

FY 2015 President's Budget: Four CDC Infectious Disease Priorities*

CRE examples:

Understanding CRE

Develop advanced molecular lab techniques for carbapenum-resistant Enterobacteriaceae (CRE), understand its spread in hospital settings, and define the progression from colonization to transmission and infection.

Tracking CRE

NHSN Antibiotic Use and Resistance (AUR) module provides data to track CRE across healthcare facilities and monitor antibiotic use to drive prevention.

Controlling CRE

- Using data from the **NHSN AUR module**, regional collaboratives will focus on stopping CRE outbreaks, preventing CRE infection, and improving antibiotic use.
- Network of regional labs will support collaboratives and identify changes in CRE resistance, identify clusters and causes of CRE infection (**using techniques developed through AMD**).

AMD

Use recent technologic advances to enable rapid detection and response to emerging microbial threats

\$30M

Salmonella examples:

Understanding *Salmonella*

- Evaluate use of whole genome sequencing (WGS) in *Salmonella* outbreaks.
- Retool laboratory systems (next-generation PulseNet) for more rapid and accurate detection and investigation of outbreaks.

Tracking *Salmonella*

- Drive policy and prevention with data and analyses.
- Detect, investigate, and stop foodborne outbreaks.
- Preserve DNA "fingerprint" methods from cultures until next-generation PulseNet implemented.

Controlling resistant *Salmonella*

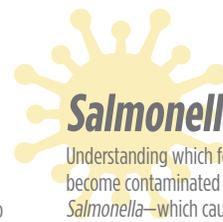
- Real-time and expanded testing (**using methods developed through AMD**) in regional labs will help identify multidrug-resistant *Salmonella*. This will enable more rapid attribution of drug-resistant strains to specific foods and quicken outbreak response.

Two examples that show the interconnected priorities in action



CRE

"Nightmare bacteria" are resistant to nearly all antibiotics and spread easily. Half of all who get a CRE bloodstream infection will die. Outbreaks in hospitals are increasing.



Salmonella

Understanding which foods become contaminated with *Salmonella*—which causes an estimated 1.2 million illnesses each year and sometimes becomes antibiotic resistant—will help control and prevent illnesses and outbreaks.



Extend implementation of monitoring for HAI, AR, and antibiotic use nationwide
\$14M



Integrate networks to streamline data collection/analysis; Support state/local prevention efforts
\$10M



AR

Detect our most serious AR threats and protect patients and communities

\$30M

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U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

*Four infectious disease priorities include:
AMD (Advanced Molecular Detection), AR (Antibiotic Resistance Initiative), NHSN (National Healthcare Safety Network), and Food Safety