode and allow for unfortunate things to happen to you and your belongings.
- No one is allowed on the grounds except students, volunteers and staff, other than patients during clinical hours. Keep your room locked when you are out and secure your belongings. When on mobile or touring be sure to keep your belongings safe.
- There is **no smoking** allowed anywhere on the Hillside campus.
- There is **no alcohol** allowed anywhere on Hillside campus.
- **Use of street drugs in any form will not be tolerated and will mean immediate dismissal from Hillside.**

C. Housekeeping

- Bedding and towels are supplied. Bedding is washed on Tuesdays by our housekeepers and towels are washed as needed by the medical volunteer. Please keep your rooms tidy. Housekeeping cleans the rooms once/week. Keep the kitchen area clean. Any food or scraps will immediately draw ants and flies. Keep the refrigerator clean as well. Using leftovers are encouraged, but should be thrown out after 3-4 days if not used.
- Monday and Wednesday mornings (6:30am) are scheduled times for going to the local market with a Hillside vehicle.
- Certain meals are provided by Hillside. Check on the weekly schedule to find which meals are provided.

D. Other

- **Internet:** we have wireless internet covering the majority of campus. Speed varies and we ask for decreased media use during working hours. Ask staff for password.
- **Phone:** Some of our volunteers purchase international plans for their time here which tends to be more expensive but is an option. More recently, students and volunteers sometimes bring an “unlocked” phone, purchase a BTL SIM card for ~\$11 USD and buy “credit” for local calls and internet use.
- **After clinic:** Most days after clinic you are free unless otherwise noted on the schedule. There will be afternoons that the nurse asks you to accompany on Home Visits to provide an MD exam for the Home Health patients. You may view the schedule and go on other events or attend lectures but this is not required generally. Volunteers often use this time to relax or go into town to explore, eat dinner, or get groceries/supplies.
- **Weekends:** We finish by 3 pm on Fridays and you are free until Monday morning. We strongly encourage you to explore the many diverse cultural, natural, and historical options in Belize. Please ask volunteers/staff for recommendations.

Appendices

Appendix 1 - Packing List

- **Essentials:**
 - Passport
 - Toiletries
 - Stethoscope
 - Hand sanitizer
 - Credit/Debit card for ATM machine (there are two in Punta Gorda)
 - 3+ sets of scrubs for patient care
 - Sturdy, closed-toed walking shoes
 - Light clothing for after hours
 - Large, sturdy water bottle
 - Head Lamp/Flashlight
 - Any medication you take regularly
 - Insect repellent
 - Sunscreen
 - Sunglasses
 - Masks
- **Other things:**
 - Backpack and bag for mobile clinics and weekend trips

- Tennis shoes that you don't mind getting muddy
 - Water shoes
 - A Hat or Baseball Cap
 - Short sleeve shirts rather than sleeveless are required for clinic related activities
 - One nice (but not formal) outfit for a dinner out
 - Camera
 - Swimsuit
 - Beach towel
 - iPod/Laptop
 - Lightweight Rain poncho/coat (if desired)
 - "Easy Food" for mobile clinics (granola or power bars, etc.)
 - Some good books
- We do have a scrub lending wardrobe if you do not have your own.
 - If you are staying in the Tree House, we have towels, sheets, and pillows.
 - If you have favorite snacks or a particular brand of coffee you must have, you should bring them down with you. Availability is limited here.

Appendix 2 - Belize Malaria Protocol

All patients with **temp. 99.6 or greater automatically get a malaria smear** done regardless of their chief complaint. If the patient has malaria, the department of vector control will send someone to the patient's home to treat the patient for malaria, and also to spray their home.

Appendix 3 - Oral Rehydration Protocol

- We have prepackaged Oral Rehydration Solution (ORS) in clinic
- **Recipe** (if needed)
 - $\frac{3}{4}$ teaspoon of salt
 - 4 teaspoons of sugar
 - 1 liter of clean drinking or boiled water and then cooled
 - Note: Be conscious when describing this to a patient. The patient may not have a teaspoon available or know what a liter is. Be creative, say a pinch of salt rather than $\frac{3}{4}$ teaspoon of salt.
- **Preparation**
 - Wash hands prior to preparing.
 - Use clean pot.
 - Stir until salt and sugar is completely dissolved.
 - Water should be bottled, or boiled and cooled, or other clean drinking water.
 - If the child still needs solution in 24 hours, must make a fresh batch.
 - Store in cool location. Chilling may be helpful if available.
 - Wash cup well after use.

- **Dosing**
 - **Adults and large children** - should drink at least 3 liters of solution a day until well.
 - **Children under the age of 2** - Each feeding should be between a quarter to a half a cup of a large cup – small frequent sips!
 - **Older children** - Each feeding should be between a half to one large cup – frequent small sips!
 - Give ill child as much of solution as needs, in small amounts frequently.
 - Give to child alternately with other fluids, ex. Breast milk
 - Continue to give solids if child is over 4 months of age, again small amounts frequently.
 - If the child vomits, wait 10 minutes and then give it again. Vomiting usually resolves. Body will retain some salts it needs despite vomiting.
 - Continue rehydration solution for the duration of the diarrhea, usually 3-5 days.
- This is supportive care only, will resolve on its on generally.
- If diarrhea or vomiting increases, see a doctor.

Appendix 4 - Diabetes Evaluation:

Beginning June 2022, Hillside rolled out an initiative in collaboration with Northwestern that is aimed at better evaluating and controlling our pre-diabetic and diabetic population. Intake staff will screen initially following a set algorithm, if the fasting or random glucose check are abnormal, a point of care Hemoglobin A1c will be done. Education is a large component of the project and is also monitored. Please fill out the progress sheets fully so we can accurately track data to see how our initiative is performing. Our Medical Director and the intake staff guide this process following protocols designed and tested by our MPH students.

On the Diabetic progress note you will be prompted to document the following information:

Subjective:

1. Screen for hypoglycemic episodes
2. Are they taking their medications as prescribed?
3. Screen for cardiovascular symptoms
4. Screen for wounds, especially on feet. Does the patient do daily foot exams?
5. Screen for yearly eye exam
6. Check for recent labs
7. Education given and how it was received

Objective:

1. Check that BP is less than 140/90 (goal)
2. Goal is to have all blood sugars less than 150 with no hypoglycemic episodes
3. Diabetic foot exam at each visit
4. Good cardiovascular and lung exam, including peripheral pulses
5. Knowledge Exam (may be done by Pharmacy)

We aim to provide the same level of monitoring as we can in the US/UK. This means labs (FBS, BUN, Cr, microalbumin:creatinine ratio, CBC) yearly. HbA1c every 6 months (not every 3 months due to cost). Yearly exam for DM retinopathy. Additionally, the MoH requires yearly EKG and CXR for all DM pts.

Appendix 5 - Hypertension Evaluation

Subjective:

1. Are they taking their medications as prescribed?
2. Screen for angina symptoms, CHF, palpitations, dizziness, syncope, SOB
3. Do they have a past medical history of coronary artery disease (CAD), diabetes, hypertension or tobacco abuse? Family history of CAD or cerebrovascular accident (CVA)?
4. Check to see when patient last had lab work done and if they have been screened for other cardiovascular risk factors.

Objective:

1. Check a pulse. If history of CHF, check weight.
2. Screen for JVD, carotid bruits, and peripheral pulses. Perform good cardiac and lung exam.
3. Goal BP is <140/90 (Or if older than 60 years old <150/90)
4. SBP >200 with symptoms or diastolic BP >110 with symptoms requires referral to the hospital now. Pulse >120 should be worked up and evaluated for cause.

We aim to provide the same level of monitoring as we can in the US/UK. This means labs (FBS, BUN, Cr, CBC) yearly. The MoH requires yearly EKG and CXR for all HTN pts.

Appendix 6 - Asthma Classification and Therapy

Peak flow, Nebulizers available at clinic and mobiles.

Mild intermittent

Symptoms less than or equal to 2 times per week.
Nighttime symptoms less than or equal to 2 times per month.
Brief exacerbations, can vary in intensity.

Treatment/Step one

Short acting beta 2 agonist (salbutamol)

Mild persistent

Symptoms > twice per week, and less than once per day.
Night symptoms > twice a month.
Exacerbations may affect activity.

Treatment/Step two

Low dose inhaled steroid
Albuterol as needed
Alternatives: leukotriene modifier

Moderate persistent

Daily symptoms. Daily use of albuterol inhaler.

Treatment/Step three

Low to medium dose inhaled steroid plus

Night symptoms > once a week.
Exacerbations affect activity, and occur > 2 times per week.

long acting beta 2 agonist
Alternatives: low to medium dose inhaled steroid plus leukotriene inhibitor

Severe persistent

Continual symptoms
Physical activity limited, and frequent exacerbations.
Frequent night symptoms.

Treatment/Step four

High dose inhaled steroid plus long acting beta 2 agonists
Consider short course of oral steroids

Appendix 7 - Pharmacy Quick Tips

Interdisciplinary Plan of Care Medication Form (“Blue” Sheet)

- Acts as a patient medication profile
- Includes drug name, dose, SIG, and last fill date
- Provider Use
 - Review med list prior to prescribing new medication and/or refills
 - Double check any recent antibiotic courses
- Pharmacist Use
 - Review med history and identify any changes (strength, SIG)
 - Appropriately counsel patients on any new changes
 - Update list with each medication fill
 - DO NOT cross off previous medications

Therapeutic Interchange

- Medication inventory is limited and frequently changes
- Chronic medications may need to be changed to an available equivalent (simvastatin vs lovastatin)
- Conversion charts are located in the pharmacy
- Consult the pharmacy team for help with best available medication regimen

Writing Prescriptions

- Two different script pads (Hillside, and Ministry of Health - FOR MOBILES ONLY)
 - Counsel the pharmacy team to ask which medications go on which pad
- **Prescriptions are for patient use!**
 - DO NOT use sig codes or abbreviations
 - Be specific with direction in patient friendly language (consider pts language)
- All pediatric prescriptions should include weight
- Use the village name for the patient address
- Make sure to note allergies/NKDA on every prescription

- Limit amount PRN medications dispensed to **20 doses**
- Refills can be written on prescription
 - When patients presents to pharmacy for refill we will rewrite the prescription and have physician sign

APPENDIX 8 - COVID-19 INFORMATION

COVID 19 Policy

COVID 19 began to shut down travel in March 2020. Since then there have been many restrictions implemented and removed. This is an attempt to provide current guidance on COVID at Hillside Clinic.

As of May 5, 2023, the WHO has declared that they no longer consider COVID 19 an international emergency and have suggested plans to integrate monitoring and care into the normal URI protocols and yearly vaccinations. [WHO COVID Recommendations](#)

TRAVEL:

There are no longer restrictions for travel related to COVID 19.

Hillside does continue to ask for proof of vaccination for students and volunteers to attend this rotation as healthcare access and resources are limited.

CLINIC:

We also continue to ask our staff, students and volunteers to adhere to the following guidelines given the fact that healthcare services are limited here:

- **When providing patient care: Must wear at least a surgical mask. Please provide these for yourself.** If you want to use eye protection for procedures, please feel free to do so. We will have a 1:10 bleach solution you can use to clean reusable items. We also use a 70% alcohol based solution for items that bleach is too harsh for.
- **Frequent handwashing** or use of hand sanitizer is required.

DORM LIFE/OFF DUTY:

- If you begin to have symptoms (fever, loss of taste/smell, diarrhea, cough, headache) please inform the Hillside Medical Director ASAP so we can provide supportive treatment and create a plan for isolation. (This goes for any illness you might contract.)

- Please bring along any supportive medications you might need: tylenol, ibuprofen, anti-nausea, anti-diarrheal, etc.