As the tragedy of the Japanese earthquake and tsunami continues to unfold, foreign media have inevitably begun to ask, What are the lessons for disaster preparedness at home? A clear caveat to this narrative is that the Japanese experience cannot be transposed easily across borders, because disasters and the public-health crises they seed are inherently shaped by local factors, not least geography, infrastructure and governmental organization.

Perhaps less commonly explored is the collective conduct of a country's people: how a population tends to behave both in the immediate aftermath of a disaster and in response to the interventions designed to mitigate it. Reports out of Japan have indicated that its citizens were, on the whole, prepared to react calmly during the earthquake, and they have been remarkably compliant and orderly in response to the government's directions after the event. This may be because many Japanese have experienced earthquakes before, including the horrific Kobe quake of 1995. But some reports suggest that deeply rooted cultural and social factors have also played a role in these crucial behaviors. (See how Japan became a leader in disaster preparation.)

So how would Americans react to such a disaster? As a nation, we are often thought to be individualistic, anti-authoritarian and resistant to paternalism. Yet necessary public-health interventions are by nature paternalistic: think fluoridation of municipal water supplies, compulsory vaccinations and mandatory reporting of communicable diseases. Therefore, when determining how to get Americans to follow the public-health recommendations and interventions involved in disaster preparedness, we would be wise to consider how our citizens have responded to public-health efforts historically.

First, let's examine certain planning and preparedness efforts that would require specific behaviors. In the category of individual preparation, we can look at the website Ready.gov, which lists key goals for families,
including making a rendezvous plan, stockpiling an emergency kit (an easily accessible backpack with canned food, bottled water, a flashlight, batteries, money, a solar charger for a mobile phone and copies of identification) and staying informed about official reports and recommendations in case of a disaster. Not hard to do, right? Well, by some estimates, fewer than a third of Americans have a "go bag" (or the stuff that goes into such a kit) in their homes.

Another priority in public-health crises is keeping people in place or getting them out. During a radiation leak, say, from a malfunctioning nuclear reactor, there may be competing priorities: evacuate residents closest to the site and keep more-remote residents in their homes so as not to clog the roadways or become exposed. Or, in the more distant aftermath of a crisis, say, an infectious pandemic, planners may need to motivate people to stay home if they're sick and seek orderly preventive medical care, like vaccinations, to stem the spread of infection. These are public-health initiatives designed to preserve the population's health in a disaster. (See "Safety Check: Are the U.S.'s Plants Better Prepared?")

Do we follow them? The Centers for Disease Control and Prevention (CDC) recommends the yearly flu shot for everyone older than 6 months, but in a survey of 1,500 Americans that was released last October — a year after the H1N1 influenza pandemic — about a third said they definitely wouldn't get it. Why? They had concerns about side effects and the safety of the flu shot as well as a belief that the widespread fear over the pandemic was overblown.

So how do planners and policymakers in the U.S. get people to take the necessary steps before, during and after a disaster? One option would be making it compulsory. But we know that Americans balk at compulsory public-health strategies, especially when they are preventive in nature. Take mandatory motorcycle-helmet laws. There is clear evidence, as seen in this PDF that helmets save lives, but biker-advocacy groups have been successful in getting states to repeal their helmet laws, citing freedom of choice and the desire to be free of government intrusion.

Another way to motivate individual behaviors in public-health crises is to disseminate necessary information quickly and authoritatively. During the height of the H1N1 influenza pandemic, CDC officials held daily news conferences to discuss the virus' lethality and spread as well as the latest developments in vaccine development. The government made formal recommendations about preventive vaccination. But as overall vaccination rates (and casual observation) suggest, Americans do not necessarily follow recommendations merely because they're official.

To help ease the public's confusion and mistrust of official recommendations about H1N1 — particularly about when to seek emergency care and who should get vaccinated — one solution was a website launched by Microsoft and developed by researchers at Emory University, to tailor the CDC recommendations to
individuals. The thinking was that people would be more likely to follow public-health guidelines if presented with specific, interactive explanations of who needs what when, how and why. (See "After a Disaster, What Defines a Country's Resilience?")

There may be something to that logic. The challenge for disaster-readiness planners is to figure out what information the public needs and how to get people to understand and act on that information at the right time. So it might help to consider that the message is often colored by the recipient's perception of the messenger. While some Americans tend not to trust the Establishment, they do trust their friends and social networks. So perhaps to prepare for the next public-health crisis, we should examine the way health information filters through social networks and through the tools these networks employ — Twitter, Facebook, texting.

It's clear that bad information propagates easily through these systems — especially given some Americans' anti-paternalistic proclivities — but they can also be used to send out critical messages. They could potentially help people understand the information they need to prepare their families before, during and after a crisis and motivate them to act.

The way people behaved in Japan may offer little instruction for what would happen in the U.S. in a disaster. And blanket recommendations or compulsory interventions may not be as effective as we would hope. In the end, though, if Americans believe that doing something is good for them and their loved ones, they will likely do it. Preparedness efforts at home must consider the individual and how he or she might behave in a uniquely American context.

Dr. Meisel is a Robert Wood Johnson Foundation clinical scholar and an emergency physician at the University of Pennsylvania.

Dr. Carr is an assistant professor of emergency medicine at the University of Pennsylvania.

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