

# Preparing for Potential Health Emergencies and Bioterrorism Attacks

## WHY ARE HEALTH EMERGENCIES AND BIOTERRORISM A THREAT TO OUR NATION'S HEALTH?

### The Nation Remains Inadequately Prepared:

- The country's response to the H1N1 pandemic demonstrated that the investment the nation has made in preparing for pandemic and other health emergencies significantly improved U.S. capabilities, but it also revealed how quickly the nation's core public health capacity would be overwhelmed if the outbreak were more widespread or more severe.<sup>2</sup>
- Despite a federal investment of more than \$7 billion to improve public health emergency preparedness after September 11, 2001, analyses find critical areas of the nation's emergency preparedness effort still require attention.<sup>3,4,5</sup>
  - ▲ The federal government has yet to establish clear performance measures and data collection methods to assess the effectiveness of the investments.<sup>6</sup>
- In November 2009 – six months into the 2009 H1N1 pandemic flu – 13 states had purchased less than 50 percent of their share of federally-subsidized antiviral drugs for use during an influenza pandemic.<sup>7</sup>
- Only 22 percent of health care workers reported having received the H1N1 vaccine, even lower than seasonal flu vaccine which has historically been below 50 percent.<sup>8</sup>
- Eleven state public health labs reported not having enough staffing capacity to work five, 12-hour days for six to eight weeks in response to an infectious disease outbreak, like H1N1.<sup>9</sup>
- Fourteen states failed to identify the pathogen responsible for reported food-borne disease outbreaks at a rate that met or exceeded the three-year national average (2005-2007).<sup>10</sup>
- Despite spending approximately \$80 million per year on BioWatch, the Department of Homeland Security's early-detection system for airborne pathogens, a report from the Institute of Medicine and the National Research Council finds "the current BioWatch system requires better testing to establish its effective-

ness and better collaboration with public health systems to improve its usefulness."<sup>11</sup>

- Fifteen percent of the local public health workforce lost jobs from January 2008 to December 2009, largely due to budget cuts and economic conditions.<sup>12</sup>

### The Impact of Health Emergencies Can Take Enormous Human and Financial Tolls:

- The long-term physical and mental health consequences from the BP oil spill in the Gulf of Mexico are unknown at this point. The April 20, 2010 explosion killed 11 workers and sent hundreds of millions of barrels of oil gushing into Gulf waters. Early estimates place the direct economic cost at \$11.5 billion.<sup>13</sup>
- The 2009 Influenza A (H1N1) pandemic infected an estimated 61 million people in the United States, and resulted in about 274,000 hospitalizations and approximately 12,000 deaths.<sup>14</sup> The federal government alone appropriated \$7.7 billion to develop an H1N1 vaccine and to bolster the state and local public health response.
- Heavy rain and flooding in the Midwest in June 2008 led to significant farm loss and property damage, 24 deaths, and an estimated \$15 billion in damages.<sup>15</sup>
- Wildfires burned across the Western United States in the summer and fall of 2007, burning approximately nine million acres and destroying over 3,000 homes and structures in southern California alone. The wildfires killed at least 12 people and caused well over \$1 billion in damages.<sup>16</sup>
- Hurricane Katrina hit the Gulf Coast region on August 28, 2005 killing more than 1,800 people and causing more than \$81 billion in damages.<sup>17</sup>
- Five years after Hurricane Katrina, one study found more than one in three children displaced by the hurricane have since been diagnosed with mental health problems, and nearly half of families still report household instability.<sup>18</sup>

"NATIONAL HEALTH SECURITY IS ACHIEVED WHEN THE NATION AND ITS PEOPLE ARE PREPARED FOR, PROTECTED FROM, RESPOND EFFECTIVELY TO, AND ABLE TO RECOVER FROM INCIDENTS WITH POTENTIALLY NEGATIVE HEALTH CONSEQUENCES."

-- U.S. National Health Security Strategy<sup>1</sup>

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PREVENTING  
EPIDEMICS.  
PROTECTING  
PEOPLE.

## HOW CAN WE IMPROVE READINESS FOR HEALTH EMERGENCIES?

- **Invest in “Everyday” Public Health Preparedness.** The United States has traditionally underfunded emergency preparedness programs, increasing funding emergency by emergency, as needed. However, public health departments cannot stand up preparedness overnight, because true preparedness involves critical ongoing investment in areas such as laboratory capacity, biosurveillance, epidemiology, and workforce recruitment and training.
- **Bolster Surge Capacity and the Public Health Workforce.** Public health emergency planning at the federal, state, and local levels must include preparations for mass emergencies, including surge capacity alternative care sites and recruiting and retaining a robust volunteer health care workforce. Congress should also address the public health workforce shortage crisis by acting on provisions included in the Patient Protection and Affordable Care Act (ACA) to recruit a new generation of professionals.
- **Modernize Technology and Equipment.** Basic technology and tools of public health must be modernized to adequately protect the American people. This includes research and development of vaccines and new technologies; improved chemical laboratory testing capabilities; and, modernized surveil-

lance systems to detect infectious disease outbreaks or a bioterrorist attack.

- **Develop Community Resilience.** A resilient community is one that is healthy, prepared, and ready to withstand the impact of a public health emergency. Preparedness plans need to consider the diverse needs of the U.S. population, in particular, vulnerable populations. This includes designing culturally competent risk communication campaigns that use respected, trusted individuals to communicate the message. Policymakers must also consider the overall health of the population as an important aspect of a community’s resilience and make disease prevention a priority.
- **Incorporate Public Health into Health Information Technology.** The development of electronic health records (EHRs) presents opportunities for better preparedness, such as through improved outbreak surveillance and response, vaccine tracking and distribution, and rapid communication between providers and public health. However, public health must have a seat at the table as EHR systems are developed and expanded. There also must be a new investment in the technological and workforce capacity of health departments to enable them to benefit from new advancements.

## ENDNOTES

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