

Seismic effects

By Laura Stephenson Carter



The serenity of the schooners at anchor above, in Indonesia's historic sailboat harbor at Paotere, gave way after the December 2004 tsunami to scenes of devastation like those below in southern Thailand—from the left, smashed houses, beached fishing boats, a destroyed resort, and a flooded village.





Some of the numbers are terrifying: Waves over 50 feet high, traveling at speeds of up to 500 miles an hour. Nearly 300,000 people killed. More than a million people left homeless.

And some of the numbers are touching: More than \$13 billion raised worldwide for the relief effort. Hundreds of tons of supplies shipped to survivors. Thousands of people from all over the world rushing to help—whether or not they had any previous experience in providing disaster relief.

In that last fact—as heartwarming as it is—lies one of the important lessons to be learned, a year later, from the monstrous tsunami triggered on December 26, 2004. After the 9.1-magnitude Sumatra-Andaman earthquake rocked the Indian Ocean floor, mammoth waves crashed onto the coasts of 11 Southeast Asian countries, flattening everything in their paths and wreaking havoc in coastal regions of Indonesia, India, Thailand, and elsewhere. And in the waves' wake came much help from abroad—but some of it, unfortunately, was not as effective as it was well-meant.

Among the seasoned relief workers who rendered aid in the aftermath of the tsunami were three DMS alumni—Dr. Karen Hein '68 and Drs. Stephen Atwood and William Aldis, both members of the Class of '70. With the benefit of a year of reflection, the three share their experiences helping out and their thoughts about how—and how not—disaster relief efforts can be most effectively managed. All three either work for or have had significant volunteer experience with humanitarian non-governmental organizations (NGOs).

Pediatrician Karen Hein was at home in Vermont on December 26, 2004, when the tsunami hit 12,000 miles away. A few weeks later, she was in India on a Christian Children's Fund (CCF) team, helping with the recovery effort in a community that had been devastated by the tsunami. The CCF, an ecumenical organization with programs in 33 countries, was "perfectly positioned to respond to [the tsunami], since they were right there in the villages the day before the tsunami [and already] had the critically important links with the affected people, communities, regions, and other NGOs and the government that permitted action literally the day after the tsunami hit," says Hein, who is a member of the CCF's board of directors.

Atwood and Aldis, who are both based in Bangkok, Thailand—Atwood works for UNICEF's East Asia and Pacific Regional Office, and Aldis for the World Health Organization (WHO)—teamed up to help with tsunami-relief efforts in one of the most affected villages in south-

When a region is hit by a natural disaster, immediate humanitarian relief is important. But so, too, is long-range rebuilding. Three DMS alumni who are seasoned international relief workers share their stories about helping out after the 2004 Asian tsunami—and their advice for the future.

Laura Carter is the associate editor of DARTMOUTH MEDICINE magazine. The photo above of schooners at anchor is from a stock photography source. All the other photos in this feature were taken by the three DMS alumni who are its subjects—the ones in India by Hein (or her husband) and the ones in Thailand and Indonesia by Atwood or Aldis.



**Above: Hein handing out food in a child-centered-space set up in a destroyed Indian village.
Below: Children getting over their fear of the beach. Bottom: A child-centered space tent.**

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ern Thailand—Ban Nam Khem in the Phang Nga District. “Bill and I traveled together in what must have been the easiest joint effort WHO and UNICEF ever put together—it amounted to a phone call, tickets on the same flight, and moving in the same vehicles to the disaster site,” says Atwood. “It doesn’t always work that well—[it was] totally without bureaucracy!”

In the immediate aftermath of the tsunami, Atwood and other UNICEF staff were tending to the medical and psychological needs of children, including orphans. In addition, he collaborated with government and other agency counterparts on the transition from the emergency response to recovery and rehabilitation. Aldis’s focus was on reconstructing health facilities, helping to identify the thousands and thousands of bodies, “including about 2,000 tourists who were on the wrong beach at the wrong time in Thailand,” Aldis says. “Most of the time Stephen and I spent our time doing stuff that we weren’t taught—and couldn’t have imagined—back at DMS.”

The emergency response may be over, but the recovery work will be ongoing for many years. Homes, schools, businesses, and health-care facilities are being reconstructed. Water and sanitation systems are being restored. Efforts are being made to help put fishermen and other people back to work. And physicians and mental-health workers are tending to the physical and mental health of the survivors.

What worked and what didn’t

After a disaster, water supplies are often contaminated and sanitation is poor, so outbreaks of cholera, dysentery, and other infectious diseases are common, especially in resource-poor, developing countries. But there were no major disease outbreaks after the tsunami, according to WHO, thanks to the success of timely preventive measures, such as chlorinating water, setting up early warning systems for disease, and using anti-vector sprays.

Every effort was made to help survivors return as soon as possible to a normal life. Shelters were set up fairly quickly, and within a couple of months most children were back in school. “More than 90% of 150,000 [Indonesian] children were returned to schools in the first months following the tsunami,” says Atwood, adding that UNICEF has been helping to build both temporary and permanent schools. “This return to a more normal life has contributed to the restoration of psychosocial health in these children and their families.”

But everything isn’t back to normal yet—except maybe for the frustrating bureaucracy and maddening delays in decision-making that were the

Rising from the rubble: Excerpts from a volunteer's post-tsunami diary

These passages are excerpted from a diary kept by Dr. Karen Kramer Hein, a 1968 alumna of Dartmouth Medical School, while she was volunteering with her husband, Dr. Ralph Dell, in an Indian village devastated by the 2004 tsunami. These excerpts are reprinted with permission from the Christian Children's Fund (CCF). Hein's entire diary can be read online at <http://www.christianchildrensfund.org/content.aspx?id=620>.

February 1, 2005

At first, the beach seemed empty. A few huge pieces of wooden boats [were] scattered about. A few men sat on the beach, facing different ways, not facing the water. As we got closer, we nearly tripped over chunks of broken concrete. That was all that remained of this fishing village where 1,000 families were living just five weeks ago. Fifty-two people were killed in this one village, and not one house remains.

As we kept walking, the rubble became more dense—pieces of driftwood, bits of plastic, random debris. Walking was difficult, since the ground was nothing more than piles of crumbled concrete. Out of the rubble appeared more people living in makeshift lean-tos and huts, with plastic sheets partially covering upright sticks defining small spaces where a family or group of people was sheltered.

People have to get water from a nearby water pump and use a public toilet at a community center. Each day, the government brings some rice, and the women line up to get an allotment. The kids are going to a school some distance away. Since there's little for them to do where the adults are, they stay at the school all day and evening.

People are afraid to sleep near the water, so many of them just sleep on the road or in the temple—away from the sea. There are no chairs, no beds, nowhere to sit and no privacy. Women cook on driftwood fires. They are stuck between their past and the future. The government has offered them temporary housing 20 kilometers inland, but they are fishermen, so they give up their livelihood if they move.

February 4, 2005

The CCS [child-centered space] is either a tent or an area where children gather for various programs. In the morning, they receive supplemental food (hard-boiled eggs, bananas, chickpeas), then there are various times for playing games with toys supplied by CCF (jump ropes, rubber rings, soccer balls, Indian board games) or if no formal schooling is possible, educational sessions for kids of various ages. The CCF staff had a series of games and exercises to help them deal with their fear of being near the sea.

The older kids had been working on a dramatic performance in which they acted out various aspects of the tsunami, including being trees knocked over and people dying on the beach. The drama ended by their receiving a prize from their district leaders and having a celebration in which they all got up and danced. We were welcomed into the scene and soon I was dancing and part of the cir-

cle. Later, I distributed the food supplement to 150 kids—they all lined up, sat quietly, then with the help of CCF workers each washed their little hands and came with a plate for their two tablespoons of chickpeas and a hard boiled egg.

Our official "job" is to help craft age-specific health assessments to be incorporated into the training of workers in these child-centered spaces. CCF has a terrific manual and training sessions based on their other emergency relief work in conflict zones or previous natural disasters, but now adapted specifically to India relating to the particulars of this post-tsunami situation here. CCF has expanded its staff to include Indian volunteers, either community leaders, young people, or folks from other Indian aid groups who have suspended their lives and careers to help out temporarily.

February 22, 2005

We got back to Vermont yesterday after nearly a month in India. Our thoughts are still 12,000 miles away along the southern coast of India. My mind jumps from glimpses of gaping holes in walls . . . to the sound of sand and concrete being mixed . . . to the pungent smell of human urine and feces mixed with the alluring aromas of curry, coriander, and cumin.

I am no longer naive about the impact of the tsunami. I know the old man whose wife and daughters went to water some trees they'd planted near the sea and never returned. I know the family with the 2½-year-old who won't let go of her father's pant leg in fear that he will be swept away. And the 19-year-old young woman who became a CCS volunteer in order to help kids in her village, as she heals the emptiness that consumed her when her own mother disappeared that sunny morning. I know the microbiology technician who knew many of the 150 medical students who died when the ground floor of a building flooded, washing them away, yet no one on the floor above was injured.

Where is the energy for the next phase going to come from? The first wave of volunteers are returning to their homes, exhausted but grateful to have been part of the immediate relief work.

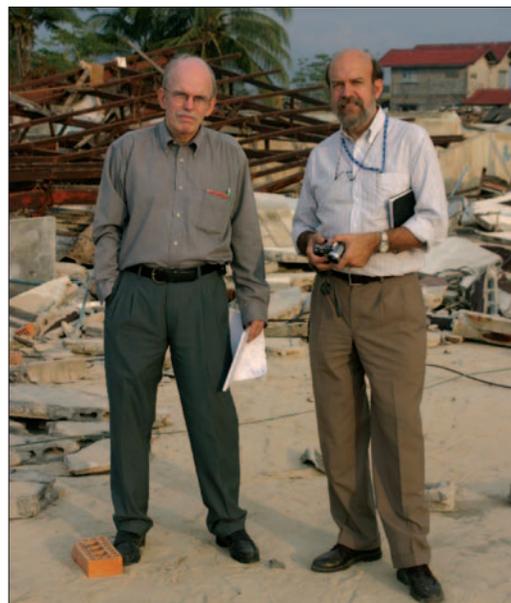
The energy is in the kids—the babies, the children, and the young people. As soon as we arrived in a village, the main sounds were kids' voices. The main movement was the whirr of kids' bodies running, dancing, shoving, clowning, playing. The lucky ones were those in villages where there are child-centered spaces set up. These are the spots free of hazardous debris. No broken glass or iron rods sticking up from the sand. These are the places where there are toys and other kids to be with. These are the havens where they are the center of attention, not in the way of construction or needing something that their fractured families can't attend to or provide right now.

The kids are where the energy will come from for the future of these villages. . . . [They will become] the construction workers rebuilding homes, or the health teams that will be better prepared in the future, or the next generation of government officials who have not just witnessed, but lived through a natural disaster of such proportions. The kids will be the ones who rise from the rubble.



Above: Children in Nias, Indonesia, living in a UNICEF-erected tent camp. Below: Stacks of coffins—one of the things in demand after a disaster. Bottom: Aldis, left, and Atwood.

“People are still living in tents in both Aceh and Nias, and some of these tent camps [were] rapidly erected . . . and have poor drainage and thus poor sanitation,” observes Atwood.



norm before the tsunami. “People are still living in tents in both Aceh and Nias, and some of these tent camps—rapidly erected at the time of the tsunami—are in undesirable locations that flood during the rainy season and have poor drainage and thus poor sanitation,” says Atwood. “Many of the funds that were contributed so generously by international donations have not been spent.”

Atwood concedes, however, that some of the delay is because organizations are programming for quality rather than quantity and are trying to rebuild better than before. “The government of Indonesia modified its seismic standards for construction in Aceh from those that would sustain a 6- to 7-scale earthquake, to those for an 8 to 9 earthquake,” he says. “This means more time, materials, and cost in construction—but it’s worth it. People have seen the horrible pictures of schoolchildren trapped in the rubble of their schools that collapsed around them in an earthquake like the one recently in Pakistan. This area of the world—the west coast of Java and Sumatra—is one of the, if not the, most earthquake-prone areas in the world.”

Hein says that international NGOs (like CCF, Save the Children, UNICEF, and so on) and local Indian NGOs coordinated their efforts well. In the tsunami-devastated communities of southern India, the CCF created hundreds of “child-centered spaces,” UNICEF provided potable water, and Save the Children set up tents for temporary housing. “Local NGO partners helped their neighbors heal by knowing not just the language, Tamil, but also the best ways to help healing and to be effective,” Hein said. “For example, we were part of helping the kids overcome their fear of the water by playing Indian games with them, and they became role models for older adults in being able to be near the water again.”

The big international aid organizations, with their decades of experience in providing humanitarian relief, may have worked well with each other and with the countries they were helping, but the overall recovery effort was chaotic at times. Many well-meaning, but less experienced, organizations were trying to help out, too. These “amateur [organizations] had no idea what they were doing,” Aldis says. “They didn’t know the local language. They didn’t know the local customs. They didn’t know physicians. They didn’t know the local essential drug list. And they didn’t know enough to even ask those questions.”

Often, for example, drug donation guidelines were ignored and inappropriate medications—ones that weren’t needed or requested, weren’t labeled in the local language, or were near or past their expiration dates—poured into tsunami-stricken areas.

In short order: The experts' recommendations for emergency relief

The recommendations here are excerpted and adapted from interviews and e-mail exchanges conducted with the three alumni who are the focus of the adjacent feature: Dr. Karen Kramer Hein '68, who volunteered after the tsunami in India; and Drs. William Aldis and Stephen Atwood, both members of the Class of '70, whose jobs involved helping with relief efforts in Thailand and Indonesia.

Prepare for disasters

Hein: It is important to create detection and warning systems for natural disasters. And countries must also consider the spectrum of issues resulting from people-created disasters, such as armed conflict—displaced persons, children affected by conflict, separation, disruption, and displacement of people's livelihoods and lives, and rebuilding and reintegration of people back into their community and civil society.

Aldis: It makes a big difference if the ability to respond immediately and locally is in place. Thailand, for example, had approximately 13,500 acutely injured people who flowed into the public health system within the first 24 to 48 hours. The system was able to absorb them; they were evaluated and triaged—either treated and discharged, admitted, or referred to tertiary hospitals if they had massive injuries. By the time medical teams arrived from Western countries, everything had already been done. So the answer then is to make sure that the capacity for the initial response is already there, prepositioned. Western nations must work with undeveloped countries in a collaborative and equitable way to make sure they can handle the next catastrophe.

Mobilize resources

Atwood: It is important to take advantage of opportunities not only to help families affected by a disaster to get their lives back, but also to secure the peace and improve health, nutrition, water, sanitation, education, and protection for other families in these areas, who have often been isolated from the rest of the world because of conflicts or disasters.

Focus on the most vulnerable

Atwood: We have to institute better child protection measures, including registration of separated or orphaned children in the first 24 to

48 hours after a disaster strikes; that's the period when children are most vulnerable.

Hein: We must provide more services for women and children early in relief and recovery work. Disasters enhance the vulnerability of women and children—80% of refugees are women and children.

Rely on local expertise

Aldis: Westerners must recognize that the main response in disasters is going to be from communities themselves. We should support that—the countries themselves—exactly like we would want to be helped if something goes wrong in our country. We need to get past this delusion of saying, "Oh, I'm going to rush in and make everything better." That's easy and cheap and worthless. It doesn't work that way.

Hein: You have to learn to appreciate the connections that people have with each other and their community. For example, those who helped out after the tsunami didn't see people pulling guns like after Katrina. In the U.S., there is a culture of violence and fear. But in the tsunami region there was an absence of violence by people against each other.

Aldis: Developed nations like the United States need to appreciate what they can learn from other countries. For instance, public-health systems are more sophisticated in Thailand than they are in some Western nations. Conventional assumptions are sometimes turned on their heads if you look closely at other countries. The highest level of competency in terms of emergency response is now often found in the very countries that before we thought we were helping. So the flow of understanding, information, knowledge, and innovation must become increasingly two-way.

Leverage the media

Aldis: It is essential to recognize that the media plays a key role in keeping the public informed of disaster relief efforts. What we need to do is convert the public fascination with disaster into something more relevant—like realizing that preparing people to weather disasters takes a long-term commitment and a lot of advance planning. Sometimes the media publish stories that we don't like because we haven't helped them obtain the information that would permit them to write the right story.

Westerners must recognize that the main response in disasters is going to be from communities themselves, points out Aldis. We need to get past this delusion of saying, "Oh, I'm going to rush in and make everything better." That's easy and cheap and worthless. It doesn't work that way.



Above: What's left of the town of Nias after the wreckage was bulldozed. Below: A child plays in what's left of her house. Bottom: What's left of the floor in a house in India.

“The power of being part of a community that’s coming together to help one another is something we have to learn,” says Hein. “Some of the most resource-poor communities can teach us best.”



Aldis heard of a hospital in southern Thailand where three of its four operating rooms “were full of cartons of useless drugs.”

And well-meaning people often show up to help, but are unprepared for and unfamiliar with the country and its mores. A provincial medical officer in Phuket, Thailand, spent most of the first two weeks after the tsunami “arranging transport and finding hotels and arranging translators for foreign medical teams,” says Aldis. “He didn’t need to do that. It’s only because these people showed up and they didn’t know what they were doing.”

What they are doing now?

All three alumni have continued to do humanitarian relief work in the tsunami-stricken region as well as elsewhere.

“Being part of tsunami relief work in this way was deeply moving. It’s why I went into medicine in the first place—to have the privilege of being there for people at the most trying, meaningful moments of their lives: birth, death, illness, injury, and healing,” says Hein. “The power of being part of a community that’s coming together to help one another is something we have to learn from many other people in many other countries. Some of the most resource-poor communities can teach us best.”

Hein has been busy in other areas of the world, too. She shared her expertise as a member of the National Board of Medical Examiners with physicians in Mongolia, “helping them with their national medical licensure exam and recertification process [and] with scientific approaches to assessment and standardization.” In 2006, she will be working with the International Rescue Committee “in Burmese refugee camps along the Thai border with my dear colleague and mentor, Jim Strickler, who was dean when I was at DMS,” she says.

Atwood is in Indonesia “on a special mission to Jakarta and Aceh as director of emergency operations for the tsunami recovery in Aceh and Nias,” he says. Nias is an island off the coast of North Sumatra that was hit by the tsunami and again on March 28 by an 8.7 earthquake that devastated the island, killing over 1,000 people and leaving more than 70,000 homeless. Atwood is working with UNICEF staff and government and other agency officials on the transition from an emergency response to recovery and rehabilitation. “In Aceh, we’re not only focusing on the areas directly affected by the tsunami, but on the whole province—including those areas recently made accessible by the August peace accords between a separatist group and the government of Indonesia, ending a conflict that had been going on for 30 years. The peace accord was undoubtedly a positive offspring

In the long run: The experts' recommendations for long-term aid

The recommendations here are excerpted and adapted from interviews and e-mail exchanges conducted with the three DMS alumni who are the focus of the adjacent feature: Dr. Karen Hein '68, Dr. William Aldis '70, and Dr. Stephen Atwood '70.

Set up systems

Aldis: We need to professionalize the way the response to disasters is handled. For example, volunteers should be trained appropriately and preferably should work through organizations that are experienced at providing relief and recovery services.

Atwood: It would be best to regionalize emergency response teams so they can respond rapidly. Teams should be cross-sectoral and cross-agency, with the roles of the different agencies clearly defined. And any agency that responds must have some knowledge of the culture, geography, and political systems of the countries affected. There also needs to be better coordination among agencies of the United Nations, national and international nongovernmental organizations, and donors.

Forge local relationships

Aldis: We should aim to build consortiums where countries partner with international nongovernmental organizations. There shouldn't be mass coordination—it has to be some sort of consensus, a loose consortium. The days when the World Health Organization could tell countries what to do are long past. These countries are far ahead of that. We must move toward building working relationships with people in other countries before something goes wrong. You should know them, they should know you, know that you have some kind of competency. Then you will have a presence on the ground through them.

Keep a global focus

Hein: It is one world. What is happening elsewhere affects us all. The tsunami represents a pattern of what will continue to happen—complex disasters, not just natural disasters, but manmade, too. Conflict in Africa, for instance, is exacerbated by drought. There's an increasing degree of global warming. There's no distinction between what's required to respond to natural versus manmade disasters. The tsunami helped

make that clear. And we've come to realize that national boundaries are not important to diseases—viruses, HIV, hanta virus, bird flu. So our response should not be confined. We should do what makes sense globally.

Look at the long term

Hein: We need to widen our scope and think about what it takes to help children thrive, not just survive. If we focus exclusively on the moment of destruction or the immediate aftermath, it makes our vision too narrow. We need to think about prevention, amelioration, and long-range improvement in the lives of children and young people.

Atwood: Remember that the game isn't over until it's over. Organizations and the public have to realize that even though the emergency phase has passed, the full reconstruction of these societies will take years and will require sustained support.

Hein: Large organizations [like WHO, UNICEF, the International Red Cross, the International Rescue Committee, the Christian Children's Fund, Doctors Without Borders, CARE, Save the Children, and so on] have sufficient resources and infrastructure to be involved in unstable situations or "hot spots" around the world for years or decades, not weeks or months. They also have the expertise to base activities on evidenced-based approaches, not fashionable ideas of the moment, and the desire to bridge the worlds of policy, research, service, and politics to do what's necessary to bring thoughtful, effective support and intervention to complex situations.

Aldis: In order to really help after a disaster, you're going to have to engage. You're going to have to care. A disaster superimposed on poverty presents challenges for any relief effort. You're not going to answer those questions by blowing in on Tuesday on a Thai Airlines flight and going out on Friday. It takes a consistent, long-term involvement to engage the deeper social issues that affect, collectively, everybody in the world.

Build back better

Atwood: Rebuilt structures should meet standards shown to withstand earthquakes. "Building back better"—the motto of this recovery effort—also means building back safer to protect children from any further harm.

In order to really help after a disaster, says Aldis, you're going to have to engage. You're not going to [be able to do that] by blowing in on Tuesday on a Thai Airlines flight and going out on Friday. It takes a consistent, long-term involvement to engage the deeper social issues that affect, collectively, everybody in the world.



Above: Hein giving truly hands-on care. Below: A child next to a blackboard bearing camp data. Bottom: Boys displaced by the tsunami, finding camaraderie amidst the upheaval.

Aldis is also setting up post-disaster disease surveillance systems. “All of those [are] supporting the national capacity in those areas, [which means] they’re sustainable,” he says.



of the overwhelming interest shown by the international community in this province after the tsunami. So it’s a historic opportunity to not only help families affected by the tsunami get their lives back, but to secure the peace and improve health, nutrition, water, sanitation, education, and protection for other [families] who have been isolated from the rest of the world.

“We’ve found that the conditions in tsunami-affected and non-affected areas were equally bad” in many respects, continues Atwood. For example, “stunting and undernutrition were found in both areas, suggesting that there were persistent nutritional deficits affecting mothers as well as children. Immunization levels are low—we’ve even had a resurgence of polio in areas that were part of the conflict, where immunization levels had dropped to very low levels because of closure of government health clinics during the conflict. Schools were damaged or destroyed in both areas; teachers and health workers were missing from both as well. So, in the interest of equity and children’s rights, we’re trying to mobilize resources—human and financial—for the whole Aceh province.”

Meanwhile, Aldis has been working on developing systems to manage the dead and missing. “We’re very interested in how to institutionalize mass casualty management” and body identification processes, he says, from basic measures like photography and dental films, biomarkers, and having families identify victims, to secondary measures such as DNA analysis and blood samples. In addition, he’s “brought a team from the office of the chief medical examiner in New York City that had worked on the 9/11 World Trade Center attack” to collaborate with their counterparts in Thailand. Early next year, the Thai representatives will visit their colleagues in New York City to further what Aldis hopes will be a long-term working relationship. He’s also interested in hospital and health facility reconstruction using earthquake-proof and flood-proof architectural design principles. He has sent Thai building experts to Japan and Australia to learn those principles. He’s also working on community-based mental health programs—aiding survivors who were traumatized by their experiences, who lost family members, or who are still afraid to go fishing. And he’s setting up post-disaster disease surveillance systems. “All of those [are] supporting the national capacity in those areas, [which means] they’re sustainable,” he says. “We’re added value in what they’re already doing.”

And he plans to go to Vietnam soon to meet with WHO representatives about bird flu and other health matters. “My interests are far beyond the drama of the immediate response,” he says. ■

Closer to home: How Dartmouth helped in the wake of Katrina

She was wild and crazy. Destructive and deadly. Everyone is still talking about Katrina, the ferocious category-5 hurricane that slammed into the Gulf Coast in August and nearly wiped out the city of New Orleans. More than 1,000 people died and millions were displaced. Hospitals, schools, and businesses were severely damaged or destroyed. Just as the tsunami's survivors will be struggling to rebuild their lives for a long time, so, too, will Katrina's.

Individual expertise

DMS emergency physician Robert Gougelet, M.D., was on the Gulf Coast even before Katrina made landfall. Gougelet, the medical director for disaster response at DHMC, heads a Boston-based disaster medical assistance team (DMAT)—a group of doctors, nurses, pharmacists, and paramedics that is always ready to respond to major emergencies. They've responded to previous hurricanes and earthquakes and to the 9/11 terrorist attacks in New York City.

As Katrina headed for New Orleans, the DMAT spent two days preparing at Fort McClellan in Alabama. Then they participated in several missions, including the evacuation of patients by helicopter, ambulance, and bus from a Mississippi hospital after its power went out. They also helped to reopen a Biloxi, Miss., hospital damaged by the hurricane—water and rain had flooded part of the building, even its emergency room; the power had failed and so had the backup generator. The DMAT assisted staff, treating some patients by flashlight and others in a tent outside the hospital. They gave tetanus shots, cleaned and treated wounds, and administered antibiotics to prevent infection.

"Even some of these small wound infections can turn out to be life-threatening," Gougelet told the *Boston Globe* last fall. "People without their diabetic medicines or their asthma medicines can die. Tetanus can kill you. . . . This is important."

Gougelet visited the Gulf Coast again in early December to attend a debriefing and to greet and orient Dartmouth College students and staff who went to Biloxi, Miss., to lend a hand.

Another veteran disaster and humanitarian relief worker, Dean Seibert, M.D., an associate professor of medicine emeritus, also helped out. As a public health service reservist, he was assigned to San Antonio, Tex., to help care for

30,000 Katrina refugees (see the profile on page 62 in this issue for more about Seibert).

Dartmouth College

The Dartmouth community as a whole responded quickly and generously to the Katrina relief effort. Employees and students donated money and supplies for hurricane victims; held fundraising drives; offered their homes to students and faculty who had been displaced by the hurricane; and volunteered their time. The College offered temporary admission to displaced undergraduate and graduate students; accommodated displaced faculty; hosted a Red Cross disaster training session; and developed online resources to facilitate the exchange of information.

The Dartmouth group that went to Biloxi for two weeks in December is cleaning and de-molding homes; working in reopened schools; and helping out in an animal shelter.

Dartmouth Medical School

DMS worked with the Association of American Medical Colleges (AAMC) and other state and national groups to coordinate medical relief efforts and assist the affected medical schools.

DMS hosted a fourth-year medical student from Tulane University, which was closed for several months after Katrina. And DMS students are organizing fund-raising drives and at least one—third-year student Debraj Mukherjee—has plans to travel to the region soon.

Dartmouth-Hitchcock Medical Center

DHMC encouraged employees to contribute money or volunteer through established relief agencies, such as the Red Cross. Employees who helped with the relief effort included paramedic John Hinds, who's on Gougelet's DMAT team; several nurses; National Guard members; and others. By the time three of the nurses reported for Katrina-relief duty, the Gulf Coast was being hit by Hurricane Rita—so they wound up in southeast Texas, caring for victims of Rita.

And then there was a small but very meaningful gesture—about 40 members of the Northern Lights Quilt Guild held a "sew-in" at DHMC in November to make quilts for babies at the Hancock Medical Center in Bay St. Louis, Miss. DHMC and other New Hampshire hospitals had adopted Hancock Medical Center, which sustained substantial damage from Katrina.

Gougelet's disaster relief

team also helped to reopen a Biloxi, Miss., hospital damaged by the hurricane—water and rain had flooded part of the building and the power had failed.

The team assisted staff, treating some patients by flashlight and others in a tent outside the hospital.