Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Mid-Atlantic Bioinformatic Regional Resource Lead, Mid-Atlantic AMD Training Lead, and Community of Practice Domain Lead

Virginia

Total State and Local Investment[1]: $10,127,373

State and Local Investment: $6,727,373

Centers of Excellence (Year 1): $3,400,000

CDC's Advanced Molecular Detection (AMD) program builds and integrates laboratory, bioinformatics, and epidemiology technologies across CDC and nationwide. Since 2014, AMD has received support from Congress through an annual appropriation of $30 million—which was raised to $35 million in 2022—to implement these technologies in public health programs. Through investments in AMD technologies, CDC is improving both public health outcomes and preparedness in dozens of areas including foodborne disease, influenza, antibiotic resistance, hepatitis, pneumonia, and meningitis.

With funding from the American Rescue Plan Act of 2021, the AMD program has developed a multi-year plan to expand its support to state, local, and territorial public health laboratories with more staff and resources to collect specimens for COVID-19 testing, sequence them to identify and track SARS-CoV-2 variants, and share data, now and future years.

Workforce Development

Virginia is part of the Mid-Atlantic region. In 2018, the AMD program established workforce development regions across the country. Each region has an AMD training lead and a bioinformatics lead. This provides a network of customized AMD support which helps develop skills and provides training assistance to public health labs across the country.

Virginia's **Bioinformatic Regional Resource Lead** acts as a regional consultant. They provide support to labs within the region on data analysis and how to interface with IT departments. Its **AMD Training Lead** provides support to labs in the Central region on pathogen-specific training and cross-cutting AMD training to help staff develop the critical skills necessary to extract, analyze, and interpret sequencing data.

[1] Funding to public health departments includes support from the American Rescue Plan of 2021 and AMD annual appropriations.

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University and Research Partners in California

The Office of AMD has established five communities of practice to build processes and tools for relevant interests, concerns, and priorities regarding the AMD Platform. The AMD Platform will serve CDC programs and STLT partners by providing a common infrastructure to perform genomic epidemiology and contribute high-quality data to publicly available data repositories. **Virginia's Domain Leader** facilitates collaboration between OAMD and the public health community for the Applied Genomic Epidemiology CoP.

US Pathogen Genomics Centers of Excellence (PGCoE) network

The US Pathogen Genomics Centers of Excellence (PGCoE) network will foster and improve innovation and technical capacity in the use of pathogen genomics, molecular epidemiology, and bioinformatics in the field of public health. The **Virginia Pathogen Genomics Center of Excellence** is led by the Virginia Division of Consolidated Laboratory Services, a division under the Virginia Department of General Services, in partnership with the Virginia Department of Health, Virginia Commonwealth University, and the University of Virginia.