

he following events occurred prior to my entrance into medical school, during the time I spent volunteering at a clinic in Guatemala. For much of that time, I worked as an aide for an elderly Mayan woman recovering from a sizeable ulcer. My friendship with this octogenarian hermit, with whom I share almost no language or cultural background, is among the oddest and most difficult relationships of my life. Yet, for those same reasons, it has been one of the most meaningful.

It took a long chain of events for me to meet Doña Paulina. I first came to Guatemala in 2008. During my travels, I visited Santa Cruz la Laguna, a community of indigenous Mayans in the Western highlands. There, I encountered a pair of physicians who operated a small clinic. After spending a few days around trying to lend a hand, I asked if I could stay to volunteer for the next seven months. To my surprise, they agreed.

The doctors' model was built around mobile outreach clinics. Twice per week we'd pack up medications and equipment and travel to several nearby villages, seeing from thirty to ninety patients. It was during one such day that Dońa Paulina's story first came to us. We were in the village of Tzununá. Late in the afternoon, a visitor asked if we could check on his neighbor. He had stopped by her home and found her bedridden and delirious. After the last patient had been seen, our nurse practitioner set off to investigate. What she found was heartbreaking.

In Spanish, "Doña" is a respectful title, a step above "Señora." Although none of the clinic staff had heard of her, Doña Paulina was perhaps the oldest living person in Tzununá. She believed she'd been alive for 85 years. Having long outlived her husband and children, she had been left completely alone.

However, this remarkable spirit was now close to fading away. A circumferential ulcer had consumed her left calf. It had eroded down to the fascia and swollen her foot like an inflated rubber glove. She didn't have diabetes or varicosities. A small cut, bite, or burn must have become infected. As she remained unaware of options for treatment, it progressed to a chronic wound and then a systemic infection. None of the staff who'd visited her believed she would live for many more weeks.

In the U.S., such an ulcer would certainly warrant hospitalization. But the choice was different in Guatemala. Over 85 years, Doña Paulina had likely never left her village. The nearest hospital, several hours away, is known among Mayans as the place where people go to die. We considered the shock of pulling her from her home, and decided we'd be doing more harm than we could hope to cure.

Our clinic was only outpatient, however. The most we could offer were home visits to bring her infection and dehydration under control. As the most expendable member of the clinic staff, and eager to undertake any medical assignment, I was chosen to be her caregiver.



Peter Cooch '14 sits in Dona Paulina's small hut in Santa Cruz la Laguna, in the highlands of Guatemala. Since his first visit to Guatemala in 2008, Cooch has returned several times.

I will never forget the first time I visited. Doña Paulina lived deep in the forest above the village. Her home was constructed of entwined branches and dried earth. There was no electricity, water, or plumbing. I knocked and entered. The only illumination came from sunlight filtering between the bamboo stays. The floor was earth and the ceiling was glazed with creosote from indoor cookfires. I knelt at the side of a pallet containing a child-sized woman. Her eyes, deeply sunken in parchment flesh, flickered with pain and sorrow that was utterly foreign to me. She spoke

My first view of her calf reminded me of a panorama from the American southwest. Deep canyons and fissures scored her flesh, streaked with angry reds, green patinas, and yellow seeps. . . . If this was so hard for me, I wondered, how unbearable could it be for her?

—Peter Cooch

Second-year medical student

no Spanish, nor did I understand her dialect. I hesitated, unsure what to do. Then I put on gloves and helped to lift her leg off the bed.

Changing Doña Paulina's dressings eventually became a familiar routine, but that was not the case on the first day. With trepidation, I unwrapped the loops of gauze, already saturated with exudate. I felt air in the hut growing thicker. My first view of her calf reminded me of a panorama from the American southwest. Deep canyons and fissures scored her flesh, streaked with angry reds, green patinas, and yellow seeps. I had to take a long pause before I was able to continue. If this was so hard for me, I wondered, how unbearable could it be for her?

Initially, the entire process could take nearly an hour. I'd irrigate the wound with copious amounts of saline, then apply a coat of silvadene ointment. After finishing the dressings, we'd both be exhausted. I had been working by headlamp, meticulously trying not to cross-contaminate my supplies. She held her frail body upright, eyes closed, murmuring prayers. I'd end by making her a glass of powdered milk and give her her next dose of antibiotics.

I began making trips every other day. Our routine progressed. I became speedier and more proficient with the dressings. She made requests for sundry items, like candles or matches. Several months in, it was becoming clear that Doña Paulina was not about to give up. Day by day, the margins of her ulcer grew pink and started to fill in. When I arrived, she was just as likely to be up and tending her fire as in bed. With her inquisitive eyes, wrinkled skin and walking staff, she reminded me a little of Yoda from Star Wars.

Our patchwork system of communication was also mending. We had been finding remarkable overlap between the handful of Spanish words she revealed and the Kaq'chikel I was practicing. We had a formal greeting every time I arrived and could make small talk about the weather. I could ask her about her pain, explain medication schedules, and ask what she needed. To be sure, when she started to chatter, I found the words as indistinguishable as ever. Yet the tones were unmistakable: banter, reproach, or curiosity.

It was clear this mission might end up much more than palliative care. Unfortunately, my seven months were nearly over. I needed to replenish my finances, and had the option of returning to the states to work for the winter. Over my final few weeks I transitioned her care to the clinic staff.

Back in the U.S., I spent the next five months working and fundraising. I made plans to drive my old pickup truck from the U.S. to Guatemala in the spring of 2009. There, I would convert it into an ambulance and donate it to three nearby villages. I started my journey in early May. In the course of three weeks I drove almost 7000 kilometers through the U.S. and across Mexico.



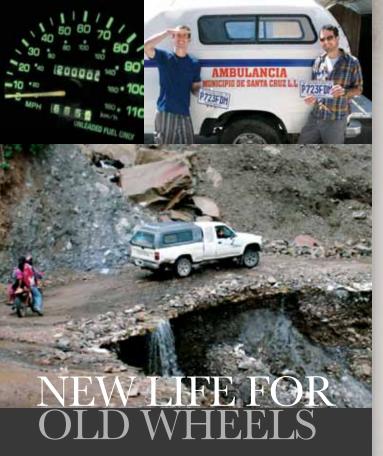








Peter Cooch's patient, Doña Paulina, lives in a square wattle-and-daub hut that measured roughly nine feet per side, with about five feet of headroom. "Other than some pots and utensils, plastic buckets and the corrugated tin roof, there were almost no industrially-fabricated objects — in a country inundated with cheap plastics," Cooch says, describing his first visit to her home. "The bedding and baskets were hand woven, the walls bound with twine, and the stool and bed frame simply carpentered. The floor was earth and the ceiling was glazed with creosote from indoor fires. Bundles of herbs hung from the ceiling, and a rosary."



Peter Cooch first travelled to Guatemala in the fall of 2008 After that experience, he remained connected to the Central American country through an organization called Mayan Medical Aid. Cooch took on the responsibilities of volunteer coordinator and grant writer for the group from his winter quarters in Montana.

He returned to the Guatemalan village of Santa Cruz la Laguna in 2009. On the last day of his seven-month stay, as he describes it, "A Mayan farmer hailed me from up on the hillside. I followed him to his home, where I found a young woman, feverish, and in intense abdominal pain. I urged the family to take her to the hospital, but they were unable to do so: there were no vehicles in the village and, should one happen by, transport might cost a week's wages. In the end, I arranged to have medical aid sent to her, but I found out a few days later that she had died from complications of a ruptured appendix."

Back in Montana, Cooch had left his old pickup truck packed with all his possessions parked in a friend's garage. Battered and well used, the truck would never pass inspection in Vermont, where Cooch would soon be heading to medical school. But in Guatemala, it could provide vital service as a rural ambulance. In May 2010 Cooch drove the vehicle from Montana to Guatemala. Its odometer clicked to 200.000 miles as he arrived in the village.

Since then, the truck has been repaired and outfitted as an ambulance by a local trade school. And Cooch found plenty of support for his efforts when he came to UVM. Last summer he returned to Guatemala, and was joined by his classmate Adam Ackerman (seen above right, with ambulance). With equipment donated by the Department of Pathology and Mass General Hospital, they set up a fully operational pathology lab. Cooch and Ackerman returned again this February, along with med student Nathan Louras.

The first day I returned to Santa Cruz la Laguna in 2009, I was greeted by the sight of Doña Paulina standing outside of her house, shooing around a gaggle of chicks. During my absence, a fourth-year medical student and his wife had volunteered at the clinic. Rather than powdered milk and eggs, they had brought her home-cooked meals. Under their care, her health had improved significantly.

She was even more talkative, if possible, from the last time I'd ever seen her. She could name off her favorite dishes, such as beef stew, chicken and fish, and was not shy about doing so. The ulcer had healed from the size of five or six hand-prints to a narrow band on the inside of her leg.

Yet not all the steps had been forward. In the three weeks since the last volunteer's departure, no one had come to visit her. A thick coating of ash had been applied to the ulcer, as well as magentacolored flakes I'd never seen before. I was alarmed when she broke into a deep, hacking cough.

That morning's cleaning was painstaking for me and excruciating for her. I picked at the crust of dirt, trying to spare the tissue below. Doña Paulina clucked and gesticulated in agitation. After an almost an hour the wound was superficially cleaned, but clearly macerated and purulent. Her progress, and our relationship, no longer seemed on such solid footing.

As I walked home, I tried to clear my head. I had just over two months in Guatemala before I started school. I promised myself that I'd do whatever it took to heal her before I left. Yet my good intentions couldn't seem to yield results. Antibiotics cleared up the pus, but did little to help the cough. Meanwhile, Doña Paulina became more and more resistant to receiving care. I realized she wouldn't tolerate bandages for longer than 48 hours. Past that point, she would once again expose the ulcer and smear it with ashes. She explained that the wound appeared dryer, and thereby healthier, when it was rubbed with cinders.

I made sure that much time never elapsed between visits, but the threshold kept dropping. I dabbled in pleading, reason, and bribery, such as making the food I brought contingent on her bandages. Whenever I arrived to find them removed, I would scold her and place the food I'd brought back in my backpack. But each time, after explaining the need for patience and consistency, I would relent. I imagine she always knew that I was only capable of bluffing.

Although Doña Paulina still reluctantly allowed me to clean the wound, she would flat-out refuse care from the rest of the clinic staff. Despite the remarkable improvements she'd made, our efforts had been completely discredited.

Why was she upset? Her pain must have been unbearable. But surely she could appreciate the progress we'd been making? She wanted to let the wound air out, a concept with a certain intrinsic appeal. Yet I could see no way to do that without reversing the delicate healing.

I was asked by others, as I sometimes wondered myself, why I kept pressing the issue. She had made it clear that my assistance was no longer necessary. In the time I took for a home visit, one of the clinic staff might finish four consultations. Prevention and treating acute illness was a much more efficient use the clinic's limited

resources than this quagmire. And I knew that it was unlikely anyone would carry on with her treatment after my departure. Yet this knowledge only added to the pressure I felt to do the most I could.

My concern over the ulcer and unremitting cough had been growing. A few weeks later I brought a translator and our clinic's attending physician along with me to see her.

With some prodding from our attending and insightful questioning by our interpreter, the truth came pouring out. Doña Paulina admitted to buying plugs of tobacco with the money I'd been giving her. I was completely taken aback — smoking is almost unheard of in the area. We told her that tobacco was causing her cough and delaying her healing. She countered that it was the only thing that helped. In fact, she claimed the cough had only worsened because we hadn't been giving her enough money to replenish her cache.

She plowed onwards, stating that her own medicine was the only thing that had ever healed the ulcer. She produced a small bag of magenta granules, the same flakes I'd seen in the ulcer a few months earlier. Our interpreter recognized the substance as a potent agricultural insecticide.

After an unsuccessful attempt to confiscate the flakes, we departed. Our doctor had found the exchange quite humorous, but I felt at a complete loss. I had to leave in a few weeks. The ulcer looked worse than it had when I had returned. How could I transfer care of such a recalcitrant charge? We had known each other for over a year, and yet I was scarcely welcome.

I did what I could. I kept visiting, although I knew the bandages were removed as soon as I left. I realized her edematous feet no longer fit into her plastic slippers, so I bought her a pair of rubber clogs. The fact they mirrored my own giant pair earned a laugh and perhaps restored some good will between us.

Once again, I departed with very little sense of closure. The clinic informed me that after I left, Doña Paulina began refusing treatment altogether. I could only imagine what had become of her. Sometimes she struck me as so resilient I couldn't imagine her departing this earth. Other times her vulnerability was so complete that I marveled she hasn't wisped away before my eyes.

Over the following year, I thought about Doña Paulina frequently. Our worlds were so different it seemed improbable we had ever found common ground at all. I had been twenty-four, while she was old enough to no longer know her age. I had traveled from thousands of kilometers away. She had never journeyed farther than she could walk. I've spent two decades in school; she spent two decades waiting out civil war. While I enjoyed perfect health, she had endured years of agony. While I plugged in my laptop

and turned on the lights, she lay in the dark from sunset

Although I felt frustration, the troubles of a provider and a patient occupy entirely different planes of existence. She had a debilitating injury. She couldn't know what caused it, whether it would ever go away, or if it might kill her. For a year, she had let strangers come into her home. I had scolded, bribed, and questioned her. Each time, she'd been subjected to invasive procedures, via pills, intramuscular injections, or canalization.

Despite these gulfs, a connection had indeed existed between us. We'd shared laughter at my massive shoes next to her miniscule pair. There had been effort on both our parts to communicate. When she thanked us for food and gifts, I was sure her gratitude was always sincere. And she most likely had tolerated my presence and interventions far beyond her own intuition or comfort.

As the patient-caregiver paradigm so often invites, our contact was founded on dependency and inequality. I've been judgmental, ethnocentric, and patronizing. But I've also felt humility, frustration, elation, and sorrow in her presence. I have enormous respect and affection for her. I hope I was able to extend some comfort into the years of a formidable individual. I wish that I had been able to do more. Above all, I am grateful to have been able to play a role in her life. w

I did return to Guatemala in the summer of 2011. I am delighted to report Doña Paulina is doing better than ever, despite the fact that not a soul visited her after I left. The first time I saw her, she was a kilometer down the road from her house, walking to the little market where I used to buy her food. Her ulcer has completely healed. She has lived 85 years without help from me or anyone else, and she's back to business as usual.



prize-winning version of this essay, and Peter Cooch's own account of his ambulance delivery journey across the U.S., Mexico, and Central America, Go to: uvm.edu/medicine/vtmedicine