

Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Mid-Atlantic Region



Philadelphia

Total Investment¹: \$3,202,579

State and Local Investment: \$1,922,802

Research Awards: \$1,279,777

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 a \$30 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 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

Philadelphia is part of the Mid-Atlantic 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 Mid-Atlantic region's training resources, Philadelphia 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.

* Investment total above is not included in the [Pennsylvania](#) total. Philadelphia receives direct financial support through the ELC Cooperative Agreement.

¹ Funding to public health departments includes support from the American Rescue Plan of 2021 and AMD annual appropriations. Awards to university and research partners in 2020 and early 2021 were funded through appropriations supporting the COVID-19 response.



www.cdc.gov/amd



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University and Research Partners in Philadelphia

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.

Children's Hospital of Philadelphia Research Institute (\$1,279,777)

Monitoring diversity in SARS-CoV-2 genomes for tracking emerging variants, measuring impact of mitigation strategies, and gauging clinical outcomes in pediatric patients

The Children's Hospital of Philadelphia Research Institute will provide genomic surveillance of SARS-CoV-2 in adults and children by tracking changes in the virus over two years in the greater Philadelphia area. In addition, the project will test the hypotheses that specific variants are more likely to be identified in clusters of cases or linked to "super-spreader" events or that specific viral variants are more associated with severe disease.

