



Bridges to Community

Public Health Volunteer Information Packet



2018-2019

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Bridges to Community's Values

Shared Work: *We believe there is much to be gained by participating in a shared work experience with people from other cultures.*

Community Empowerment: *We believe that sustainable community development depends on the empowerment of communities, not just the advancement of individuals.*

Transformation: *We believe that everyone who participates in our programs will in some way be transformed by the experience.*

Sustained Impact: *We believe that change happens gradually over the long term. We hope to inspire a long-term commitment in our communities and volunteers to continue working as agents for change, both locally and globally.*

Introduction

Our mission is to build a more just and sustainable world through service learning and community development by engaging volunteers to work in developing countries - building community and changing lives.

Participating on a service trip with Bridges to Community allows students and professionals to expand the scope of their field beyond the realm of their home nation and begin to enter the global arena. For non-students or professionals, this service trip will facilitate you becoming a true global citizen. You will work together with Nicaraguan health promoters, community leaders and Bridges community development staff in our sustainable initiatives to improve health on the individual, family and community level in Nicaragua.

Bridges to Community provides community-based health solutions to everyday health risk. Our program combines continuous implementation of preventative education workshops, health projects and clinic work in a region of 50,000+ community members. The public health discipline is of special significance to combat health problems in rural regions, as it addresses social problems involving health and wellbeing specific to location and culture, and combines education, behavior change and demands community-wide participation for success.

Where BTC Works

The Bridges to Community health program focuses in the municipality of Siuna, an autonomous region on the North Atlantic coast of Nicaragua. Due to natural disasters, distance from the capital and lack of access to resources and infrastructure, the Atlantic coast of Nicaragua is the poorest part of the country. In Siuna, we coordinate with Nicaragua's Ministry of Health (MINSA) and community health promoters to bring health projects and volunteers to the community epicenter of Hormiguero.

The community of Hormiguero serves as the vital trade point to 50 communities and is the location of the health post for almost 18,000 community members. Common health issues reported and treated in the region are reflective of the lack of water and sanitation infrastructure and the physical demands of rural country living, and include diarrhea, parasites, pneumonia, asthma, kidney infections, arthritis gastritis and dermatological conditions.

MINSA and community health promoters are limited by staff and resources to serve such a large population, making Bridges public health participation critical to the region. Volunteer groups support MINSA initiatives, bringing essential personnel, resources and knowledge to community members and advocating permanent behavior change as a preventative tool.

Resident in Hormiguero are several small health centers. The *casa maternal* is a maternity ward built by Bridges to Community in 2014 that houses women before and after birth who for reasons of distance and poverty are unable to receive pre and postnatal care. Expectant mothers travel hours or even days to stay at the casa materna for their last month of pregnancy where they have guidance and care by a doctor and nurse. Nearby is the local health post that currently serves the 28 communities, and under construction is a larger regional health center built by Bridges to Community and partner organization Building Goodness Foundation, scheduled to open in 2018.



Public Health Program Components

Workshops: Groups will receive a selected public health project in advance, based on community need. We ask groups to prepare a dynamic workshop(s) on their topic prior to coming to Nicaragua. Bridges will provide translators for all activities.

Construction and Material Distribution: Some projects include construction. Volunteers will work alongside trained Nicaraguan masons and Bridges staff to build complimentary projects to public health objectives. Other projects include distribution campaigns of supplementary materials for families to put their new knowledge into action at home. For a full list of possible construction projects and distribution campaigns, please see the Project Need section below.

Community Interaction: Volunteers will have the opportunity to meet and exchange with community health promoters to learn about Hormiguero and discuss practices used locally. Volunteers will also have the opportunity to participate in house visits to community members to conceptualize living conditions, providing depth and background to community need. Additionally, Bridges hosts cultural exchanges with families, such as baking bread, milking cows and farm tours.

Health Facility Tours: Volunteers will tour open and active health facilities to gain perspective of what health care is delivered, as well as to see the problems that clinicians face. These facilities will include the Hormiguero health post, the casa materna, and the new regional health center (under construction as of this writing).

Reflections: Reflections are activities to allow volunteers a time to reflect on their experience and purpose, as well as to learn more about Nicaragua's rich culture and history. Bridges staff will prepare an article, documentary, cultural exchange or activity to explore the Bridges mission, our projects and your impact in the community and in Nicaragua.

Project Need

Sanitation: Open air defecation is a national concern, affecting the health of community members and contaminating water sources. The construction of latrines and accompanying sanitation workshops work to reduce cases of dysentery, diarrhea, worms and parasites and contamination of water sources.

>**Workshop:** Promote use of latrines, handwashing, explain how diseases are spread, and the importance of keeping farm animals out of the home.

> **Projects:** Construct a family latrine, shower, or kitchen concrete floor

Clean Air and Reforestation: Wood burning stoves are the norm in Nicaraguan communities, contributing to respiratory illnesses as well as regional deforestation. Trash disposal options are usually by burying or burning.

>**Workshop:** Explain the effects of smoke on the lungs and resulting illnesses, and the importance of forested areas on the environment. Provide alternatives to trash burning, and explain the effects of burning plastics on lungs.

>**Projects:** construction of smoke reducing stoves, take part in reforestation initiative

Clean Water: While a large portion of Hormiguero residents are connected to a community water system, the water is not treated or filtered before it is distributed to homes. There are also other families that, due to distance or topography, are off the grid. These families rely on open water streams and/or water holes for drinking, cooking and bathing water.

>**Workshop:** Our volunteers will have the opportunity to meet with families that rely on contaminated water sources to teach the different methods, as well as importance of, boiling/treating your drinking water.

>**Projects:** Distribute clay water filters, dig trenches to extend water system, connect outlying households.

Mosquito Borne Illnesses: Tropical climates breed mosquitoes. Dengue fever and chikungunya are two examples of mosquito borne illnesses that can be found in Nicaragua, and while symptoms are relatively short lived (7-14 days), they can cause patients to be quite uncomfortable with fever and joint pain.

>**Workshop:** Volunteers will present preventive measures of controlling the mosquito population by educating the community of where mosquitoes are most likely to breed, and what are their favored conditions. Volunteers will promote trash pickup and proper disposal to not create stagnant water traps. For the home, volunteers can provide low cost or free natural mosquito repellants recipes and explain the importance of using mosquito nets.

>**Project:** Volunteers can distribute mosquito nets. Volunteers can promote trash clean ups in the community, Bridges can organize a community clean up with the elementary school.

Nutrition and Healthy Lifestyle: Poverty and cultural habits limit most Nicaraguans' diet to the basics: rice, corn and beans.

>**Workshop:** Volunteers will describe the importance of a varied diet that includes fruits and vegetables, promote an active lifestyle and consuming sufficient water during the day. Explain the effects of large consumption of oils, sugar and salt on the human body.

>**Project:** Work with families to plant and maintain family gardens, begin a garden in the casa materna and elementary school. Work with students to create environmentally positive plans for their community. Teach elementary students about proper handwashing and how to correctly brush your teeth. Provide activities such as sports and crafts programs that will keep adolescents and youth interested in personal growth and stay away from vices and crime. Provide a cooking workshop to promote reduced use of sugar, oil and salt in meals.



One Week Sample Itinerary

| | DAY 1 | DAY 2 | DAY 3 | DAY 4 | DAY 5 | DAY 6 | DAY 7 | DAY 8 |
|----------|---|--|------------------------------------|---|------------------------------------|---|--|----------------------|
| 7:00 AM | | Breakfast | Breakfast | Breakfast | Breakfast | Breakfast | Breakfast | |
| 8:00 AM | | Travel to Siuna | Public Health Project Construction | Shadow in Health Center Visit Casa Materna | Health Education Workshops | Public Health Project Construction | Check in to La Costena. Return to Managua | Transport to airport |
| 9:00 AM | | | | | | | | |
| 10:00 AM | | | | | | | | |
| 11:00 AM | | | | | | | | |
| 12:00 PM | | Lunch | Lunch | Lunch | Lunch | Lunch | Lunch | |
| 1:00 PM | Arrive in Managua. Dinner. Stay in hotel | Travel to Hormiguero Set up dormitory | Public Health Project Construction | Public Health Project Construction | Public Health Project Construction | Pack up dormitory Travel to Siuna Tour Siuna Hospital | Tourism activity | |
| 2:00 PM | | | | | | | | |
| 3:00 PM | | | | | | | | |
| 4:00 PM | | | | | | | | |
| 5:00 PM | | | | | | | | |
| 6:00 PM | | | | | | | | |
| 7:00 PM | | Dinner | Dinner | Dinner | Dinner | Dinner | Dinner | |
| | | Reflection | Reflection | Reflection | Reflection | Reflection | Reflection | |

About the Public Health Trip

All volunteers are met at the airport by Bridges to Community staff, who will stay with the group 24/7 for the duration of their trip. Public health trips are 8-9 days, including travel time to the clinic site.

Trip fees include in-country hotels and housing, travel expenses including roundtrip airfare to Siuna, all meals, 24 hour a day accompanying staff, clinic translators as well as (if appropriate) some medical equipment to use during the clinic. Airfare to Nicaragua is not covered in the price.

Volunteers work, eat and sleep in Hormiguero. They are immersed in the community, and have direct access to witness the conditions in which Nicaraguans live. Public health groups are housed in a dormitory, which has basic bunk beds, latrines and shower stalls. All meals are prepared on-site by hired cooks that have been trained in hygiene and proper food handling protocol. All food is prepared using purified water, which is also available for drinking at all times.

For a general guide to Bridges to Community trips, please review our [Volunteer Handbook](#).

Safety

All Bridges to Community staff are trained in First Aid and CPR protocol, renewed every year. Staff also carry a first aid kit with them at all times for minor illnesses and injuries.

Bridges purchases Travel Medical & Evacuation Insurance for every volunteer that travels with us. This plan provides \$15K USD worth of coverage per volunteer as a "Secondary" Medical Policy in the case where medical treatment is required for a volunteer while in-country. This coverage also includes Emergency Evacuation Coverage and is applicable when "the level of medical service required is non-existent" in the country where the volunteer is located and in order to be treated successfully, they need to be transported by to the US aboard an air ambulance.



Fundraising

Bridges to Community strongly urges that each volunteer reach out to friends, family, coworkers and other individuals to help them fundraise for the health center's pharmacy to help keep it stocked throughout the year. Many public health volunteer groups set a goal of \$2000, and often exceed that. Please refer to our [Guide to Fundraising](#) for fundraising ideas. If you are excited about your trip with Bridges to Community and committed to helping make a difference in the world, you should have no problem asking for support from friends, family and strangers. You are offering them a way to get involved in creating a more just and sustainable world—a cause most people won't argue with!

Common Health Complaints in Hormiguero

Worried Well

As with any primary care population, most families will complain about ‘self-limited’ (a disease process that resolves spontaneously with or without specific treatment) illnesses. A disease model approach—“this is a URI, this is gastritis, this is low back strain”—will only lead to a superficial impact that leads to higher use of medication and repeat visits. On the other hand, a family based model will provide insight into the real issues leading to the visit. Asking questions such as “How do you feel with your pain?” opens the box to see if there are underlying issues of abuse, depression, and stress. Other questions to ask the patients include ones about primary emotions: “Are you angry (frontal headaches), sad (neck pain), anxious (jaw clenching), and to a lesser degree surprised, disgusted, joyous (pregnancy being okay).”

Cough and Cold

Coughs and colds are some of the most prevalent complaints for reasons including: in-house kitchen smoke, close confinement and young age. Remember to explain to the patient that viral infections are self-limited and that antibiotics are not useful. Encourage the patients to drink fluids, especially tea or hot water with honey (not for children < 12 months). DO NOT provide cough/cold medications to children other than acetaminophen/ibuprofen for comfort. Our goal is to have patients self-manage this illness/condition without our assistance in the future. Ear infections are also generally self-limited, but if they complain of ear pain it is reasonable to do an ear exam. If infected, you may treat with Amoxicillin (80mg/kg/d) for 5 days in order to avoid yeast infections. If a child complains of sore throat look for Strep in order to avoid rheumatic fever.

Abdominal Discomfort

Many patients complain of abdominal discomfort/pain, usually the result of parasites. Typical symptoms include bloating and decreased appetite. Treat patients with Albendazole (excludes infants and women).

Diarrhea

Diarrhea is generally self-limited with the biggest danger being dehydration. Management of diarrhea involves oral rehydration therapy. Brigades may offer oral rehydration packets and/or encourage patients to make their own with the following recipe: 8 level teaspoons of table sugar (sucrose) and 1 level teaspoon of table salt mixed in 1 liter of boiled water. Fructose (fruit sugar) or artificial sweeteners should not be substituted for the table sugar in this recipe. A half-cup of orange juice or half of a mashed banana can be added to each liter both to add potassium and to improve taste (also included in home remedies). Remember that ORT should only be used for 12 hours and then nutrition should begin to supply potassium and calories for repair. Rice is an excellent supplement to add after 12 hours.

Dysentery

If the diarrhea is bloody it is reasonable to prescribe a combination of Cipro/Flagyl. This will cover amebiasis, giardia, campylobacter, and shigellosis. If amebiasis is truly suspected a longer course of antibiotics should be instituted.

Chronic Diarrhea

Giardia is common and is often associated with epigastric pain and diarrhea. Metronidazole is effective as is boiling water.

Fever

Explain to patients, especially parents, that fevers in general are not dangerous (and explain warning signs that may indicate otherwise). A fever is simply the body responding to infection. It is reasonable to treat fever with sponge baths. Parents and siblings can use washcloths that have been made wet, spun in the air and placed on the body. When children have a fever, they should not be bundled.

Olivia's Syndrome

Many mothers carry children who are heavy and do hard work at home. Many have several children and are stressed. The resulting symptom complex (Olivia's Syndrome) is headache, shoulder, chest, arm, neck, and back pain. During the exam, you will find that the insertion of the pectorals will be tender and their TM joints will be sore. If you ask, most will say they clench their teeth. Treatment is daily massage of the neck and emphasis on postural mechanics when not carrying children. The simplest thing is to roll a towel and put it in the small of their back when sitting.

Scabies

Scabies, when present, will generally occur in multiple family members. Provide treatment to everyone, including those not present at the brigade, and also make sure bedding is washed. Instructions for treatment are on scabies lotion bottles.

Skin conditions other than scabies

When patients sweat their skin may become dry (possible dermatitis). Fungal infections include tinea capitis and tinea pedis, for we have topical creams. It is important to discuss hygiene and how to avoid getting fungal infections, especially with onychomycosis.

Arthritis

Many patients will present with "dolor en mis huesos" (pain in my bones). Groups regularly take sufficient quantities of NSAIDs to provide patients some pain relief.

