The Base of the Pyramid

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Recently, after 17 eventful and rewarding years at Emory University, I decided it was time for a change. My son was about to graduate from college, and both the injury prevention center and academic department I had founded were flourishing under my successors. With a strong sense of anticipation, my wife and I set out to write a new chapter of our lives in Washington, DC, where I had agreed to join the RAND Corporation as the Paul O'Neill-Alcoa Chair of Policy Analysis.

One month into my new job, I awoke one Friday morning refreshed and ready to go. As I stood in the shower, I contemplated the upcoming events of the day. That morning, I was scheduled to meet with Rep. Jim Cooper, (D-TN) an expert on health policy and a leading "Blue Dog" in the U.S. House of Representatives. That afternoon, I had a much-anticipated meeting with Dr. Carolyn Clancy, Director of the Agency for Healthcare Research and Quality (AHRQ).

Momentarily distracted by these thoughts, my capacity to perform a necessary task – maintaining my footing in the slippery bathtub of my rental house—momentarily dipped below the threshold required for adequate performance. That was all it took. In an instant, my feet slid apart. Losing my balance, I spun about and heavily fell against the edge of the tub. The crack as my chest struck porcelain was both audible and palpable.

Alarmed by my howls of pain, followed by a torrent of curses, my wife bolted from bed. A lawyer by training, 27 years of marriage to an emergency physician had taught her to assess what's important. Airway, breathing, circulation? Intact. Mental status? Conscious and coherent (albeit profanely so). Motor exam? Intact. Spine or head trauma? Negative. Convinced I would survive; she went back to bed, leaving me to fend for myself.

Determined that I was not going to let a little chest trauma spoil my day, I painfully dressed for work. But as I headed downstairs, I began to feel sick. That's when I realized I might be more seriously injured than I first thought. Meekly, I awoke my wife and asked her to drive me to the emergency department (ED) for a chest X-ray. It confirmed my worst fears. In addition to two fractured ribs, I had a traumatic pneumothorax.

Each year, 1 in 4 Americans is injured seriously enough to require medical attention.[1] The most careful among us – even emergency physicians and injury control center directors – can become momentarily distracted. Depending on the amount of force unleashed, the resulting damage may be relatively minor or catastrophic.

Over the past few decades, the field of injury control has devised a range of techniques to prevent injuries countless and reduce the severity of those that occur. We've discovered a wide range of educational techniques to promote safe behavior. When education is not enough to inspire universal adoption of effective countermeasures, we've shown that compliance of simple and non-intrusive actions (such as buckling a safety belt or wearing a motorcycle helmet) can be boosted through high-visibility enforcement. And we've learned to prevent and reduce injuries by engineering safety into consumer products, motor vehicles and many built environments.[1] A few years ago, a well-engineered motor vehicle prevented my son from sustaining a serious injury and possibly saved his life.[2] Untold thousands, if not millions, are alive today thanks to the science of injury control.

This issue of the *Western Journal of Emergency Medicine* demonstrates that the field of control continues to evolve. Under the leadership of Dr. Debra Houry, a gifted emergency physician who succeeded me 4 years ago as director of the Emory Center for Injury Control, the tiny program two colleagues and I founded in 1993 has grown to involve over 80 faculty and staff at nine Georgia colleges and universities and numerous community partners. Recognized as a "Collaborating Center" by the Pan American and World Health Organizations, the Emory CIC was recently designated an Injury Control Research Center (ICRC) by the Centers for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control. Emory's program and the other CDC funded ICRCs are committed to discovering practical strategies that make a difference and translating them into every day practice.

Some readers of this journal might wonder, "What does this have to do with emergency medicine?" The answer is "Plenty".

Emergency physicians specialize in making time-critical diagnoses and quickly initiating care to alter the progression of disease. Every time we treat an asthmatic child, an adult with an acute ST segment-elevation MI or an adolescent with

sepsis, we are acting to interrupt a harmful chain of events that will otherwise lead to severe illness or death.

But the case of trauma, we don't have days, hours or minutes to act. The event occurs in the blink of an eye, and is over long before the patient arrives in the ED. Sometimes we can limit the consequences of injury through timely action and take measures to facilitate the healing process, but our capacity to fully reverse the consequences of injury is limited. Try as we might, we cannot unbreak a bone, restore a damaged brain or bring the dead back to life.[3] The best strategy, by far, is prevention.

That's why injury control is important, and why it should matter to emergency physicians and other emergency care practitioners. We are ideally placed to advance the science and practice of injury control through bedside (and roadside) counseling of our patients, by advocating sound public policies and by conducting groundbreaking biomechanical, epidemiological and prevention research.

And we would be wise to direct our efforts at the entire spectrum of injury; not just those that are particularly severe. My personal mishap is instructive. Fortunately, my rib fractures and pneumothorax were not life-threatening, but they were costly and disabling. After initially resisting surgical intervention, I reluctantly agreed to a chest tube and 2-day hospital stay. I did not fully recover for several weeks. The charges for my care are rolling in now. Trust me - American healthcare isn't cheap. I readily concede that my fall could have been worse—after all, I didn't fracture my neck or sustain an epidural hematoma—but it was bad enough.

People like me form the base of the injury pyramid.[4] Our injuries are non-fatal and many, like mine, are only mildly disabling. But we account for almost one-quarter of the roughly 123 million visits Americans make to ED each year.[1] We also contribute the rising costs of healthcare. And our injuries are every bit as preventable as those that garner the headlines.

When I returned home from the hospital, my wife presented me with a gift—a cheap plastic bathmat covered with suction cups that help it firmly attach to the floor of a tub. When I went to work the next day, I found that my RAND colleagues had sent me a second one, covered with autographs and "get well" messages. Now, I can daydream in the shower all I want, because my footing is secure. Cost: about $6.00 retail. Value: Priceless.

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