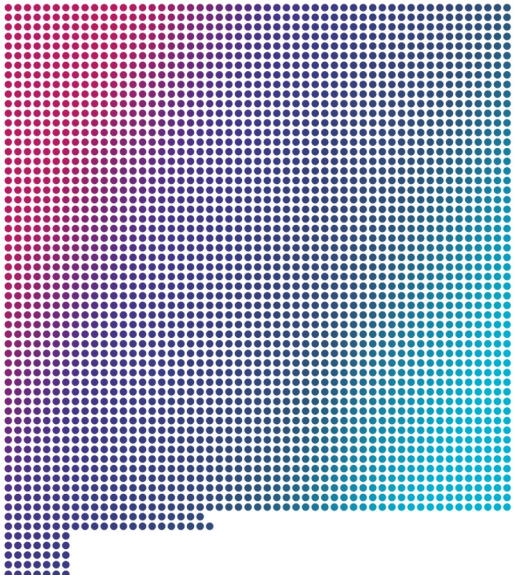
Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Mountain Region



New Mexico

Total Investment[1]: $7,526,516

State and Local Investment: $5,996,180

Research Awards: $1,530,336

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—now a $40 million per year appropriation—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 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

New Mexico is part of the Mountain 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.

Through the Mountain region's training resources, New Mexico receives lab support on data analysis and how to interface with IT departments. They also receive both pathogen-specific training and cross-cutting instruction 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 in FY2021-2023. Awards to university and research partners were funded through appropriations supporting the COVID-19 response.

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University and Research Partners in New Mexico

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 New Mexico

Genomic Surveillance of SARS-CoV-2 in New Mexico and the Mountain West (2022—$782,451)
A joint venture between four state public health laboratories (NM, WY, ID, MT), the UNM Health Sciences Center, and TriCore Reference Laboratories (NM), the group intends to gather and use data from the genomic sequencing of SARS-CoV-2 in the Mountain West region to provide the respective state public health agencies with actionable information on patterns of viral transmission and evolution.

Genomic sequencing and phylodynamic analysis of SARS-CoV-2 in the Mountain West USA (2021—$747,885)
This study will generate extensive genomic data for the Mountain West region and provide state public health laboratories with actionable information on patterns of viral transmission and evolution. Researchers will interpret the regional sequences in a national and global context. Using tailored strategies and local knowledge, the consortium can fill critical gaps and improve the stream of surveillance sequencing data enabling them to track the trajectories of known and novel variants.