

# CDC—Advanced Molecular Detection (AMD) and Response to Infectious Disease Outbreaks

FY 2014 President's Budget | \$40 Million

## Advanced Molecular Detection Technologies for Improving Public Health

AMD uses enhanced molecular sequencing tools along with cutting-edge 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 enhanced 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

For more information, please visit

[www.cdc.gov/budget](http://www.cdc.gov/budget), or, using a QR reader on your smartphone, scan this QR code for quick access to CDC's budget materials.

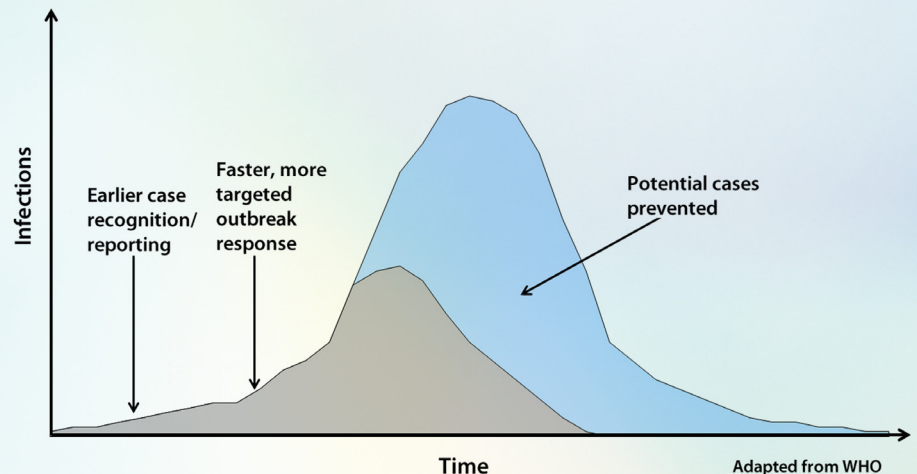


A total of \$40 million requested in Budget Authority for *Advanced Molecular Detection and Response to Infectious Disease Outbreaks*.

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 build critical capacities at the national and state levels** on the use of advanced molecular detection (AMD) technologies to enhance infectious disease prevention and control. Examples of **public health benefits** resulting from these enhanced capacities include:

- More rapid and accurate disease diagnoses and enhanced recognition of antimicrobial resistance, enabling better targeting of prevention and treatment measures (e.g., quickly identifying infections and their susceptibility or resistance to antibiotics).
- Improved surveillance information on the transmissibility of infections and the extent and spread of outbreaks, leading to faster and more effective control efforts.

### Improving Public Health through AMD Technologies



### Fast Facts

- 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.



Centers for Disease Control and Prevention