

Prevention and Community Engagement: Keys to Disaster Management in Cash-Strapped Cuba

By Elizabeth Newhouse

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Cuba has developed an integrated, countrywide civil defense system that has succeeded in preventing widespread loss of life from natural disasters, especially the recurrent hurricanes that batter the long, narrow island. In the 16 major storms that devastated it in the decade of the 2000's, only 30 people died. Along with prevention, community education—instilling a “culture of preparedness” and personal responsibility into Cubans from the very earliest years—are major factors in the system's success. A Center for International Policy delegation trip in June looked into how Cuba does this, and considered how vulnerable communities in the United States might benefit from Cuba's example.

A sign in a polyclinic in central Havana reads, “Your services are free, but here are the costs”: a day in the hospital, 131.68 Cuban pesos (\$32.92 U.S.); hernia surgery, 350.11 pesos (\$87.50 U.S.); home visit, 8.53 pesos (\$2.13 U.S.). In Cuba scarce funds and resources mandate rock bottom spending and a strong focus on prevention and personal responsibility in health care and in disaster management, as the Center for International Policy's (CIP) most recent trip to Havana, the eighth in Cuba Project director Wayne Smith's series, abundantly showed. And this approach works: In Cuba life expectancy and infant mortality rates match those of the developed world—and few people perish in the hurricanes that regularly strike the island.

In three days of visits to the Center for Disaster Medicine, a junior high school, a polyclinic, and a civil defense headquarters in central Havana, CIP's delegation of disaster experts from the U.S. East Coast learned about how Cuba trains the community to step up in a disaster. While the Communist system enables much of Cuba's strategy—notably mandated evacuations—the group found elements that could very usefully be adopted in the United States, particularly in areas prone to natural disasters. On the final morning, at a meeting on the state of U.S.-Cuba relations, the deputy chief of the U.S. Interests Section said the time may be right for an exchange program in disaster preparedness between a U.S. university and the University of Havana.

The impetus for Cuba's preparedness strategy were the 1,200 fatalities caused by Hurricane Flora in 1963, said Dr. Guillermo Mesa Ridel, director of the Center for Disaster Medicine. By contrast, in 2008, the most devastating recent season, three major storms left 600,000 people homeless and \$10 billion in damage, yet only 7 people died. But the island remains very vulnerable. Last year Hurricane Sandy wreaked



Members of the delegation during their trip to look at how Cuba prepares its citizens to cope with natural disasters.

havoc in eastern Cuba as a category 3, damaging or destroying 130,000 buildings (with 11 deaths). In addition, seismologists say a major earthquake in eastern Cuba is overdue.

Cuba's low disaster casualty rate is due in part to its success in instilling a "culture of preparedness" across the country. It hinges on education reinforced by annual countrywide training weekends before hurricane season. This level of individual preparation is largely nonexistent in the United States, said Dr. Alex Isakov of Emory University, a member of the CIP group.

Part of Cuba's national civil defense system, the Center for Disaster Medicine was established in 1996 to organize the medical response to every kind of disaster, from hurricanes to major gas leaks. Its small staff coordinates with all medical and paramedical institutions in the country, each of which must have in place an active program for risk reduction—updated yearly—as well as detailed plans for preparation, response, and recovery. The center disseminates information through its website, promotes good practices, produces materials, analyzes risk, and oversees training for disaster specialists, through short courses all the way up to PhDs. The effects of climate change, seen as potentially devastating to the island, are closely studied. The center also works with international organizations to share information and methodologies. In March of this year it hosted an international disaster medicine conference.

Cuba's strong commitment to community training struck the greatest chord with the CIP group. In Cuba, where 98 percent of children go to school, lessons in emergency preparedness are built into the curriculum and extra-curricular activities from preschool through university. Educating youth in the dangers specific to their environments helps inculcate the preparedness that Dr. Mesa says is essential to Cuba, especially given its limited resources. In the United States, noted Dr. Isakov, no uniform approach to educating children on emergency preparation exists, and many teachers would argue their curricula are too full to make time for the subject.

The delegation saw first-hand how Cuba prepares children at the Bernardo Domínguez junior high school, just two blocks from Havana's sinewy waterfront boulevard, the Malecón. Here sea surges that can occur even out of hurricane season produce serious flooding. Students at different age levels showed the group what they'd learned about hurricanes and other disasters, as well as about the practicalities of preventing and responding to them, including detailed do's and don'ts, evacuation plans, and first aid. It was clear that by 9th grade graduation, students at Bernardo Domínguez would be well up to speed on civil defense.

The civil defense system works to assure that schools comply with all prevention and response plans, and to get them functioning again as quickly as possible. Hurricane Sandy damaged 727 schools in eastern Cuba, noted a Bernardo Domínguez official, and within days students had relocated to 241 homes to continue schoolwork. In Cuba, "all you need for a school are one student, one teacher, one Cuban flag, and one bust of [Cuban patriot] José Martí," he said.

Cuba's emphasis on prevention was also highlighted at the Polyclinic April 19 in a downtown Havana municipality, where Dr. Jose Portilla Garcia, a public health official, pointed out that Cuban healthcare is universal and free. Every Cuban is under the care of a family doctor-and-nurse team associated with one of the country's 452 polyclinics. The teams keep up to date on patients' health issues, even following them to evacuation centers if necessary. With little medication to offer, the teams promote wellness—smoking cessation, healthy eating, exercise, and other measures. The polyclinics conduct medical tests, administer scarce drugs, and handle emergencies. Cuba's 161 hospitals treat only the sickest of patients.

Results are impressive by any standard. Infant mortality is 4.6 deaths per 1,000 births, and life expectancy is 78.8 years. In addition, rubella and measles have been eradicated, and the AIDS virus is well under control, with only a fraction of the population affected. A serious concern is that the population is both rapidly aging and decreasing, with just 1.7 children per woman born today.

The prevention theme was reiterated at a meeting with civil defense officials in the municipality of central Havana, one of 15 municipalities in the city. Civil defense here, as in other areas of the city CIP visited on earlier trips, has amassed an amazing amount of information on the whereabouts and vulnerability of residents. In this densely populated municipality of 154,838 inhabitants, for example, officials know that 59,482 people live high in buildings and must vacate in strong winds. Coastal inundations pose the greatest threat; a light flood means 2155 people must be evacuated; a moderate flood, 3489 people; and a heavy one, 13,167 people. In such events, officials say that 3,692 trained volunteers will help evacuate 59% of the population to family and friends and the rest to one of 32 evacuation centers. Whereas 99% of the population complies, the rest must be coerced.

Protecting the population from disasters may be manageable, but keeping buildings from collapse is much less so. Most housing in central Havana is dilapidated at best. Structures collapse daily, even without high winds or flooding. A hurricane can create a domino effect, bringing down several buildings at once. Shoring up or replacing them takes money, which Cuba doesn't have. (Unlike historic buildings in Old Havana and on the Malecón, central Havana is not privy to the special restoration funds administered by the office of the city historian.) Knowledge and expertise seem to exist in abundance, however. A young architect displayed a series of highly detailed charts showing the municipality's human and structural vulnerabilities. "We have the technical know-how and we have the studies, all we lack are the financial resources," he said.

"How can we in the United States better prepare for catastrophic events?" pondered Dr. Isakov, in discussing Cuba's expertise at the meeting with the U.S. Interests Section's Conrad Tribble. "By instilling a sense of personal responsibility for preparedness," Isakov said, "and to do this we have to educate our youth."

Energetic and forward-looking, Tribble has been in Havana only a year as the deputy chief of mission, but already he's known for his outreach in person and social media to young Cubans across the political spectrum. Though there's little direct connectivity inside Cuba, a vibrant blogosphere with the outside world spreads the dissidents' messages. Now the Cuban government is in the game, supporting some 200 bloggers to get its own word out. Tribble is in touch with both groups.

He contends that relations between the U.S. and Cuba are far better than a few years ago, and that working with the Foreign Ministry is much more constructive. Although the continued imprisonment of USAID contractor Allan Gross has "made it difficult to keep opening up relations," it has not stopped all activity. Tribble thinks the Cubans would like to find a way to release Gross as they "don't feel he's doing them any good." Meanwhile, the White House wants to see progress in areas like law enforcement, migration, drug interdiction, terrorism, and the environment, which don't get much visibility and political pushback in Washington. As always with Cuba, every decision rests on White House political calculations.

There is no lack of opportunities to talk with the Cubans about these issues, noted Tribble, the question is can we reach agreement? "We're not yet there," he said. Since political debate inside the Cuban government is completely opaque, the U.S. has very little idea what the Cubans actually want. However, "it is clear some officials there will do anything to disrupt the process," Tribble said.

In any case, the United States seeks to minimize its presence, seeing the relationship between the Cuban government and its citizens as far more important. “Whatever the issue,” Tribble said, “our mantra is ‘let’s not make this about the U.S. and Cuba.’” The hope is the Cuban government will continue to make significant changes, such as the wholesale markets being considered to support private enterprises. Also “it’s not just the old-school dissidents speaking out. Space is growing for professional associations, and people are willing to take more risks,” Tribble added. “All this is more important than anything we do.”

Tribble believes that President Obama’s intent is to move us well down the path to normalization with Cuba before his term ends. Will Cuba see it in its interest to cooperate? Or must reconciliation await the ascendance of a new generation?

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