

Sociology Quant Camp

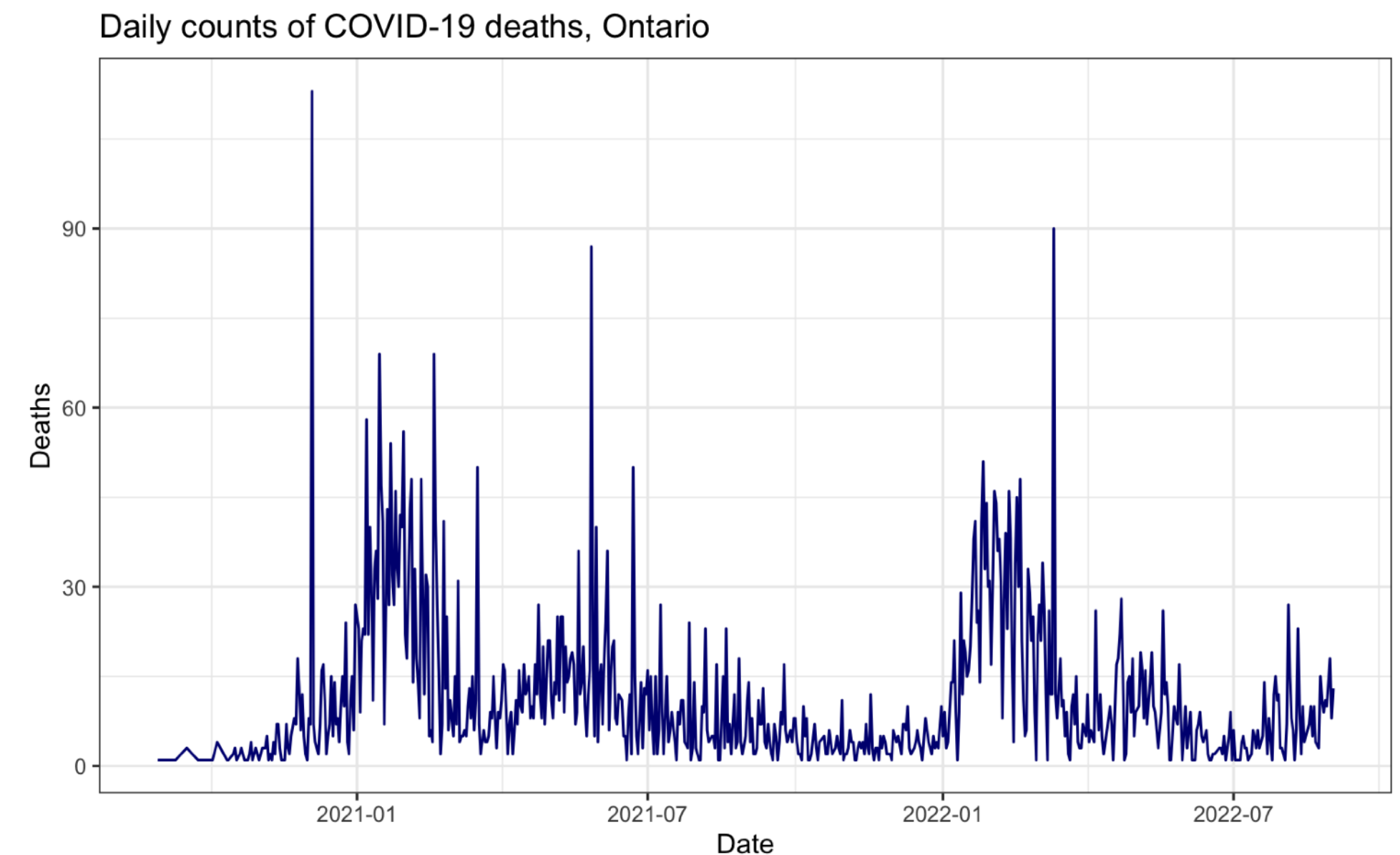
Introduction to R

Module 3: intro to ggplot

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Using ggplot to plot your data

- ggplot is the graphing package that goes with the tidyverse in R
- Very powerful to make a wide range of graphics
- ggplot code works in layers, with each layer adding complexity
 - Define data and variables
 - Add on the type of plot
 - Scales
 - Themes, fonts, colors



What we'll build up to!

Preliminaries

- Filter outlying observations

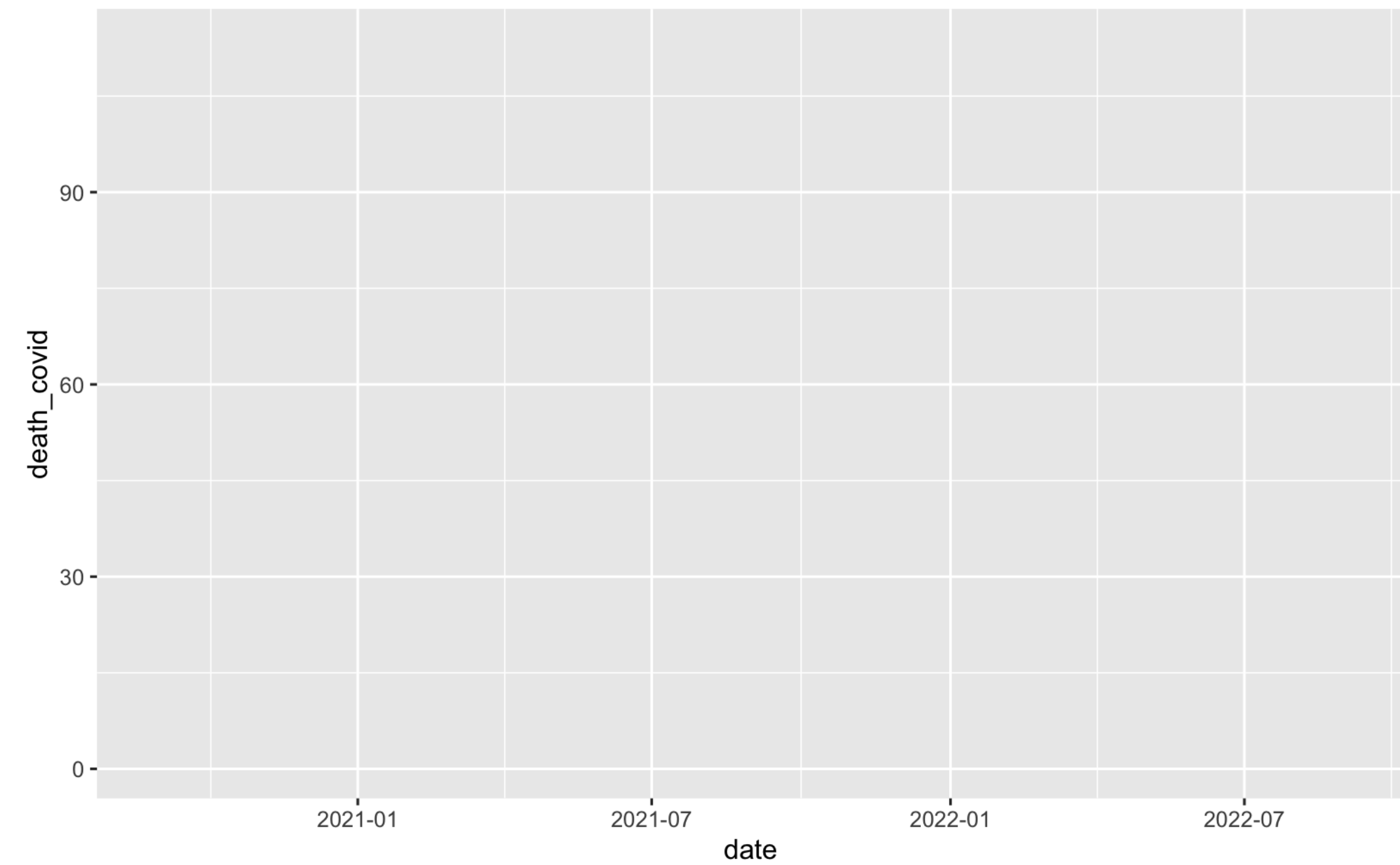
```
d_reduced <- d |>  
  filter(death_covid>0, death_covid<500)
```

A blank canvas

```
ggplot(data = d_reduced, aes(x = date, y = death_covid))
```

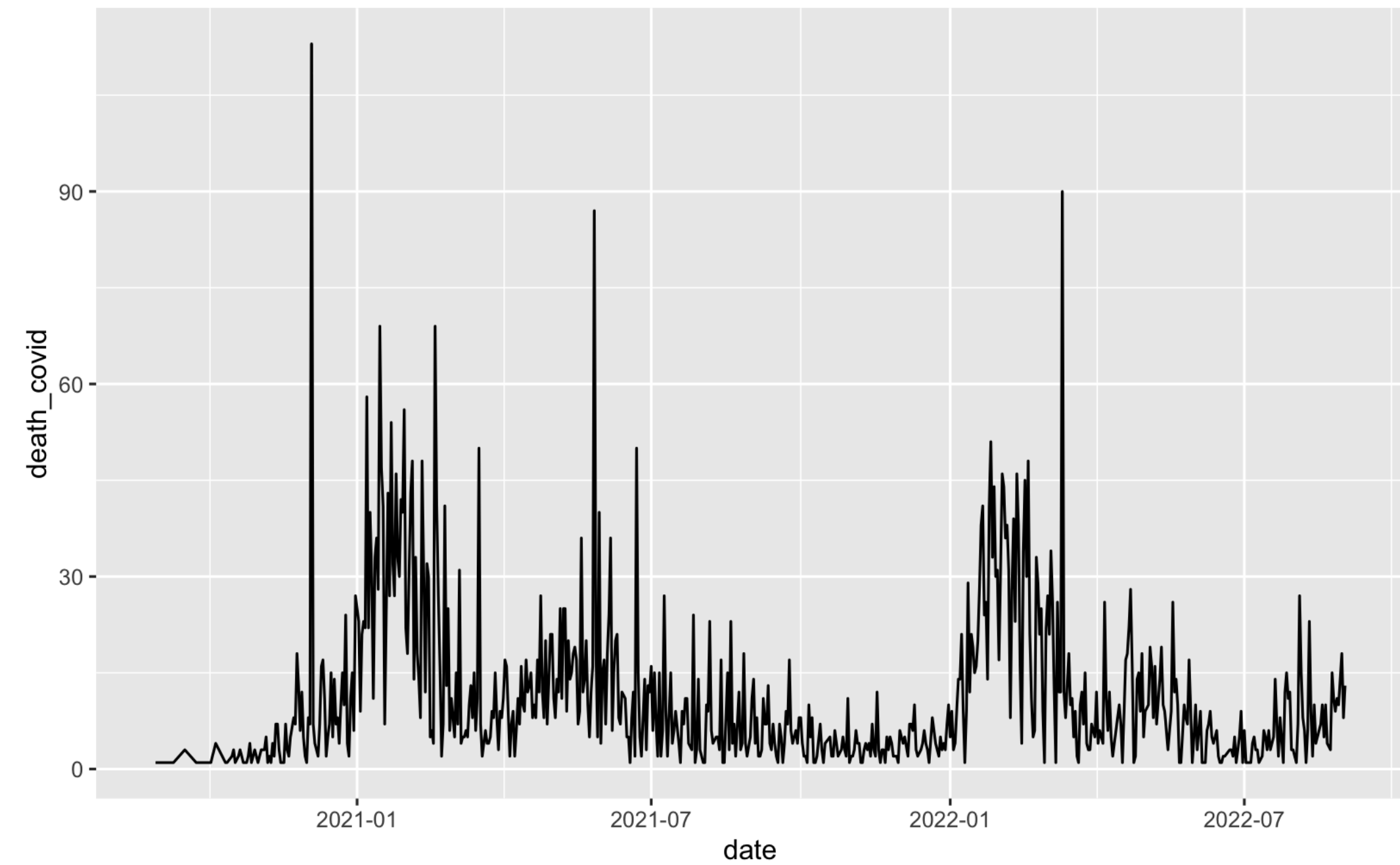
Data

Aesthetics



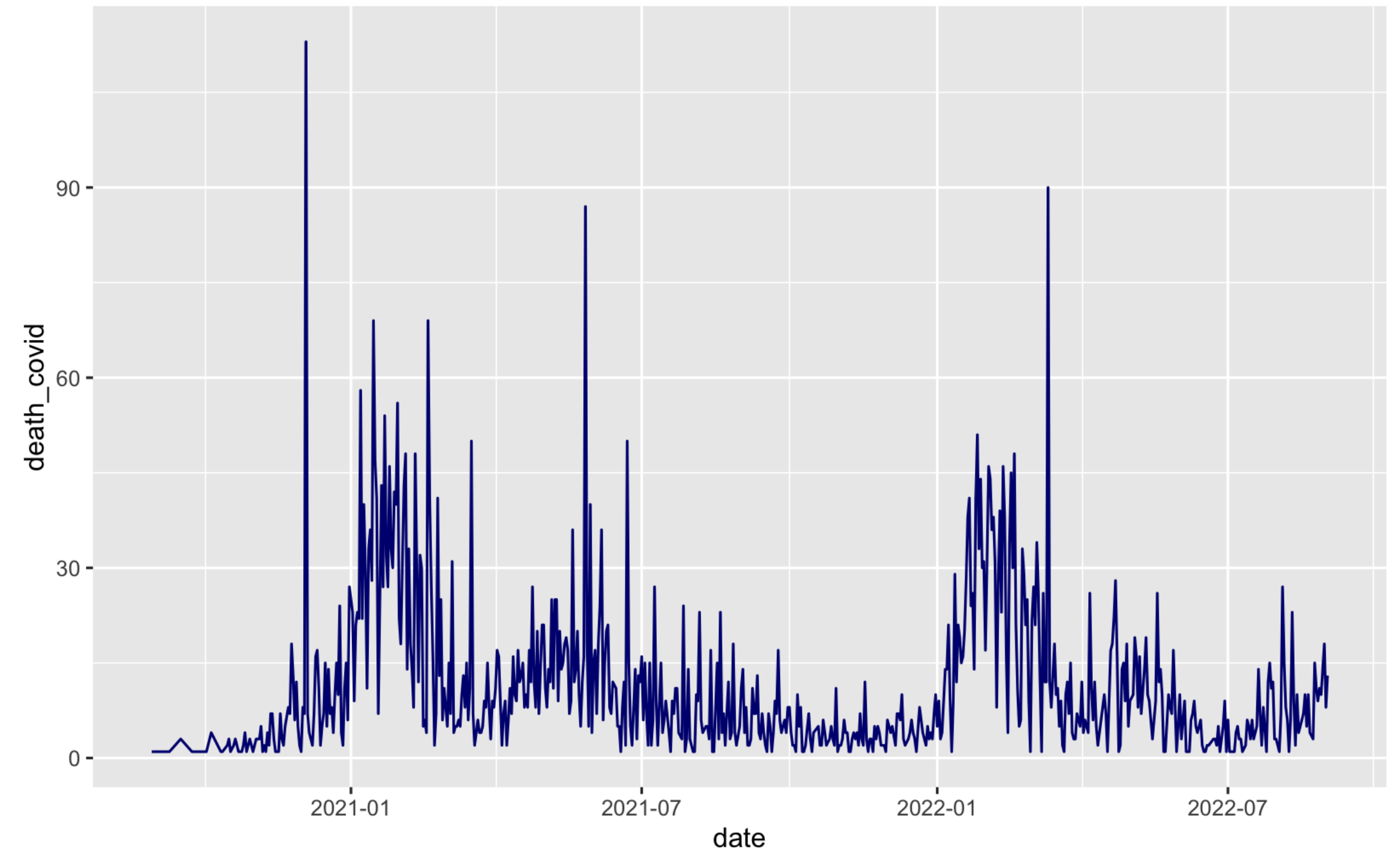
Add a type

```
ggplot(data = d_reduced, aes(x = date, y = death_covid)) +  
  geom_line()
```



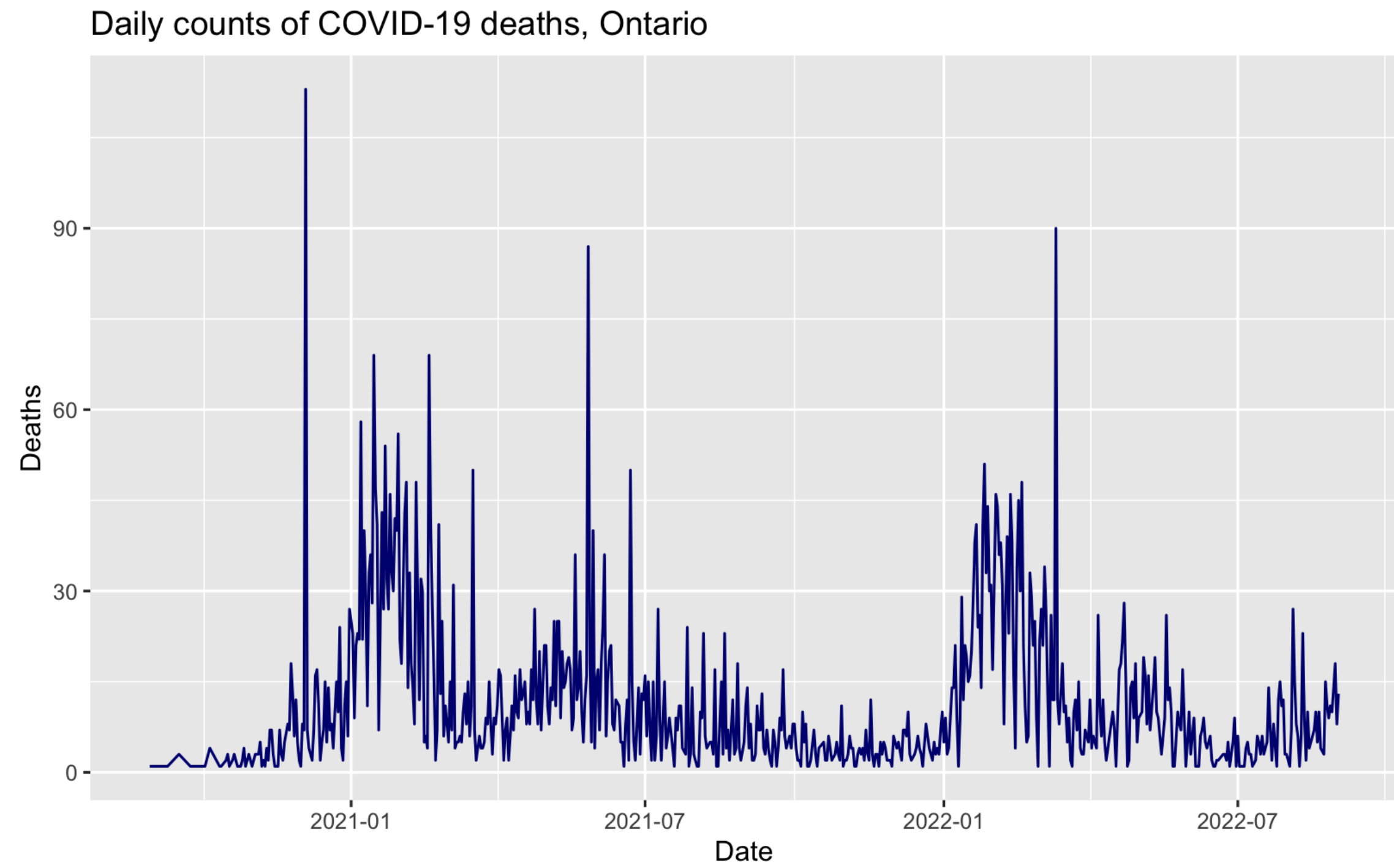
Change color

```
ggplot(data = d_reduced, aes(x = date, y = death_covid)) +  
  geom_line(color = "navy")
```



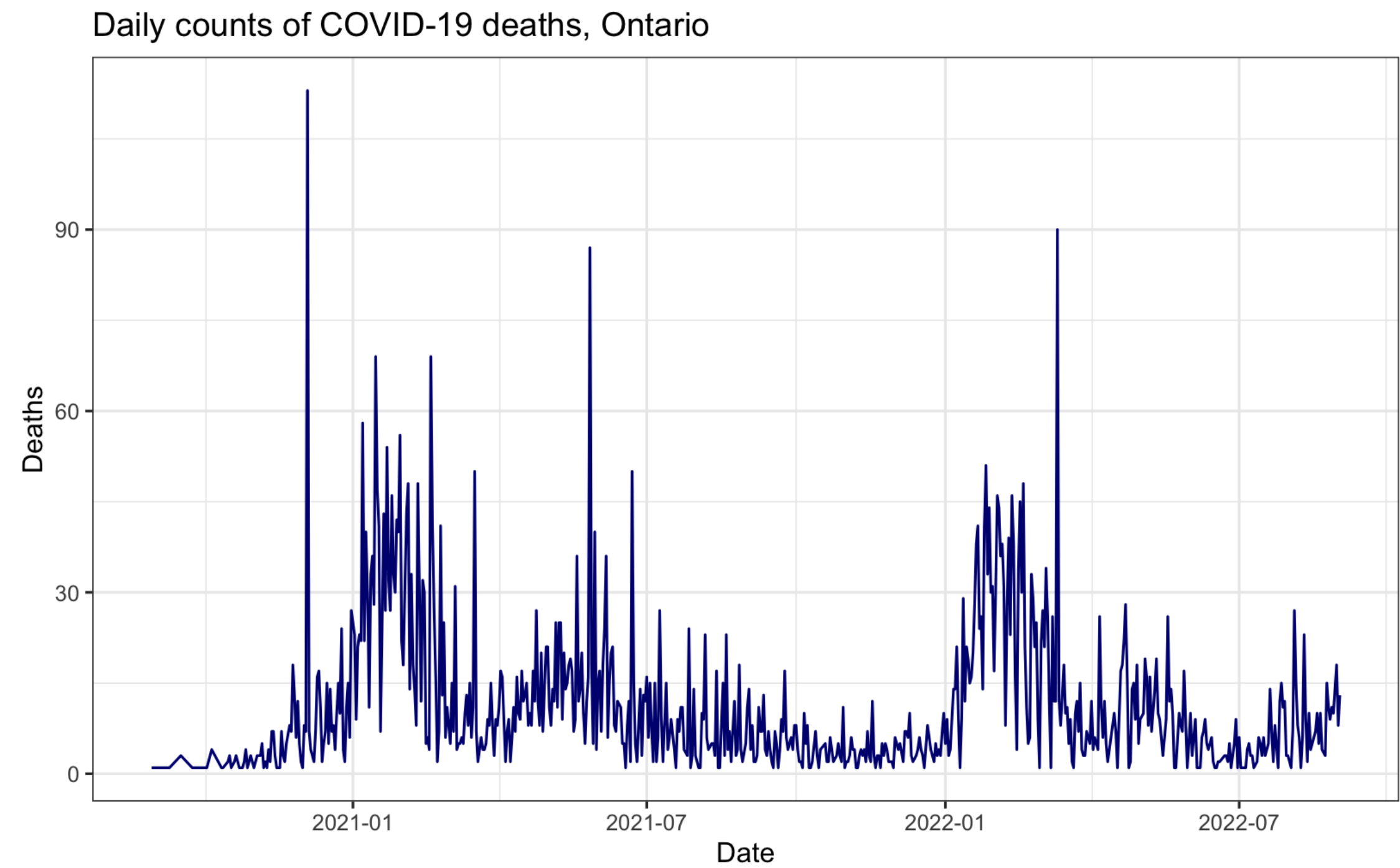
Labels

```
ggplot(data = d_reduced, aes(x = date, y = death_covid)) +  
  geom_line(color = "navy")+  
  labs(title = "Daily counts of COVID-19 deaths, Ontario", x = "Date", y = "Deaths")
```



Theme

```
ggplot(data = d_reduced, aes(x = date, y = death_covid)) +  
  geom_line(color = "navy")+  
  labs(title = "Daily counts of COVID-19 deaths, Ontario", x = "Date", y = "Deaths")+  
  theme_bw()
```



Demo: more ggplot

Where to get help

- Lots of good, free online sources
 - R for Data Science: <https://www.tidyverse.org/learn/>
 - Telling stories with data: <https://tellingstorieswithdata.com/>
 - Tidyverse skills for data science: <https://jhudatascience.org/tidyversecourse/intro.html>
- Google/Stack Overflow
- Email
- Practice, practice, practice; don't be afraid of mistakes