

Viral Beacon UI Visualization

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1 Summary at database level - Split by dataset

Graphs of summary statistics of samples and variants at whole database

1.1 Samples

Static distribution of samples per country, date, age and sample type and sex in dataset (Figure 1)

Number of samples: - by country (col) - by age and sex (histogram) - by sample source (col) - with variants by genomic position

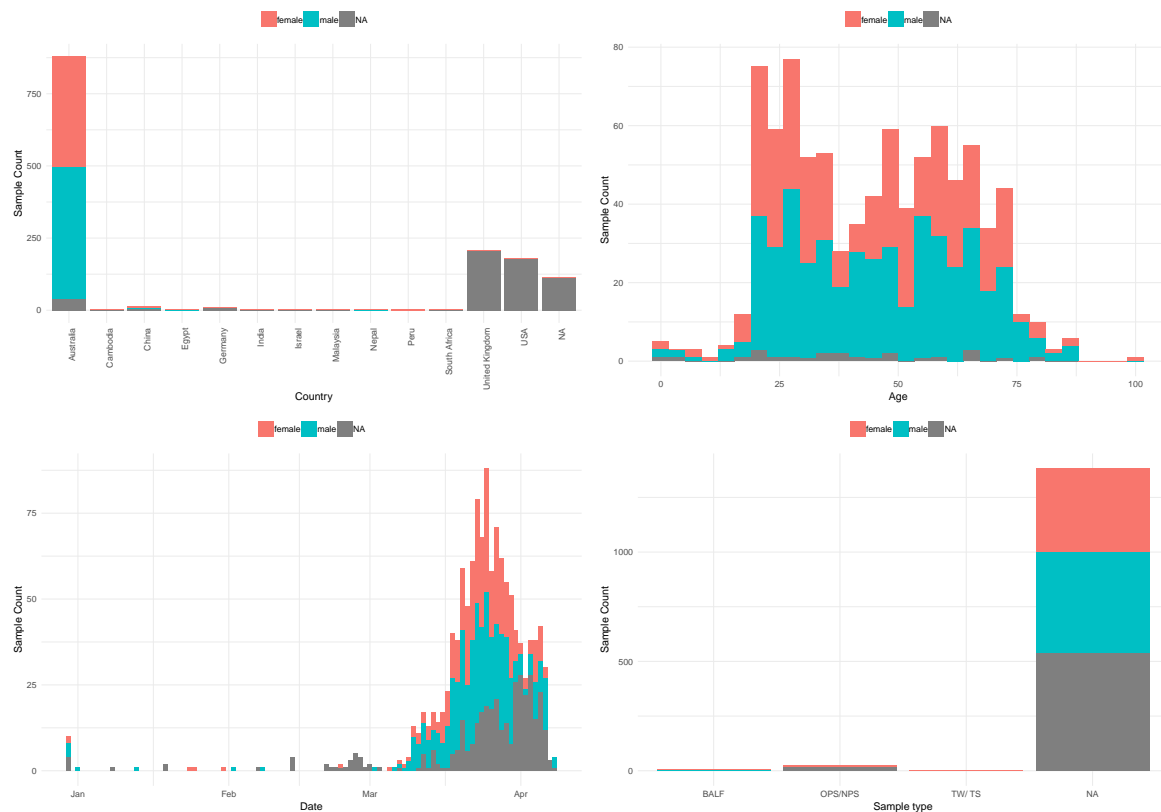


Figure 1: Distribution of samples by country, age, sex, sample type

1.2 Variants

Number of variants by population frequency, by country, age, date, sex, population frequency range, AF range.

Number of variants per sample, average

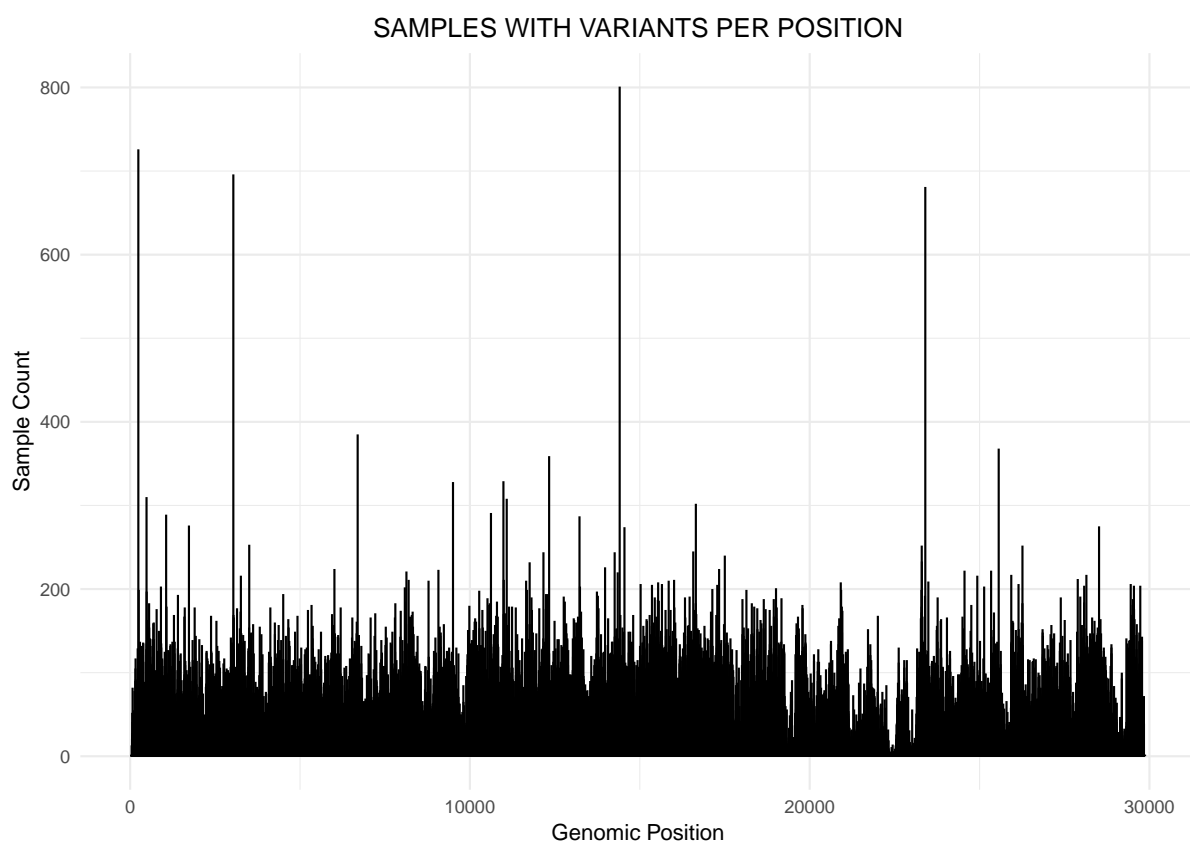
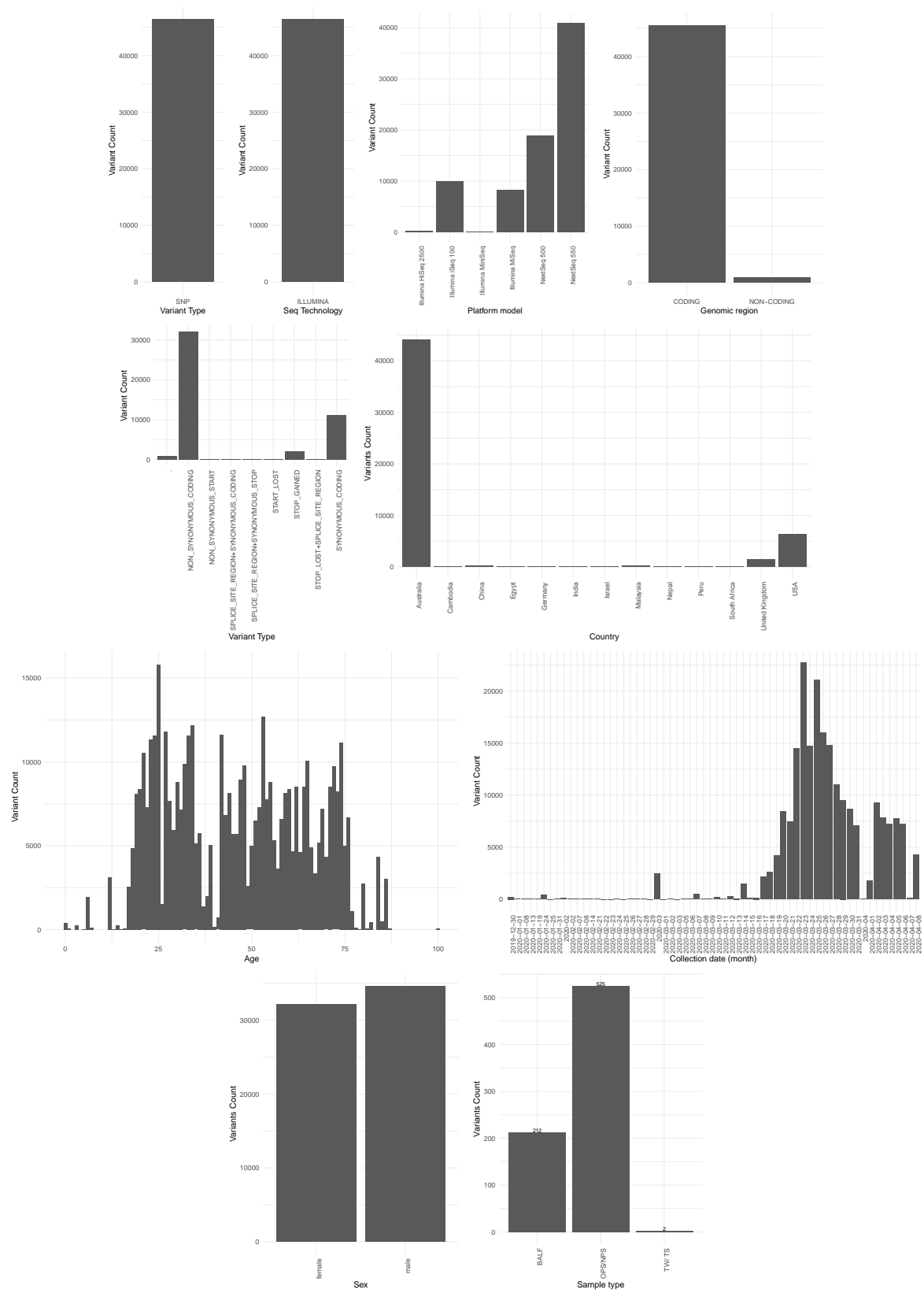


Figure 2:



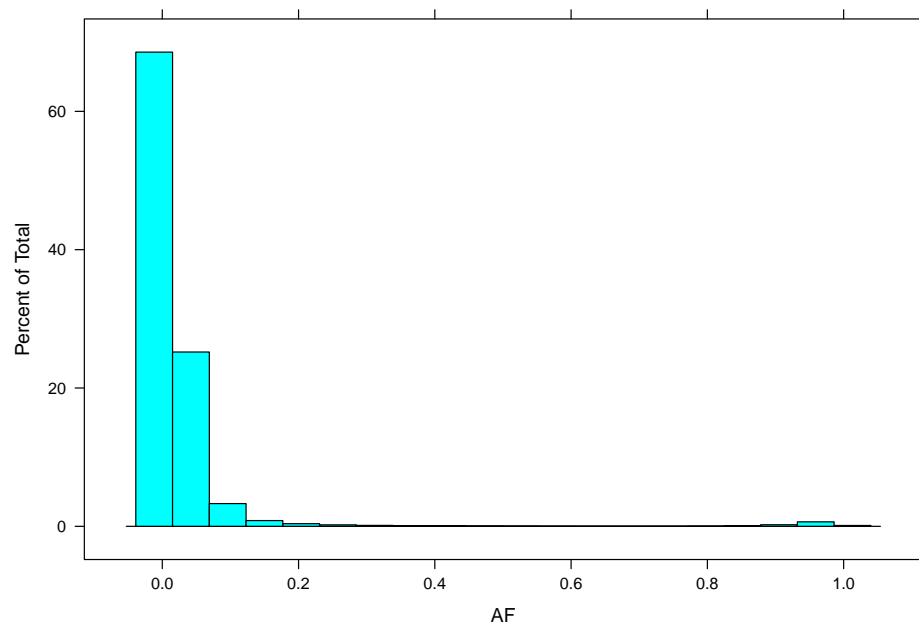
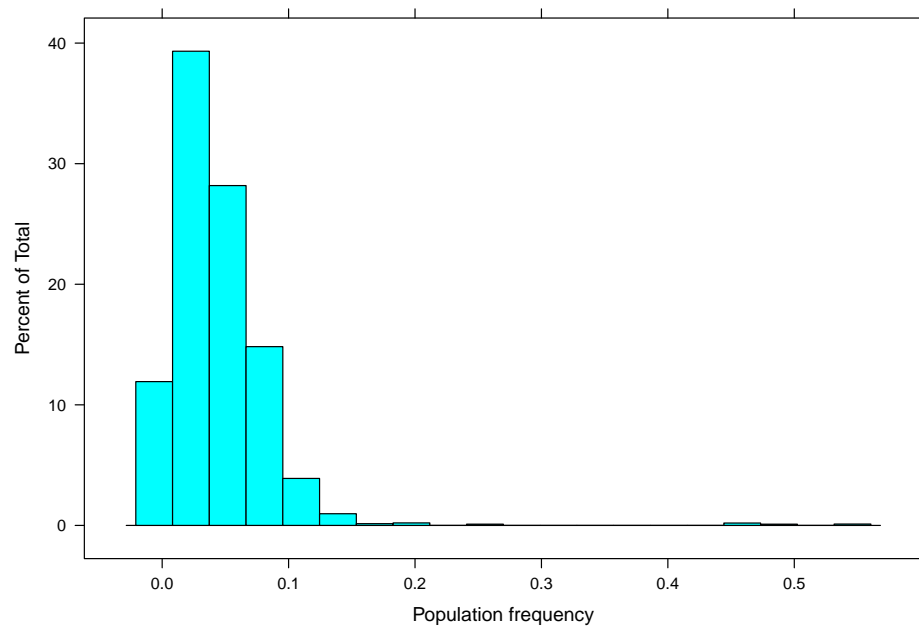


Figure 4: Number of variants per population frequency, AF group

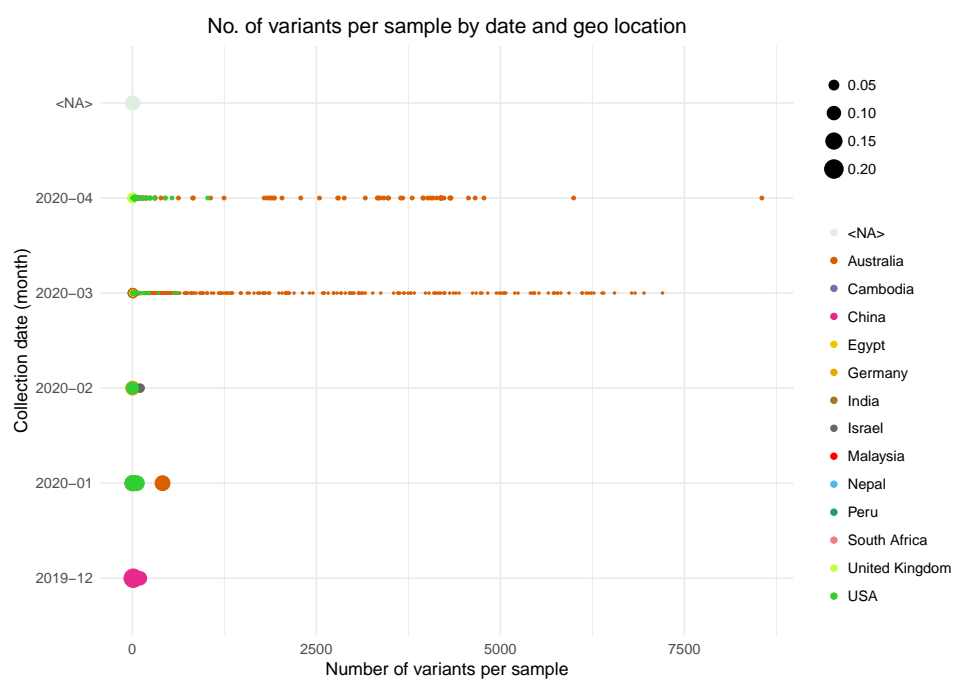


Figure 5: Number of variants in sample

2 Filter level

Dynamic histograms at filter level using Variants stats above, to see what is left of others field while filtering.

Also:

In SNP query and region query pages, needle plot of positions and population frequency.

In feature query page, number of variants per gene/mature peptide/other features.

3 Hit table level

Statistics on result

3.1 Variant query

For results of variant query, number of samples with variation, geographic and temporal, sample types distributions, other variants in same position, other variants covering same position, like indels?

Other variants at position, by clicking on Position, launch region query for position.

3.2 Region query

3.2.1 One position query

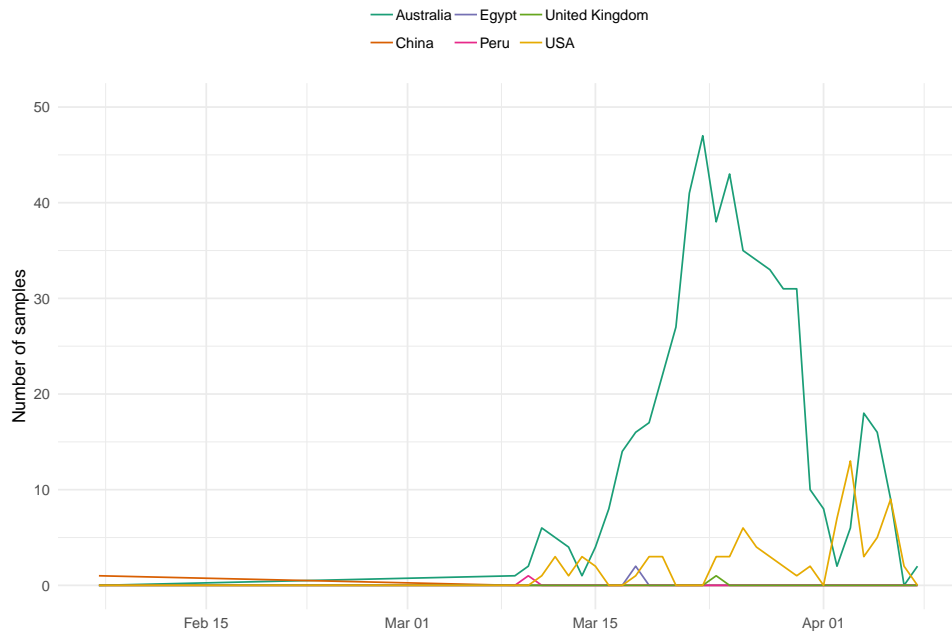
Distinct variants at position

3.2.2 Range

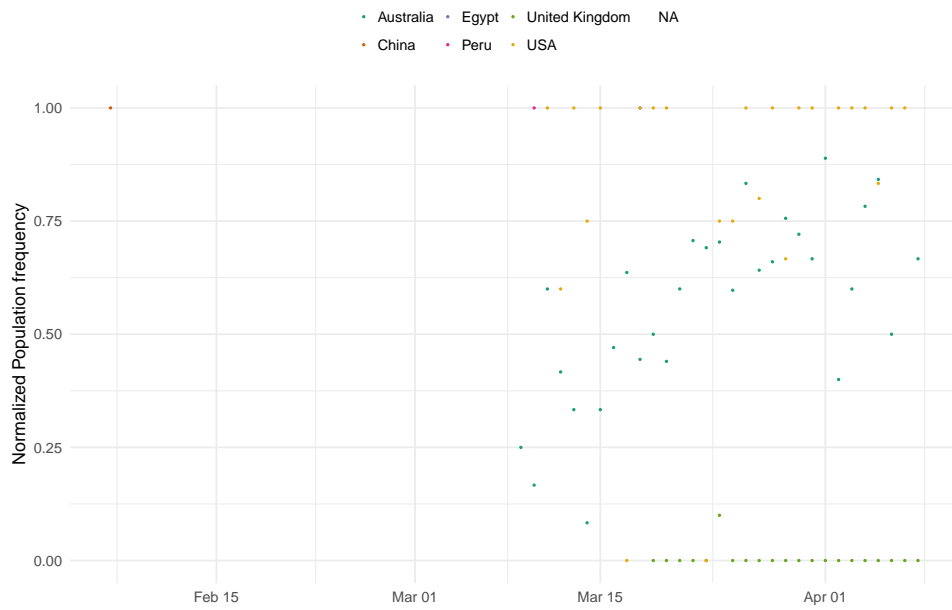
Number of positions with variants/invariant positions over time positions changing dataset frequency and AF over time - heatmaps average number of variant positions in sample over time

For each variant: number of samples with variation in dataset/database

3.3 Feature query



Normalized Population frequency of variant over time



AF of variant over time

