

ANTHRAX - USA (12): CDC AND OTHER LABORATORIES

A ProMED-mail post

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International Society for Infectious Diseases <<http://www.isid.org>>

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Source: New York Times [edited]

<<http://www.nytimes.com/2014/07/20/science/pathogen-mishaps-rise-as-labs-proliferate-with-scant-regulation.html?ref=todayspaper&r=0>>

The recently documented mistakes at federal laboratories involving anthrax, flu and smallpox have incited public outrage at the government's handling of dangerous pathogens. But the episodes were just a tiny fraction of the hundreds that have occurred in recent years across a sprawling web of academic, commercial and government labs that operate without clear national standards or oversight, federal reports show.

Spurred by the anthrax attacks in the United States in 2001, an increase in "high-level containment" labs set up to work with risky microbes has raised the number to about 1500 from a little more than 400 in 2004, according to the Government Accountability Office.

Yet there has never been a national plan for how many of them are needed, or how they should be built and operated. The more of these labs there are, the G.A.O. warned Congress last week, the greater the chances of dangerous blunders or sabotage, especially in a field where oversight is "fragmented and largely self-policing."

As the labs have multiplied, so have mishaps. According to a 2012 article by researchers from the Centers for Disease Control and Prevention, the number of reported accidents involving microbes that can cause severe illnesses grew rapidly, from just 16 in 2004 to 128 in 2008 and 269 in 2010, the last year reported. Many of the accidents involved leaks, spills or other releases of infectious material inside the laboratories, potentially infecting workers and often requiring extensive decontamination.

Another report, by the Department of Homeland Security in 2008, provided a rare glimpse into the types of accidents that have occurred at high-level labs around the country, often at universities.

Lab workers at different sites accidentally jabbed themselves with needles contaminated by anthrax or West Nile virus. An air-cleaning system meant to filter dangerous microbes out of a lab failed, but no one knew because the alarms had been turned off. A batch of West Nile virus, improperly packed in dry ice, burst open at a Federal Express shipping center. Mice infected with bubonic plague or Q fever went missing. And workers exposed to Q fever, brucellosis or tuberculosis did not realize it until they either became ill or blood tests detected the exposure.

The good news is that relatively few lab workers have become ill from accidental exposures: only 11 from 2004 to 2010, according to the CDC report. None died, and none infected other people.

Richard H. Ebright, a molecular biologist and laboratory director from Rutgers University, said he had "no confidence" in the safety of the many labs that have sprung up since 2001. He suggested there was a culture of complacency at some of them, as well as hubris among some researchers who believe they do not need oversight or management.

The most recent revelations have underscored potentially serious lapses at the government's premier institutions. In June 2014, dozens of CDC employees may have been exposed to live anthrax. In another case disclosed this month [July 2014], a CDC lab accidentally contaminated a relatively benign flu sample with a dangerous H5N1 bird flu strain that has killed 386 people since 2003 and then shipped it to a lab at the Department of Agriculture. In yet another episode this month [July 2014], vials of smallpox and other infectious agents were discovered in a government laboratory on the campus of the National Institutes of Health after being stored and apparently forgotten about 50 years ago.

6 or 7 government agencies were involved in the growth spurt of labs across the country focusing on dangerous pathogens, with no overall strategic plan, according to Nancy Kingsbury, the managing director of applied research and methods at the GAO, who testified last week before a House Energy and Commerce subcommittee.

For years, the accountability office has warned that there was no one federal agency overseeing all the laboratories. In fact, it has said, the real number of high-level labs is not even known because the only ones required to register with the government are those handling "select agents," microbes that can cause serious illness in people, animals or crops. Other high-level labs handle pathogens that may be dangerous but are not listed as select agents, the office said, adding that not much is known about them.

[Readers are encouraged to read the complete article on the NY Times website. - Mod.MHJ]

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[For a parallel viewpoint from the UK, go to:

<<http://www.theguardian.com/world/2014/jul/18/anthrax-bird-flu-dangers-lax-security-disease-control-labs>>.

The NY Times article notes 400 high-level containment laboratories in 2004 but some 1400 today. Yet I can remember in the decade prior to

9/11 barely 50 labs in the US researching, mostly with BSL 2+ facilities, on dangerous pathogens, including 20 with B. anthracis.

It was a different time. Since then, there has been a deep flood of federal funding of limited value.

The primary function of ProMED is to report outbreaks of emerging infectious diseases plus toxic events, but not to be a forum for related discussions. The events and reports arising from the incompletely sterilised anthrax spores at CDC has produced a flush of revelatory reports of related problems there and elsewhere, so we are using the opportunity provided by these 2 articles to cut this thread.

- Mod.MHJ

A HealthMap/ProMED-mail map can be accessed at:

<<http://healthmap.org/promed/p/106>>.]