

# Q10\_COVID\_variant

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## Setup library

```
library(ggplot2)
library(dplyr)
```

## Import COVID19-Variant Data

```
data <- read.csv("covid19_variants.csv")
```

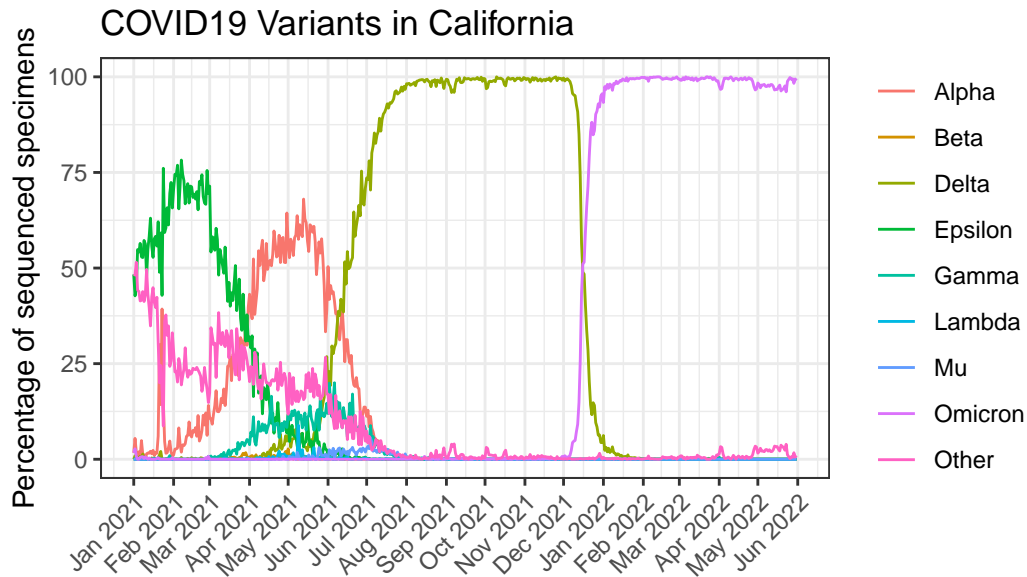
## Process the data

```
# Convert the date column to Date type
data$date <- as.Date(data$date)

# Filter out the "Total" variant and select the date range
data <- data %>%
  filter(variant_name != "Total") %>%
  filter(date >= as.Date("2021-01-01") & date <= as.Date("2022-05-31"))
```

## Plot the data

```
ggplot(data, aes(x = date, y = percentage, color = variant_name)) +
  geom_line() +
  scale_x_date(date_breaks = "1 month", date_labels = "%b %Y") +
  labs(x = "",
       y = "Percentage of sequenced specimens",
       color = NULL,
       caption = "Data source: <https://data.chhs.ca.gov/>") +
  theme_bw() +
  theme(axis.text.x = element_text(angle = 45, hjust = 1)) +
  ggtitle("COVID19 Variants in California")
```



## Session info

```
sessionInfo()
```

```
R version 4.2.1 (2022-06-23)
Platform: x86_64-apple-darwin17.0 (64-bit)
Running under: macOS Big Sur ... 10.16
```

```
Matrix products: default
BLAS:   /Library/Frameworks/R.framework/Versions/4.2/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/4.2/Resources/lib/libRlapack.dylib
```

```
locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
```

```
attached base packages:
[1] stats      graphics  grDevices  utils      datasets  methods    base
```

```
other attached packages:
[1] dplyr_1.1.2  ggplot2_3.4.2
```

loaded via a namespace (and not attached):

[1]	rstudioapi_0.14	knitr_1.42	magrittr_2.0.3	tidyselect_1.2.0
[5]	munsell_0.5.0	colorspace_2.1-0	R6_2.5.1	rlang_1.1.1
[9]	fastmap_1.1.1	fansi_1.0.4	tools_4.2.1	grid_4.2.1
[13]	gtable_0.3.3	xfun_0.39	utf8_1.2.3	cli_3.6.1
[17]	withr_2.5.0	htmltools_0.5.5	yaml_2.3.7	digest_0.6.31
[21]	tibble_3.2.1	lifecycle_1.0.3	farver_2.1.1	vctrs_0.6.2
[25]	glue_1.6.2	evaluate_0.21	rmarkdown_2.21	labeling_0.4.2
[29]	compiler_4.2.1	pillar_1.9.0	generics_0.1.3	scales_1.2.1
[33]	jsonlite_1.8.4	pkgconfig_2.0.3		