

# HAITI: The Kaiser Permanente Experience—Part 1

Sarah Beekley, MD

***“It is one of the beautiful compensations of life, that no man can sincerely try to help another without helping himself.”***

— Ralph Waldo Emerson

*Our cause is health, our passion is service, and we are here to make lives better.* This is the social mission of Kaiser Permanente (KP), and the personal mission of the staff whose stories are shared in this collection of essays. Each volunteered their time, sacrificed their personal safety and comfort, and challenged themselves to extend well beyond their normal limits both personally and professionally. And each of them would say that they gained more than they gave.

Why is volunteering such an elevating human experience? Why is being of service to someone who cannot repay you so profoundly rewarding? Perhaps it is legacy, knowing that one has truly made an invaluable contribution to the lives of others. Perhaps it is mastery, the challenge of testing one’s expertise, resilience, and resourcefulness in an unfamiliar and austere environment. Perhaps it is gratitude, the recognition that we live and work in a community of extraordinary wealth and privilege, and that with this

privilege comes the opportunity, even the responsibility, to give back. Perhaps it is just the human desire to connect in an authentic and noncontractual way. These stories give us a glimpse into the many factors that motivate us.

Every physician and nurse who worked in Haiti did so because colleagues and family at home made it possible. These stories are written both to inform and to express gratitude to the many silent partners that made this work possible. Many are extracted from letters, blogs, or e-mails written while in Haiti or soon after returning to the US. They are written to honor the people of Haiti, suffering or healed, living or dead. They are written to acknowledge the courage, the sacrifice, and the skill of those who continue to dedicate themselves to making lives better.

Because the desire to share the stories was as great as the outpouring of compassion, this collection is being published in two parts. This first part is an introduction and commentary on the experience, the need, and the organization of answering the need. The second part, in the Winter 2011 issue, will be the personal stories, triumphs and failures of some of those who traveled to Haiti whose lives were changed. ♦

## Tribute

Robert Pearl, MD

Kaiser Permanente (KP) began when Sidney Garfield, MD, went into the Mojave Desert to provide care to the workers building the California Aqueduct. He went there out of a sense of mission to deliver quality medical care to people in need. That spirit remains vibrant and powerful today in our many relief efforts from the tsunami in Southeast Asia to Hurricane Katrina to Haiti. The stories of these brave volunteers serve as an inspiration to all of us. I am grateful to all of the people of KP who make sacrifices to help others, whether in our local communities or across the globe. I hope all of us will take the time to read about the work they did and the impact they had. ♦

**Robert Pearl, MD**, is the Executive Director and CEO of The Permanente Medical Group in Oakland, CA. E-mail: robert.pearl@kp.org.

## From Tragedy, Opportunity—A New Beginning for Haiti and the Dominican Republic

John Freedman, MD

I went to Haiti in late January as a member of an Operation Rainbow ([www.operationrainbow.org](http://www.operationrainbow.org)) surgical team which comprised both Kaiser Permanente (KP) and non-KP team members. As background, my own medical charity, Medical Exchange International ([www.medicalexchangeintl.org](http://www.medicalexchangeintl.org)), had partnered with Operation Rainbow in the past to provide anesthesia equipment for several surgical missions in the developing world. In Haiti, we had an opportunity not only to provide pulse oximeters and anesthesia supplies, but also to help out on the clinical front line. As an anesthesiologist with a background in medicine and critical care, I split my time about half and half between the operating rooms and the intensive care unit (ICU), both of which were intense and busy. Whereas I could write at length about what we did and how we coped with severely constrained resources, I want to focus this article on an important “epiphenomenon”: the catalytic action of the earthquake tragedy to create a new inflection point in the long history of Haiti-Dominican Republic relations.

Although we experienced the startling devastation in Port-au-Prince when we went into the city to deliver a pulse oximeter, our clinical work took place entirely at the Buen Samaritano (or Bon Samaritain in French) makeshift hospital in the town of Jimani, one mile east of

the Haitian-Dominican border in the Dominican Republic. Before the earthquake, the facility was a yet-to-open complex comprising a chapel, an orphanage, and a dental clinic. After the earthquake, the chapel and the orphanage were rapidly converted to hospital wards, and the dental clinic became our acute care venue including a 4-room operating suite. We estimated we had about 250 patients on site, almost all of whom were injured Haitian refugees. We did between 20 and 50 surgical cases a day in 4 converted dental consultation rooms. The vast majority of our surgical cases were orthopedic and plastics procedures, as expected. In our makeshift ICU, I cared for 5 to 10 patients on any given day, and we also opened up a perinatal ward when we suddenly found ourselves doing C-sections (if you build it, they will come ...).

The facility was staffed by volunteers from all over the world. We worked closely with our own superb Operation Rainbow orthopedic surgeons, including our mission lead Dave Atkin, MD, from San Francisco and pediatric specialist Chris Comstock, MD, from Corpus Christi, Texas, and with surgeons from around the US and around the globe. In the ICU, I worked closely with an excellent emergency/critical care team from Barcelona (and by closely I mean cross-covering to maintain 24/7 on-site care—the

real thing). Nurses and pharmacists from all over the world worked together, and I remember being particularly touched when I saw a group of Israelis help an Arab team unload several tons of food that was brought in by the United Arab Emirates. All this is to say that there was a tremendous and truly inspiring internationalism—a deep humanism was in full bloom here.



Photo by John Freedman, MD.

Post-op patient.

This leads me to my main point: I witnessed first-hand an extraordinary stepping-up-to-the-plate by the Dominican government and the Dominican people. From the moment we arrived, we saw that the Dominicans had dedicated their major international airport in Santo Domingo to international relief efforts. Because Haiti’s airports were marginally functional at best,

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**John Freedman, MD**, is the Chief of Anesthesiology at the Santa Rosa Medical Center in CA. He was the Lead Anesthesiologist and Intensivist on an Operation Rainbow Surgical Team. He is President of Medical Exchange International, a nonprofit charity dedicated to international health care collaboration. E-mail: [john.freedman@kp.org](mailto:john.freedman@kp.org).



Photo courtesy John Freedman, MD.

Dr John Freedman at Buen Samaritano Hospital.

this was crucial to the immediate relief efforts. The short aid corridor between the Dominican Republic border and Port-au-Prince was active 24/7 with an endless stream of trucks laden with food, water, tents, coal, firewood, blankets, medical supplies, and more from dozens of countries and with a very notable contribution from the Dominican Republic itself. For example, the Dominican Republic sent 15 mobile cafeterias serving 100,000 meals a day into Haiti. Santo Domingo Water Corporation sent dozens of tank trucks, each containing 2000 gallons of water. Estimates of total

Dominican Republic aid for Haiti to date have exceeded \$17 million, no small sum for a small island republic that is itself a developing nation. We witnessed the Dominican army conspicuously keeping the Dominican side of the relief corridor safe and functional until the United Nations (UN) Peacekeeping Force (which fortuitously had been in Haiti prior to the earthquake) took over on the Haitian side to assure the relief lifeline kept flowing. Thankfully, the Dominican authorities allowed thousands of Haitian refugees to cross the border eastward into the Dominican Republic to seek care in our emergency relief hospital and in other Dominican hospitals.

At Buen Samaritano, I noted that many of the drugs we used, and a hefty component of the supplies we used such as oxygen masks, epidural kits, and IV catheters, came from the Dominican Republic. The Dominican personnel presence was huge, literally hundreds of Dominicans representing the Dominican Public Health Department (known by its Spanish acronym of SESPAS), the Dominican Food Aid Program, the Dominican Republic's major emer-

gency relief organization (known as URN for Unidad de Rescate Nacional), as well as Dominican representatives from countless humanitarian programs such as the Pan-American Health Organization (PAHO), US Agency for International Development, the UN World Food Program, and Ninos de las Naciones. The Dominican-based ARS Humano provided the trailers we used for our tuberculosis isolation ward and our spinal cord injury care unit. Dominican interpreters navigated the tricky Creole-French-Spanish language challenges for us. The Dominican government allowed US military transport choppers as well as those of several private US entities into their airspace to help us evacuate some of our most critically ill patients to the USNS Comfort hospital ship. The Dominican army was on-site day and night in Jimani, keeping us safe and keeping the peace amidst the influx of refugees. The Dominican charity Esperanza provided transportation and meals for our team. Last but certainly not least (from an anesthesiologist's standpoint), the Dominican Red Cross filled our rapidly depleting oxygen tanks every few days—life-giving assistance, literally and figuratively.

This Dominican largesse would be worthy of praise and worth relating in and of itself. But what makes it all the more heartening and extraordinary, in fact truly “game-changing” if one can apply that adjective to international relations, is that it opens a new era in the long history of tense and violent relations between these two neighboring nations. Columbus landed on the island of Hispaniola on his first voyage to the New World in 1492 and promptly claimed it for Spain. But it did not take long for the French to wrest half of the island from the Spanish, thus establishing



Photo by John Freedman, MD.

Buen Samaritano Hospital.

two separate but equal colonies with political, cultural, and economic disparities that persist to this day. The Dominicans still resent a period of Haitian occupation from 1822 through 1844, though some Haitian scholars insist that the Haitians were “invited” in to ensure abolition of slavery in post-Spanish Dominica. Little known to most outsiders, the Dominicans ultimately had to win their independence not from Spain but from their Haitian overseers. The Dominicans repaid the favor in kind with a brutal retaliatory massacre of over 20,000 Haitians by the despotic Trujillo regime in 1937. To make matters worse, the persistent sharp contrast in prosperity, and some say an inherent racism in the Dominican Republic—have continued to fuel the fires of hatred, fear, and mistrust. The Dominican Republic ranks a respectable 90 out of 182 countries on the UN’s Human Development Index, a composite measure of wealth, health, and educational indices. Haiti comes in at a miserable 149, just a hair above Sudan. The Dominican economy has long profited from cheap Haitian labor: more than 90% of the country’s sugar workers are of Haitian origin. The average Dominican can expect to live into his or her 70s, whereas 61 is the average life expectancy for Haitians and this is now surely reduced as a result of the earthquake. All of this makes it understandable that Haiti rejected an offer of over 3000 Dominican troops



Photo by John Freedman, MD.

UN peacekeepers.

which was tendered the week after the quake with the intent of assisting the UN battalion in securing the aid corridor in eastern Haiti. To many Haitians that offer was similar to the idea of having Russian “peacekeepers” come into the Ukraine.

But that long and mostly ugly relationship which has prevailed for centuries may now be coming to an end. The opening was there after January 12, 2010, and the Dominicans took it. Some say it is in their interest to prevent a “failed Haiti” (if that is not already the case) and that the Dominicans are just pragmatists working to stem the tide of refugees. No doubt there is, as always, an element of public relations at work here and in fact the Dominicans have received some good press for their efforts. But having seen it in action,

on the front lines, the Dominican effort by my observation is more than pragmatic and more than PR. It is huge and robust, carefully thought out, and thoroughly genuine.

Time will tell if this represents a true turning point and ushers in a new era for these two countries that uneasily share an island in our own backyard. Haiti’s tragedy is the costliest natural disaster in recorded history according to the Inter-American Development Bank. But as with any great tragedy, there is great opportunity inherent in the rebuilding phase, and the Dominicans seem to have grasped that. The Dominican effort and the healing of Haiti-Dominican Republic relations may turn out to be a very major ingredient in the formula for Haiti’s long-term (and I use the word advisedly) reconstruction. ❖

### No Need to Wait

How wonderful it is that nobody need wait a single moment  
before starting to improve the world.

— Diary of a Young Girl, *Anne Frank, 1929-1945,*  
*Jewish-German diarist and holocaust victim*

## Haiti—Forgotten Already?

Lee Jacobs, MD

When Haiti suffered one of the worst natural disasters ever to occur in the Western hemisphere, people from all over the world responded with donations of time and money. The first response was excellent—although at times overwhelming the fragile infrastructure—it was substantial and well intended.

In the past *The Permanente Journal (TPJ)* has chronicled the experiences of health professionals responding to disasters, including the Katrina flooding<sup>1</sup> and the Banda Aceh tsunami.<sup>2</sup> Here, *TPJ* shares the stories of those who responded to the earthquake in Haiti and of those who support them; more stories will appear in the Winter 2011 issue.

As important as these stories are, they are only the first chapter in the story yet to be told of Haiti's recovery: The story of a country almost completely destroyed and the story of a people caring for each other and coping with their present difficult situation. The story yet to be written will be of the massive rebuilding and relocation that must be supported by people and finances from around the world.

During my recent trip to Haiti with a health care team, I had several community leaders describe how immediately after the earthquake, groups from several

countries and agencies provided food, living supplies and health needs. After the initial response, care from outside Haiti has markedly decreased and now there are only a precious few volunteer short-term teams, most faith-based, assisting the Haitians. Haitian leaders wonder: Have Americans forgotten their plight already?

There is excellent ongoing support by several large agencies, but the challenge is just too great to meet the basic living needs of the Haitians. The destruction in Haiti is more widespread and devastating than imaginable. Having been part of a medical relief team in Banda Aceh, I have seen destruction and the plight of displaced people. Although the challenges in Haiti are quite different, it is my opinion that the long-term relief needs in Haiti will actually be greater than Banda Aceh.

Living conditions for most Haitians were bad before the earthquake, now the conditions are unspeakable. Thousands of Haitians are living in tents creating clusters that look like refugee camps. Fortunately, large-scale disease outbreaks have been avoided because international agencies have provided clean water and scores of port-a-potties. Tent life is awful. Several Haitians I know who are living in tents tell me of the

difficulties of their present living conditions, especially during the heavy rains of May when water would flow through the floors of their tents. One friend of mine lives in a tent with 15 family members. People are hungry. Initially, rice and beans were delivered, now only rice is being made available. Without jobs, many walk aimlessly around these camps. Finally, there are no regular communications from the Haitian government. Nobody knows what to expect.

I'm certain talented people at the United Nations, World Health Organization and US Agency for International Development are making plans to help the Haitian people. InterAction, a coalition of aid organizations, planned to divide their available funds for immediate relief and for long-term rebuilding.<sup>3</sup> It can only be assumed that holding funds in reserve must reflect the belief that no further major inflow of relief funds is expected. If that is in fact the case, then the overall funds available will be tremendously inadequate. The funds donated for Haiti relief in the first 4 months was \$1.3 billion, which is significantly less than the donations in the first 4 months to either 9/11 (\$2.3 billion) or Katrina (\$3.4 billion).<sup>4</sup>

Several major needs over the next decade will include: orphan

Lee Jacobs, MD, is the Associate Editor-in-Chief of *The Permanente Journal* and resides in Atlanta, GA. E-mail: jacobs@securenym.net.

care, medical and dental care, optical support, microenterprise development, and, of course, light and heavy construction. People and money will be badly needed for years to come.

### So What Can Be Done?

First, the extent of this ongoing disaster and the immediate needs of the Haitian people must return to the awareness of the world, especially those of us in North America. Champions are needed to advocate for the Haitian people, beginning with President Obama and then others who can influence Americans, such as celebrities.

Second, major funding far in excess to what has already been donated is needed. Giving must be considered an ongoing need and not an isolated fundraising event. I remember the time when the tragedy of the African AIDS epidemic eventually made such an impact on the world that we started to see regular fundraisers, documentaries, and other ongoing reminders of the needs of the African continent. The living conditions of the Haitian people need to be raised to a similar level of awareness.

Finally, we must make certain that some of our erroneous assumptions do not blunt relief responses. The history of corruption in the Haitian government

doesn't change the need. Past living conditions do not make current conditions any more tolerable: the majority of Haitians are living in great uncertainty and in much poorer living conditions.

The Haitians are a wonderful people, a highly literate people, a caring people. Now they are a people in need.

How would you answer the question asked by the Haitian leaders? Have we already forgotten them? ❖

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Photo by John Freedman, MD.

A Port-au-Prince hospital reduced to rubble.

## Mes Quatre Fils (My Four Sons)

Mason Spain Turner, MD

Watershed: a chiefly British term that means the crest or dividing line between two drainage areas or bodies of water. In American English, this term has come to mean an important point of division between two phases or conditions. In early 2010, I was badly in need of a watershed. My life had become a complicated morass of the personal and professional, and in my late 30s, a watershed moment was needed to restore balance and perspective as I moved into my next decade. As I remember the call I received on Sunday morning, February 7, 2010, asking that I come to Haiti, tears sprung to my eyes, because at precisely that moment, a watershed began.

Why would answering a call to humanitarian duty lead to such an important inflection point in one's life? How could a mere two weeks create the transition that only a watershed moment can establish? For those who have been part of relief efforts in the past, the answer is clear: the unique relationships in which one participates in this kind of intense situation are the answer. In particular for me, a unique family that I built with four interpreters who had lost their parents, siblings, and many friends, Christophe, Robenson, Hilaire, and Wilson helped to refine my perspective and re-align my life with my personal moral values.

As an only child without siblings, my experience of family is of intimate isolation, not of the broad, sweeping ties that a large extended family grants and for which I have often pined. The many Haitians who lost their families and were left without children, siblings, and parents were relegated to a condition both alien and devastating. Indeed, the loss of family was perhaps one of the greatest tragedies of the event. For me, my distance from my partner and 19-month-old son was also alien and challenging. In this catastrophic period in Haitian history, these personal and environmental factors collided in a way that was unexpected, but extremely enriching.

Humanity is defined by relationship. Loss of physical health, economic prosperity and even basic needs

such as food and water, are tolerable when our fellow men and women help to nurture us through the chaos. For Haitians, as for many societies worldwide, the basic unit of relatedness is the family or the family of choice: a source of advice, reinforcement, guidance, and support. As I arrived in Haiti and experienced the temporary loss of my own family, distant from my own support system and alone in a foreign land, I needed that same support and strength. In a way, my experience with these four interpreters taught me that I cannot live in a vacuum anymore than they. Although I had not experienced their profound loss, I understood their need for companionship. Our very different experience of aloneness led to our mutual need for a surrogate family.

On February 28, 2010, this family was disrupted, and the difficulty of separation from my adopted, Haitian family had its own special level of intensity. Leaving these four young men when I wondered if I could have done more for them was tempered only by the realization that in a short day, I would be reunited with my own family. As I ascended from Haiti on the jet that would carry me back to my daily routines, familiar personal life, and career aspirations, I realized the importance of intense personal relationships with strangers in a unique situation: not just with my adopted sons, but also with the volunteers, dedicated relief workers, and Haitian nationals who had helped to create the watershed moment for me.

Life-changing experiences breed intensity and a unique brand of relational intimacy, the essence of which is felt forever. My experience in Haiti was indeed a watershed moment. As a young woman named Dominique, another interpreter at the hospital told me: "Haiti is a land of contradictions and paradoxes, as it holds you tightly in her arms and never lets you go, even as you may try to leave her. Haiti Pou Tou Tan (Haiti Forever) is how we refer to our Mother Land." Indeed, Haiti will live in my mind and heart forever. ❖

... a watershed moment was needed to restore balance and perspective as I moved into my next decade.

Mason Spain Turner, MD, is the Assistant Director of Regional Mental Health and Chemical Dependency for Kaiser Permanente Northern California. He is Chief of the Department of Psychiatry at the San Francisco Medical Center in CA. E-mail: mason.turner@kp.org.

*Disaster Relief Organization*

## Disaster Medical Relief— Haiti Earthquake January 12, 2010

Hernando Garzon, MD

Our collective organizational response and my personal experience in Haiti were different from any prior disaster response in which I have been involved.

I have had the fortune to be involved with Kaiser Permanente (KP) volunteers and disaster relief efforts during large-scale disasters since we sent the first teams to Southeast Asia after the 2004 tsunami. In addition to the more than 40 people we sent in relief efforts to Sri Lanka and Indonesia for the tsunami, multiple KP physicians volunteers traveled to Kashmir after the earthquake in Pakistan in late 2005 to work as part of Relief International's program. KP physicians collaborated with the Department of Health and Human Services to provide medical care in the Gulf Coast after Hurricane Katrina in 2005. Another KP physician and I volunteered with Doctors Without Borders after postelection violence broke out in early 2008.

In the years since we first sent volunteer disaster medical relief workers to provide aid after the tsunami, many changes have occurred within KP's Global Health and volunteer programs that have resulted in better support for this distinctly important and rewarding work. Under the sponsorship of The Permanente Medical Group leadership, we have:



Photo by Hernando Garzon, MD.

Tent city in Haiti.

- Created a framework to support physician volunteerism by coordinating the efforts of the Assistant Physician-in-Chief of Health Promotion, Community Benefit, Public Affairs and dedicated physicians at each facility via the KPCares program.
- Developed relationships with multiple medical relief organizations including Doctors Without Borders, Relief International, International Medical Corps, Medshare, and others.
- Created a KP National Volunteerism Web site ([www.KPCares.org](http://www.KPCares.org)) for all employees of the Northern California, Mid-Atlantic and Georgia Regions. This enables all KP staff to both post and search volunteer opportunities. In addition, it allows staff to register in a comprehensive disaster response database that was used, with the invaluable support of Program Office's Community Benefit, to identify skilled clinicians immediately after the Haitian earthquake. This database continues to serve as a resource should a disaster occur in our own local communities.
- Developed and delivered several Continuing Medical Education courses on the topics of disaster medical relief and humanitarian medical work in austere environments.

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**Hernando Garzon, MD**, is an Emergency Medicine Physician and Co-Chair of the Northern California Regional Emergency Preparedness Committee. He is the Director of the Kaiser Permanente Global Health Programs, Coordinator of Physician Volunteerism and Sacramento County Emergency Medical Services Medical Director. E-mail: [hernando.garzon@kp.org](mailto:hernando.garzon@kp.org).

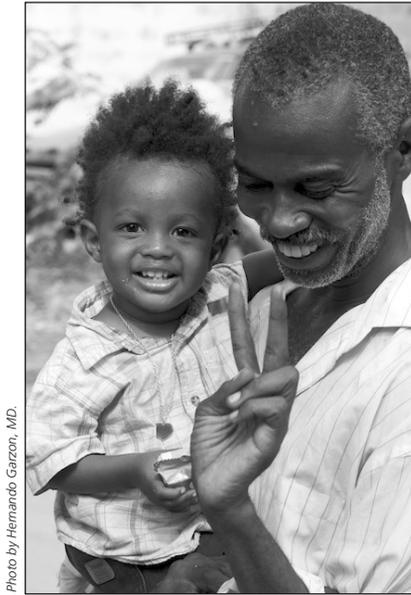


Photo by Hernando Garzon, MD.

Father and son.

In total, these efforts created a KP response to the Haiti earthquake unlike any response we have mounted in the past. A small number of KP staff traveled to Haiti with organizations they had identified on their own immediately following the earthquake, or reconnected with relief organizations with which they had worked in the past. The greatest impact however, was via KP's contribution as the main contributor of medical personnel and logistical support to Relief International's disaster response (see [www.RI.org](http://www.RI.org)). We used the KPCares.org Web site to gather information on interested volunteers, and in the first month alone sent over 30 physicians and nurses to Haiti with Relief International. In the first few weeks we staffed a team of emergency physicians, nurses, and medics who largely delivered trauma care. Our subsequent waves of volunteers ran the spectrum of Family Medicine, Pediatrics, Ob/Gyn, Internal Medicine, and Mental Health. They represented the Regions of Northern California, Southern California, and the Mid-Atlantic. All donated at

least two weeks of their time with the support of their departments and colleagues. We are now also involved with the Relief International long-term capacity building project in Haiti, and contribute about two medical volunteers at a time for their efforts to run five community clinics, staffed primarily by Haitian medical personnel. Our volunteers provide teaching and educational support for the Haitian national staff.

On a personal level, as intense and chaotic as the first few weeks of the relief effort were, I was deeply inspired by the successful development of our new capability to respond. KP now has the ability to mobilize our volunteers and their expertise to assist in future humanitarian disasters. I could not be more proud to work for an organization that supports volunteer and community service efforts in such a comprehensive and systematic way. There is no greater reward than to be of service in a time of need in a way that honors the principles of our professional commitment to medicine. ❖

### Full of Grace

Everybody can be great. Because anybody can serve.  
 You don't have to have a college degree to serve.  
 You don't have to make your subject and your verb agree to serve ....  
 You don't have to know the second theory  
 of thermodynamics in physics to serve.  
 You only need a heart full of grace. A soul generated by love.

— *The Reverend Dr Martin Luther King, Jr, 1929-1968,*  
*Baptist minister, civil rights activist, 1964 Nobel Laureate for peace*

# Mentoring About Vector-borne Disease Control

D Scott Smith, MD, MSc, DTM&H

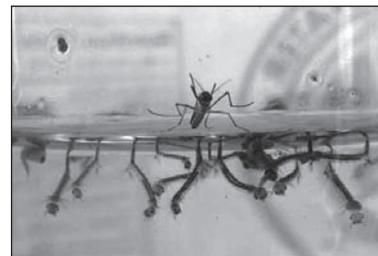
After the earthquake struck Haiti's most populous area in and around Port-au-Prince, and just before the rainy season started, several Kaiser Permanente (KP) physicians moved in to coordinate the medical arm of the Malaria Emergency Technical Operational Response (MENTOR) program. Traditionally, MENTOR has focused on malaria in war zones and after major natural disasters. Several KP physicians initially worked with this French Nongovernmental Organization (NGO) after the 2004 earthquake and tsunami in the Indian Ocean on the Island of Sumatra in Indonesia. These physicians shared shifts for several months assisting in the rebuilding with a focus on vector-borne disease reduction and control. Since then, they have assisted MENTOR in other natural disasters. After the 2008 Cyclone Nagris in Myanmar, MENTOR implemented programs for not only malaria but also for other vector-borne diseases, such as dengue. Between those disasters, KP physicians have also worked as trainers for MENTOR workshops on clinical program management of malaria and other vector-borne diseases in such places as Uganda, Kenya and Japan and even New York and Mill Valley, CA.

Haiti's earthquake was the sixth deadliest natural disaster in recorded history (ranking just after the 2004 tsunami) and is estimated to have killed 230,000 people. Importantly, this event displaced over one million

people, leading to large scale movements and increasing risks of insect-borne diseases. This risk is amplified by three factors: exposure, migrations, and infrastructure disruption. In Haiti, the population has increased exposure as they are now living in densely populated tent camps with little between them and the elements. Rainy season starts in April and vectors burgeon. Second, when people move from areas of low endemicity to areas where disease rates are high, there are more susceptible people at risk. This also works in reverse to the disadvantage of a population when individuals who are infected move into zones that have no disease but the mosquito vectors are established and can spread the disease into the nonimmune and previously unaffected majority population.

The third risk element is simply the disruption of public health systems that can coordinate the prevention of disease. The public health system was arguably underfunded and ineffective before the earthquake as the deadly *Plasmodium falciparum* and mosquito-borne parasitic disease, lymphatic filariasis continued to thrive in Haiti, one of the few places in the Americas it is still observed.

The KP-MENTOR initiative focuses on clinical trainings, vector assessments and control using indoor residual spraying and larviciding. We coordinate with the health sectors of many of the 391 registered health NGOs in Haiti to build capacity around vector-born disease recognition, diagnosis, and treatment. We collaborate with the Ministry of Public Health and Population to promote guidelines and develop strategy for managing these often silently persistent diseases that put a major drag on human comfort and progress. ❖



Mosquito larvae and pupae.

Photo by D. Scott Smith, MD, MSc, DTM&H.



**D Scott Smith, MD, MSc, DTM&H**, is an Infectious Disease specialist and Internist at the Redwood City Medical Center in CA and coordinator of the KP-MENTOR Haiti Initiative. E-mail: darvin.s.smith@kp.org.

## First Responders: The DMAT Team

Judy O'Young, MD

Twilight on Tuesday, January 12, 2010 in Port-au-Prince, Haiti: about 40 seconds of chaos. 7.0 magnitude. Buildings begin to crack and the sound makes people think of the gunfire that is all too frequent in the downtown area. For safety, people run inside. Buildings, shoddily constructed, crumple, trapping those inside. One of the best hotels, the Montana, on a verdant hillside overlooking the steaming plain of lowland Port-au-Prince, pancakes entombing more than 300 people. The air is thick with heat and the dust of concrete.

Afternoon on Tuesday, January 12, 2010 in Oakland, CA: news on the car radio tells me I will make my fourth trip to Haiti sooner than planned. During 2009, I had worked in and around Port-au-Prince as a volunteer anesthesiologist on three separate Smile Train-funded surgical mission trips. I had stayed at the Montana. I had walked through the Cité de Soleil. My friends and



Photo by Judy O'Young, MD.

Field hospital operating room in tent.

colleagues lived in Delmas, now largely destroyed. We had operated on nearly 200 children and adults with congenital cleft lips and palates, tumors, and burns, after seeing and screening several hundreds more. Because of the poverty, neglect and lack of long-needed medical services, many more adults needed our teams' attention. Despite the dire living circumstances and lack of resources, locals were unfailingly polite, helpful, and

grateful for our efforts. I loved this Pearl of the Antilles with its vibrant culture and people, rara music, voodoo, and native art. Despite Haiti's turbulent history, the indigenous spirituality and resourcefulness were unparalleled by any country that I have traveled to.

I check my ready bag that evening and prepare to depart. My Disaster Medical Assistance Team (DMAT) is on call in January and all members are on standby for deployment. DMATs and International Medical Surgical Response Teams (IMSuRT) are groups available for national disasters and emergencies such as 9/11 and Hurricane Katrina. Recently the National Disaster Medical Service (NDMS) had been preparing DMAT and IMSuRT groups for work on a global scale. Months of team meetings involving disaster response and planning, equipment training and orientation, and numerous deployments have prepared team members to provide triage, evaluation, and first-response treatment of populations in times of disaster.

Wednesday, January 13, 14:53 pm: simultaneous cell phone text, e-mail, and voice mail set us in motion. By the grace of our Kaiser Permanente departmental scheduler and the generosity of my departmental chief and colleagues, I commit as a rostered team member, and leave the following day for Atlanta. After an overnight briefing, including DMAT teams from Massachusetts, Florida, and New Jersey, we board a government charter aircraft and fly directly into Touissant L'Overture airport in Port-au-Prince, landing Friday, January 15.

Long distance disaster relief is seldom smooth. Teams arrive before the equipment caches. Security cannot be guaranteed in the logical hospital sites where patients are. Infrastructure and transportation are nonexistent. Running water, electricity, cell phone, and Internet service are absent. An alphabet soup of international and federal agencies (PAHO, UN, USAID, and CDC) as well as the pre-existing nongovernmental organizations are in disarray. Air traffic control and the airport terminal are destroyed. The one runway, unlit, is not built for receiving overloaded flights.

All these issues become secondary once the teams find their sites and equipment and supply lines are

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**Judy O'Young, MD**, is an Anesthesiologist at the Oakland and Richmond East Bay Medical Centers in CA. She is a founding member of the medical advisory board to Smile Train, a charity that funds free pediatric reconstructive surgery in 78 of the world's poorest countries. E-mail: [judy.o'young@kp.org](mailto:judy.o'young@kp.org).

established. The Petionville Country Club becomes a triage and day treatment center for the tent city that forms on the nearby golf course. The Quisqueya School in Port-au-Prince adjacent to the Ministry of Public Health's Gheskio HIV clinic becomes a mobile field hospital with surgical and obstetric capability for the tented camp built on the neighboring soccer field. Federally deployed US teams of medical volunteers from different states are working cooperatively in a single encampment.

The teams quickly adapt to the heat and insects, the lack of running water, the MREs ("meals refused by enemy"), and to each other. Day and night shifts alternate sleeping on cots in tents and battling mosquitoes and heat rash. The US Army's 82nd Airborne establishes a helicopter landing zone across from the soccer field and ensures a steady flow of the most critical patients evacuated from the University Hospital and the surrounding neighborhood. The cases shift from week-old orthopedic crush injuries and long bone fractures to gunshot wounds and day-old babies with sepsis and respiratory failure. We deliver 11 babies and operate on 30 patients. We can run 2 simultaneous operations, but are limited by the lack of oxygen and supplies for spinal or nerve block anesthesia. There seem to be babies and children everywhere. A respiratory therapist hand-ventilates a tiny premature infant overnight before she can be helicoptered out to the USNS Comfort. A pharmacist cradles a child while dispensing medication. A warehouse supply logistician comforts a boy who has lost his leg.



Photo by Judy O'Young, MD.

Thumbs up from a patient.



Photo by Judy O'Young, MD.

Patients on stretchers.

The work is constant, grueling because of the heat and uncertainties, and often hopeless. Bright spots appear in the camaraderie of shared adversity and in the unexpected resilience of a particular patient. Guilame, not expected to live, gets hope in the form of an oxygen tank delivered by his brother's motorcycle. Micheline, upon being told she is paraplegic and will never walk again, finally consents to a much needed amputation of her gangrenous lower leg. Robert, a lost child, is re-united with an uncle. Patient #361 gets the next available spot for air evacuation out to Florida. At night and on Sunday morning, the hymns of prayer and gratitude from the people in the adjacent tent city rise above the generator's drone and float back to us through the warm heavy air. Arms are raised in supplication, and thanks are given for the "it could be worse" scenarios. Small groups of team members pray together. The scent of garlic and peppers being cooked mingles with the acrid smoke of burning trash and decay.

After two weeks, word arrives that a plane is to take the first teams back to the US. Landing and equipment resupply schedules remain highly variable and uncertain. However, replacement teams are en route to relieve us. The transition is rapid but thorough, with shifts overlapping and orientations completed. We had been cocooned inside the surgical field hospital where we had arrived in darkness, isolated within and guarded by the 82nd Airborne, so it was a shock to transit through the main streets of the still-ruined city. Daily activity, as I had seen in my previous travels to Haiti, is returning. Strangers were helping each other and it is good. ❖

## Disaster Readiness Tips Steeped in My Time in Haiti

Vivian Reyes, MD

*March 10, 2010*

After leaving Haiti and returning to my life in the Bay Area, I felt as if I returned to another world. The orderly rows of lights as I descended into Miami airport were a stark contrast to the haphazard state of Port-au-Prince. There are few similarities between the scene I left and that to which I returned. But, what if the same tragedy happened in our own country? I learned many lessons during my five-week mission to Haiti, and will share a few of them here so that we can be better prepared to respond



Photo courtesy of Vivian Reyes, MD.

Dr Vivian Reyes measures a boy's arm circumference to assess for malnutrition.

to future events on our own soil.

We have all heard the statement, "Communication is always the biggest problem during a disaster." In retrospect, I realize I never truly understood the implications of this statement until now. When

I arrived in Haiti, local phone coverage was intermittent, at best. Even when calls went through, the reception was often so bad that it was more frustrating than helpful. Satellite phones were unreliable and generally unusable. Surprisingly, my iPhone seemed to send and receive text messages and e-mail without much problem. Although this was good for simple communications, texting proved too time-consuming, and time was a luxury I did not have. Coordinating relief operations via any electronic means proved to be difficult, and face-to-face communication became invaluable. As a lesson learned, I would urge everyone to become adept at text messaging so that you are better prepared for times when communication is limited. I heard many stories of trapped victims texting their friends and family. Through this communication alone victims were rescued.

Although helpful, the time delay and content limits of text messages made me realize how important it is to be self-sufficient and decisive during the aftermath of a disaster. "Be prepared," is another commonly heard statement in disaster readiness. Before I left for Haiti, I read *The Unthinkable, Who Survives When Disaster Strikes—and Why* by Amanda Ripley.<sup>1</sup> She describes human response to disasters and discusses ways in which we can

react better to such situations. Ms Ripley writes that the people around you during a disaster are the critical component to whether you survive it. In Haiti, several days passed before international aid arrived. Before then, the Haitians could rely only on those around them. Preparation makes a difference not only in how effective the response is, but ultimately in how many lives are saved. As a lesson learned, each and every one of us should think of how we will help our neighbors during a disaster. The more times you run through scenarios in your mind or in a drill, the better you will react in a real event. Now when you hear "Be prepared," don't just consider the supplies you might need, but also think of what role you will play in the hours or days after a disaster without communication.

The next lesson is one that became a hot topic after Hurricane Katrina: "Crisis care guidelines," previously: "crisis standards of care" or "alternate standards of care." During the management of disasters, resources are limited, and patients will not be able to get the same quality of care that they would get during an average, non-disaster-stricken time. Crisis care guidelines were developed to help medical professionals navigate through these difficult times. For instance, if there are too few ventilators for patients who require one,

**Vivian Reyes, MD**, is an Emergency Medicine Physician at the San Francisco Medical Center in CA, and a volunteer Physician for Relief International. E-mail: [vivian.m.reyes@kp.org](mailto:vivian.m.reyes@kp.org).

which patients get the ventilators? Similarly, mass casualty triage is another form of crisis care management. In Haiti, the baseline country standard of care was generally not to intubate critically ill patients. As disaster responders it is imperative that we have a grasp of the current standards of care.

What also became apparent is that these standards change rapidly depending on the resources available. For instance, when the German Red Cross set up a tent hospital 15 minutes away from our clinic with ventilator and intensive care unit capability, our clinic's standards of care changed. Similarly, when the hospitals around us filled up and stopped taking critically ill patients, our standards changed. This occurred day by day, and sometimes hour by hour. This accentuated the fluid nature of disaster work, and is something that should be considered when we consider crisis care guidelines in our own hospitals and within our own communities.

Finally, the last lesson is organization. In a blog, I mentioned the chaos in Haiti during the emergency response. This is not unique to Haiti, and is expected after any catastrophic event. Whereas I seem to thrive in chaotic environments, I also recognize the importance of trying to minimize chaos to improve efficiency and productivity. During visits to several different hospitals in Port-au-Prince,

I witnessed American physicians, nurses, and medical support volunteers arriving unannounced and offering their expertise. Similarly, many donors sent large quantities of supplies to various hospitals in Haiti. Although these gestures are very much appreciated, the proper coordination of these activities would allow for better productivity of volunteer medical staff and better management and use of supplies. Similarly, better coordination would allow for better safety, security, and planning. The lesson learned from this is that if anyone is interested in participating in future disaster efforts, signing up now to be a health care volunteer is the best approach. You may do this through your hospital, [www.kpcares.org](http://www.kpcares.org) (available to any Kaiser Permanente employee nationally), your county or state professional associations, or various nongovernmental organizations. If you wish to donate money or supplies to future relief efforts, donate to organizations

that you trust now so that they can appropriately coordinate their efforts and be prepared and ready for the next disaster. If everyone followed these simple steps, I am convinced that the level of chaos would be more manageable and the efficiency of response efforts would improve.

The people of Haiti may seem like they live in a different world, but as Amanda Ripley describes in her book, "Fear is a primitive response." Humans, no matter where they are, will have the same fear response. If we stand ready for disaster, we will fear it less, and we will come together and manage it. Let us learn from this tragedy and prepare ourselves, so that this historic tragedy will not repeat itself.

Thank you for your tremendous support. ❖

#### Reference

1. Ripley A. *The unthinkable, who survives when disaster strikes—and why*. New York: Crown; 2008.



Photo by Vivian Reyes, MD.

Tent clinic in Carrefour.