

Final Report
Nepal Training Project – Spring 2016

Florida State University
Emergency Management and Homeland Security Program
Meghauli, Chitwan District, Nepal



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Summary of Project

Faculty and staff of the Emergency Management and Homeland Security Program at FSU met Hari Bhandary of Clinic Nepal in the fall of 2015. A man of many talents and incomparable kindness, we were absolutely thrilled to have met what we like to call the “perfect partner,” that is to say, someone who has the right network and mindset that would help provide for a wonderful project and experience for our students. Within an hour of meeting Mr. Bhandary, we decided we would visit his home country of Nepal and explore the ways we could support his organization. During our visit later in the fall semester, we completed a needs assessment and determined exactly what would need to be accomplished when we returned with students in the spring semester.

It turned out that most helpful service we could provide as a group of university staff and students was a series of trainings on CPR / First Aid and Disaster Preparedness. The Nepalese people, having suffered a massive and highly destructive earthquake in April 2015, required basic skills that could translate to potentially life-saving knowledge during a time of crisis. We hired five incredible student researchers to accomplish this task and, ultimately, provide them with a unique opportunity to make a real impact in a developing nation. The student researchers excelled in their development of training discussions and materials, and they truly set the bar for future international projects of the EMHS Program.

The in-country training team consisted of student from USA, Nepal, Germany, and Austria, as well as engineering and medical professionals from Nepal. In total, the team trained over 250 community members, educators, and students, all of whom desired to advance their knowledge of what to do during disasters and how they can help themselves and those around them. Among our many goals, we wanted our training to be sustainable; that is to say, we wanted to leave a lasting impact in Nepal whereby our trainees would be able to train others on the skills they learned. We feel that we accomplished this goal, having left behind many of our materials and ensuring that trainees have access to additional resources.

We simply could not have completed this project without our valuable partners, specifically Clinic Nepal in Megghauli and Tribhuvan University in Kathmandu. We extend our most heartfelt thanks to all those involved in this project, and hope that we can work together in the future.

Project Partners and Participants

EMHS Faculty, Staff, and Student Researchers

The Emergency Management and Homeland Security (EMHS) Program of Florida State University is housed under the College of Social Sciences and public Policy. Project leaders Alissa Bell and Bobby Duggleby, from the EMHS Program, were accompanied by five student researchers. Student researchers were selected based on their academic backgrounds and training experience.

The EMHS Program at FSU offers students the unique opportunity to work in an international environment in the field of emergency management prior to graduation from university. Selected students are hired as researchers in the EMHS Program for a semester and work on a unique project, typically in a developing community. Student researchers gain valuable work experience and knowledge of emergency management that they may not learn from textbooks, papers, or course work.

The following student researchers participated in the project in Nepal:

Brittany Houston received her Bachelor's degree in Chinese Language and Culture in 2011 and her Master's degree in East Asian Studies in 2013, both from Florida State University. She is currently pursuing her Doctorate in Public Administration and Policy at Florida State University.

Rachel Smith received her Bachelor's degree in Public Relations from Florida State University. She will graduate from her Master's degree program in Public Administration from Florida State University in May 2016.

Chase Ransdell is currently pursuing his Bachelor's degree in International Affairs at Florida State University. Upon graduation in May 2016, he will commission with the United States Army.

Ali Williams is pursuing her Bachelor's degree from Florida State University in International Affairs. She has completed her Undergraduate Certificate in Emergency Management, and will complete her degree program in May 2016.

Allison Wiman received her Bachelor's degree in Biochemistry from Purdue University. She received a second Bachelor's degree from Florida A&M University in Nursing. She received her Master's degree in Public Health from Florida State University in 2015. Allison will begin her Doctoral studies in Urban and Regional Planning at Florida State University in Fall, 2016.

Partners

This project presented significant cultural and logistical challenges, which required the assistance of strong partners in the region. These partners were crucial to the successful outcome of the project. The Emergency Management and Homeland Security Program of Florida State University partnered with Clinic Nepal, Tribhuvan University, Daldale Orphanage, and Ludwig-Maximilians University München College of Medicine.

Clinic Nepal

Clinic Nepal is a non-profit organization located out of the community of Meghauri in Nepal. Hari Bhandary founded Clinic Nepal in 1997. He had a vision for the Meghauri and Daldale communities to have access to education, healthcare, and clean water and sanitary facilities. To date, Clinic Nepal consists of a Friendship Clinic, Friendship Scout Troop, and Wolfgang and Prabhat Kindergartens in the Meghauri area. In Daldale, Clinic Nepal consists of the Asha Kokiran Children's Hostel and Kindergarten. Mr. Bhandary's organization has also facilitated the sponsorship of over 150 students in both academic and vocational capacities, the installation of clean water pumps and sanitary latrines, and recurring health camps. Clinic Nepal has several sponsors, volunteers, interns, and partners from around the world.¹

Tribhuvan University

Tribhuvan University (TU) is located in Katmandu, Nepal. It was founded in 1959 and is the oldest university in Nepal. TU is a government-financed university and the Prime Minister serves as the Chancellor. There are more than 4,000 total undergraduate and graduate programs. FSU's EMHS Program worked with the Dean and students of the Masters of Social Work Program.²

Daldale Orphanage

The orphanage is located in Daldale, Nepal. They are a close partner with Clinic Nepal and FSU's Center for Global Engagement. The orphanage is run by Mr. Bhandary's sister, and provides housing and services to over fifty children in need. Funding for the orphanage comes primarily from Clinic Nepal.

Ludwig-Maximilians University College of Medicine

Ludwig-Maximilians University (LMU) College of Medicine is located in Munich, Germany. LMU has more than 50,000 students and was found in 1472. The university is recognized as one of Europe's premier academic and research institutions. LMU's College of Medicine is the

¹ For more information please visit <http://www.friendshipclinicnepal.org/>

² For more information please visit <http://tribhuvan-university.edu.np/>

largest medical training institution in Southern Germany. The college sends medical students to Clinic Nepal for six-week rotations.³

³ For more information please visit https://www.en.unimuenchen.de/about_lmu_alt/academics/faculties/fak_07_medizin/index.html

Country and Community Profile

Nepal

Nepal is a landlocked country in Southeast Asia. While Nepal's physical size is fairly small, it has two huge political actors at its borders. Nepal is bordered by China to the north, and India to the south. Nepal is perhaps most notably known for Mount Everest, the world's highest peak, however the terrain of Nepal varies from the lowland river plains in the south to the some of the tallest mountains in the world, the Himalayas, in the north. The climate of Nepal also varies from the northern region to the southern region. The northern region experiences cool summers and severe winters, while the southern region has subtropical summers and relatively mild winters. Nepal is home to roughly 31 million people including 125 diverse ethnic/caste groups, many of whom have their own recognized regional language. While there are over 120 official languages spoken, Nepali is the nation's official language. Nepal's capital and biggest city is Kathmandu, with a population of about 1 million people.

On April 25, 2015 a 7.8-magnitude hit Nepal. The earthquake was so strong that it managed to raise Kathmandu by one meter, and shrink Mt. Everest by one inch. The earthquake killed 8,617 people and injured 16,808. In addition the casualties, there were roughly \$10 billion dollars in damages. The Nepal Red Cross Society ran out of resources that were made to help 19,000 families at anytime. Nepal's National Trauma Center was overwhelmed with demand for treatment. It is estimated that the center, which was attached to Nepal's Bir Hospital, had 2,000 people seeking treatment and they only had 150 beds available. Despite the lack of infrastructure to support all of the casualties, international relief efforts were extraordinary in response times. There were 330 humanitarian agencies that conducted 2,200 humanitarian missions in total. A main coalition of eight nations, including India, China, Pakistan, U.K., U.S., Australia, Israel, Japan, aided in the main relief effort. The response was so extraordinary that Nepal had to turn away help because its main airport, Tribhuvan International, could not handle the influx of aircraft.

Nepal recently passed its latest constitution on September 20, 2015. The constitution caused a stir among the Madhesi population in the south. The Madhesi' are ethnically tied to Indians and they claim that the new constitution is lacking representation. In conjunction with the Indian government, they formed a blockade at the border preventing the transportation of

valuable fuel and supplies. As of February 23, 2016, the blockade had ceased, however no agreement was reached between the Nepalese government and the Madhesi population. As of this document, the situation remains tumultuous and the blockade could theoretically resume at any time if the Madhesi' do not get the representation they want.

The training was conducted in the southern region of Nepal in the communities of Daldale and Meghauli.

Meghauli

Meghauli is a small village of the Narayani Municipality in the Chitwan District in southern Nepal, 174 kilometers from Nepal's capital city of Kathmandu. According to the 1991 Nepal census, Meghauli village is home to 12,281 people, living in over 2000 individual homes. The village is situated between the Narayani and Rapti Rivers; the Narayani River, to the north, is the largest river in both depth and size in Nepal, while the Rapti River, to the south, flows along the edge of the Chitwan National Park. Meghauli village is rich in wildlife and culture.

Meghauli sits at the western entrance of Chitwan National Park, Nepal's first established National park. The Chitwan National park was established in 1973, and in 1984 was named one of 197 natural World Heritage Sites by the United Nations Educational, Scientific and Cultural Organization (UNESCO). Chitwan National Park is one of Nepal's most frequented tourist destinations, with entrances in the towns of Sauraha in the east and Meghauli in the west. While Sauraha is a well-established tourism town, Meghauli's tourism industry is just beginning. To increase tourism traffic in Meghauli, the local community created the Tharu Homestay Program. The Tharu Homestay Program offers packages to tourist groups, including room and board, excursions through the Chitwan National Park, and cultural programs.

While Meghauli was not directly hit by the 2015 earthquake in Nepal, earthquakes are expected to occur every 50 years. Flooding, however, occurs frequently in the area which disrupts local farmers. The residents of Meghauli are predominantly peasant farmers. Meghauli farmers cultivate grain, such as rice, maize, wheat, lentils, beans and mustard and vegetables. Meghauli farmers also supply the majority of the district's poultry industry. Homes in Meghauli are constructed by residents, using the materials available in the area (e.g., brick).

Meghauli is home to Clinic Nepal, the primary partner on this project, providing primary healthcare services to all people in the area since 1997. Clinic Nepal has pioneered

improvements in Meghauli village through partnerships with WaterAid and Nepalese Water and Health (NEWAH). These partnerships have provided 246 wells, 2861 toilets, and a water tower to the village. Meghauli, through Clinic Nepal, became the recipient of the Second Small Town Water Supply and Sanitation Project in 2012, providing funds to build a water tower that now supplies clean water to homes in the community.

Timeline

In November of 2015, the EMHS Program at Florida State University selected five researchers to travel to Nepal. Over 80 students applied for a researcher position; Alissa, Bobby, and senior faculty ultimately selected the five students who they determined to have the appropriate intellect, experience, education, and attitude in order to be successful in the project. Over the winter break, the EMHS staff began sending information regarding Red Cross certifications, passports, travel visas, and travel clinic appointments for the upcoming trip. Upon returning for the spring semester, the researchers were required to set up appointments with the University's travel clinic in order to get all necessary shots and medications for the trip.

Every Wednesday throughout the spring semester, the entire team met from 5:30-8:15pm. A wide range of material was covered during these weekly meetings: scheduling, objectives, expectations, curriculum, etc. The first official meeting occurred on January 13th, 2016, and objectives of the trip were discussed and the EMHS staff assigned each researcher a topic to present on in the following meeting. The goal of these presentations was to familiarize the entire team of different aspects of Nepal. The topics included the political scene, religion, cultural sensitivity/social norms, and public health. Each researcher presented their assigned topic on January 20th to the entire team.

On January 25-26, 2016, the five researchers attended Red Cross Instructor Training in Tallahassee, FL. All successfully passed the course and were certified as Red Cross Instructors. The researchers were also assigned their curriculum topics at that weekly meeting. The topics assigned were CPR/First Aid, Search & Rescue, Water Sanitation, Disaster Preparedness, and Flood Safety. All student researchers were responsible for researching their assigned topics and presenting initial findings the following week to the EMHS staff. It was made clear at this meeting that it would make the most sense to split the researchers into two teams. One team consisted of two researchers that would focus on teaching CPR/First Aid, as well as Search and Rescue. The second team would focus on disaster preparedness, flood safety, and water sanitation. Both teams were required to assemble a poster by the next meeting on February 10th.

The senior staff of the EMHS Program booked flights to Nepal and began working to ensure our visas were in order. After booking the flights, an itinerary was made with a daily schedule containing the times of trainings and activities in Nepal.

The posters were submitted and corrections were made by the end of the week. It was decided that instead of having just two posters for each team that there would be four different posters (CPR/First Aid, Search & Rescue, Disaster Preparedness, and Water Sanitation). There was too much information about the topics and it would have been impossible to fit everything onto two posters without losing valuable material.

The week before departure, the entire team met with senior staff from the EMHS program to practice presentations. The CPR/First Aid team presented their project and garnered a lot of positive feedback from the staff. The disaster preparedness team then presented their project. However, it was clear the disaster preparedness team could not present their curriculum through the same methods as the other team. Instead, the disaster preparedness team would be teaching classes via facilitated discussion. As a result, the disaster preparedness team had to reevaluate their curriculum and alter their presentation style. The week prior to departure, the team met every day to polish up presentations and debrief. On Tuesday, March 1st, the Nepal team practiced their trainings in front of a group of Florida State University students. The team met again on March 2nd to practice and pass out teaching tools for everyone to bring to the airport.

The team met at the Tallahassee airport on March 3 and flew to Atlanta, Georgia for the first flight. The team then traveled to Amsterdam, Netherlands and then to Istanbul, Turkey. The final flight was from Istanbul and the team arrived in Kathmandu, Nepal on March 5. The host of the trip, Hari Bhandary, welcomed the team at the airport. After arriving in Kathmandu, the team traveled to Tribhuvan University to meet the Dean of students. The team was also introduced to the Nepali engineering and social work students, as well as the German medical students that would be assisting with the trip.

The FSU team and its partners all traveled by bus to a local campground to rest for the night. The next morning (3/4/16) the group traveled to Daldale to conduct the first trainings at the local orphanage. The entire team spent the night at the orphanage and conducted another training there in the morning (3/5/16). It was a religious holiday, making it difficult to get a lot of people to come for the trainings. Nonetheless, it was success and the first time women in that community were permitted to participate in such trainings. Afterward, everyone got back on the bus to travel to Meghauli. Once the team arrived in Meghauli, the entire group was given time to settle in and eat lunch. After lunch, the two teams split up to teach the second round of trainings

that day. The disaster preparedness team walked to the Tiger Youth Club and the First Aid/CPR team went to the Friendship Scout's building. The trainings at both locations lasted two hours. Once complete, the two teams switched locations and taught for the third time that day. In total, there were three trainings done by each team on Monday (3/5/16).

Every morning the team would meet to eat breakfast at 8:00 AM and go over the day's schedule. The team would stock up on water and snacks for the day. On Tuesday and Wednesday (3/6/16 – 3/7/16), trainings were conducted at schools in Meghauri from 10:00 AM to 2:00 PM. The Nepali social work students split up between both teams to help translate if necessary. The Nepali engineering students joined the disaster preparedness group to help discuss infrastructure that could properly withstand disaster. A local doctor that worked at Clinic Nepal went with the CPR/First Aid team to help assist with teaching the material. On Thursday (3/8/16) another training was conducted at the Tiger Youth Club. After the classes were finished, the FSU team leaders signed off on all the certificates of completion that would be presented to those that participated in the trainings. On Friday (3/9/16) the FSU team and Nepali social work students travelled back to Kathmandu. The FSU team spent the last night in Nepal in Pokhara, where they met again with the Tribhuvan Dean.

On Saturday (3/10/16) the FSU team was driven to the Kathmandu airport for departure. The first flight went to Istanbul, Turkey, where the team spent the night in a hotel close to the airport. The second flight was from Istanbul to Paris, France. There were some mechanical issues with the airplane so the entire flight had to deboard until another plane was found. The team left Paris (3/13/16) and arrived in Atlanta later than expected, thus missing the connecting flight to Tallahassee. As a result, the team rented a car and drove through the night back to Tallahassee. The team arrived safely home on Monday (3/14/16).

The team met again on March 30th to discuss the final report with the senior staff. The team designed an outline for the report and everyone was assigned a specific part. The final report includes descriptions of team members, country/community profiles, goals, and objectives.

Goals and Objectives

First Aid/CPR/Water Safety

1. Provide tangible resources for those in the community to support the continuation of CPR and first aid training. Resources include CPR mannequins, breathing barriers for use with the mannequins, electronic copies of written manuals and poster materials.
2. Following CPR demonstrations and guided practice, each participants will be able to perform CPR using the correct technique.
3. Following demonstration and guided practice of back blows and abdominal thrusts, participants will be able to correctly apply these techniques to aid a choking victim.
4. Participants will increase their knowledge of when to use a split and correct splint application, how to control bleeding and tourniquet application, how to react if bitten by a snake or animal, and how to provide first aid to burns.
5. Participants will become more familiar with rescue swimming and safety position and the hazards of swift moving water.
6. Following guided demonstration and practice session, participants will be able to tie a bowline knot.
7. Facilitate the continuation of the training within the community to ensure a culture of sustainability.

Disaster Preparedness

1. Efficiently and effectively teach practical disaster preparedness information, including earthquake, fire, and flood safety.
2. Give students, teachers, and community leaders the tools to ensure their own safety, as well as the safety of others.
3. Ensure the entire team is prepared to confidently teach the prepared disaster preparedness curriculum in Nepal.
4. Increase the knowledge of personal hygiene by demonstrating how easily germs are spread and discussing the importance of hand washing.
5. Increase the knowledge of water sanitation by discussing how water must be properly stored and transported to avoid contamination. In addition, the curriculum will teach various ways to decontaminate water (i.e. boiling it or making a sun filter).
6. Increase the knowledge of water safety by providing information about floods.
7. Facilitate the creation of a mock disaster plan for the community.

CPR / First Aid Trainings

Chase Ransdell, Allison Wiman

Methods

Teaching methods included lecture, scenarios to mimic medical situations, direct demonstration of skills, and guided practice of skills (CPR, choking, knot tying).

Materials

- Two posters were developed as a teaching tool for use during teaching sessions:
 - The first poster included summary information on CPR, choking, animal bite prevention/first aid, burn first aid, how to control bleeding, and heat stroke prevention.
 - The second poster contained information on correct swimming positions and step-by-step instructions for tying a bowline knot.
- In addition, a jump drive was provided to each community leader to facilitate the perpetuation of the program. The jump drive contained video demonstrations and manuals.
- First Aid kit collected from common household materials
 - Clean rags/cloths, bunny (to aid in animal bite training), rubber gloves, trash bag, splints (pencils, tongue depressors, etc.), alcohol wipes, face shields, 8x CPR dummies, cords for knots, tape

YOU Can Make a Difference

Choking Adult, Child and Infant

1 GIVE 5 BACK BLOWS



2 GIVE 5 ABDOMINAL THRUSTS



Save a Life

How to control bleeding

1. apply direct pressure
2. elevate the injured area
3. apply pressure at pressure points
4. apply a pressure bandage
5. apply a tourniquet

only as a last resort

- Tourniquet must be in 5 to 8 cm in width
- Note time applied
- A tourniquet is only used on arm(s) or leg(s) where there is danger of loss of life due to blood loss.

Cardiopulmonary resuscitation (CPR)

1. Not responding
2. Call for Help
3. Begin Chest Compression

Push Hard and Fast

- Compress chest 5 cm
- 30 chest compressions
- 100 compressions per minute

4. Give two rescue breaths.
 - Tilt the head back and lift the chin.
 - Pinch nose and cover the mouth with yours.
 - Blow until you see the chest rise.
5. Continue Cycles: 30 compressions and 2 breaths

Hand Placement is very important

	Adult	Child	Baby less than 1 year
HOW	2 Hands	1 or 2 hands	2 fingers
RATE	Do at least 100 compressions per minute (Between 1 and 2 per second).		
DEPTH	At least 5 cm	5 cm	4 cm

Continue to alternate between 30 compressions and 2 breaths until help arrives or the victim becomes conscious

SPLINTING

- If possible, apply splint before moving
- Splinting can reduce pain, swelling and bleeding
- Restrain the joint above and below the fracture.

HEAT STROKE

WHO AT RISK

SENIOR CHILDREN ATHLETES OUTDOOR WORKERS

SIGN & SYMPTOM

104 F

NO SWEATING DRY, HOT RED SKIN DIZZINESS & HEAD ACHES

PAINPOINT PURPLES VOMITTING UNCONSCIOUSNESS

PREVENTION

DRINK ENOUGH NO ALCOHOL & CAFFEINE COOL SHOWERING

WEAR LIGHT PROTECTION DO NOT STAY CLOSED GAR LIGHT OUTDOOR TIME

Recovery Position

Use this position after:

- Successful CPR
- Drowning recovery
- During seizures
- When consciousness is altered

Recovery position keeps airway open and allows fluid to drain from mouth

First Aid for BURNS

- 1 **Cool** with running water
 - Cool area with running water for up to 20 minutes. If running water is not available use a wet cloth.
 - No not apply butter, oil or lotion to the area
 - Do not break any blisters
- 2 **Cover** the burn
 - Cover the burn with sterile material to protect from infection. Use a clean, dry dressing or plastic wrap to cover.
- 3 **Call**
 - For deep or extensive burns of any size, send the patient to the hospital

Animals with Teeth

PREVENTION of BITES is BEST

If Bitten:

- REMAIN CALM
- Stop Bleeding
- Wash thoroughly
- Seek medical attention, especially if rabies is suspected.

Teach children not to approach animals, especially animals that are acting strange.

Venomous Snakes Bites

HSSSS!

- Reassure the victim, they will be scared.
- Immobilize the bitten limb
- Immediately transport the victim to the nearest health centre where anti-snake venom serum is available.
- Time is critical

20,000 bites and 1,000 fatalities occur in Nepal every



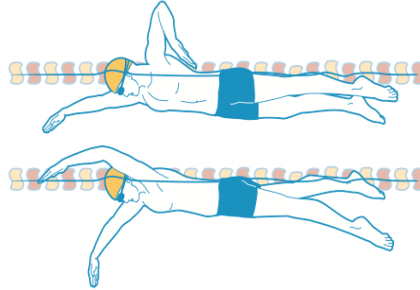
Survival Swimming

Protective position



- Legs out in front
- Feet up out of water
- Head up and facing down stream
- Arms out to guide which way your body is positioned

Active position



- Use when you are making an attempt to swim to the shore
- The water needs to be calm
- Swim fast and directly to the shore
- Only stand up when water is knee high

How to help

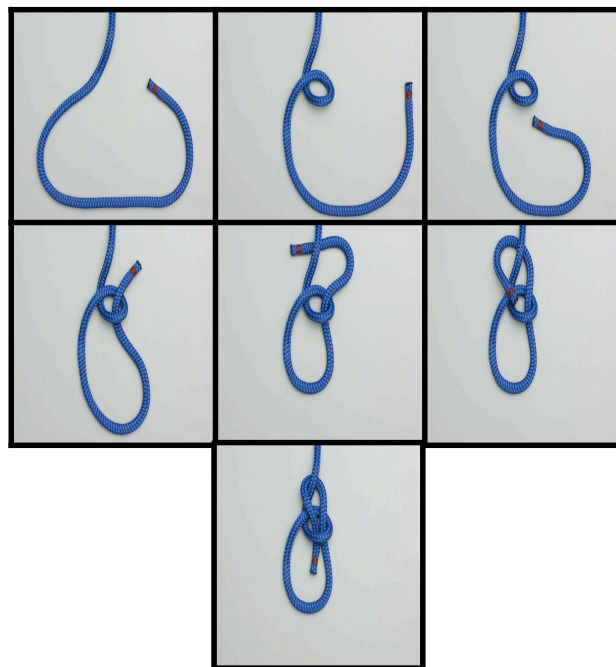
- L – Locate
- A – Access
- S – Stabilize
- T – Transport

Drowning

- Can occur in 20 seconds
- If unconscious and not breathing, perform CPR
- Place person in the recovery position
- Be aware of delayed drowning!



Bowline Knot



This is one of the most useful knots in the outdoors, and it's great for securing one end of a rope to almost anything. Additionally:

- Use it for tying a tarp or line to a tree
- Use as a safety knot for climbing and scrambling
- Make a rescue knot to haul someone out of a jam.

Curriculum Development/Narrative

Curriculum was developed over the course of several months. Our client (Clinic Nepal) had specifically requested that CPR and first aid topics be covered along with information on water search and rescue. At the onset of development, we were aware that our presentation should be approximately 2 hours in length. This presented a challenge and forced us to condense the material and concentrate only on the most critical and important information.

The CPR/First Aid curriculum was developed exclusively from the American Red Cross CPR/First Aid training manual. Material was presented in the simplest terms to facilitate an understanding by non-native English speakers and those with only a limited understanding of English. Culturally appropriate terms were substituted when needed (i.e. centimeter per inch) material on search and rescue is developed from. The initial drafts of both posters were reviewed by the team and suggestions for improvement incorporated. Regarding our teaching presentation, the first training session was presented to the group several weeks prior to departure. Following this initial presentation, the group collectively decided that water search and rescue would be too difficult and time intensive to teach in the allotted amount of time. For this reason, the focus of this portion of the presentation became protective and active position swimming and drowning prevention. Likewise, we had originally intended to teach several different knots but our practice session revealed that that we would have time to focus on only one knot. Research indicated that the bowline knot was the most useful, thus we decided to exclusively concentrate on this knot. Our posters were updated to reflect these changes and we again presented our teaching session to the group. Our next iteration of the presentation was within time limits and flowed smoothly.

The two leads (Chase and Allison) had multiple discussions on each topic and practiced between group meetings to work on our fluency and flow. Inevitably, questions would arise regarding specific measures to use in different first aid scenarios. In each case, we would search out the correct answer to make sure we were ready if the question was asked in the future. When we left for Nepal, we felt very comfortable with our curriculum and our presentation.

Disaster Preparedness Trainings

Brittany Houston, Rachel Smith, Alison Williams

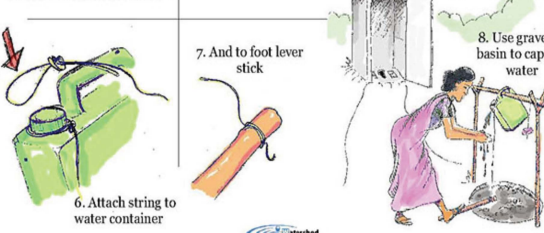
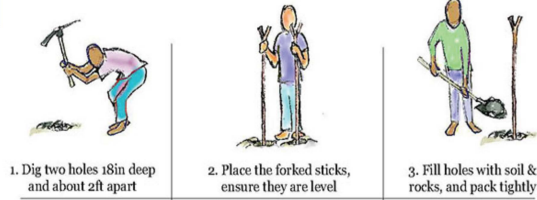
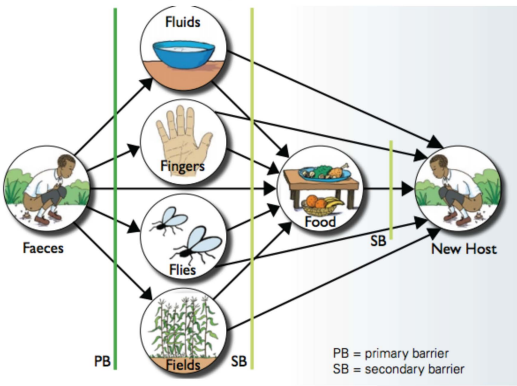
Method

Three student researchers lead the disaster preparedness team. The FSU Emergency Management and Homeland Security Department initially provided the following three topics for Disaster Preparedness: Disaster Preparedness, Flood Safety, and Hygiene. However, the curriculum evolved once research began. The final curriculum included disaster preparedness for events such as earthquakes, floods, and fires. In addition, information about hygiene was added to the section regarding water sanitation.

Materials

- The information was presented to students, teachers and administrators through facilitated discussion.
- Materials included printed syllabi, informative posters, mock family disaster plans, glitter, pin drives, butcher paper and markers.
- Following every class session, lead teachers and/or administrators were presented with posters and a jump drive containing the information necessary to assist disaster preparedness curriculum building in their schools.

Water Sanitation and Hygiene



Always Purify Your Water!

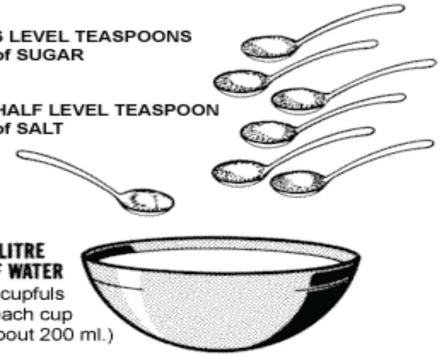


Replenish Nutrients if Dehydrated

6 LEVEL TEASPOONS
of SUGAR

HALF LEVEL TEASPOON
of SALT

1 LITRE
OF WATER
5 cupfuls
(each cup
about 200 ml.)



Always Wash Your Hands!

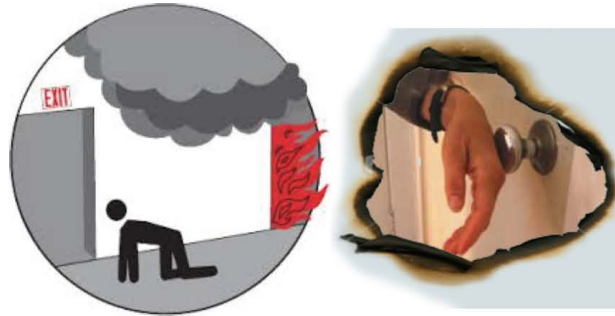


Keep the Latrine

Earthquake



Fire



Floods



Planning Ahead

Disaster Supply Kit



Whistle



Radio



Flashlight



First Aid Kit



Water



Food

Family Disaster Plan

Draw a Map to Safety



Know Your Numbers



Curriculum Development/ Narrative

Water Sanitation

The initial goal was to only teach water sanitation to the local community leaders, teachers, and students. However, early on in the research it became clear that it would be beneficial to include hygiene to the curriculum. Possibly the most valuable source of information was UNICEF's *Water, Sanitation, and Hygiene for Schoolchildren in Emergencies: A Guidebook for Teachers*. This guidebook gave valuable insight in the topics, but also how to approach teaching them in the classroom.

After the final curriculum was gathered, a poster was made and would be used as a teaching tool in Nepal. The poster included images from the UNICEF guidebook, as well visual instructions to make solar filters and an oral rehydration solution. In addition to the posters, glitter was used to help young students better understand how easily germs spread.

Initially, the curriculum was going to be taught via trainings, but after discussing the presentation with the senior staff it was decided that it would be taught through facilitated discussions. The discussions not only covered water sanitation and hygiene, but also disaster preparedness and flood safety.

Disaster Preparedness

Curriculum development for the disaster preparedness team occurred over several months. Initially we were all given separate assigned topics to prepare. After providing some preliminary research to our project leaders, it was decided that there would be two teams: First Aid/CPR/Search and Rescue and Disaster Preparedness/Water Sanitation/Hygiene. As we continued gathering information for our respective topics, we began intertwining them into a cohesive course. Each team member took the lead on a section of material. Our first attempt at a class structure was a lecture-based presentation. After receiving feedback from our project leaders that we needed to interact more, we decide to take a different approach. Our second attempt at a class structure was scripted. We developed a script that included all team members throughout the presentation. This accomplished the interactive goal we were given, while presenting the information in a fun and enjoyable way. After receiving feedback from our team leaders and FSU EMHS staff, we changed our format one more time to alleviate concerns that it

could be interpreted as “inappropriate given our audience.” The final structure for our presentation was a facilitated discussion. Through facilitated discussion our team was able to interact not only with our team members but also the attendees of the training courses. We asked questions to each group to gauge their personal experiences with disaster, and were able to tailor each course to fit the needs of our attendees. This flexibility was desperately needed as our audiences varied in age and knowledge.

Project Evaluation

Our team had several metrics by which we measured the success of this project. Most of all, we wanted to ensure that the trainings we conducted in Nepal were sustainable; those that we trained should, in turn, be able to train others that we were unable to reach.

Sustainability

- As a whole, the team feels confident that we provided information that was both well-researched and well-intentioned. In turn, we feel that trainees were generally quite receptive to trainings, and felt confident in their abilities to perform the tasks as determined by us, the trainers.
- Originally, we came up with the idea of a Facebook page (found [here](#)), with the rationale that everyone these days has a Facebook, right? While this may be true, we found that it was quite challenging to actually find our trainees. If something similar is to be done on future projects, we'll have to figure out a better way to keep track of trainees (possibly by using technology...iPads?).
- Something that we'll need to communicate with our main partner on this project, Clinic Nepal, is that the skills taught during the trainings must be re-enforced in some way in the future. Whether this is through community-organized trainings or simply printing out materials from the jump drive and distributing around the community, these skills must be practiced in some way.
- Some of the feedback we received, but had not anticipated prior to the trainings, was that the schools would have benefited by learning how to do fire drills with the students. As house fires are a common occurrence (typically in the kitchen), it makes sense that the community members should be planning on what to do for a minor emergency as well.
- We were perhaps unprepared to focus special attention on certain community leaders who may play a larger role in organizing such future events. An improvement to this project would be to continue communication with those individuals so as to ensure that they remain instrumental in organizing future events.

Timeline

- Team members had several comments about the timeline of the project, ranging from student selection to the completion of this document:
 - The information session was very useful for applicants; they got a lot out of the slideshows and Hari's talk, especially given that EMHS staff were able to broadcast the session to those that could not physically attend
 - Clearly defined requirements for applicants
 - Good email response time from the administration team
 -
- The team also came up with some suggestions for improvement:
 - More practice sessions with classes; getting more practice time in front of a group of people
 - The senior staff should advise earlier and provide guidance so that issues can be worked out sooner and more efficiently

- A different semester may have been slightly better; the spring is always quite busy for students, especially those about to graduate

Materials

- We agree that the materials we brought with us (and left behind) were comprehensive. Prior to our departure for Nepal, the posters went through several iterations where they were edited and changed to be appropriate and succinct, without detracting from their effectiveness. Along with the posters, we also left behind about twenty jump drives containing valuable resources that expands upon the trainings.
- Duct tape – a simple but effective resource that could always come in handy!
- More posters – our posters were more popular than we predicted, with the number of people wanting them greater than the amount we had; we originally brought 10 posters on each topic (50 posters total), so in the future, it would be better to bring enough to give to more trainees
- The training section on swimming felt a little unnecessary. Although it was specifically requested in our initial plans for the project, it was awkward to demonstrate swift water swimming without any water. The skill, though highly useful, should probably be taught in a pool or other calm body of water.
- Unfortunately, there wasn't any time in our daily schedule for teams to watch each other's trainings. Our team was ultimately very proud of the work that we produced, and it would have been nice for everyone to see the results of each respective team's work.

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Photos





