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Waiting for the next 'Big One'

By Yossi Sheffi | February 19, 2006

OVER THE LAST several months I have been speaking around the country about the results of an MIT research project regarding how organizations should build resilience into their operations so they can withstand all kind of disruptions. My talks usually provoke queries about various past disruptions such as SARS, 9/11, Katrina, and Bhopal, but there is one question that comes up repeatedly: What emergency are you mostly worried about? In other words, what should we prepare for?

My response is not a bird flu pandemic or even a major terrorist attack -- much more worrisome, I believe, are the disruptions we do not fear because they are as yet unknown. We need to be prepared for a massive dislocation to our daily lives regardless of whether it comes in the form of a virus or a terrorist's bomb.

Having considered all the possibilities I am not overly worried about bird flu. The reason is that not only the United States but the entire world is waiting for it, setting up elaborate detection mechanisms, stocking up on antiviral drugs, and developing vaccine production capacity. The bird flu may or may not come, but if it does, the world will be ready. Similarly, a 9/11-style attack is unlikely. Not only are airports more secure, but gate agents, passengers, and law enforcement personnel are more attuned to suspicious behavior and more likely to detect and resist a hijacking attempt.

I am really worried about what we are not anticipating, be it the results of the political victory of Hamas, a new form of terrorist attack, a collapse of financial markets due to exuberant expectations, a huge spike in the price of oil, or something else which at the moment I cannot imagine. As I watch the financial markets continue to rise and not internalize many ominous signs I get worried that there is not enough fear in the markets, in board rooms, or on Capitol Hill.

So how do we prepare for the unexpected? For industry, the answer is building resilience though flexibility and agility while preparing some redundant capacity. For government, at all levels the emphasis should be on tightening communications between the various agencies in charge of disaster recovery, revamping command and control capabilities, and ensuring redundant capacity of treatment, be it medical, food, or heat. For all organizations the answer is not only planning but building a culture that emphasizes quick action through empowered lower-level employees who are close to the action. Such a culture is what the Coast Guard calls "On Scene Initiative." It was a key to its heroic and effective performance during Katrina, saving more than 24,000 lives.

Preparedness also means teaching people how to react in emergencies by putting them through drills. It is not enough to have a contingency plan. Plans have to be tested. Remember fire drills in primary school? The authorities did not tell you how to get to safety -- you had to do it repeatedly.

When the Department of Homeland Defense recently tried to learn from the preparations for Hurricane Wilma they discovered that it is not enough to store food and fuel. Loss of electricity rendered gas stations unable to pump, creating shortages and traffic jams. These lessons have led to requiring gas stations to have emergency generators. Such lessons are essential in discovering problems that can hamper evacuation, recovery, and rescue.

US companies and governments are likely to be tested regardless of the type of disruption. Thus, continuous drilling -- such as the avian flu drill by Tufts Medical Center in Boston in December or the airplane hijacking drill by Massport on May 7, 2005, involving 50 federal, state, and local agencies -- is a must.

People can also do a great deal to help themselves. We all should maintain an emergency kit containing food and bottled water for a few weeks, a first aid kit, some cash, batteries (including a reserve cellphone battery), a flashlight, battery-operated small radio, supply of regularly taken medicines, and disposable

protective masks and gloves (type N95). Also, they should make sure everybody in the family knows how to use short message service on cellular phones since that may be the only communications device operational during a large-scale disruption.

I am not advocating that we live in fear of another disaster, but that we be realistic enough to recognize that another national or international crisis is probable and that it makes sense for everyone, not just official responders, to take precautions. The "Big One" may or may not be on the horizon, but being prepared is a small price to pay.

Yossi Sheffi is a professor of engineering at MIT and the author of "The Resilient Enterprise: Overcoming Vulnerability for a Competitive Advantage." ■

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