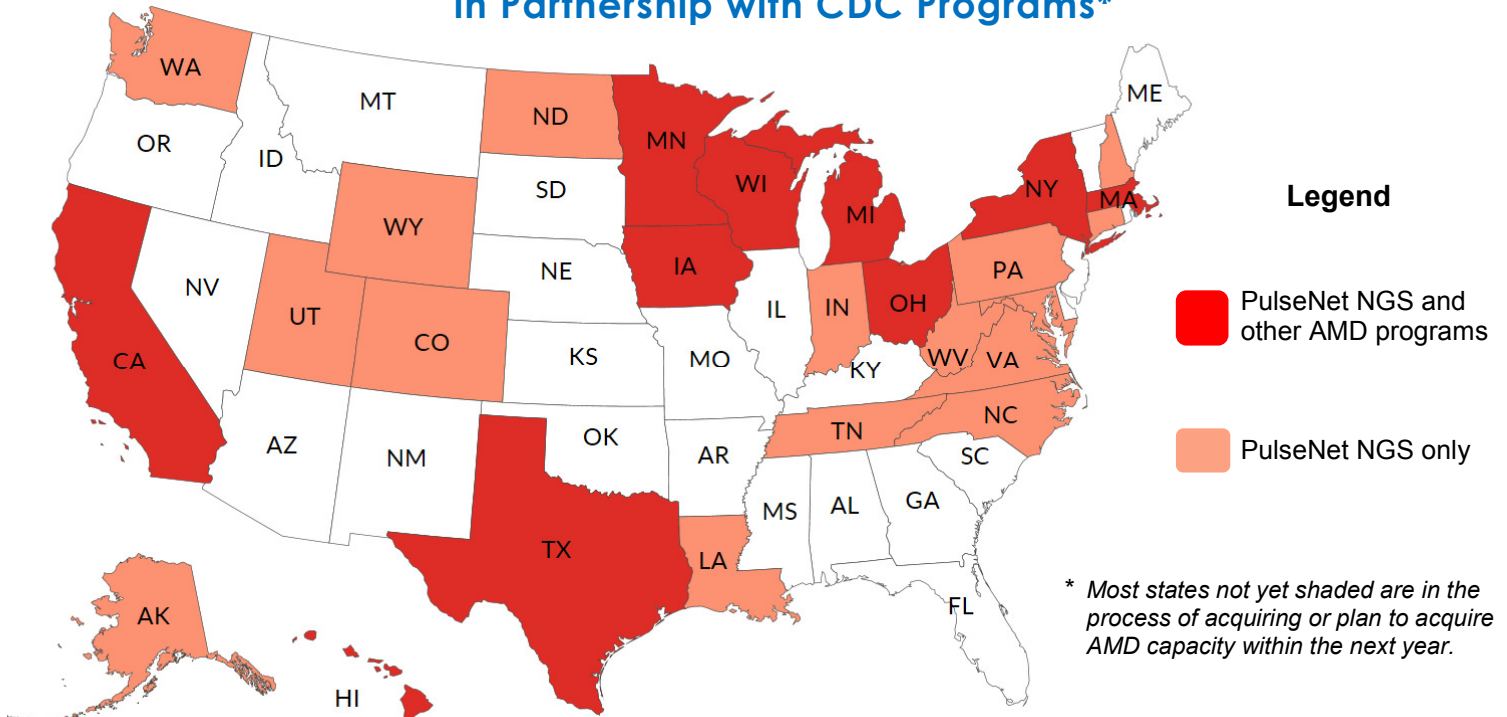# AMD State Outreach 2016

Innovate • Transform • Protect

CDC's Advanced Molecular Detection (AMD) initiative promotes the application of next-generation genomic sequencing (NGS), bioinformatics, and related technologies to address public health priorities in the United States. Many of these applications have been developed at CDC and now are being rolled out to state and local health departments. CDC's AMD program is supporting this expansion of capacity through various pathogen-specific programs and the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) cooperative agreement. In 2016, **CDC's Office of Advanced Molecular Detection (OAMD) is funding 32 states for AMD** activities via these mechanisms. State and large localities across the country are rapidly acquiring capacity for NGS. CDC anticipates that within a year all or almost all states will be participating in one or more AMD activity.

States Using Next-generation Genomic Sequencing in Partnership with CDC Programs*

Legend

PulseNet NGS and other AMD programs

PulseNet NGS only

* *Most states not yet shaded are in the process of acquiring or plan to acquire AMD capacity within the next year.*

www.cdc.gov/amd

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

April 2016

AMD Funding to States

In 2015, OAMD began funding state and local health departments through a variety of CDC programs, such as PulseNet, and directly through the ELC cooperative agreement. **Overall funding to states in 2016 is $5.13 million.**

Anticipated Support to State and Local Laboratories in 2016, by AMD Program

CDC AMD Program	States Sending Samples to CDC	States Performing Sequencing Only*	States Performing Sequencing & Analysis
Cyclospora	FL, NYC, TX	NY	0
Malaria	All 50 states, DC	0	NY
Tuberculosis	0	CA, IA, MI, NY, OH	0
Neisseria Gonorrhoeae	AL, AZ, CA, CO, FL, GA, HI, IL, LA, MD, MI, MN, MO, NC, NM, NV, NY, OH, OK, OR, PA, TX, UT, VA, WA	HI, TX	0
PulseNet	AL, AR, AZ, DC, DE, FL, GA, ID, IL, IN, KS, KY, LA, ME, MO, MS, MT, ND, NE, NH, NJ, NM, NV, OK, OR, PA, RI, SC, SD, VT, WV	AK, CA, CT, HI, IA, MA, NC, TX, UT, WY	CO, MD, MI, MN, NY, OH, TN, VA, WA, WI
Arboviruses	All 50 states, DC, PR	0	0
Bordetella pertussis	CO, CT, GA, MN, NM, NY, OR	0	0
Viral Vaccine-preventable Diseases	0	0	CA, WI, MN, NY
Unexplained Respiratory Disease Outbreaks	0	0	MA, MN
Legionella	0	0	NY, MA
Meningitis & *Haemophilus Influenzae* Type b	All 50 states, DC	MN	0
Hepatitis C	0	0	5 states (to be determined)
Coccidioides	AZ, CA, OR, WA	0	0
Tickborne bacteria	MN, TN	0	MN
Chikungunya	PR	0	0
Dengue	FL, PR	0	0
Influenza	All 50 states, DC, PR	CA, NY, WI	0
Cryptosporidium	0	MN	0

*Sequence data analysis conducted at CDC

Building AMD Capacity in States

The Association of Public Health Laboratories (APHL) collaborated with OAMD to disseminate a survey of existing NGS capacity at state and local health departments. The survey was designed to determine NGS capacity (instrumentation, staff, etc.); data storage and transmission; data analysis and bioinformatics; and training and capacity needs. The findings demonstrated that public health laboratories are moving forward with implementing NGS technologies and identified three key areas for future prioritization:

- Identify applications of NGS beyond foodborne pathogens
- Explore mechanisms for transmitting and analyzing NGS data
- Train staff on procedures and processes related to NGS

APHL will disseminate a new version of this survey to states in March 2016 to measure changes to AMD capacity and priorities.