

Alabama Laboratory Sequencing Surveillance Network



Purpose

The Alabama Department of Public Health (ADPH) Bureau of Clinical Laboratories (BCL) is forming a network of laboratories to strengthen infectious disease surveillance in Alabama.

The Alabama Laboratory Sequencing Surveillance Network (ALN) will consist of the BCL as well as commercial, hospital, and research entities with the capacity of performing molecular testing specifically including nucleic acid amplification tests (NAAT)/real-time PCR and genomic sequencing. Although the formation of this Network is currently SARS-CoV-2 driven, successful collaboration between laboratories and the ADPH is critical for organizing and managing future Public Health responses in the state.

Objectives

The objectives of the Network for the SARS-CoV-2 pandemic are as follows:

- Identify new variant strains
- Confirm reinfections and vaccine breakthrough cases
- Support with cluster and outbreak investigations
- Monitor the spread of infection across time and populations
- Assist with analysis for cases of concern

NAAT/PCR only Laboratories

Laboratories that only perform NAAT/PCR assays are valuable as first line facilities to identify the infectious agent. These labs will be asked to submit positive SARS-CoV-2 specimens to a designated sequencing laboratory on a routine basis.

Specific requirements include:

- Submitting specimens with a Ct value < 28
- Reporting minimal data elements to ADPH
- Storing specimens frozen for 30 days (freezer can be provided)
- Routinely shipping specimens of cases identified by ADPH to designated sequencing laboratories (packaging and shipping costs will be provided, as well as any necessary packing, shipping, and biosafety guidance training)
- Have at least one staff a member of the ADPHpartners Respiratory Surveillance online community.

Sequencing Laboratories

Laboratories that perform genomic sequencing assays can further characterize identified agents for similarities and mutations. Next-generation sequencing (NGS) can ensure swift detection of mutations to identify new SARS-CoV-2 strains.

These labs will receive specimens from pre-identified NAAT/PCR labs. Participation will include:

- Sequence specimens sent from NAAT/PCR facilities to identify incidence of disease across the state
- Provide laboratory diagnostics sequencing data with high-quality variant call confirmations and lineage determinations.
- Have at least one staff member of the ADPHpartners Respiratory Surveillance online community.

Online Community for Laboratory Respiratory Surveillance in Alabama



ADPHpartners Respiratory Surveillance Community

The Alabama Department of Public Health (ADPH) Bureau of Clinical Laboratories (BCL) has created a platform, *ADPHpartners Respiratory Surveillance*, to facilitate communication between the BCL, Alabama Sentinel Laboratories, Alabama Laboratory Sequencing Surveillance Network (ALN) members, and other public health collaborators. *ADPHpartners Respiratory Surveillance* is an online community where laboratorians testing for respiratory agents can share ideas, updates, best practices, and further collaborate with other ALSSN members. Although the focus of this community is currently respiratory disease surveillance, successful communication between partner laboratories is critical for the broader managing of future Public Health responses in the state.

Purposes of the Community

- *ADPHpartners* will be a central location from which ADPH can:
 - Provide COVID-19 and other laboratory related resources
 - Changes in guidance, reagent shortages, and existing variant data.
 - Provide a direct line of communication between the BCL and partner laboratories to increase collaboration in state-wide surveillance efforts
 - Serve as a forum for COVID-19 related discussions in which members can ask specific questions, post best practices/suggestions, etc.
 - Host virtual packaging & shipping training and other relevant webinars
 - Host events and conferences

Becoming a Member

- At this time, membership is limited to laboratorians performing NAAT/PCR testing or genomic sequencing for respiratory diseases.
- Individuals eligible for Network membership may request to join the community by contacting the community administrator at BCLcommunitymanager@adph.state.al.us.