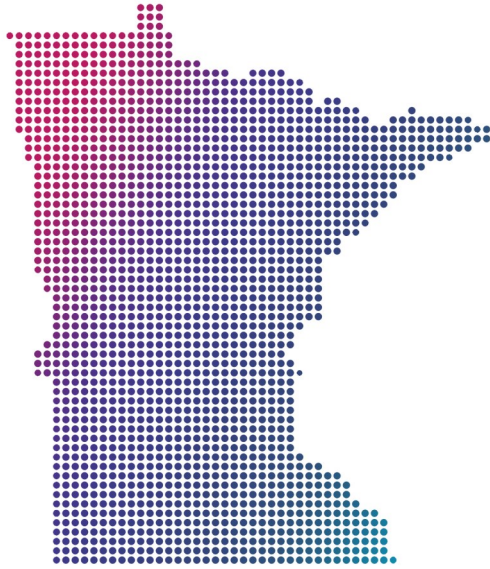


Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Central Bioinformatic Regional Resource Lead, Central AMD Training Lead,
and Community of Practice Domain Lead



Minnesota

Total Investment¹: \$10,381,102

State and Local Investment: \$5,852,229

Research Awards: \$928,873

Centers of Excellence (Year 1): \$3,600,000

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

Minnesota is part of the Central region. In 2018, the AMD program established seven 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.

Minnesota'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, AMD annual appropriations, and NCEZID annual appropriations. Awards to university and research partners were funded through appropriations supporting the COVID-19 response.



www.cdc.gov/amd



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AMD Platform Community of Practice (CoP)

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. **Minnesota'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 **Minnesota Pathogen Genomics Center of Excellence** is led by the Minnesota Department of Health with primary partners the University of Minnesota and the Mayo Clinic. They will also be partnering with the University of Pennsylvania College of Veterinary Medicine.

University and Research Partners in Minnesota

These awards are intended to fill knowledge gaps and promote innovation in the U.S. response to the COVID-19 pandemic. Funding awards are determined through a competitive selection process based on scientific needs and available funds.

University of Minnesota

Minnesota sequencing of SARS-CoV-2: a unified state and region-wide SARS-CoV-2 genomic surveillance effort (2022—\$928,873)

This project will establish the University of Minnesota Genomics Center (UMGC) as a regional SARS-CoV-2 sequencing hub and facilitate a low-cost and high-output genomic sequencing method. In addition, the project will provide research on how the host and virus interact with one another during infection and the potential for reinfection.

