

SARS-CoV-2 sequencing report

The Sequencing Lab is sequencing SARS-CoV-2 from patients.

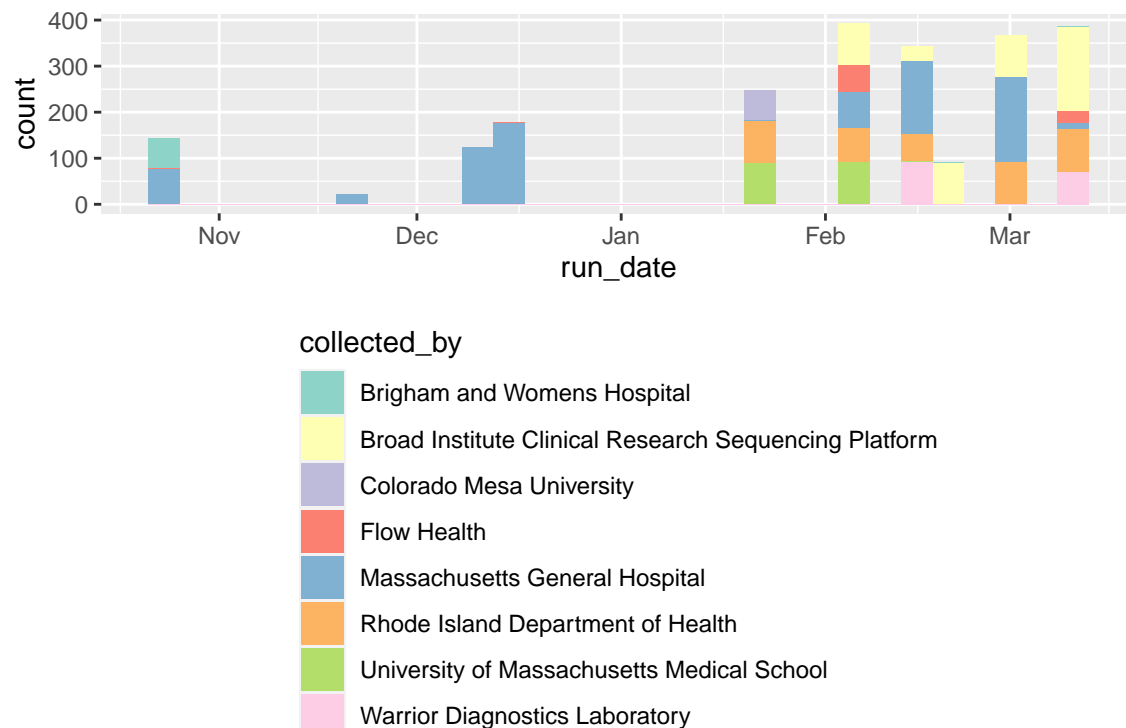
This report, generated on 2021-03-18, summarizes our sequencing activity for **all patient samples** across all collaborators and states. The samples included in this report were sequenced between 2020-10-25 and 2021-03-12. This report is current as of the epiweek ending **2021-03-13**.

Weekly summary

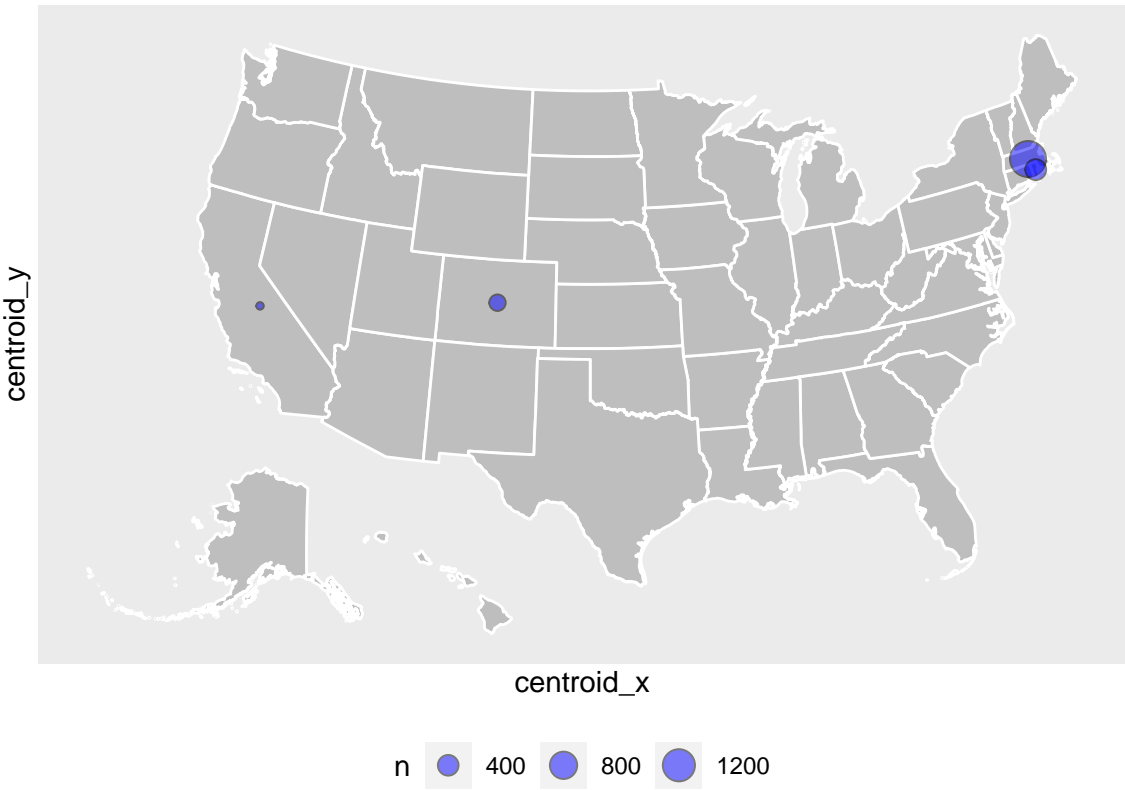
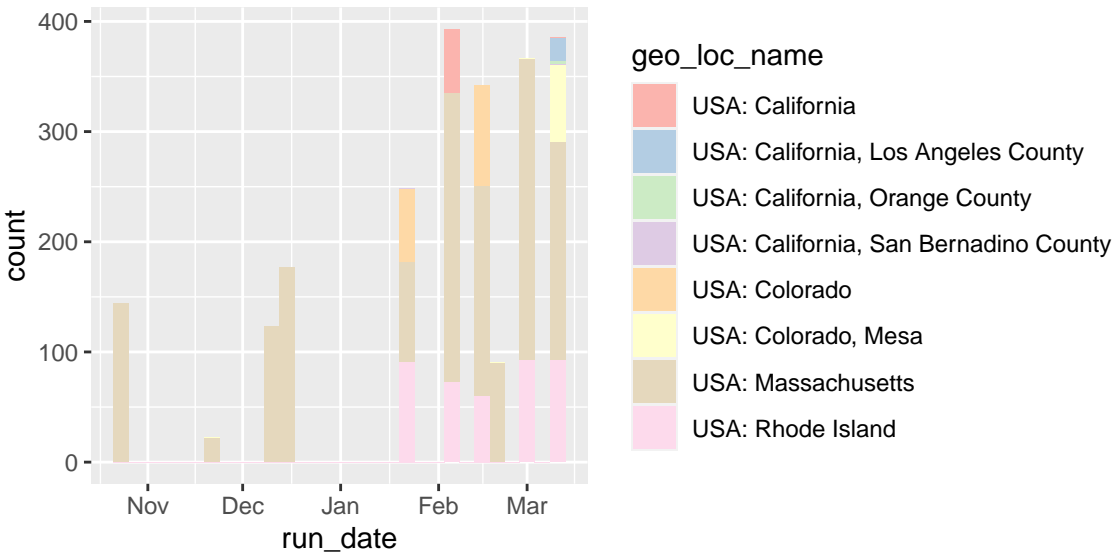
	week ending 2021-03-13	cumulative total
samples sequenced	480	2516
genomes assembled	373	1785
genomes submittable	340	1623
Variants of Interest (Vols)	19	23
Variants of Concern (VoCs)	69	127

CDC definitions of Variants of Concern (VoCs) and Variants of Interest (Vols) are available at:
<https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/variant-surveillance/variant-info.html>

Sequencing activity over time by source

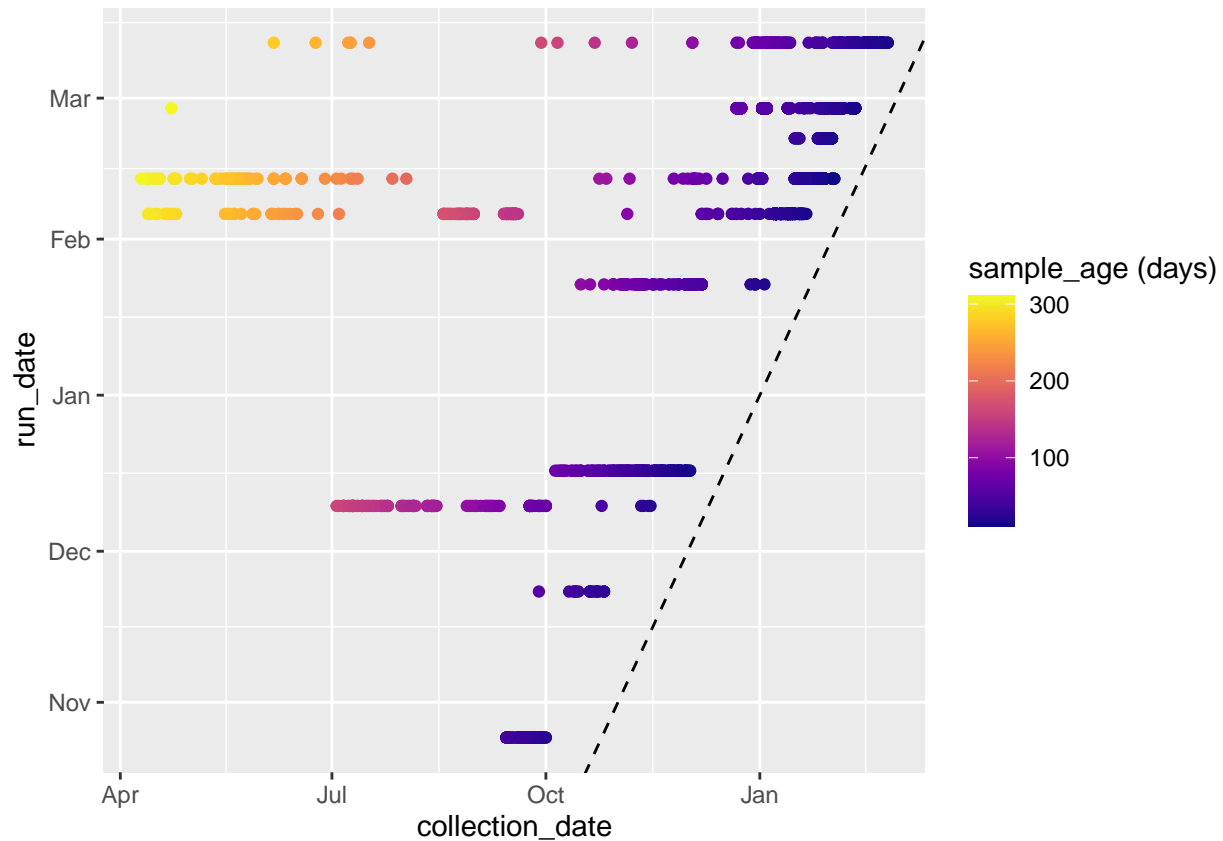


Sequencing activity over time and space



Timeliness of surveillance

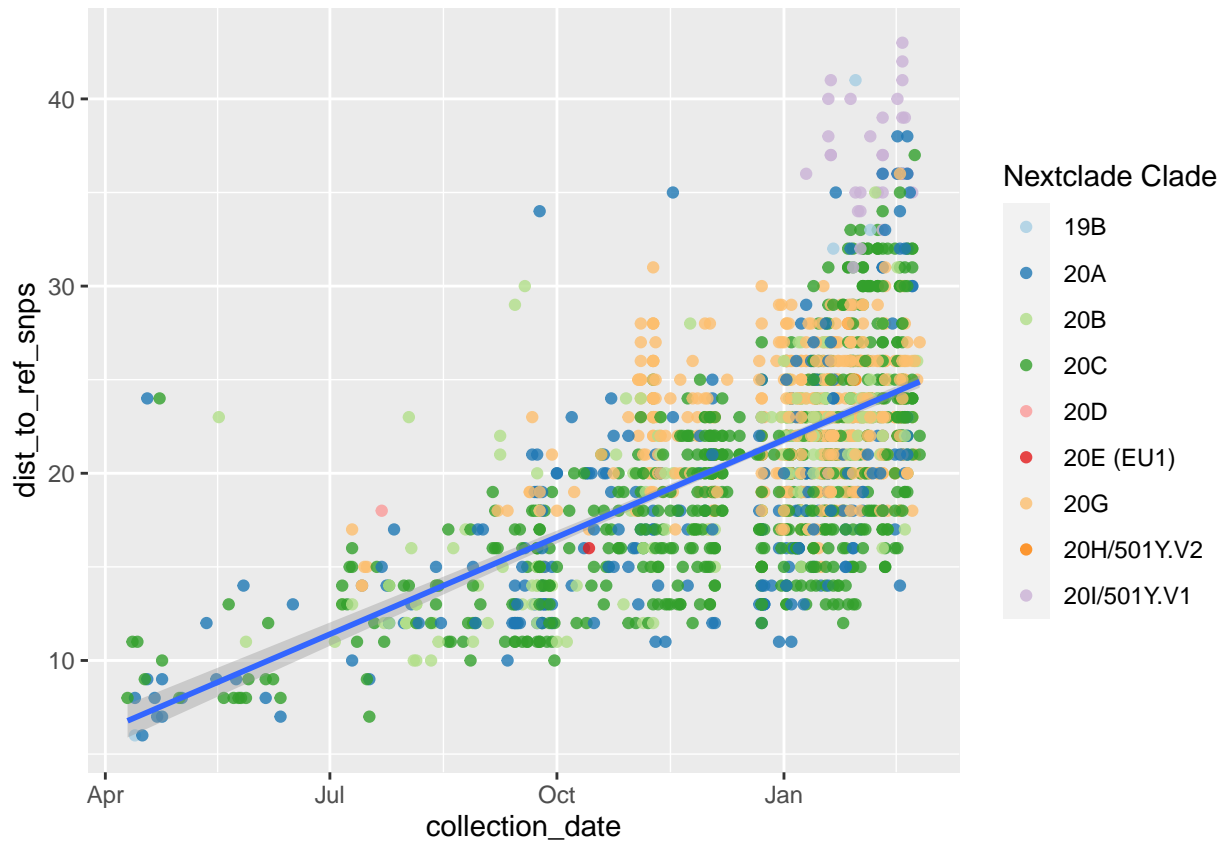
Sequencing date vs collection date



This plot describes the “timeliness” of the sequencing run for the purpose of real-time surveillance of circulating lineages and variants of interest. Note that this plot likely includes many samples that were sequenced for non-surveillance purposes.

Evolutionary Clock

Genetic distance root-to-tip vs sample collection date



A "root-to-tip plot" plots the genetic distance of each sample from Wuhan Hu-1 against the date it was collected. It is generally somewhat linear. Outliers on this plot may be indicative of laboratory or metadata errors, or of evolutionarily unusual lineages (such as B.1.1.7).

Phylogenetic Clades and Variants

Reportable Variants of Concern (VoCs) by CDC epiweek of sample collection

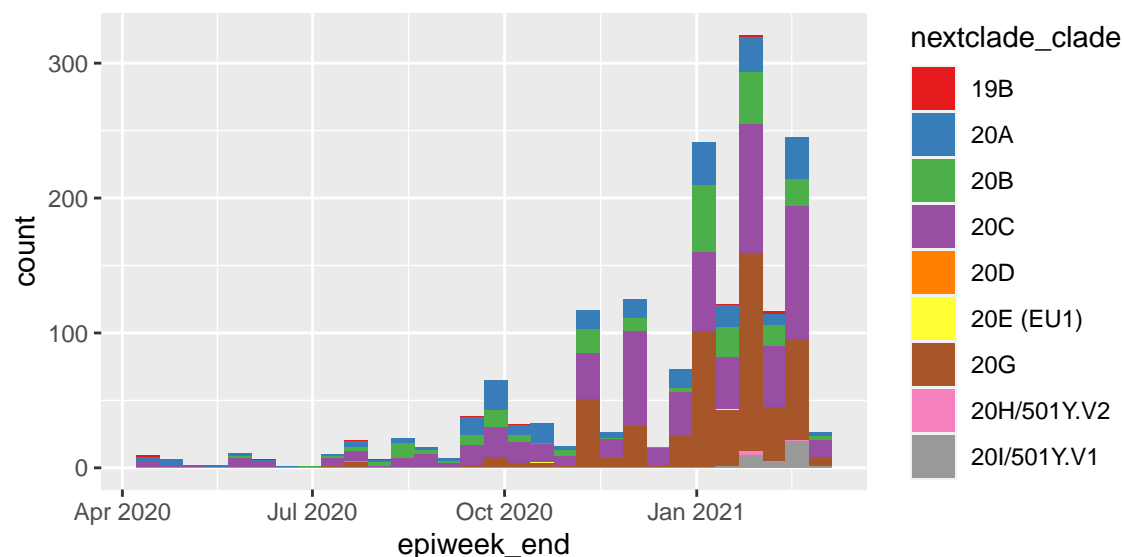
Collection epiweek ending	B.1.1.7	B.1.351	B.1.427	B.1.429
2021-01-09	0	0	1	1
2021-01-16	1	0	2	5
2021-01-23	5	0	4	9
2021-01-30	4	3	0	12
2021-02-06	5	0	1	18
2021-02-13	7	0	1	11
2021-02-20	13	0	0	11
2021-02-27	1	0	0	3

Variants of Interest (VoIs) by CDC epiweek of sample collection

Collection epiweek ending	B.1.525	B.1.526	P.2
2021-01-09	0	0	1
2021-02-13	3	2	0
2021-02-20	9	5	0
2021-02-27	1	2	0

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Nextclade classifications vs sample collection date



This shows the breakdown of major phylogenetic clades over time, using the Nextclade naming system. Variants of Concern (VoCs) are highlighted as specially named Nextclade clades. Nextclade clade 20I/501Y.V1 corresponds to PANGO lineage B.1.1.7, 20H/501Y.V2 corresponds to B.1.351, and 20J/501Y.V3 corresponds to P.1. At this time, no other VoC or VoI lineages have dedicated Nextclade definitions.