

SOK-1005-Assignment3

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```
rm(list = ls())  
library(tidyverse)
```

```
-- Attaching packages ----- tidyverse 1.3.2 --  
v ggplot2 3.4.0      v purrr   0.3.4  
v tibble  3.1.8      v dplyr   1.0.10  
v tidyr   1.2.1      v stringr 1.4.1  
v readr   2.1.2      v forcats 0.5.2
```

Warning: package 'ggplot2' was built under R version 4.2.2

```
-- Conflicts ----- tidyverse_conflicts() --  
x dplyr::filter() masks stats::filter()  
x dplyr::lag()     masks stats::lag()
```

```
library(janitor)
```

Attaching package: 'janitor'

The following objects are masked from 'package:stats':

chisq.test, fisher.test

```
library(lubridate)
```

Attaching package: 'lubridate'

The following objects are masked from 'package:base':

date, intersect, setdiff, union

```
library(jsonlite)
```

Attaching package: 'jsonlite'

The following object is masked from 'package:purrr':

flatten

```
url <- "https://static01.nyt.com/newsgraphics/2021/12/20/us-coronavirus-deaths-2021/ff0add
```

```
df <- fromJSON(url)
```

```
df %>%  
  ggplot(aes(x=fully_vaccinated_pct_of_pop, y=deaths_per_100k, label = abbreviate(name, mi  
  geom_point(color="#69b3a2", alpha=.6) +  
  geom_text(hjust=.5, vjust=-.8, size=2.6) +  
  scale_x_continuous(labels = scales::percent) +  
  labs(y = "avg. monthly deaths per 100 000", x = "Share of population fully vaccinated",  
  annotate("segment", x = .59, xend = .58, y = 15.4, yend = 16,  
    arrow = arrow(type = "closed", length = unit(0.02, "npc")))) +  
  annotate("text", x = .6, y = 14.7, label = "Lower vaccination rates, \nHigher death-rates") +  
  annotate("segment", x = .79, xend = .8, y = 8, yend = 7.4,  
    arrow = arrow(type = "closed", length = unit(0.02, "npc")))) +  
  annotate("text", x = .755, y = 9, label = "Higher vaccination rate, \nLower death-rates") +  
  theme_bw() +  
  geom_smooth(method = lm, color="black")
```

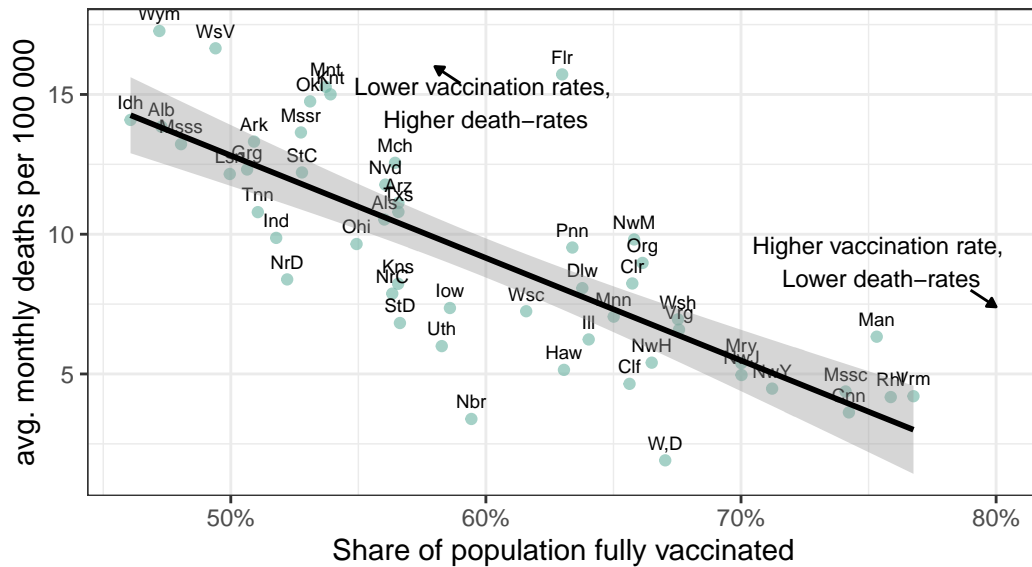
```
`geom_smooth()` using formula = 'y ~ x'
```

Warning: The following aesthetics were dropped during statistical transformation: label
i This can happen when ggplot fails to infer the correct grouping structure in

the data.

- i Did you forget to specify a `group` aesthetic or to convert a numerical variable into a factor?

Covid-19 deaths since universal adult vaccine eligibility compa vaccination rates



```
lm(df$deaths_per_100k ~ df$fully_vaccinated_pct_of_pop, df)
```

Call:

```
lm(formula = df$deaths_per_100k ~ df$fully_vaccinated_pct_of_pop,  
    data = df)
```

Coefficients:

(Intercept)	df\$fully_vaccinated_pct_of_pop
31.15	-36.66