

CENTER FOR INTERNATIONAL POLICY

DELEGATION REPORT

Disaster Medicine:

U.S. Doctors Examine Cuba's Approach

By Elizabeth Newhouse

July 2012

This report recounts the latest delegation trip to Cuba sponsored by the Center for International Policy's Cuba Project. The purpose of this series of trips, which in the past has included U.S. Gulf Coast emergency managers and state legislators, is to introduce U.S. officials in the field of emergency preparedness to their Cuban counterparts and to explore ways to work together on an issue of vital mutual importance. These interchanges, outside the realm of politics, have proven to be highly instructive and valuable and have fostered relationships that will result in long-term contact and collaboration in this area between the United States and Cuba.

Introduction

Emergency medicine and public health officials from the U.S. Southeast and Gulf Coast made up the latest CIP delegation to Cuba in May to look at the island's response to natural disasters, particularly hurricanes. That the system is effective is beyond doubt. Only a handful of Cubans died in the 16 major storms that battered the island over the last decade—and the likelihood of being killed by a hurricane in the United States is 15 times greater than in Cuba.

Led by Cuba Project Director Wayne Smith, this trip—the seventh in the series—focused on disaster medicine with special attention to the training of doctors and the community. In contrast to the United States, disaster medicine in Cuba is an integral part of the medical curriculum, and educating the public on how to respond begins in primary school.

The delegation also received spirited briefings on the state of U.S.-Cuba relations from both the Cuban Ministry of Foreign Affairs and the U.S. Interests Section.



Delegation of U.S. Gulf Coast and Southeast emergency medicine doctors with CIP staff.

Center for Disaster Medicine

In the absence of Director Guillermo Mesa Ridel, his deputy, Dr. Cristina Reyes, welcomed the group to the Latin American Center for Disaster Medicine (CLAMED), which coordinates training and activities for the island under the Ministry of Public Health. All types of emergencies are within its purview—hurricanes and other natural phenomena, technological disasters, epidemics and other health-related events—and it seeks to manage all medical-related aspects, paying special attention to risk reduction.

As part of the civil defense system, the Center works with hospitals, polyclinics, and the local Red Cross, as well as educational institutions and organizations throughout the island. The idea is for every Cuban organization to have detailed plans in place to handle the before, during, and after of any possible catastrophe, and to update the plans yearly.

Key to the system is educating the community. The higher incidence and severity of hurricanes, due to global warming, make this imperative, said Dr. Reyes. The Center produces and distributes many types of training materials through the Red Cross and family physicians; and the Ministry of Education integrates lessons on disaster preparedness into all levels of the school curriculum, tailored to the school's location and risk. Even small children take part in drills, learning first aid and survival techniques, often through cartoons, as well as how to grow herbal medicines and to find food, should disaster strike. The result is an ingrained culture of prevention and preparation second to none. In response to a question about what kind of effect this preparation has on people's emotional reaction to a disaster, Dr. Reyes said that the assumption is of a strong psychological benefit, but only now are efforts being made to measure it.

Dr. Reyes cited the Island of Youth, off Cuba's south coast, as an example of successful training. In the mid-2000's, the state undertook a systematic program of educating the population of 90,000 in hurricane preparedness. Children were drilled and mentally prepared with lessons, books, and posters. Two years later, two major hurricanes hit the island, totally devastating it. However, the community survived with no injuries, and the children, knowing what to expect, showed no fear or panic.

Cuban medical schools teach disaster medicine during the fourth and fifth years, ten hours per semester, and also offer post-graduate courses. In addition, short courses all the way to doctorates are available in the specialty, with many Latin American doctors and other health professionals coming to study. The University of Havana supports a disaster medicine chair. Besides medical schools, every other academic specialty from engineering to environmental studies has a disaster component, Dr. Reyes said.

Dr. Mesa Ridel joined the group at dinner the following evening to continue discussions. He invited the group to take part in the second international congress on health and disasters he is hosting in Havana in March 2013. In return, Dr. Isakov suggested Dr. Mesa come to Atlanta, Georgia, next spring for a public health preparedness meeting. Everyone agreed on the usefulness and benefit to both countries of these kinds of exchanges—and vowed to continue them.

Guaranteed Healthcare

A visit to Havana's premier hospital, the Hermanos Almeijeras, included a video tour of the institution and a briefing by Dr. Jose Portilla Garcia of the Ministry of Public Health. The 600-bed hospital, a third-level medical facility, treats only conditions that cannot be managed elsewhere. Other nearby facilities tend to medical emergencies. Situated just blocks from the sea, the hospital's evacuation plan calls for abandoning the first three stories some 72 hours before a hurricane hits; if necessary, all patients can be evacuated to other city hospitals. Even then, critical patients are kept at the Hermanos, with emergency services

including three generators that can function for up to a week.

Dr. Portilla compared today's public health statistics with those of 1959, at the time of the revolution. Then, there were 6,286 doctors; today there are 78,622, (with 15,000 working in 66 other countries). Then, life expectancy was 60 years; today it is 78.8 years. Then, 60 out of 1,000 newborns died; today only 4.9 do. Today, there are 161 hospitals and 452 polyclinics island-wide. Almost all babies are born in medical facilities.

Under the revolution, healthcare is guaranteed by the constitution, consuming nearly 10 percent of the national budget. Family doctors and nurses, working in teams, oversee the health of every Cuban, strongly stressing prevention, then early diagnosis and treatment. Resources do not exist for many costly interventions. Due to the careful monitoring, the incidence of AIDS is the lowest in the Americas. With 12,000 cases since 1985, 1,800 people have died, 2,000 still have the disease, and the rest are disease free.

With a birthrate of 1.7 children per woman, the country worries about its decreasing population. Another worry is the scarcity of medicine and medical equipment, a situation Dr. Portilla ties largely to the U.S. embargo, saying it has cost Cuba's medical system \$1 billion.

A Medical School for Foreigners

The director of the Latin American School of Medicine, Dr. Juan Carrizo Estevez, hosted the group at his unique institution, the brainchild of Fidel Castro himself. Dedicated to teaching foreigners tuition-free, it began in 1999 with students from 24 countries. Since then it has taught medicine to students from 116 countries, including the United States, and graduated a total of 12,000 in 25 different specialties. Today, most of those graduates are back serving in their own countries, often in areas that had seldom seen doctors. Their record of responding to catastrophes, including the Chilean, Guatemalan, and most recently Haitian earthquakes is exemplary, said Dr. Carrizo. More than 500 ELAM graduates joined Cuba's international emergency medical contingent, the Henry Reeve brigade, in Haiti soon after the earthquake struck, and many of them, including two Americans, are still working there. The experience of Haiti highlighted the importance of disaster training.

The school's goal is to inculcate in its students values of humanism and solidarity, along with medical expertise. Students are taught to see medicine not as a commercial career, but as a vocation, with patients first and foremost as human beings. Dr. Alex Isakov of Emory University pointed out that U.S. medical schools try to do likewise, but they differ from ELAM in not offering disaster preparation, and he requested details about the courses.

The school's academic dean, Dr. Yolanda Moro Valle, explained that while the only dedicated course on disaster medicine is in the fifth year, preparation begins in the first year. During that year, students learn "medical geography," how to respond to disasters given the geography of their countries. Over subsequent years, as part of the curriculum in "general comprehensive medicine," they learn related subjects, such as transmittable diseases, epidemiology, health promotion, healing and rehabilitation, psychology, and forensic medicine. In the fifth year, this knowledge is integrated into the disaster medicine course and supplemented by projects students undertake related to their own interests in this area.

In response to a question from Dr. John Prescott about hands-on practice, Dr. Moro pointed out that the previous weekend, just before the start of hurricane season, the yearly event *Meteoro2012*, where the whole country drills, simulates, and updates evacuation plans, had taken place. Other opportunities for drills and practices exist throughout the year. Based on this ongoing training and on field experience (Cu-

ban health workers have served in 110 countries), the efficacy of the curriculum is continually evaluated and improved to make it as pertinent as possible to Cuba and the students' home countries.

The point, according to Dr. Carrizo, is that to be an effective practitioner of disaster medicine, one course simply does not suffice; instead a comprehensive knowledge is required. In a disaster, there is no single element to draw on, but many elements—both physical and psychological. He used as an example of an effective tool a group of artists Cuba sent to Haiti to entertain the children after the trauma. "Without an integrated approach, it's very difficult to obtain good results," he said.

Civil Defense in Guanabacoa

Across the bay from Havana sits the municipality of Guanabacoa, one of Cuba's earliest settlements founded in the 15th century. Its population of 113,000 works mainly in agriculture, supplying the capital with meat and vegetables. It has no coastline to worry about, but its three rivers and very dilapidated buildings present serious problems in a hurricane or even heavy rainfall. Dr. Francisco Sanchez Perdomo, the secretary of the province of Havana that encompasses Guanabacoa, the town's deputy mayor, and other municipal officials welcomed the group to a steel products factory that doubles as an evacuation center.

As on earlier CIP trips to the municipality of Playa¹, Guanabacoa's officials impressed the group with their detailed knowledge of their town and its inhabitants. For example, in a category 5 storm, they know that 49,371 people must be protected and of those, 6,705 must go to shelters (the rest to friends or family). If rains precipitate flooding, some 8,507 people will need refuge. In addition to the evacuation center where we met, 40 other centers in the town hold up to 6,700 people. In a hurricane or other emergency, each center will be supplied with three meals a day per person, water, electricity, first aid, and recreation. All properties left behind by residents are guaranteed safe by the government.

Since 1980 there have been no casualties in the municipality due to disasters. However, structures have not been so fortunate. In the 2008 hurricanes, 100,000 were destroyed in Guanabacoa alone. Many have yet to be rebuilt, leaving many people in temporary housing.

As throughout Cuba, educating Guanabacoans and keeping them informed is a major component of disaster management. Also, unlike in the United States, civil defense can mandate evacuations if necessary; each town block has an evacuation "commission" that knows exactly who goes where. Preparations include sending pregnant women to maternity centers and dialysis and other chronically sick patients to hospitals.

Brigades of doctors from the town's three polyclinics attend to the health of evacuees, stemming any possible epidemic outbreak. No typhoid or malaria has resulted from flooding. The doctors also work in the recuperation/rehabilitation phase, assuring no health risks before allowing people to return home.

Dr. Patrick O'Neal of Georgia's public health service noted that in Cuba disaster preparations go from the highest to the lowest levels of society, whereas the United States prepares well at the highest levels but is deficient at the lowest level. He asked to see the materials used to educate the community. "There is no manual," Dr. Sanchez replied. "We follow the laws of civil defense, and those are ingrained in the national educational curriculum." Everyone knows that the goal is to do whatever is necessary to preserve life.

Right now a major problem is drought in the capital; 100,000 cubic meters of water must be distributed daily to make up for the lack of rainfall, he said. "We need a stop sign for clouds so they don't cross the island so quickly!"

Atmosphere of Siege

Johanna Tablada, deputy director of the Ministry of Foreign Affairs' North American division, briefed the group on what she sees as the state of Cuba-U.S. relations. Taking President Obama at his word that there would be a "new beginning with Cuba," the Cuban government in July 2009 raised for discussion the major issues between the countries: the embargo, Guantanamo, the Cuban Five, and U.S. interference in internal Cuban affairs. The Cubans also proffered a second list of issues of mutual interest, thinking that at least those might be addressed. They included the environment, postal service, terrorism, drug interdiction, and a new migratory agreement. While initial meetings were held on migration, there has been no follow up on this or on any of the other issues.

A formal proposal in 2010 to cooperate on the environment by allowing unlimited exchanges and free flowing information has similarly gone nowhere. "Since cooperation on meteorology has proved very positive for both sides, why not expand?" Tablada asked.

She believes the lack of U.S. response is due to Cuba's low priority and to powerful Cuban Americans who use the United States government "like a piñata" to fund their pro-democracy agenda, with no incentive to change.

In addition, there is Alan Gross, convicted in Cuba "for something that is a crime in the United States, too," Tablada noted. To a question from Robert Muse about the legitimacy of linking his release to that of the Cuban Five, she replied affirmatively, saying the Five had been working against terrorism with no intent to steal U.S. secrets. "Cuban public opinion would not allow Gross to be released while they are still imprisoned," she said.

Pointing out that Cuba has changed more in the past two years than in the previous twenty, Tablada urged that the United States let Cuba try to work things out its way, following its own model—and not one imposed from the outside. "A fundamental change is needed in the U.S. perception of Cuba," she said. "Cubans are happy with many aspects of the revolution. We need to preserve those things, while fixing our economy, opening our society, and creating better relations with the rest of the world."

The "atmosphere of siege under which Cuba lives hinders many things here," she asserted. "Without it we would be different. And we would be good neighbors."

A Bad Divorce

The chief of the United States Interests Section, John Caulfield, agreed with Tablada's assessment of Cuba's relative importance to the U.S. "It's the 15th ring of the circus," he said. In addition, the Alan Gross imprisonment has further dampened interest in Washington. "There's no energy to do anything now," he said. And the situation is at an impasse, as the idea of exchanging the Cuban Five for Gross has not a "snowball's chance" of going anywhere.

Both sides have difficulty getting beyond emotion to focus on national interest, he continued. It's like a "bad divorce." The passing of the generations will surely bring more flexibility.

The governance of Cuba is very impressive in some areas—the "most disciplined, organized third world society I've ever seen," Caulfield called it. For example, public health services are delivered in a way not duplicated in Latin America until recently. But it's highly inefficient in other areas like agriculture, he said. If the government would only "let go of the levers, the economy would be impressive, but it's too scared to do that. The guys in their 80s who run things do not easily embrace change."

This fear that the situation could get out of control has made the pace of economic change very slow. But the government will have to give up some control as it's forced to reduce its payroll—and thus many Cubans will become less dependent and tolerant of a failed economy. Further, for the economy to modernize, access to information is essential, and Cuban internet penetration is the lowest in the Western Hemisphere. (CNN in Spanish is not available in tourist hotels now that Cubans can go into them.) That has to change. Cuba is “really a locked down place,” said Caulfield, with the 400,000 visiting Cuban Americans serving as the major sources of information.

The imperative for change will accelerate as the subsidies from Venezuela diminish. Currently they are at least \$6 billion a year and make up half of Cuba's foreign exchange. Whatever happens to President Hugo Chávez, Venezuela cannot continue to support at this level.

Now 25 percent of Cubans benefit from the \$2 billion in U.S. remittances, Caulfield said, an amount that almost matches Cuba's total revenue from tourism.

To Wayne Smith's question about whether the United States could do anything to encourage openness, Caulfield replied that Cuba takes no advice from anyone, not even China or Vietnam, which might be expected to have experience to offer.

If Cuba reformed its agricultural system, the potential would be enormous as it's so similar to Florida, Caulfield noted. Now small farmers can lease plots for only ten years (though they can sell directly to hotels and through open market in cities). Investment is badly needed. On the government's liberalized regulations on the buying and selling of cars and houses, these only regularized arrangements that had long been illegally in existence, he said. Presumably Cuban Americans can buy houses through relatives, but they are proceeding very cautiously given the uncertainties. Contractors can work only for the government, and construction materials are in short supply.

Caulfield called the medical system “precarious,” because of the many shortages and nonfunctioning equipment. There are problems with sanitation and sterilization; for example, syringes must be reused. But it still looks good compared to some other Latin American countries, he said. However, the system does not have the ability to deliver nearly the level of services of, say Scandinavia.

What of the future?

In Cuba “two generations of rising stars have been removed,” said Caulfield. There are now some newcomers in their 40's and 50's. The 6 or 7 revolutionary leaders are in their 80's. “We do not know what kind of society will emerge over the next several years.” But there will be change—eventually enough so that a process of reconciliation with the United States can begin. At that time, many issues will need to be resolved.

For the United States, Burma could be a good example of what might happen. “If Cuba did substantial things [to reform], even if not everything, it would get people's attention,” asserted Caulfield. “But things must look different here before U.S. policy will change, before there's any move to invest in Cuba's future.”

Endnote

¹ See [Katrina Veterans Learn About Cuba's Hurricane Management, Dec. 2011](#), and [More Lessons from Cuba's Hurricane Preparedness and Civil Defense, Dec. 2011](#).

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The Center for International Policy wishes to express its appreciation to the Ford Foundation and Gulfstream International Airlines for their generous support, without which neither the trip nor this report would have been possible.



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