# **CDC**—Advanced Molecular Detection & **Response to Infectious Disease Outbreaks**

## FY 2015 President's Budget Request | \$30 Million

#### **Advanced Molecular Detection (AMD) Tools for Improving Public Health**

AMD uses advanced molecular sequencing tools along with cuttingedge information technologies and bioinformatics experts to enable faster and more effective infectious disease prevention and control.

#### **Priority Areas for** AMD Investments

- Improved pathogen identification and detection using genomics and other advanced molecular technologies
- Adaptation of next-generation diagnostics to meet evolving public health needs
- New bioinformatics and genomics capacity at CDC and state public health laboratories
- Enhanced, sustainable, and integrated laboratory information systems
- Tools for prediction, modeling, and early recognition of emerging infections

### Why We're Here

- The increasing availability and affordability of AMD technologies is rapidly changing the practice of microbiology. These technologies can deliver a greater level of detailed information on infectious pathogens while reducing reliance on more time-consuming and costly traditional diagnostic methods.
- When combined with enhanced laboratory and computing (i.e., bioinformatics) capacities, these new technologies are revolutionizing our ability to detect and respond to infectious disease threats.
- With full AMD capacity, CDC will be able to detect outbreaks sooner and respond more effectively, saving lives and reducing cost.

In FY 2015, \$30 million is requested in Budget Authority for Advanced Molecular Detection and Response to Infectious Disease Outbreaks, continuing the initial investment of \$30 million in FY 2014.

CDC currently lacks the molecular sequencing tools and bioinformatics capacity to meet the demands of today's rapidly changing laboratory environment. This funding will enable CDC to continue building critical capacities at the national and state levels to use AMD technologies to enhance infectious disease prevention and control. Examples of the public health benefits of AMD include faster, more accurate, and cost-effective ways of:

- Diagnosing known and emerging infections
- Detecting and responding to outbreaks
- Understanding, characterizing, and controlling antibiotic resistance
- Developing and targeting prevention measures



#### Improving Public Health through AMD Technologies

Centers for Disease Control and Prevention