



In 1998 Professor Michael R. Reich, a 20-year veteran of the Harvard School of Public Health and the new director of the Harvard Center for Population and Development Studies, was severely injured in a road traffic crash in the Dominican Republic. Here he tells the story of his accident and his recovery and how both changed his view of many issues in public health.

Over my past two decades on the faculty of the Harvard School of Public Health, I have spent a good deal of time thinking about health systems in developing countries, the role of power in medicine, and the allocation of scarce resources for high-cost medical care. Sometimes the things that we study professionally jump unasked out of their virtual reality, across their arms-length distance, and invade our lives. I never expected, or particularly wanted, the opportunity to reflect on these health policy issues from personal experience. But I got it.

by Michael R. Reich

one foot sleeping

On June 23, 1998, on a highway in the interior of the Dominican Republic (DR), an intercity bus crossed the median and smashed head-on into the rented Toyota Tercel I was driving. Our family vacation turned into a bloody nightmare. My eight-year-old son, Gabriel, escaped without a scratch. My wife, Barbara, suffered a broken collarbone and bare feet full of glass. I was nearly killed, the left side of my body torn, battered, and broken. We were all wearing our seatbelts, otherwise we would never have survived.

The accident scene was complete chaos: the crunched-up Toyota stuck in the middle of the road, blood streaming from my head and arm, crowds of people gathering from cars and the nearby village, long lines of traffic backed up in both directions. My wife embraced me, whispering in my ear to keep me on this side of the great divide, as the bus driver backed up to get away as fast as he could. These images come from my wife's recollections and stories, recounted again and again over the past four years, to gradually fill the void in my memory.

on the road to somewhere

As horrifying as Michael Reich's road traffic experience in the Dominican Republic was, perhaps even more horrifying is how commonplace such incidents have become. Each year, road traffic crashes kill more than one million people and injure or cripple 20 million more. The highest burden of these injuries and fatalities is borne by poor people in developing countries. Currently ranked by the World Health Organization as the #9 leading cause of disease burden globally, motor vehicle injuries are projected to climb to the #3 spot by 2020. "The road traffic injuries issue is a development issue," says Vinand Nantulya, senior research scientist in international health at the Harvard Center for Population and Development Studies. "It costs money to the national economy. It takes away valuable human resources. It takes away people in a productive age group, who have young families. And it takes away

workers, predominantly the male workers, in their prime years. For just one accident, the implications are immense."

Nantulya, who came to the School from Kenya as a Takemi Fellow, is now leading (together with Reich) a multi-country initiative to improve road safety worldwide through an international coalition of partners. Moving away from more conventional technological or institutional approaches to the road traffic injuries issue, the project emphasizes regional empowerment and societal participation as a more effective means to implement change. "There are many things one can do but one has to be innovative about it," Nantulya says. "Traditional solutions may not be the answer." He notes that the issue of motor vehicle injuries is similar to that of HIV/AIDS, a health problem where the best solutions come from the people who are directly affected; the trick is reaching out to them, learning what they know, and giving them the capacity to make a difference. Although the road won't be easy, Nantulya hopes that this new initiative will publicize this long-neglected problem, giving it its rightful place on the international, national, and local political agendas. "I think my biggest challenge has been to sell this idea, to market it," he says. "Because it has not been easy to make people get it, to see the strategy here. That we're not talking about an engineering problem and we're not talking about a policing problem, we're talking about a public health problem." But, he adds with a knowing smile, "I love challenges." —Alexandra Molloy



Some local people dragged Barbara from my crumpled, blood-drenched body as they hitched chains to trucks to pull the car's door off and get me out. But there was no medical assistance—no ambulance, no emergency team, no one stepping forward to stop the bleeding, no one offering to call for help. My wife was frantic. With bloody hands, she grabbed the well-tailored lapels of a businessman's suit, screaming for a cell phone. Only blank stares in response. Afterward, she wondered whom she would have called if she had managed to get her hands on a phone and why no one from the crowd offered to help.

Then three US Air Force soldiers happened to arrive at the scene and took charge. Two were Dominican-

born US citizens who had joined the Air Force and become medics. Their car was stopped in the long line of backed-up traffic, and they came forward when they heard that an American woman covered in blood was screaming in the middle of the road. They knew exactly what to do and how to do it. They borrowed a shoelace from my son's sneaker to tie a tourniquet around my arm and then spirited me away to a hospital in a nearby city. These actions saved my life.

One soldier's parents took charge of my wife and son for the evening, providing them with security, solace, and support—and a cold shower the next morning for Barbara to wash my blood from her hair. Months later, we wrote to the US Secretary of the Air Force, commending them for actions

beyond the call of duty. Each one received a medal.

When my soldier-angels transported me from the scene, they debated where to go, eventually deciding on a hospital 25 miles away in their home city of Santiago. The public hospitals and social security hospitals in the DR are not known for high quality medical care. Indeed, my own study of failed efforts to reform the DR's health care system found multiple problems in both public and private facilities. The Santiago hospital where I was treated was staffed by physicians teaching at the city's private medical school. According to my wife, an experienced hospice nurse, the hospital looked clean and professional—another astute choice by the soldiers.

Still, it required some heavy leverage—my wife's shouted threat to break the sterile field in the operating room—to persuade the surgeon

to follow her two demands: no blood transfusions and no general anesthesia. We learned later that the surgeons did good work in that OR. The “pin” in my elbow (actually more like a two-inch bolt) healed nicely and has not required surgical fixing, despite a disparaging “We don’t do it that way anymore” from my Boston orthopedic surgeon when he first saw the X-ray, a week after the accident. Now fully healed, my arm has lost a few degrees in extension. No one notices.

The surgeons also sewed up my face and scalp, and repositioned my dislocated hip, making an effort to stabilize it by sticking a Steinman pin in my leg. All this was done without producing any infection or other side effects. Maybe not up to the technical standards of a medical-Mecca Boston teaching hospital, but the care was clean, effective, and personal. When I woke up the morning after surgery in the room serving as a post-operative intensive care unit, the person sleeping in the next bed was the nurse. I couldn’t speak at first, so I whistled, and she woke up and brought me water to drink.

Barbara’s immediate impulse was to get us out of the DR and home as fast as possible. To that end, she made arrangements for Lear-jet medical evacuation to Miami later that day, Wednesday, one day after the accident. As she prepared to pay the hospital bill, she met a surprise: the hospital demanded full payment in cash. It

While recovering from his crash, Michael Reich decided to make road traffic injuries in developing countries a major theme in his research at the School, and last April he organized a first-of-its-kind international conference on the subject with his colleague Vinand Nantulya (for more information, see www.hsph.harvard.edu/traffic/).

Kent Dayton.



all systems health

All told, Michael Reich’s encounter with the Dominican Republic’s health care system was a positive one. But it may be only the lucky few get that kind of happy ending. “In most developing countries, top-quality medical care exists, but only a thin layer of people have access to it—those who have the money,” says Peter Berman, director of the International Health Systems Group (IHSG) at the Harvard School of Public Health. “The dilemma is that with a poor country when you divide that care up for only some people, are you then not able to provide some more basic level of care to a much larger segment of the population?”

Resolving such dilemmas is the goal of IHSG, a small team of multidisciplinary researchers dedicated to the study and improvement of health systems performance in the developing world. Despite overwhelming obstacles—an historic burden of infectious disease, a rising toll of chronic illness, and an utter lack of resources—many developing countries are committed to making their health care systems work better. Through international collaborations, IHSG compiles information on how health systems operate, designs reform strategies, and evaluates their effectiveness. “I think that the lesson of the past couple of decades is that the world doesn’t need to wait for broad socio-economic

improvement to really achieve major health improvement,” says Berman. “There’s a lot of low-cost efficacious technology that can really make a difference—and most of this technology must be provided through some kind of health care system.”

Berman notes that there’s still much to learn about the role these systems play in public health. His group encourages looking at the system as a system: a chain of technology, people, and policy that is only as strong as its weakest link—for instance, the lack of an ambulance to get Reich to a hospital. “That’s a good example of how a particular organizational element has to be there for the rest of the system to function properly,” Berman says. “One of the major causes of wasted resources in developing countries is that there may be some parts of the system in place but not others—a spare part for a machine, an essential drug, a skilled professional.” IHSG’s work faces similar systemic challenges: cultural differences, political obstacles, and a serious dearth of funds. But Berman sees slow signs of progress: “There are a million wonderful stories of people doing good and making do with circumstances where most people would throw up their hands and say it can’t be done. And I think that’s one of the things that keeps us all going.”—AM

the managed care muddle

Michael Reich is not alone in his mixed emotions about managed care in the United States. Studies from the Harvard Opinion Research Program, launched by the Harvard School of Public Health in 1989, have found that many Americans share his concerns. Since its inception, this program has played a key role in more than 100 public opinion surveys on health and social policy in the US and 15 other countries, focusing primarily on peoples' attitudes in relationship to their values, knowledge, and experience. A recent survey, done in collaboration with the Kaiser Family Foundation, found that for the most part Americans have increasingly negative views of HMOs and managed care plans, with the percentage of respondents who feel they do a "bad job" serving consumers almost doubling from 1997 to 2001. While many say that managed care has increased access to preventive health services, most believe that it has decreased access to specialists, the time doctors spend with patients, and quality care for the sick. Furthermore, six in ten Americans think that managed care has not produced significant health care savings. But in spite of all these problems, 62% of privately insured US adults say



they are generally satisfied with their health care plans' performance, an apparent contradiction embraced by opponents to the federal regulation of managed care.

With managed care booming over the last decade to become the dominant way Americans receive health care and insurance, debate about its efficacy as a system and the need to regulate it will likely become a permanent fixture on the health care agenda, according to Robert Blendon, executive director of the Harvard Opinion Research Program and professor of health policy and management at the School. "It will be impossible to improve health over the coming century without understanding the wider political, economic, and ethical contexts in which care is delivered," says Blendon. "Proposals to remedy the ills of our health care system will be ineffective without understanding both the actual and the perceived deficiencies of managed care." Blendon hopes that the Program's collaborative survey research will help track long-term trends and continue to inform policymakers and the media about the public's real feelings on emerging issues in health policy.—AM

Kent Dayton

graciously provided an armed guard to accompany her to the only bank in the city that could withdraw funds from our bank in Boston using our bank card. The total bill for the operation and services reached \$2,300. A bargain—real value for the money—at least ten times less expensive than the fee for the same procedures in a US hospital.

A mixed public/private sector approach can produce good quality health care in poor countries—if you can pay for it. Through the hospital selection of my soldier-angels, the intervention of my nurse-wife, and the medical connections of the soldiers' Dominican families, we received good care in the DR: medical and surgical care for me, personal support for my wife and son, and expert guidance through the medical bureaucracy. We were lucky beyond belief and are ever grateful. Miami was another world.

To begin, let me say that our health maintenance organization (HMO) was thoroughly supportive in the aftermath of our crash. They quickly approved our request for medical evacuation from the DR (after my wife made repeated phone calls to my primary care physician's office); they later provided for a long period of physical therapy; they allowed our requests for second opinions on critical questions. This "responsiveness," however, depended on my wife's highly honed expertise in managing the health insurance bureaucracy of the US medical system—and her persistence. Without her efforts, I would have followed a different medical path. Even with her efforts, I had some major problems.

Managed care can produce social disasters for families. Miami was a social disaster for mine. After agreeing to fly us out of the DR, our HMO selected the hospital in Miami. How

the choice was made is a mystery to me. But we did come to understand that there is a thriving medical business retrieving injured Americans from Caribbean islands. The patients are mostly tourists, often on cruises, who get injured while on vacation: heart attacks, sudden falls, diabetic crises, and car crashes are not unusual. Medical evacuation companies fly back and forth daily, using Miami as their treatment hub.

The hospital in Miami was totally unprepared for a family. It arranged for Barbara and Gabriel to stay at an inconveniently located Howard Johnson's, with no public transportation, no instructions on how to reach the motel, and no social support for their needs. Hospital staff rigidly adhered to outdated rules, barring my son from my room in the ICU. Incredibly, the hospital did not have access to a cafeteria for meals for my family. The list went on and on.

Meanwhile, the hospital viewed me as a medical cash cow. With a blank check from my HMO, it pushed every part of me that would fit into the CAT scanner for a look-see. Every chief of department dropped by for a visit. Yes, they performed some useful services, such as sticking a chest tube into my collapsed left lung and repositioning the pin in my leg so that it could be pulled down in traction and reduce pressure on my broken hip. But the hospital bill, paid almost entirely by my HMO, reached \$22,000 in two days—and I never even saw the operating room.

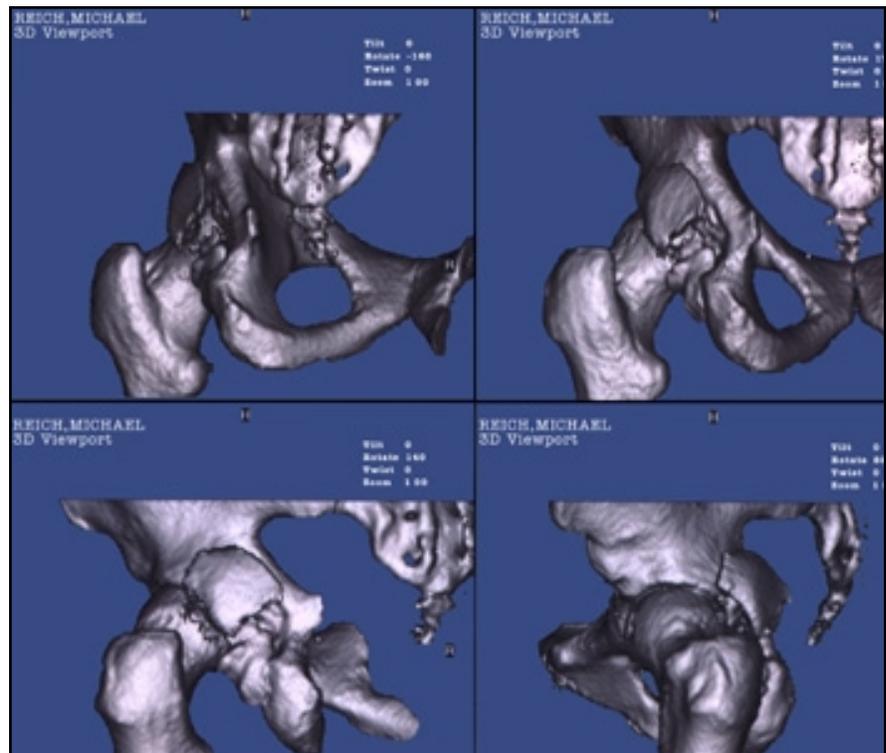
Miami marked the low-point of our post-crash odyssey. The stress in Miami had been horrific—far more traumatic than Santiago. The hospital pursued its high-billable services with aggressive skill while the softer services fell by the wayside. My wife decided that we needed to get ourselves back to Boston as soon as possible.

Hip check: a three-dimensional reconstruction from a computerized axial tomography (CAT) scan shows the post-collision damage to Michael Reich's hip. The diagnosis: "a comminuted fracture of the acetabulum, involving the posterior wall."

On Friday we signed out and got back on a medical Lear-jet for the flight north, arriving in Boston late Friday night. Home at last, if not exactly in one piece. We thought we were back in our element, where we knew the system and could have some control, but that was not the case.

Health care is a negotiated process, with the patient less power-

ful than other players. Back in Boston, we rediscovered the politics of health care. As a patient, I became a captive for others to move about the various health facilities—hospital rooms, operating rooms, rehab clinics. The decisions take place in a black box, hidden safely from the patient's sight. Occasionally, you can reach out and shake the box,



we're talking plain and simple

While negotiating the intricacies of the US health care system after his accident, Michael Reich bemoaned the powerlessness of the patient. But imagine how powerless he might have felt if he possessed educational abilities of the average American adult, who reads at about the 8th grade level. According to the 1992 National Adult Literacy Survey, half of US adults have low or very limited functional literacy skills, which means they have a poor capacity to use language, either spoken or written, to take action, achieve goals, and live up to their potential. "When you think about functional literacy in the health care setting, people's ability to comprehend and take needed action becomes problematic," says Rima Rudd, lecturer on health education at the Harvard School of Public Health, "because communication errors can have dire consequences." With the incompatible combination of patients' poor literacy skills and the health care environment's technical language, even seemingly simple tasks like navigating through a hospital, completing a medical form, filling a prescription, or conversing with a doctor can become distressingly, and even dangerously, difficult.

Rudd is on a mission to change that situation. She directs Health Literacy Studies (HLS), a program in the School's

Department of Health and Social Behavior that explores the links between literacy and health, working to institute positive change through practice and policy reform. Partnering with medical and public health institutions, adult education programs, and state departments of public health and education, HLS aims to improve the degree to which people can obtain, process, and understand the information necessary to make appropriate health decisions. Rudd even recently drafted the action plan for the new health literacy goal in Healthy People 2010, a statement of national health objectives designed to identify the most significant preventable threats to health and to establish targets for reducing them.

Rudd and her HLS colleagues believe that achieving their goals lies in attacking the problem from both directions: not only by improving education overall but also by helping medical and public health professionals communicate better. "We have so accustomed ourselves to the jargon of our trade, so accustomed ourselves to the scientific language of our work," says Rudd, "that we're not speaking to the average person anymore. And we sometimes forget that." When it comes to effective health communication, she stresses, never underestimate the power of "plain and simple."—AM

retrieving useful information and shaping the decision in line with your preferences. But it takes concerted effort and strength. Personal strategies and allies among the staff are essential. And heaven help you if the doctor assigned to you is incompetent.

No one warned me about the pain to expect after surgery. Morphine covered the pain from the incisions and the placement of eight screws and a plate to fix the piece of my hip knocked off in the crash. But it didn't touch the pain from a swelled-up belly, bloated as a side-effect from pain medication that stopped my gut from functioning. Narcotics were great in covering up primary pain from the crash. But without attention to the gut, and appropriate forms of intestinal assistance, the drugs created their own second-order distress—excruciating pain from more than a week of no movement in my bowels. (The hospital in Miami had started the powerful narcotics for primary pain, but did not start the stool-looseners that should have accompanied it, despite my wife's requests. Another Miami oversight.)

Even though I was a patient at a major teaching hospital (Barbara's employer), we still had problems. Finding someone in the hospital to help us was not easy. Several days elapsed post-operatively before the surgical resident introduced us to the pain-control nurse, who began to oversee my treatment, seeking to deflate my belly and ease the great pain in my mid-section. Meanwhile, it was up to my wife to intervene with some of her pain-management expertise. She fed me olive oil, a hospice nurse trick, to grease the intestine and ease the exit of stool. With her prodding and advice, the pain-control nurse adjusted my medications, and by Thursday I was sleeping through the night, at last.

The next negotiation was the move to a rehabilitation hospital. My wife decided where I would go, based on her on-site experiences over the years. But the question was when. July Fourth weekend was not a great time for a hospital stay, because of the skeleton staff left by vacation schedules and because of the new interns who arrive in teaching hospitals on July first. Was I better off in the comfortable teaching hospital bed, without any physical therapists

over the long holiday weekend? Or should I move to the rehab hospital, where I could start PT immediately? Our friendly pain-control nurse suggested a quick move and jump-start on PT—"The sooner you start, the better off you'll be." Barbara wanted a few more days of relative peace and quiet and stability in the teaching hospital's private room. Here the negotiations shifted to the family. I wanted to get moving; she relented, unhappily. On Saturday, I traveled by ambulance to a rehab hospital in Cambridge.

Our most serious conflict with the health care system occurred in the rehab hospital. The nursing staff was supportive and understanding during my late-night battles with pain. The physical therapists and occupational therapists were just what I needed. But we felt that the doctor was stubborn and unresponsive. He pressured me to have speech therapy on my first day in the rehab hospital, perhaps because he specialized in brain disorders related to trauma. When I refused to take the tests for speech problems, he seemed to retaliate. When we requested a change in pain medication to avoid acetaminophen overdosing, he decreased the narcotic prescription below the therapeutic

erring on the safer side

As in any other workplace, errors in the health care setting are inevitable. Some are harmless. Some, like the blunders regarding Michael Reich's pain medication, can be emotionally traumatizing or physically debilitating. Others can be deadly. More people in the US die from preventable medical mistakes each year than from traffic accidents, breast cancer, or AIDS. Consequently, many public health experts believe that health care in this country is not as safe as it should—or could—be. The first report of the Institute of Medicine's Quality of Health Care in America Committee, *To Err is Human*, concluded that a situation in which so many patients are harmed by the very system that should be healing them is unacceptable. In addition to amassing startling statistics, the report laid out a comprehensive strategy by which health care providers, government, industry, and consumers can work together to reduce preventable medical errors. "With the rising complexity and reach of modern medicine have come startling levels of risk and harm to patients," says Lucian Leape, adjunct professor of health policy at the Harvard School of Public Health and a member of the IOM Committee. "Data like these are beginning to mobilize considerable public and professional sentiment to redesign health care processes and systems to become much safer in the future."

Leape and his colleagues believe a key to improvement is moving away from the traditional punitive approach to the medical errors problem. Research has shown that the majority of medical errors are not caused by individual negligence or recklessness but are more often the result of faulty systems and processes that lead people to make mistakes or fail to prevent them. "Fear arises from the belief that mishaps are caused by carelessness for which the responsible individual should be punished," notes Leape. "Doctors and nurses have been taught to believe this, so they fear both making a mistake and being caught. They and the public are quick to blame individuals when they make errors." A culture that perpetuates fear, blame, and punishment only encourages people to cover up their mistakes, leaving the conditions that likely caused them unimproved. Moreover, a non-punitive approach may even be more cost-effective. A recent study by David Studdert and Troyen Brennan in the School's Department of Health Policy and Management found that a blameless system for compensation of medical injury, similar to Sweden's, should cost no more than the current US malpractice system while encouraging patient safety improvements. —AM

to the best of our abilities

Michael Reich's accident completely transformed his perspective, both literally and figuratively. On one level, he gained firsthand understanding of the physical, emotional, and institutional challenges people with disabilities face every day. But he also learned to see the person behind the disability rather than the person defined by the disability. "The kid or adult that has a permanent chronic disabling condition is one part of a spectrum that includes all of us," says Deborah Allen, SM'80, SM'86, SD'98, senior research associate at the Health and Disability Working Group (HDWG) and faculty member in the Department of Maternal and Child Health at the Boston University School of Public Health. "We all have special needs at one point or another." Allen recently joined HDWG, whose goal is to improve the delivery of medical, behavioral, and support services to people with a broad range of disabilities, after an 11-year stint as director of the Division of Special Health Needs at the Massachusetts Department of Public Health. She notes that for a person who becomes disabled, "all of a sudden the way the health care system treats you ceases to be this marginal issue that comes up once or twice a year and becomes something to be dealt with on a day-to-day basis." Discovering a segment of health care that has a deeply impacted and often very knowledgeable, impassioned constituency has made the field very exciting, she says.

But it's not without challenges, the most important of which is changing people's perceptions of disabilities. "There are multiple versions of stigma," says Allen, "some of which appear softer and kinder and some of which are overtly harsh and critical, but all of

which have the effect of making it terribly difficult for people to achieve equality." Even public health is not above reproach, albeit unconsciously. Allen says that the field has frequently used disability as a notion of what might happen in the face of public health failure—for example, a seatbelt campaign depicting a person in a wheelchair—perpetuating its connection to ideas of blame, misfortune, and dissociation. But Allen does believe that public health is trying to make up for lost time; she is even leading a CDC project to develop disability content for public health school curricula that will integrate concepts across subject areas. "I'm optimistic because the experience of disability is so widespread that it has this unusual tendency to bring people together across class lines, across racial lines, and across language lines with shared experience," she says. "And I think that creates enormous power to bring about change." —AM



Kent Dayton

level. The pain in my leg was biting, and his instructions made it worse. I was frequently awake in the middle of the night, in excruciating pain, counting the minutes to the next allowed dose. We sought every path around him and over him, contacting friends who knew the hospital director, seeking out other staff physicians, consulting the head of the department, pressing the nurses to help. Two weeks later, just before discharge, I switched doctors and had an intelligent conversation about pain control with my new physician. We breathed a huge sigh of relief.

After nearly three weeks in the rehab hospital, I was discharged. Once again, we needed to put together the pain-control cocktail. My new doctor was supportive, but it was my wife who suggested the medications to try. Through trial and error, we arrived at a reasonably effective set of drugs to address the combination of bone, muscle, and nerve pain that continued from the accident and the surgery.

Rehabilitation means starting over from almost nothing. In the days after surgery, I quickly realized what disability means and how highly debilitated I was. The first time I tried to sit upright in bed required 20 minutes of struggle, with assistance from two physical therapists. Standing was impossible. Even sitting at the side of the bed, with my legs hanging over, drained me of energy. Sitting in a chair was a major accomplishment. The accident not only broke my bones and tore my skin, it destroyed my capacity to function.

Everything had to be learned again, slowly moving up the pathway of tasks connected to different ages. As if newly born, I had to relearn the simplest things of life: chewing and swallowing easy-to-eat food; eating while sitting up in bed; adjusting my digestive tract to take in and push out on a regular schedule; getting my pajama pants off and on without bending over; moving myself out of bed to the commode; shifting from bed to wheelchair while supervised;

standing up while holding onto a walker. The simple things of life—the things I'd done before without thinking—had become nearly impossible. Gradually, with daily practice, continuing physical therapy, and persistence, I relearned the basic tasks of living.

The experience of disability gave me a new perspective on life. While I felt lucky to be alive, even if I couldn't stand up and walk, others looked at me as incredibly unlucky. When I had some wheelchair mobility, in early August, I returned to my office at the School of Public Health for a seminar. I viewed my colleagues from a new vantage point—to be more specific, from about navel level. And they looked at me and wondered whether I would ever walk again.

Surprisingly, there was not a single wheelchair-accessible bathroom in my entire 14-floor office building. To relieve myself, I had to travel to the fifth floor of a neighboring building or else use a pot in my office. My wife complained to the dean, and a bathroom on the next

leave and let live

On his road to recovery, Michael Reich often benefited from fortuitous circumstances, not the least of which was having the employers that he and his wife did. Working for a Harvard graduate school and a Harvard-affiliated teaching hospital, respectively, provided them with the benefits and flexibility for which large academic institutions are renowned. In addition to a wide range of health insurance options, Harvard offers a generous time-off package—including vacation, sick days, holidays, paid maternity/paternity leave, and short- and long-term disability plans—which combined with a number of unpaid leave opportunities is designed to support a balance of work and family responsibilities.

But this is not the case for most Americans, who are often left without options when it comes to taking time off from work to care for themselves or a family member in a medical emergency. “To date the public sector has failed to address the majority of American families’ work-family needs,” says Jody Heymann, associate professor of health and social behavior at the Harvard School of Public Health. The only federal legislation that exists in this area is the Family Medical Leave Act (FMLA), passed in 1993, which requires some employers to provide unpaid leave under limited circumstances. “FMLA is only a toe in the door because it only covers half of all Americans,” notes

Heymann. “Furthermore, among those covered in theory are workers who receive no coverage in practice because they simply can’t afford to take leave that is unpaid.”

Heymann has been looking at work-family issues and their impact on health and welfare for more than a decade. Out of this research has come her recent book on the subject, *The Widening Gap*, and her Project on Global Working Families, which looks at the demands of working families internationally. For Heymann the results cannot come fast enough. “We need prompt action because our failure to respond is exacting the highest price from those families least able to pay it,” she says. Indeed, Heymann and her colleagues have found that children and adults living in poverty have more health problems than middle- and upper-income ones. But they are hopeful that with continued research and renewed political attention to these issues that things can improve. “I think there’s a good chance for policy changes in the US,” says Heymann. “Solutions exist. Many are straightforward. For those that are less straightforward, already there are countries well ahead of us, and even states and individual communities are documenting their successes in how to solve these problems. We just need to follow suit as a country as a whole.”—AM

floor up was quickly reconstructed to allow my access. It seemed ironic that the Harvard School of Public Health, of all places, was not wheelchair accessible. For my wife, it was a problem to be solved through direct advocacy.

When September arrived, I welcomed new students to my department, leaning on my walker. My mind felt clouded by the four kinds of pain medicines that I continued to take every eight hours. My statements sometimes felt bumpy and disconnected, not flowing as easily as before. Had my mind been affected in some way? Were the medicines slowing my brain down? Barbara suggested that it would be a good experience for students at the School of Public Health to be taught by someone using a wheelchair. I agreed, but preferred that teacher be someone else. I delayed my course on ethics until November. Even then I taught from aluminum crutches and with pain medications.

Recovery is a process, and appearances are deceiving. In the first few days of January, I put aside my crutches, started hobbling with a

cane, and went ice-skating with Gabriel. I could barely walk, but wanted to get on the rink—a kind of test of recovery. How much could I do? With my orthopedist’s blessing (“Ice skating? I don’t see why not.”), I laced up my old hockey skates and took to the ice, starting with my hands on my brother-in-law’s shoulders the first time around. It hurt, with almost no push in my left leg, but the pleasure of gliding on ice gave me enormous satisfaction. Alive again.

Sometime in February, I reluctantly relinquished the cane. I rather liked the look and feel—and the security—of having a stick to lean on. But it was time to put it aside and move forward on my own, to build up my muscles without external assistance. Almost immediately, people began congratulating me on my “full” recovery. And I would explain that I had not “fully” recovered, that in fact every other step hurt, each time my left foot touched down. What appeared as recovery on the outside was far from full recovery on the inside. Some people thought I looked better than before the accident—I had gained 10

pounds from my disability-enforced sedentary lifestyle.

In mid-April, with encouragement from my physical therapist, I tried walking the 1.2 miles to work. It was too much, too soon. The second time I walked home, the pain in my left foot was so intense that I could barely make the last block. Gritting my teeth, suppressing the groans, I took lopsided limps for the last hundred steps. The despair and disappointment were intense. Walking to work and back was my self-stated goal for recovery—a return to “normal.” Would I ever be able to do it?

Over time, I got closer. My new orthopedic surgeon recommended that I work up to one mile of walking slowly, expanding the length a little at a time. And that helped. I reduced my pain meds from four kinds to one and began to feel that maybe I could relinquish that pharmaceutical support. I needed an experiment—a few days without it—to know for sure. But I still had nerve-related pain in my left foot, and I still needed to do 30 minutes of physical therapy each day to build up my muscles.

The one-year anniversary for the accident on June 23, 1999, was bitter-sweet. The crash combined a strange mixture of fates: incredibly unlucky that it happened, incredibly lucky that we all survived and that I recovered, mostly. All my medical caretakers—orthopedic surgeon, neurologist, primary care physician, physical therapist—agreed on one point: I had recovered much better than they had expected. Even my wife admitted that I had been “a much better patient” than she had anticipated, meaning that I complained hardly at all about pain (or anything else, for that matter), and that I followed the instructions of my therapists and physicians through the summer of recovery. By the spring, I apparently had recovered enough to return to my normal male behavior (of complaining, of not listening to instructions, of working too much). By the end of the year, 18 months after the accident, I had recovered enough to relinquish my last pain med and walk the mile to work with only mild pain, though I walked on a left foot that still felt half asleep.

In the new managed care environment, much of the “manage-

ment” has shifted onto the patient and the family. And in this environment, I was lucky. My wife is an expert at handling doctors, insurance, pain and pain meds, intestines, and home care. And she did this all while suffering with her own broken clavicle shifting and sticking her whenever she lifted something (like hoisting my wheelchair into the back of our station wagon). We were fortunate in our joint resources for directing my care: my wife’s expertise, our medical connections, and our experience in dealing with bureaucracies. Nevertheless, at times the system overwhelmed us.

We wondered, How do other patients negotiate the doctors, the hospitals, the therapies, the move home? We learned that some manage well, and some don’t. A friend described the pain he still feels today, years after a hospitalized family member committed suicide. After hearing of our struggles in the rehab hospital, he explained to Barbara, “We simply weren’t capable of managing the system.”

Did this near-death experience change me in some fundamental

way? Am I a better father or husband or scholar or teacher? Hard to say. Perhaps my face-to-face confrontation with mortality—just before turning 50—reminded me to value each moment I’m alive, to accept delays in life with a little less compulsion, and to have a better understanding of living with a disability. Most of all, it has impressed on me the importance of traffic crashes in developing countries, a major neglected public health problem. Since the crash, I have made this issue a priority in my research and am now organizing, with my colleague Vinand Nantulya, an international initiative at the Center for Population and Development Studies to advance the global agenda of road traffic safety.

The crash and its aftermath gave me an enforced period of reflection, with the luxury of being able to piece myself back together, while examining the pieces, sometimes even holding them up to the light. I still carry a constant reminder of the crash with me, as I go about my life, in my external and internal scars and in my one foot sleeping. ✦

easing the pain

One consistent theme across Michael Reich’s story is pain—the violent pain of trauma and the persistent pain of recovery. While the quality of pain is subjective and difficult to define, we are nevertheless linked by the sensation. Upwards of 40 million Americans suffer from the debilitating effects of chronic pain and, according to the National Institutes of Health, pain costs the US more than \$100 billion each year in health care expense and lost productivity. Unlike acute pain, which is the body’s mechanism of self-preservation, designed to tell you when something is urgently wrong, chronic pain lingers, sometimes for months or years, as the result of a specific injury, an ongoing disorder, or even no apparent cause at all. Although historically people have looked to doctors to relieve their pain, primary physicians and surgeons are still learning the particulars of pain management, often on the fly. The average medical student gets only one or two lectures about pain during four years of medical school. “Most doctors, because of how poor the education is, learn about pain in the emergency room because people are always presenting in the ER with pain,” says Dr. Joshua Prager, MPH/75, director of the California Pain Medicine Center in Los Angeles and assistant clinical professor at the UCLA School of Medicine. “But it’s also a place where you develop a hard skin and have to be tough on people—well, that’s no place to learn about pain.”

Prager believes that this gap in health professionals’ education has served to perpetuate long-standing myths about pain and its effective management—including the misperceptions that chronic pain serves a purpose, early use of drugs will block perception of new pain or dull their efficacy down the line, and people who use drugs to manage their pain are addicts. Prager also vehemently rejects the notion that divulging pain is a sign of weakness; indeed, he stresses that doctor–patient communication is key. “As a pain practitioner that has to be where you start,” he says. “If you don’t ask patients about pain or believe they have pain, you’ll never be able to treat it.” A vocal advocate on the subject, Prager is pleased to note that over the years the pain management field has evolved rapidly and gained greater legitimacy—a trend he hopes will continue. Last year, the Joint Commission on the Accreditation of Health Care Organizations, a regulatory body that licenses hospitals nationwide, even required hospitals to evaluate patient pain as a vital sign, just as they would monitor blood pressure. “It’s getting covered, patients are demanding it, and we have the technology,” Prager says. “The education continues to grow, the drugs get smarter, and the delivery systems get better. Our goal in pain management is to reduce pain with minimal side effects and as we get better and better at doing that, things will continue to improve.”—AM