UNMET NEEDS

• Direct CDC to dedicate funding for all Laboratory Response Network laboratories in their Public Health Emergency Preparedness cooperative agreement.
• Restore funding to CDC’s chemical terrorism laboratory to FY 2007 levels to support method transfer to states for drugs of abuse, incapacitating agents and other toxicants.
• Provide $10 million to fully fund all 10 Level 1 chemical terrorism laboratories to ensure our nation’s ability to respond to large-scale chemical events.

BACKGROUND

When most people think of terrorism events, they think about bioterrorism, such as the anthrax attacks of 2001. However, chemical terrorism poses an equally significant threat, and there are tens of thousands of toxic chemicals that could fall into the wrong hands. Although the creation of the chemical side of the Laboratory Response Network (with 46 public health laboratories and CDC) in 2003 dramatically increased capability and capacity to respond to chemical terrorism incidents, many gaps and challenges remain today. A key barrier has been the steady downward spiral of funding. Of the almost $746 million enacted for preparedness activities in fiscal year 2008, only about $22 million of this was directed to public health laboratories for chemical terrorism preparedness activities, a decrease of more than $7 million from the previous year. If this continues, millions of dollars of the investments made in these unique laboratories will be wasted as the instruments sit idle because there is no trained staff to operate them. In addition, we will fall short in meeting critical chemical preparedness needs.

Through determination and dedication, often despite the lack of dedicated funding, chemical laboratories have made progress:

• In 2003, only eight state laboratories reported having a chemical terrorism response plan in place. By 2006, 35 reported having a written plan for a chemical incident.
• Public health laboratories not only drafted plans for a chemical incident, but they also practiced for one. In 2007, state public health laboratories conducted on average 3.5 drills or exercises for chemical terrorism preparedness. In 2009, CDC and the 10 Level 1 surge capacity laboratories conducted an exercise involving the rapid
analysis of 5,000 samples, the same number as there were patients in the March 10, 1995, Tokyo subway Sarin attack. More than half (56%) of laboratories with a continuity of operations plan included chemical threat preparedness activities in this plan.

- Most states (31) reported having a full-time staff person to coordinate the chemical terrorism laboratory in 2008, although this is a requirement of the Public Health Emergency Preparedness cooperative agreement.
- In 2008, 92% of state public health laboratories were capable of conducting some chemical threat agent analyses on clinical samples using standardized methods and trained, dedicated staff, an increase from 10% in 2003.

However, major gaps still exist:

- Workforce shortages persist. In 2003, five states had chemists dedicated to chemical emergency response on staff. In 2008, public health laboratories only had an average of 3.0 full-time chemists on staff. Laboratories with one or two chemists would not be able to maintain 24/7 response, which is often needed during a large event.
- In 2008, 40% of SPHLs reported limitations in abilities to purchase critical equipment and expand capabilities for new diagnostics as a result of budget cuts, while another 30% noted being unable to attend trainings.

**CHEMICAL LABORATORY RESPONSE NETWORK**

The Chemical Laboratory Response Network (LRN-C) is a nationwide network of federal, state and local laboratories capable of confirming the presence of chemical terrorism agents and other toxic substances in clinical samples (blood and urine). These laboratories have designated “levels” that correlate with their capacity to perform certain tasks during emergency events.

Chemical laboratories in this network have made great strides in preparedness since they first received funding in 2003. However, both CDC and the states are no longer receiving the necessary funding to sustain the level of preparedness they have worked so hard to build. CDC has and is currently developing methods that will enable laboratories to test more samples in a shorter time. However, these methods require expertise, training courses and laboratorians’ time, all of which require adequate funding.

In 2006, five new laboratories were designated as Level 1, which is the level capable of providing surge capacity to CDC for more rapid detection of the most dangerous chemical agents. Studies by the Integrated Consortium of Laboratory Networks have shown that our nation needs at least 10 Level 1 laboratories in order to handle the number of samples anticipated during a chemical event of national significance. Yet, the funding for these national assets has not increased to reflect the increased number of laboratories and the increased number of samples that are projected to be needed to respond to a major incident.