



A Conversation with Nicole Lurie, M.D., MSPH Assistant Secretary for Preparedness and Response U.S. Department of Health and Human Services

As we have seen from recent emergencies and disasters—including tornados, floods, an influenza pandemic, earthquakes, damage to a foreign nuclear plant, and a large oil spill—there is always an impact on the public’s health and medical care. Strengthening the country’s public health preparedness and response takes many forms and complementary efforts. The U.S. Department of Health and Human Services (HHS) plays a critical role in seeing this through—pursuing a strategy for national health security that promotes resilient communities and health systems coordinating and working together before, during, and after disasters. What is national health security and how do we get there as a country? How are we strengthening public health and medical preparedness, response, and recovery capabilities? What is being done to ensure the availability of safe and effective medical countermeasures in the event of a public health emergency?

Nicole Lurie, M.D., MSPH, Assistant Secretary for Preparedness and Response at the U.S. Department of Health and Human Services (HHS) joined me on The Business of Government Hour to explore these questions and more. The following provides an edited excerpt from our interview. – Michael J. Keegan

On the Mission of the Office of the Assistant Secretary of Preparedness and Response (ASPR)

The U.S. Department of Health and Human Services has always had an emergency response component, but the Office of the Assistant Secretary for Preparedness and Response is relatively new and was formed out of a lesson learned from Hurricane Katrina. I think it was very wise [to consolidate] all emergency response functions ... in one place—an organization needed to take responsibility from beginning to end for all that happened or might happen.

Our mission is relatively broad. On the one hand, we coordinate policies on behalf of the HHS secretary across the department. Many different parts of the department have a piece in emergency response. The office also acts as the secretary’s policy advisor on preparedness and response.



Secondly, we are responsible for the secretary’s operation center and for the medical response components of an emergency. Under the national disaster medical system, if a locality or state is overwhelmed by an emergency and requests federal assistance, then the national disaster medical system kicks in and we provide necessary support. The office is also responsible for the advanced development and procurement of medical countermeasures for the strategic national stockpile. This can be anything from flu vaccine for a pandemic—or for that matter an H1N1—or countermeasures or vaccines against more traditional bio-threats, like smallpox or anthrax or botulism.

We have a tripartite mission in a sense; it makes it an exciting place to work because it’s a place where science, medicine & public health, and policy all intersect and come together; it is where all these disciplines meet and work collaboratively.

My office has roughly 700 people working full time; the National Disaster Medical System has another 5,000 or so who are intermittent employees, who come on board in the event of a disaster. Our 700 people are largely, but not entirely, based in the D.C. area. We also have a pretty significant regional footprint. Our budget is about \$925 million, which includes our emergency response components and the advanced development of countermeasures. There has been an additional budget to procure medical countermeasures for the stockpile.

On Challenges Facing ASPR

There are three overarching challenges and some additional management issues we faced as we pursued our mission. First and foremost, building a resilient nation and a culture of preparedness is a real challenge [because,] fortunately, most people in our country don't feel threatened day to day.

Dealing with a public health infrastructure that is in some disrepair and that is losing jobs around the country is counter to building a nation that's prepared and resilient. However, repairing any system requires investment, and today's budget realities make this all very difficult. The second serious challenge we face concerns the political and budget realities of today.

The third significant challenge involves sustaining a national commitment to preparedness. People's memories are short. When something happens people tend to want to know why hasn't something been done, what has been done to be ready, and why aren't you ready all the time. As you get distant from any disaster, people's memories wane and the funding goes down. In such an environment, we find ourselves having to play catch-up, which is not a very efficient way to run anything. Keeping the nation's focus on and forging a "commitment to preparedness" is really important.

On the management side, given our mission is broad, we are composed of many different cultures within our organization. We have a culture of scientists, which is very different from a culture of responders, which is very different from a culture of policy makers. All of these professionals come from different disciplines that are marked with varying world views; their approach to thinking and problem solving are different; it's what makes working here fun, but also makes it quite challenging.

On Crafting a Strategic Vision

Our key strategic goals that we focus our resources and efforts on are: building communities and individuals that are able to withstand adversity, and modernizing emergency



preparedness and response systems and infrastructure with capabilities that are not just on the shelf, but exercised and continually improving. In the end, it's about having a health care system able to move people to what I would call the next lowest level of safe and appropriate care, or a system that can rapidly vaccinate a population and get pills amassed quickly—a modernized system composed of such capabilities that we can expect and can access in the event of an emergency. We also need to make sure that we have the right national policies in place to foster and enable resilience to grow, develop, and spread across the country. To do all this, you need a strong organization. I also work to build that kind of organization; we focus on developing our people for the next generation of leadership, creating a culture of excellence and putting the best processes and procedures in place to make this happen.

On Building Community Resilience

I should preface this by saying that most people judge how bad a disaster is by how quickly they can bounce back, right? This is the concept of resilience; we're pursuing very specific initiatives around resilience and ensuring that it's a driver of health security programs across government. We are working together to enhance community and individual resiliency before, during, and after a disaster. One such initiative involves leveraging social media. We know that people who are connected and have strong social support with friends and relatives they can count on in an emergency live longer, are healthier, and are more resilient. It became obvious, given that people use social media on a daily basis, that it would be helpful to have an app that enables

people to identify their lifelines. For example, of your many Facebook friends, who would you pick out as your lifeline? If I can only have three, I'd really want them to be people that I count on when the chips are down. We were actually the first office within HHS to use the America Competes Act, which gives us the ability to commence challenges and competitions. We initiated a national competition to develop a "lifeline" app; we received all kinds of really interesting submissions. Ultimately, we awarded two contestants, who are now working on launching them.

We try to stimulate the market in technology that's useful for preparedness in a variety of different ways as well to build resilience in communities. We've started a health resilience technology program. We've been doing this for people who are dependent on various medical technologies to stay alive; usually these medical technologies involve electricity or oxygen. We're working through the development of signaling devices, so that their medical equipment will signal either friends or an operations center, or both, when they don't have much battery life left, and somebody can come get them a charger, get them batteries, and ... they can stay at home. These are just two ways, social media and health resilience technologies, [in which] we are working to make our health care system and our communities resilient. We also seek to help communities help each other to share best practices and support the development of what we call health care coalitions.

In the end, it is about building and sustaining our nation's capability to prepare for, respond to, and recover from disasters and to engage local resources to ensure the "whole community" is supported.

On the Importance of Pursuing a "Whole of Community" Approach

Given all disasters are local, the local and state responses are always going to come first. People rely first on their families and communities, then on their state government, and then on the federal government as a series of interlocking pieces. The first response is not necessarily the federal response; it's the local response. We have to be sure that on a federal level all of our programs and policies are aligned, first, to build that first line of defense, which is a strong local and state response. We also recognize that states and localities can't plan for or deal with everything, some events are just too large, and that's really when the federal government comes in to help, that's when the national disaster medical system, for example, fits in.

A preparedness, response, and recovery system is not just under the purview of the government. Doing this right and being successful involves everybody, the whole community. Individuals and families have responsibilities to be prepared and help each other. Private-sector entities, whether for-profit or not-for-profit, have responsibilities to lend their help and their resources in disaster situations, and they do. It's really about bringing everybody together and recognizing that everybody plays a part, and has a role in preparing for and responding to an emergency. This approach is based on the recognition that it takes all aspects of a community to effectively prepare for, protect against, respond to, recover from, and mitigate against disaster emergencies.

On Forging an Effective Medical Countermeasure (MCM) Enterprise

Medical countermeasures are drugs, vaccines, and other devices that protect people from different kinds of health threats. For example, the most common MCMs can be the vaccines that might protect us from an influenza pandemic, or other pharmaceuticals that might protect us in the event of an intended biological release or the manifestation of a new infectious disease. It doesn't matter if it's Mother Nature that causes this, as in a bad influenza pandemic, or if it's caused by bad guys, we have to deal with the end result, which is potentially a [fatal] epidemic or a pandemic. Many of the threats we face are not from diseases that commonly occur.

Therefore, the Public Health Emergency Medical Countermeasure Enterprise (PHEMCE) brings together different parts of government involved in the development of countermeasures that are safe, effective, easy to use, easy to deploy, acceptable to the population, and that meet the needs of the population. A key goal of this enterprise is to



HHS Assistant Secretary for Preparedness and Response Nicole Lurie, Deputy Secretary Bill Corr, and Secretary Kathleen Sebelius discuss the aftermath of Hurricane Sandy in the Secretary's Operations Center (SOC).

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identify, create, develop, manufacture, procure, and stockpile for use critical medical countermeasures. We practice how to use them; we’re in partnerships with industry, who really do a lot of the advanced development and make these countermeasures for us that we ultimately stockpile.

There’s been a big shift in thinking away from one bug, one drug to the kinds of products that work on the underlying ways that people get sick. We call them host mechanisms of disease. For example, to illustrate simply, viruses attack cells in different ways. Rather than having a drug that would kill a virus, we would have a drug that would protect the cell or keep the virus from killing the cell. Once you do that, you can think about developing countermeasures that could have multiple uses.

This countermeasure enterprise also has some spillover benefits for day-to-day use. I’ll give you an example. We are worried about the nation’s supply of ventilators. We worry about getting them quickly on a mass scale to people who need them, so they need to be smaller, they have to have a long battery life, and they have to be easy to use. We’ve set out to develop the next generation of ventilators. In doing so, the whole field, the whole market has started to change and improve, number one. The price of ventilators has come down pretty dramatically, so people are seeing a day-to-day benefit. This enables us to understand that the investment that we make in preparedness has all of these day-to-day benefits. It’s very much about pushing innovation.

On Collaboration and Partnerships

I see the federal family partnering in new ways all the time. Certainly, for us in ASPR, we can’t do our work in HHS without the rest of HHS at the table. Whether it’s the Centers for Medicare and Medicaid Services (CMS) coming to the table with payment policies for health care institutions, or the Substance Abuse and Mental Health Administration coming to the table to help us with behavioral health planning and response, or the Agency for Community Living helping us figure out how best to serve the elderly and

disabled populations, or CDC, so central to what we do, or NIH—we all come together all the time. This also includes cross-agency partners such as FEMA, the Department of Transportation, DoD, or any other part of government. Just about everything we do, we do as a team.

Internationally, preparedness is absolutely a global mission; disasters happen around the world all the time. We learn from these events and from others’ expertise and experience. We work in partnership with a number of other countries. A partnership that is particularly important to us at ASPR is something called the Global Health Security Initiative, which is an initiative that started after 9/11. It’s an initiative in which a number of developed countries came together to work together and learn from one another.

On Lessons Learned

My office is driven by lessons learned. After every disaster, there’s what’s called an after action report. After everything we do, we sit back and we say: how can we strengthen our system and what’s done? There are a variety of ways in which we do that.

For example, with H1N1, we recognize that it took too long to make, bottle, and distribute vaccine. We’ve invested in new technologies and ways to shorten the time it takes to develop vaccine and get it out the door. That’s a really concrete, tangible example. Regarding the Deepwater Horizon oil spill, although it was primarily an environmental event, many people had health worries and concerns for their livelihood. In some sense on the health side, a large part of it was a mental health or a behavioral health event. As a result, we’ve developed a behavioral health plan for how to deal with the mental health consequence of any disaster. We never had such a plan before; now we do.

Internally, we have taken the lessons learned from previous disaster responses to change our decision-making structure. We used to think that all we needed to do was send out teams from the national disaster medical system to help out,



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but it turns out that the whole Department of Health and Human Services needs to come together and make policy decisions almost every day. We now have a much more organized and formal structure for doing that. At the end of the day my goal is always to make us more efficient, more effective, and smarter at delivering on our critical mission.

On Leadership

I think that there are several core characteristics that define a leader. First and foremost, a leader needs a vision that provides clear direction to staff. You can't be afraid to challenge or question dogma or the way things are. Being able to bring people together, recognizing that good ideas come from anywhere and everywhere, and being able to seek out those good ideas and then use them in an action plan I think is pretty important.

However, at the end of the day, we're only as good as our people. It is my aspiration that ASPR be the best place to work in government. We have a great mission. We celebrate our successes, but we continue to seek improvement. As a leader, I think I am pretty open and accessible. I'll have an open door hour at least once a month. We'll have a breakfast with a randomly selected group of people across the organization at least once a month.

We're very serious about retaining, developing, and providing opportunities for our workforce. People can rotate across different offices, do other kinds of things that often give them those opportunities. Since good ideas come from anywhere, good ideas come from and should come from everybody in the organization. I need to create an environment where those good ideas can be recognized and really move forward, so we do that as well.

On a Career in Medicine and Public Service

My career in medicine has been unbelievably fulfilling in more ways than I ever imagined. I still love doing patient care, volunteering for a community clinic once a week; it keeps me very grounded. Being a doctor for my community



and doctor for my country is an incredible calling, honor, and opportunity. You have an opportunity to make a difference in the lives of individuals through medicine and public health. It's an amazing way of giving of yourself while getting much more in return. I would say that when it comes to public service, that too is an incredible opportunity and an incredible honor—to be able to do work on behalf of the country, on behalf of the American people is just a tremendous opportunity; it's just been incredibly fulfilling. ■

To learn more about the Office of the Assistant Secretary for Preparedness and Response within the U.S. Department of Health and Human Services, go to www.phe.gov.



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