

Ebola Response Provides Key Lessons for Risk Communications

Jim McKay | January 14, 2015



It would be interesting to see what would happen if there was another Ebola scare in the U.S. The answer might depend on when it happened and perhaps where the person became infected. But chances are the health infrastructure would handle it, and perhaps respond to another infectious disease outbreak much better, having had the experience that the recent Ebola episodes provided.

That experience included hiccups and communication errors that resulted not in panic but disagreement on the part of some in the health community and alarm in the public. One target of criticism is the Centers for Disease Control and Prevention (CDC), which was confident from the beginning in expressing that hospitals throughout the U.S. were ready to handle Ebola cases and messaging to the public about the difficulty of transmission of the infection. The CDC chose not to participate in this discussion.

When Thomas Eric Duncan, who eventually died, was first found to have Ebola the CDC sought to calm fears and educate the public about the likelihood of the disease spreading by normal contact with an infected individual, and what should be done if someone was thought to have symptoms. It also expressed confidence in the ability of the health infrastructure to deal with an outbreak.

There was pushback immediately and that escalated when it was learned that two nurses had been infected by Duncan. The CDC was and is considered an authority on matters of infectious disease and was confident in communicating what was known about Ebola.

Maybe too confident.

In the end, according to world-renowned risk communication specialist Peter Sandman, “Ebola in the U.S. has turned out awfully well so far.” But there were miscues from which to learn about communicating public health risk.

The CDC initially said that the infection couldn’t spread through “indirect transmission routes,” such as coughing and sneezing and from objects, and that it was transmitted only by direct contact with the body or bodily fluids of someone infected. That line changed with the CDC saying that it was possible to transmit the infection from droplets of the virus from about 3 feet away.

Protocols for health-care workers changed as well after the Dallas nurses became infected. They included new guidance for EMS when transporting Ebola patients and more training for health-care workers, including new protocols for protective equipment.

The criticism was not that the CDC got it wrong but that the initial guidelines were communicated with certainty, in a way that suggested that Ebola was a well-understood disease.

“There’s no question that the CDC’s overconfident, over-reassurance exacerbated the American public’s ‘adjustment reaction,’ its temporary overreaction to Ebola,” wrote Sandman in an email. When the CDC changed its guidelines it made the initial recommendations look “insufficiently cautious” and incompetent.

Sandman wrote that the CDC started out very confident that the risk to health-care workers was negligible, ignoring examples of workers who had been infected in West Africa even with the use of protective equipment. Making matters worse, the public health establishment labeled the more alarmed voices as stupid or irrational.

Melissa McDiarmid, a professor at the University of Maryland School of Medicine, said there wasn’t a consensus about ease of transmission and that the CDC, portrayed and taken as the authority, effectively squelched other health-care communities voicing differing opinions.

“There were other people in both the infection control community [biohazard] and the occupational health community that didn’t think [transmission of the infection] was quite as tidy as CDC was portraying,” McDiarmid said.

There were differing opinions about transmission and “hair splitting” about aerosol versus airborne transmission that created confusion, she said. “I know a lot of hospitals did not agree with the initial CDC guidance and had their first receivers and their Ebola designated people in protection as well as a complete coverage, which at first was not called for.”

The reassessments by the CDC added to the controversy, and with an infection as deadly as Ebola, the stakes were too high not to take a stand toward caution. “It was

not just opinion, there was some evidence that aerosol transmission, if not airborne transmission, was possible,” McDiarmid said. “Maybe not likely, maybe not efficient but possible, and I think that confused the risk message given the severity of the consequences of an Ebola infection.”

The lesson from the standpoint of many who have spoken on this issue is that it’s OK, even wise to say, “We’re not sure on this. We don’t know for sure.”

But the CDC was convinced it had things right, according to McDiarmid, and just didn’t listen to other viewpoints. “Other voices were not allowed at the table from a government health point of view,” she said. “There were others wanting to participate and give input.”

McDiarmid would like to see others involved in discussions because there are people doing research (people get doctoral degrees in aerosol science, for instance) that could add valuable input. She said the people caring for patients aren’t necessarily the experts on how an infection like Ebola is transmitted.

Whole Community Approach

Lessons from other countries about how to attack an infectious disease like Ebola would have meant having a national plan, and treating the response with a whole community approach, said Gavin Macgregor-Skinner, assistant professor in the Department of Public Health Sciences at Penn State Hershey.

Macgregor-Skinner was invited by the Nigerian government during summer 2014 to help when Patrick Sawyer’s Ebola infection in Lagos sparked concern of an epidemic. Sawyer died, but not before infecting at least 19 people, eight of whom died before the outbreak was contained.

Lagos is the most populous city in Nigeria with estimates from 17 million to more than 20 million people. “When I arrived, the Nigerian government said, ‘We’re going to have two hospitals in the country that will have the Ebola containment suites and there’s going to be 70 beds,’” Macgregor-Skinner said. They set up a 1-800 number and Facebook and Twitter accounts just for Ebola.

The plan was that everyone in the country would know that one of the hospitals would be in Lagos and one in Port Harcourt and that’s where Ebola patients would be taken. In addition, training would be intensified in those areas to take on a whole community approach. From EMS to mortuaries, hospital staff, politicians, tribal leaders, business leaders, everyone got the message.

“They covered everyone and said, ‘This is the plan, these are the messages,’ and you didn’t get the panic,” Macgregor-Skinner said. “Nigeria could have turned out differently, everyone could have panicked but they didn’t because of the messaging that we put out there.”

The same thing could have been done in the U.S., he said.

Social media, video, a 1-800 number and involvement by emergency managers could have made for a whole community approach that was lacking. “The government at

the federal or state level could have used social media just like we've done in West Africa and other countries," Macgregor-Skinner said. "That wasn't done properly. Then suddenly we have governors making decisions based on fear and anxiety and not based on medical or scientific evidence."

There are plans for tornadoes, wildfires, hurricanes and earthquakes, Macgregor-Skinner said, but not for Ebola. "Where's the national communication plan and who was managing the event? We knew we were going to face these challenges, and they could have been solved quite simply with a communication plan and putting emergency managers in charge from day one."

Macgregor-Skinner called emergency managers in the U.S. the best in the world at managing limited resources and getting what's needed for the response. "They'll get it done. Instead we had from Dallas so many challenges and problems and still don't know what the lessons learned are."

There was fear in Dallas and elsewhere from the unknown. No one wanted to accept the deceased Duncan's ashes, and there were challenges in dealing with waste management from the Ebola patient.

Macgregor-Skinner said there should have been requests for training and questions about needs from those in charge at the state level to the CDC. "The question you would ask as emergency managers when Dr. [CDC Director Tom] Frieden said 'all hospitals are ready' is: What do you need from us?"

And they needed training, drills and understanding of how they could implement the CDC's recommendations and create safe working environments in the community and in hospitals for those with Ebola. It wasn't done, said Macgregor-Skinner.

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Social Media Use

Social media was used in New York where a doctor, Craig Spencer, tested positive. Even before that case, there were rumors that had to be quashed and that was done via Twitter.

Before Spencer was confirmed as having tested positive, there were no cases of Ebola but rumors persisted and people were afraid to take public transportation. There were even several fake pictures (doctored screenshots) posted on social media that looked like patients, spreading alarm.

"I think it got out of hand," said Tamer Hadi, strategic initiatives coordinator at the New York City Department of Health and Mental Hygiene. "It was really unwarranted fear of

catching Ebola on the train to the point where people were wearing respirators on the train as if respirators were going to be effective, and wearing gloves.”

The city was effective in tamping the fear, calming everyone and putting out a lot of information — and squelching rumors was key. Keren Fleshler, social media manager for the Department of Health and Mental Hygiene, led a 10-person monitoring team that worked around the clock during the scare.

The staff was divided into three-person groups with Fleshler reporting to the public information officer who used press conferences to help get the word out. The team also distributed a palm card and people began sharing those on Twitter and Instagram.

The team used social media channels to try and clarify the confusion between airborne and non-airborne transmission of the infection, and used promoted Facebook posts to spread the message. It also held Ebola events, informational sessions and town halls and used social media to tell people where to attend these meetings.

Fleshler said it was important for her team to remain flexible and be able to respond as the situation evolved. “Prior to the [NYC doctor’s] case we were still activated and monitoring but the nature of the monitoring changed as the conversation was changing because Ebola was now in New York City.”

Once the doctor was confirmed positive for Ebola, the social media staff ramped up its activity even more, extending shifts and monitoring numerous tools including GIS maps and keyword searches. “ We always had someone looking at it,” Fleshler said.

It was the first time the department put social media data into an official situation report that is looked at by all the incident command system leadership, said Hadi. “If emergency management and public health, in particular, are not using social media they should consider it because it gives you situational awareness and puts out official information. It allows you to monitor your reputation.”

Next Time

Risk communication expert Sandman thinks if there were an outbreak today things would go more smoothly. But what about next year or the year after that?

“It depends,” McDiarmid said. “I do think we lost our memory about certain threats previously.” She reminded that there was a resurgence of tuberculosis in the 1990s in the U.S. and many experts were “asleep at the switch. We forgot how to do prevention, we were dismantling public health infrastructure, thought we were beyond it.”

She’s hoping the memory is still there next time and investment in preparedness takes place. “Part of the issue is preparedness requires investment of both human resources and money,” McDiarmid said, “and it’s human nature not to want to make an investment or buy something that you think you might not necessarily need.”

That preparedness includes training and exercising a plan and an approach, Macgregor-Skinner said. “The focus should be on highly infectious diseases but also the systems approach that we need here in the states. Emory University is still drilling and

exercising every week for Ebola,” he said in October. “It doesn’t stop and that translates to any highly infectious disease, whether it’s a coronavirus or SARS or MERS or any other disease we could face.”

This story was originally published by [Emergency Management](#) .

<http://www.govtech.com/health/GT-Ebola-Response-Provides-Key-Lessons-for-Risk-Communications.html>