



Himalayan HealthCare President Dr. Robert McKersie traveled to northern Dhading, Nepal, with a team from the United States comprised of five doctors, one nurse and one communications specialist. In addition to carrying out a medical relief camp in Lapa, where more than 800 patients were treated, the team surveyed and documented the damage in Kathmandu and northern Dhading as well as Himalayan HealthCare's relief efforts. Following is Dr. McKersie's personal account of his time in post-earthquake Nepal.

May 13th, 2015:

First full day here on the ground in Kathmandu (KTM). We (Drs. Ashika Jain, David Johnson, Jerry Donowitz, Gary Nichols, myself, and Nurse John McHarney) all slept a bit lightly last night due to the second quake (7.4 magnitude, 50mi NW of KTM, with over 60 deaths in KTM, and 1,000 injuries). At 2am an aftershock had us all scurrying down to the street with the rest of the relief workers at the hotel. It ended up being just a small shock and we were all ok. It actually was a nice time to meet the other aid workers from around the world, many still in their sleeping garments like us! There is an interesting group from Germany that works with kids with post-traumatic stress disorder following earthquakes. There are also, as can be expected, many social workers here, important in this time of relief work.

Today was a day of exploration in KTM as we await word that we can take a bus west to Dhadingbesi, which will be our departure site via helicopter for the villages in Dhading. At best we will be leaving KTM tomorrow and flying up to the villages tomorrow afternoon, if not tomorrow, then Thursday or perhaps Friday. There is a lack of helicopters now due to many going to the area NW of Kathmandu (near Everest) where the brunt of the damage from the second quake is apparent. As well, the government is using six helicopters to locate the missing US military helicopter with eight people onboard.

Anil Parajuli, Founder and Director of Himalayan HealthCare (HHC), understandably looks tired, but is able to laugh a bit and he gives us our briefing regarding what HHC has done over the last four weeks since the first quake. Our reach is wide and deep in Dhading's relief and recovery: everything from supporting the NY Medics with logistics, to giving solar panel to the darkened police station, to air drops of hundreds of tons of food and medicine as well as to supplying personnel for relief in the villages, to donations of generators for the local telecom company, to organizing youth groups in each VDC (village district committee) to rebuild the many miles of trails that have been

destroyed by the landslides, to aerial flights to determine the number of clinics (30 out of 46) that need complete rebuilding, not to mention the 300+ schools that will need to be rebuilt. There is no aspect of this relief and rebuilding that Anil and his wife Soni Parajuli, Executive Director of HHC, do not have their eyes on from their home (command center now) in KTM. It is impressive. One cannot rebuild 300+ schools in four weeks, but we can try to build five, the ones that the majority of 10th graders attend and who, if unable to continue their studies, will not be able to sit for their national exams in a few months. Thus the idea of triage in medicine is being used in education now.

A nice site today was a bright-eyed and smiling nine-year-old girl keeping up with her studying even while having to live in a relief tent, with both her home and school destroyed.

The group then visited and saw a very sobering view of the KTM village of Bungamati, where many of the two- to three- storied hundred-year-old homes crumpled leaving their inhabitants to live outside in makeshift shelters of old tarps supported by bamboo poles. Remarkably, only a handful of people died in this devastated KTM village.

We are in the process of trying to locate 30,000-60,000 tents or tarpaulins for the Dhading region before June 1st, a herculean task that we will take both foundation and the government's help to accomplish.

KTM itself is quiet, very quiet. The roads are not empty, but few people are on them. Most people are back in their villages sorting out their lives. Very few businesses and restaurants are open. The only places to eat are the hotels, now filled with aid workers. It will be interesting to see when this city starts back up again. The number of buildings in KTM that are down is not large, but the old ones, nestled among the news ones have almost all crumpled. The parks are filled with relief tents from around the world with long lines of people waiting at portable water tankers for water.

May 14th, 2015:

Today was a day of movement towards our goal of getting to the remote villages of Dhading. We took a 4-hour van ride from KTM west to Dhadingbesi, the largest town with close proximity to the villages of Northern Dhading. The road to the village was unmarred, but along the way numerous older homes lay in rubble, as did a number of the homes we passed in the village. Some of the homes even had residents precariously attempting to retrieve personal items from 2nd and 3rd floor rooms that were

ripped open. There are active aftershocks all over this part of Nepal now and these residents are taking a real risk.

To give you an idea of the ruggedness of the mountains here: the helicopter ride from Dhadingbesi to Lapa is 20 minutes; to walk it takes three days. With many landslides between Dhadingbesi and Lapa, and our in-country time only two weeks, helicopters are the only way up and back. These helicopters are in short supply, the large government ones that could take our group up in one lift are hard to come by, but when they are available they are free. We have had to opt for the private rides, which only hold 6 people and gear. With our party of 7 providers and a Nepal based support staff of 9 more (cooks, medical assistants), and all our gear (food, medicines) we will need to have multiple lifts on one helicopter. The prices, as happens when demand outstrips supply, have risen and helicopter rides now range between \$2,000-\$5,000 each. During normal times the rides in this region for these trips cost \$1,000 each.

We met with the District Health Officer for the Dhading Department of Health today who was very happy to see us. He knows well HHC's work in the Northern Dhading Region and commented on how "difficult" a region we have been working in for 20+ years. He wants us to head to either the village of Ree, about 5 miles due south (as the crow flies) or Lapa itself. Ree is a hard place to land a helicopter and HHC does not have personnel in place to help with translation. Lapa, a larger village, is equally in need and where we have had a presence for years. It is also easier to land in, so we opted for Lapa.

The present all Nepal team of HHC providers (Dr. Raksha Parajuli Joshi and seven of her staff), have just arrived back to Dhadingbesi from two northern villages (Shertung and Tipling) that we regularly serve. This team was for the first providers and for the last three weeks saw over 600+ patients. They saw the first wave of post-quake injuries: crush wounds, lacerations and the normal primary care needs of the village patients. They are young, bright-eyed, but relieved that they are returning to our hospital in Ilam where they see about 20 patients a day, most being of non-critical nature.

We will be up in Lapa, offering basic primary care, wound care, trying to prevent a diarrheal epidemic (which is not present yet but an increasing number of cases are being reported) and of course much needed mental health care (PTSD, anxiety, depression, reaction disorder all being present). The rest of our time in the villages will be spent meeting with patients, having "awareness" campaigns (the importance of boiling water, not defecating in open spaces, and washing one's hands). As well, we will be interviewing patients about their experience so we can use them as an oral history as well as for fundraising for the enormous amount of work we have ahead of us for many years to come.

We also had a chance to visit the hospital, normally a 15 bed, now with close to 30 inpatients and an overflowing out-patient department. After the initial influx of volunteers from around the world, with dozens of doctors at this hospital at one time during the first two weeks after the quake, the hospital is now staffed with three government health providers, and very overworked. We rounded with them for a couple of hours, and even though we did not add much to their present level of sound healthcare, they were happy to have us there and bouncing ideas around.

Presently, we are all sitting in a small restaurant with intermittent internet service and with a dozen Oxfam workers from around the world who are coordinating relief efforts in a few other villages (total 46 villages in the district) in the Dhading region.

There is a nice sense of collegiality here with both our own team that is replacing our all-Nepal team and the other international groups. The Oxfam international staff does this all year round: fly to disaster areas around the world, set up shop in a local area and hammer away at their computers, organizing everything from truck loads of relief durables to scheduling providers to volunteer from around the globe. HHC, as an organization, has only had a few opportunities to work in relief and disaster aid, but from all I have seen, and heard from fellow aid workers and officials on the ground here in Dhadingbesi, as well aid workers returning from the field, HHC is doing a marvelous job during these trying times.

May 15th, 2015:

Awoke early this AM after a poor night of sleep, it is hot and humid in Dhadingbesi with temperatures that reach into the high 90s during the day and stay in the 80s in the evening. There is little air movement or rain to relieve this heat and humidity. There was also a fairly strong aftershock around 2AM, short in duration, but sharp. Dr. Jerry Donowitz awoke with a start and yelled, "Quake!" Ashika and I nervously—and with little confidence—countered, "We think it is only an aftershock," our attempt to reassure him and us! We are all a bit edgy, but Jerry particularly so. To break the tension, Jerry and I have mused several times that I did not inform him that he was coming to an active earthquake zone to do relief aid.

We then packed up our gear and headed to breakfast at the restaurant in town where we had lunch and dinner the previous day. It is in a four-story building that looks well constructed.

Immediately after we finished breakfast, we felt a very strong aftershock that was so intense that everyone sprinted out of the building and into the street where we gathered with people from all the other homes and stores. There was a lot of screaming and kids

crying. Not willing to return to the restaurant too soon, we stood in the middle of the street next to our four-story building and eyed it carefully; no visual damage was noted in any buildings around us.

During this aftershock, the restaurant rattled and shook more than I (naïve to earthquakes) expected and changed my view of how structurally sound it must be built. An interesting note on communication, within one minute of this aftershock, the Oxfam staff had contacted their counterparts in Kathmandu and was informed that they had only felt a mild shake, meaning it was centered closer to us in Dhadingbesi than Kathmandu.

There is general unease on everyone's face in our group now. This strong aftershock (later noted to be of magnitude 5.0) frightened not only the new relief providers like me, who had not experienced the first two quakes, but the Oxfam workers we have been sharing the restaurant with and the people of Dhadingbesi as well, who now have felt two large earthquakes and hundreds of aftershocks during the last month.

At this point our group knew the safest place for us was in the village of Lapa, in the middle of a field; luckily Anil and Soni had secured a helicopter to take us up to this village in an hour. The helicopter pad in Dhadingbesi is at the top of a hill within an army compound. It overlooks a beautiful lush green valley that is cut by the *Thopal Khola* (river). The landing pad is wind (rotor) sweep hard clay but still produces a dust storm "white out" when the copters are landing and taking off.

Our helicopter (4 passenger seats) has two pilots: a young female co-pilot and a middle-aged male pilot. Both were dressed casually with jeans, crew shirt and sunglasses. There were no typical jump suits as seen worn by other helicopter pilots. The helicopter looked sound enough, clean and on the newer side, which reassured us. Sapta Ghale, our health aid, also noted that this pilot was one of the best he has seen, able to land in a very small and tight area if needed. Hearing this made us feel even better!

This crew ferried our 7 team members, 3 support staff (cook and assistants), and our enormous amount of gear in six roundtrip flights to the village of Lapa. Even with our confidence in the pilot I was a bit nervous. Helicopters are not as safe as planes, and all of these in Nepal have been getting a lot of use, and, we hope, maintenance, over the last month. The amount of gear we had, and how they crammed it in around us taking up every inch of space, made me wonder if the helicopter would get off the ground.

The ride up to Lapa, (altitude change from 2,500 to 6,000 feet) was surprisingly slow, from what I remember from my last helicopter ride out of the mountains several years ago when I was injured. They flew fairly low at times, just clearing the tops of the trees

on each successive hill we crossed. (I will assume they did this to conserve fuel and not do to the weight of the helicopter's payload.)

It was apparent from the air that scores of the villagers' homes, constructed from well stacked field stones, but without mortar, were completely damaged, "flattened" as the Nepalese say. It can only be imagined the amount of minor damage that the rest of the homes sustained. There were also many landslides along the way, with some having destroyed the trails up into this region. From my vantage point I could not make out if the trails were passable, but an earlier reconnaissance flight had noted that many points along the trail were impassable; thus not allowing relief work into this region except by air.

Upon arriving at the camp, we were greeted by two-dozen army soldiers stationed here to keep order and protect the aid that was now being stored in one of the school buildings which had only minor damage. The weather here is cool and less humid, a welcome change from the heat and humidity in Dhadingbesi. Our camp tents, both sleeping and medical, are set up on several terraces above the school playing field, which now also serves as the landing pad for the helicopters. At present there is one large dome emergency tent that had been erected right after the first earthquake. It was spacious enough to hold six people sleeping on cots if needed. There was one patient in here at present being treated for dehydration.

We met Sita (Nurse Midwife), Suni Maya (HHC Supervisor), Rasa Maya (Nurse Midwife) and Sidhant Bhattarai (HHC social worker/health aid) who have been here since before the quake. They, with an American volunteer, were the front line of medical help for the first week after the earthquake. They tended to and witnessed many of the initial injuries (crush and trauma) and even death. To date 16 people died in Lapa, two are still missing, presumed to be buried in any number of the dozens of landslides that eerily cut the steep terrain that surrounds Lapa. Suni Maya, Sita, Rasa, and Sidhant are young, energetic, charming and hard working. Their faces have the healthy sun-drenched look of people who have worked in the elements. When I asked them about the immediate post-earthquake period, they reported how difficult it was, both physically and emotionally. Sidhant became teary-eyed at this point and turned away from me. Sidhant, who grew up in Kathmandu, has not been home since the quake, but he and the other's families had survived the earthquake, and as so many others have damaged homes. All these individuals are remarkable people. What they experienced and how they handled themselves in this emergency situation is commendable. They will also experience much going forward in the rebuilding process of their village, families' homes, and health center.

The school where we have our regular medical clinics, during our twice a year medical treks, is too damaged to enter, approximately 1/3 of its first floor collapsed into the basement. The health center for Lapa, which is a 20-minute walk down the valley, I have been told, has similar damage and cannot be used.

At camp we set up our tents on a terraced corn field next to two medical tarp-enclosures, where patients will be seen and medications distributed. Below us, in the flat field at the school yard, numerous kids are running around having fun, they seem unaware to what is going on around them. Their play is only interrupted by the warning whistles of the army to clear the field to allow an incoming helicopter to land with relief workers and supplies.

The rest of the afternoon was used to set up camp, eat our meals, write in our journals and see occasional patients (2 diarrheal cases) who have come early to the medical camp. We will start seeing patient tomorrow morning for five days.

Our evening is spent talking amongst our group as to the best way to help HHC raise funds going forward, as well as how HHC will help in the major rebuilding effort that will be needed in this remote region of Nepal.

May 16th, 2015:

We awoke today to a fine drizzle. We all slept better last night in the cool mountain air and with less of a worry of an aftershock bringing down a building on us.

Several of us this morning took a walk around the different wards of the village and then down to the village health post. The health post is still standing, but the inside roof has collapsed, making it unusable and the reason it was necessary to locate our health camp in the terraced fields above the school grounds.

On our walk we noticed more than a few flattened homes, but all of the remaining homes appeared to at least have some damage (parts of walls down, walls bowed out). None of these families we met are living in their homes at this time, all opting for the safer, albeit less comfortable, option of living outside in tents, under tarps, or in more than a few cases in their hay or animal sheds. Suni Maya's family are tomato farmers and they have had to move their living area into their once prosperous green house. Their choice is a natural one, to pick shelter over their business, but the lost income will add to their already challenging situation.

Most of the villagers we encountered were going about their normal chores of eating, cleaning up, and organizing their tents and living environment. Most greeted us and

welcomed our questions and inquiry. One elderly woman, interviewed by Dave Johnson, was teary eyed when she explained the situation she is presently enduring with her food stores now trapped in her partially damaged home; she does not venture into it for fear of it collapsing with the mild tremors that we feel 3-4 times a day. We will see if the Army can help her.

On our morning hike, we were able to view, across a long valley, the Timla youth hostel that HHC had recently finished building. It had sunk down and collapsed after the earthquake. This is particularly heart wrenching; I was there five weeks prior with our last trek group dedicating this beautiful building that would be the home for dozens of eager students located next to their school, saving them hours of walking a day to and from their distant homes.

When we return to the camp this AM, the police commander stated today that they found a body in a landslide rubble yesterday, bringing the number of dead in Lapa to 17 with one still missing. Also, there are several new landslides noted in the surrounding hills, but no injuries were reported from these. The daily cool and scattered rains do not help these rock slides or damaged trails.

This community's psyche is understandably stressed. There is a palpable sense of melancholy, which is to be expected with the amount of loss. The villager's emotions are raw and right under the surface. When we ask about the earthquake during our patient encounters the happy or steely faces of our patients usually soften and the tears come easily. There is a strong need for counseling and a process for these patients to talk about all that happened to them on April 25th. Future medical camps will need to address this serious problem. HHC has social workers who have worked with us in the past, and there is an important opportunity for effective intervention.

From talking with Siddhant I learn that 18 of the 65 toilets in Lapa are damaged and cannot be used, but a higher number are not being used due to people's fear of going into these stone walled structures. He states that neighbors are allowing each other to use their toilets, but open defecation has increased. While the providers are doing a good job of asking each patient if they are boiling or treating their water before drinking it, the majority are not. The cases of diarrheal disease have significantly increased over the norm. Whether we have an epidemic at this point is not clear, but the rates are alarming. Infants and the elderly are the most vulnerable.

Having the large army presence here is reassuring. They do everything from clearing the fields for helicopter landings to registering the patients to helping with translating for the patients. They also regularly partake in the volleyball game in the evening. There is

also growing unease among the locals about how the aid is being distributed, so their presence is important.

The medical camp went well today with all working collaboratively. We freely go from room to room with patient cases when we want a second opinion. Our group is congenial and has a good spirit; all have the “can do” attitude. John McHarney, the RN, is eager to help with any task, no task too small for him. Yesterday he lashed my glasses back together, today he is teaching the locals how to make a toilet that is fly free. Jerry, Ashika, Dave, Gary, and Dr. Suzi Shrestha, who joined us at the camp, are also quick to say “How can I help?” This is the type of group that Anil wanted up here as his first team in. Our personal living conditions are fine; we have tents, hot cooked meals and also tea when we want it, much like the medical treks HHC offers twice a year. And we are all healthy at this time.

The evening was relaxing. I called Soni (who is helping manage HHC’s response from Kathmandu) on the satellite phone and she made sure we were all doing well. We are all tired from being up early and turn in early after a very good meal of momos (Nepali dumplings).

May 17th, 2015:

Today started out early with a difficult one-hour hike to see the villagers of ward 2, which presently lies south of our campsite up a steep hill. The four villages that comprise ward 2 originally lay a further three-hour hike south over a steep ridge. The earthquake, through multiple massive landslides, completely obliterated these four villages. Only five perished, but it forced all 300 inhabitants to relocate. They presently are on several terraces across a large area at approximately 7,500 feet altitude, high above our medical camp and the valley below. These villagers now live in four “tent cities,” each comprised of a few tents, many odd shaped tarp enclosures, and humans occupying their once hay and cattle sheds. Walking around this area and seeing how congested and unsanitary it was reminded me of a shanty town in South Africa I worked in during medical school. These villagers have little food, an inadequate water supply and are being forced to live in too close a proximity to each other. There are no communal toilets and many of the children have diarrhea. This is a very trying medical and humanitarian situation to manage. We review with them the need for communal bathrooms: digging a hole in the ground and then covering their waste with a little dirt so the flies cannot transmit the bacteria back to other villagers. We also review with them the need to boil

their water or at least purify it with tablets. Finally, we encourage them to bring down to our medical camp any of their villagers who are ill.

With the monsoons coming there is a need for a plan to help them survive. The steep trail we had just climbed will be impassible during the rainy season, essentially cutting them off from vital supplies. A possible plan, which is being worked out, is to get the villagers to cut a path from their present location to the nearest town in Gorkha, close to the epicenter of the first earthquake, and a two-day walk. This will allow them access to food and supplies during the rainy season. HHC will work in the short term to secure them temporary shelter, most likely additional tarps and tents. Ultimately, they will have to be relocated to a parcel of land that can hold them permanently, allowing them to continue on as they did before the earthquake.

While walking back to our medical camp to start the day, Dave and I realized that what we just saw was only one of many potential humanitarian disasters developing in any number of the remote, hilly and hard-to-access areas of Nepal. Later in the day, interestingly enough, several members of parliament flew into Lapa to have a photo opportunity with a large shipment of tarps that another NGO (Shelter Box) delivered to Lapa. None of these shelters are earmarked for the isolated villages we just met hours before. We mentioned this situation to the elected official and also the distributor of the Shelter Box kits (ACTED, out of the UK) and they said they would look into it.

When we returned to camp we were greeted with a camp where all of our sleeping and medical tents had been taken down and laid flat against the ground, with rocks placed on them. We then heard the familiar whirl of a helicopter coming up the valley. This large payload helicopter, one of almost a dozen that came into our camp today, creates such a powerful wind that the pilots will not land if there are any loose objects within a reasonable distance of their rotors. The fear is that a tent, when it catches the wind, can be sucked up into the rotor and bring down the helicopter. The wind power of the rotors can also damage objects on the ground. To this end, the Nepal Government had asked the US to stop using its powerful Osprey, with a bi-direction rotor, after they were literally flattening many houses in the villages where they landed. One of the helicopters that landed today did indeed rip the metal roof off a small building near the landing site.

With our medical tents having to be laid flat every time one of the large helicopters approached, and then quickly erected when it departed, made for an active day for our staff. We did see all the patients; however, it was a bit of an inconvenience shuffling everyone between our tents and the safety of hiding behind rock walls to shield ourselves from the rotor wind.

I had a chance to sit and chat with Bishnu today. He is one of our HHC staff and likes to refer to himself as an “all rounder.” When I inquired what this meant he was clear to mention that he has skill sets in carpentry, welding, masonry, and electronics. From watching him scurry around the camp the last two days keeping everything in working order (from tent repair, to generator maintenance, to electrifying the campsite at night) I have no doubt he can repair anything.

Bishnu was also the HHC staff member who was trapped for six days in the village of Rickhi after the earthquake. This village, near Timla where he was finishing up the building of the youth hostel, and all of its villagers were trapped between two large landslides, leaving them without potable drinking water or food. After the earthquake he quickly took charge of the chaotic and urgent situation by administering first aid (four people died, two are still missing and a number injured), looking for available food sources (there were none), erecting temporary shelters and organizing the villagers. It was fortunate that he had both a working cell phone and some personal snacks (cookies) which he distributed among the villagers. After these rations were consumed the villagers were forced to eat grass. His cell phone allowed him to communicate with Anil at HHC during the days following the earthquake, and once a helicopter delivered rations and supplies to the villagers, he was brought back to Dhadingbesi.

I complimented him on his wonderful resolve and humanitarian efforts during this tough situation. He responded, as do so many of the Nepalese I have met, by humbly demurring and not accepting the accolades that are due him. In simple words he said that all he hopes for is that HHC gets the respect that it deserves for all it is doing for the people of Dhading.

The medical cases today are as varied and interesting as yesterday, and again with a preponderance of diarrheal disease. The highlights of the day are the pregnant patients who have heard that there is a medical team in the village with a “moving x-ray.” These patients come to our clinic to see a picture of their baby on our portable ultrasound machine. It is heartwarming to see the look of wonder and excitement that spreads across each pregnant mother’s face when she sees her baby on the screen.

May 18th, 2015:

Today we had another AM hike to better understand another one of the nine wards that comprise the village of Lapa. We visited ward 3, which lies below the school grounds, now the village landing pad for the relief helicopters. It is on a terraced slope that faces north and looks down a beautiful valley with the white capped Ganesh Himals in the

distance. This area is one of the older sections of Lapa and is also the home to a few of the Kami (lowest caste, “untouchables”) community. The Kami caste are Blacksmiths, making the knives and sharpening the tools that are vital to the villagers’ way of life. All four of the Blacksmith shops and forges were damaged and need repair. John McHarney, our RN from New Mexico who is a Blacksmith himself on the side, will initiate a conversation with all four Blacksmith families to determine if they are willing to work as a collective to repair at least two of their shops to help them return to work and earn a livelihood.

John reported that the meeting went well and that the Blacksmiths are thinking about his idea of having collective forges until they each can rebuild their own. One of the issues that came up was that the bellows needed to flame the forge is made from goat skins which were all destroyed during the earthquake. Coincidentally, the local teacher association was going to donate a goat to our medical team for dinner—a real treat in Nepal! The Blacksmiths upon hearing this chatted with the teacher association and the outcome was that the Blacksmiths received the hide they needed. Clearly, this was a “win” for all involved, except, of course, the goat!

One is struck with the large percentage of diarrheal cases we are seeing. The definition of an epidemic being the number of cases rising two standard deviations from the pre-earthquake baseline, we do not have this data at this time. However, my experience has shown me over the last 13 years that we probably have a serious outbreak of diarrheal cases.

The hygiene challenges in this environment are numerous. Boiling water takes energy, and this takes fuel. The main source of fuel in the villages is wood, which is becoming scarcer. Too, there is not a ready supply of water purification tablets and the streams appear clean; some are crystal clear and look refreshing.

One can understand the pattern of drinking straight out of the streams and communal faucets. It is not enticing for a thirsty person on a hot day to boil water and drink it hot, or wait till it cools down. It is not surprising to hear from our patients that almost none of them are boiling water before they consume it. Having these tablets continually available is what we are presently working on.

This is where preventive medicine and education comes in. We spend a fair portion of the visit educating patients on proper hygiene, as mentioned above. To this, our provider group is creative. The idea talked about today over dinner is making a promotional video demonstrating these important hygiene and sanitation messages.

This public health campaign video can then be shown in each ward in the coming months.

The playing field was a buzz of excitement today, with a large number of helicopters landing and bringing everything from blankets to tarps, to rice and cooking pots and pans, all from a variety of NGOs from around the world. They will be distributed by the Lapa political representative. We will try to meet with him tomorrow and see what the village's needs are beyond these donations, still a fraction of what they require.

May 19th, 2015:

This morning we took a walk toward ward 7 and 8. This is up a lush valley that is cut by the *Bhumla Khola*. These wards are about a 90-minute walk for a Nepalese, so our team did not have enough time to get there and back to start seeing patients at 9am. On the walk, however, we were able to get a closer view of a landslide, this one fortunately missing any homes or the trail, enabling these villagers access to our medical camp and the larger wards of Lapa for travel and trade. Although this landslide was small compared to the many others that cut the panorama of the large valley we are in, it did illustrate the power of the earthquake and its aftermath.

This morning Dave and I were able to meet with the Lapa Political Representative, Lama Kama Tamang, an ex-Maoist, who now has the difficult task of determining the needs of the three thousand people who live in the nine wards of this village spread over several rugged ranges and taking days to walk. With so much need we had him focus on what we had witnessed two days prior in ward 2, part of which had been completely wiped out—its inhabitants living in an extended tent city high above our camp at 7,500 feet elevation. The shelter needs of these people, approximately 55 families (roughly 300 people), is 50-60 tents. HHC is presently looking into purchasing 5-person UN relief type tents from India at a cost of \$100/each. The tents, or similar shelters, will need to be purchased, and delivered, before the rains of the monsoon, which will start in two to three weeks.

We then discussed water purification needs for all nine wards of Lapa; this means 3,000 people need daily access to at least 2 liters of clean drinking water, requiring 1,500 chlorine tablets to be available each day. To get this large and extended village (only one of four that HHC has been working with over the last 20+ years) through the three months of monsoons—when diarrheal cases increase—and beyond, until a more permanent solution can be developed, will take 180,000 tablets, or 22 cases of tablets at approximately \$160 per case.

With these two small examples (food needs were not addressed), one can start to appreciate the real time needs and costs for effective intervention in this relief effort. These are just two “back of an envelope” calculations for manageable needs in a country that has many times these needs at present, and clearly exponentially more resources will be needed when the rebuilding efforts get into full swing.

Two days ago we witnessed a number of national parliamentary leaders flying into Lapa and meeting with the villagers and inquiring about the village needs. Yesterday we saw numerous helicopters bringing supplies from a number of NGOs into our village. These durables and food, stacked 5 feet high, were distributed by the end of the day. Today we saw a parade of NGO assessment workers arriving to gather data and information about Northern Dhading, and specifically Lapa, for grants that they are applying for through any number of international organizations, such as the European Union.

The one question that our entire group is asking is, “who is organizing all of these many large international NGOs and aid groups that are coming into Nepal?” From our conversations with these NGO assessment workers many did not know of the other aid teams coming to this remote hamlet, which means there is a lack of coordination. Regardless of the lack of communication between the large relief organizations, we made a point to each of these groups that HHC has been in the Dhading region for decades. When they heard this they sought us out and wanted to speak to us about the work we have been doing as an in-country NGO. In-country NGOs are imperative for large international NGOs to partner with. HHC, with its track record in this region over the years could be an important and vital partner to these groups wanting to make a difference in the lives of the people of Nepal.

The medical clinic today was very busy; there is much need for basic primary care at present in this village. As mentioned before, the post earthquake psychological stress that these villagers are under is very real. You can see it in the range of complaints, more headaches now, more nondescript complaints of body pains and more female patients with menstrual cycle irregularity. This is common in post disaster areas, and what I saw in Haiti after their large earthquake in 2010. Mental health intervention is much needed here in Dhading.

May 20th, 2015:

Today is our last full day of clinic in Lapa. And it is also Dr. Johnson’s birthday. The team sang him Happy Birthday today, which he enjoyed. (Clearly our group was not chosen by Anil for our ability to harmonize). These last nine days with these fellow providers has

been very special for me and them as well, as I have gathered from the other providers' comments and conversations. We have worked well as a team, been very supportive of each other and collectively navigated a post-disaster environment very well. We all now have an important, but stark, appreciation of the aftermath of this earthquake, as well as the challenges that lie ahead for Nepal, and specifically the Northern Dhading region. It would be amiss if I did not mention the incredible amount of support the on-the-ground HHC staff and our support team (cook and assistant) gave us during these past five days in Lapa. Most of these staff members have not had a break since the earthquake; and there are those on our staff who live distant from Lapa and have not had a chance to return home to check on their families, houses and personal belongings (fortunately all our HHC staff's family members are well). Our work in this remote and challenging region would not be possible without them or the work of Anil and Soni in Kathmandu. We owe them much gratitude.

This morning was particularly enjoyable for we filmed the public health video, "Safe Water, Healthy Families." This video is the collective brainstorm and writing of our group with its subject matter being the importance of treating one's drinking water with purification tablets before consuming it. We used Suni Maya (HHC Village Coordinator) and Sita (Nurse Midwife) as the lead actors. Robert Rosenthal, a media and communications specialist, who is on the trek with us, filmed it. He will do the post-production editing and we will have the health aids show it to the different wards of Lapa over the coming months to help combat the rising incidence of diarrheal diseases. It was enjoyable watching the HHC staff participate in this filming, and I am sure they will take pride in it once it is finished and when they can show it in their village.

Today's clinic was busy with similar cases as the past four days. The providers, as prior, emphasized to each patient the same mantra on safe drinking water and toilet use we have been repeating for the last four days. Near the end of the day, the patient flow slowed down and we were able to sit in the medical tent and relax, read, look at each other's pictures and listen to some music off our cell phones.

Ashika and I had commented earlier in the week that this was the first time we had been on a HHC medical trek together and not had a patient that was so ill that they needed to be admitted to our health center overnight for care, or flown out to a hospital. Perhaps we jinxed ourselves, for a few moments after we finished for the day a middle-aged woman came to us with the complaint of a severe headache, fever and chills. She did indeed look ill. Both Ashika and Jerry, with the health staff, initially evaluated her. She had a fever, elevated heart beat and an increased rate of breathing. We were not able to get her blood work to determine if she had an elevated white blood count, or evaluate her urine for a urinary or kidney infection. Her exam did not show any focus for infection.

Our working diagnosis was either meningitis or sepsis. We moved her to our medical tent, started an IV and gave her fluids and antibiotics. She will sleep here tonight and be watched by the medical staff and us.

Not soon after this an elderly patient was carried in by her family. She had been losing weight for four years, but more recently had been nauseous since the earthquake. Her vital signs were normal except for an increased rate of breathing. Her exam was essentially normal, except for being thin and drawn. She was too weak to walk. We started an IV on her and will watch her through the night as well.

Neither of these patients had diarrhea, the most prevalent illness we have been seeing in the last five days. Both, however, were too ill to be sent back to their home, now a tent or tarp shelter, at best. We will check on them through the night and will have to determine in the morning if they have improved enough to stay in the village or need to be flown out to the hospital in Dhadingbesi.

After dinner all of the HHC staff was able to enjoy a birthday cake that they had made for David Johnson. It was a nice ending gathering to have with this group of HHC staff and medical staff we had worked closely with in the last five days. Our normal send off from these medical camps would be a chance to listen to traditional Nepal music and dance, but due to the close proximity of our two ill patients spending the night in camp, we had a quieter celebration. One of the Nepal policemen sang Dave a birthday song and he countered with a few verses from an Italian song. Although it was a more subdued sendoff than past ones, it was heartfelt and we all ended our camp on a warm note.

May 21st, 2015:

Today we awoke to a cool damp morning after a night of thunderstorms that have continued into the morning. It looks doubtful that we will have enough cloud clearing to get a helicopter out, scheduled to arrive at 9:30am.

I checked on the patients during the early morning hours and was not surprised to see that Suni Maya, Sita, Rasa Maya and Siddhant had stayed up with both patients through the night. Both patients were asleep and their vital signs were normal, which was reassuring. I urged the staff to try to get some sleep, but know how vigilant they are and that they probably will not.

We re-evaluated our patients later in the morning, the younger woman with possible sepsis had improved and it does not look as if we will need to fly her out to Shading

Besi for more comprehensive care than the HHC staff can give here in the village. The elderly woman, who has stable vitals now, but is unwilling to eat, looks to be suffering from a chronic disease, possibly either cancer or TB. With her age of 76 years and present debilitated condition we will have a conversation with the family as to what their wishes are. The options are not great. Bringing her down to Dhadingbesi would allow us to rule out TB, which would be important from an infectious disease dissemination standpoint. However, if she does have cancer, where is the best place to live out her life? The Dhadingbesi hospital is full, and she may be there quite some time. Bringing her down to Dhadingbesi will also mean that another family member will have to travel with her, leaving the family here with one less person to help. The other option is living out her life here in the village. However, with the coming rains and her family presently living in a tent this will be less than a comfortable existence. These are some of the options the team discussed this morning. Often there are no easy answers to medical care questions in life and these can be compounded when making them in a remote, low-income setting as we are in now. The medical staff here will follow this patient over the coming days and, in concert with the family, make a decision as to the best place for this patient to be cared for.

The clouds broke around 11am and we got word through the satellite phone that the helicopter would be able to fly us back to Kathmandu. Before we departed we circled the staff and our provider team and I told them what it meant to us to have the chance to work shoulder-to-shoulder with them during this crisis and hopefully in the coming months and years of rebuilding.

Back in Kathmandu:

Two weeks ago when I informed my family, friends and colleagues that I was coming back to Nepal to help with the relief effort I was showered with accolades and complements, and a few even went so far as to say I was a “hero.” As well, I am sure I will receive many wonderful and positive comments about our relief work here over the last two weeks when I return to the States in two days.

Certainly our group of providers, who took a break from our lives of comfort and ventured into an active earthquake zone, took a risk. And each one of us who answered Anil’s call for help calculated what that risk meant to them personally. However, after 13 years of being part of HHC and having visited Nepal and the Northern Dhading region at least once every year during this period—and this last two weeks being the most intense—I have been witness to and heard many cases of heroism that happen every

day by the Nepalese. Knowing the stoicism that the Nepalese will display as they move forward in their lives, I will take my lead from the many humble Nepal people I have come to know through the years and defer any accolades to them.

Robert McKersie, MD

May 21, 2015