SARS-CoV-2 SEQUENCING

Guidance for the submission of positive SARS-CoV-2 viral specimens to the Alaska State Virology Laboratory for Next Generation Sequencing (NGS)

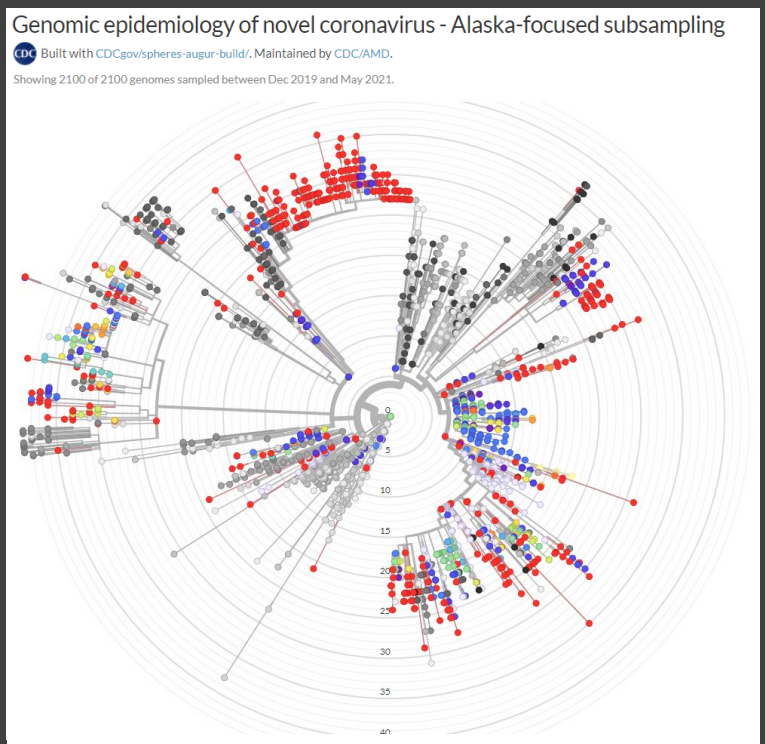
Why Sequence SARS-CoV-2?

NGS provides a comprehensive profile of viruses circulating within a population and helps the response to the COVID-19 pandemic in a number of ways, including:

Understanding viral transmission.
SARS-CoV-2 sequencing allows for monitoring viral spread both within and between populations over time, aiding targeted public health interventions aimed at reducing disease transmission.

Treatment and vaccine development.
Knowledge of the viral RNA sequence assists in the design of therapies and vaccines that target specific features of the virus. This information provides an idea of how these therapies may change with an evolving virus.

Monitoring viral evolution.
Continually evaluating circulating strains of SARS-CoV-2 allows for the detection of genetic changes in the virus that may give rise of viral variants.



The genomic epidemiology of SARS-CoV-2 with Alaskan genomes indicated in red and each concentric ring representing 1 nucleotide divergence between the viral genome and the original SARS-CoV-2 strain.
CDC/Spheres: https://nextstrain.org/groups/spheres/ncov/alaska

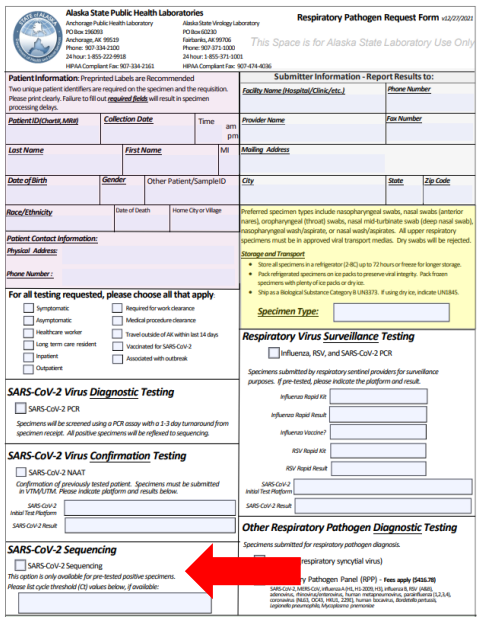
Submitting Positive Specimens to ASVL

1 What to Submit

Original VTM (Viral transport medium) or UTM (Universal transport medium) for confirmed POSITIVE specimens. Please include CT values if known.

2 How to Submit

Complete a SARS-CoV2 requisition form (found at: https://dhss.alaska.gov/health/dph/Labs/Documents/RespPathRequestForm.pdf) and select "SARS-CoV-2(COVID-19) Sequencing". This is for submitting confirmed positive samples for SARS-CoV-2 sequencing. It is not necessary to request PCR testing unless seeking confirmation of a positive result.


Alaska State Public Health Laboratories
Respiratory Pathogen Request Form
Patient Information: Preprinted Labels are Recommended
Submitter Information - Report Results to:
For all testing requested, please choose all that apply
SARS-CoV-2 Virus Diagnostic Testing
SARS-CoV-2 Virus Confirmation Testing
SARS-CoV-2 Sequencing
Respiratory Virus Surveillance Testing
Other Respiratory Pathogen Diagnostic Testing

Package and ship specimens frozen or cold (on dry ice or with frozen ice packs) as Category B to:

Shipments via UPS or Fed Ex
Alaska State Virology Laboratory
1051 Sheenjek Dr.
Fairbanks, AK 99775

Shipments via USPS
Alaska State Virology Laboratory
P.O. Box 60230
Fairbanks, AK 99706

Questions? Contact Dr. Lisa Smith at: lisa.smith@alaska.gov or 907.371.1000