Mappeoppgave 2 - SOK-1005

Kandidatnr.: 72

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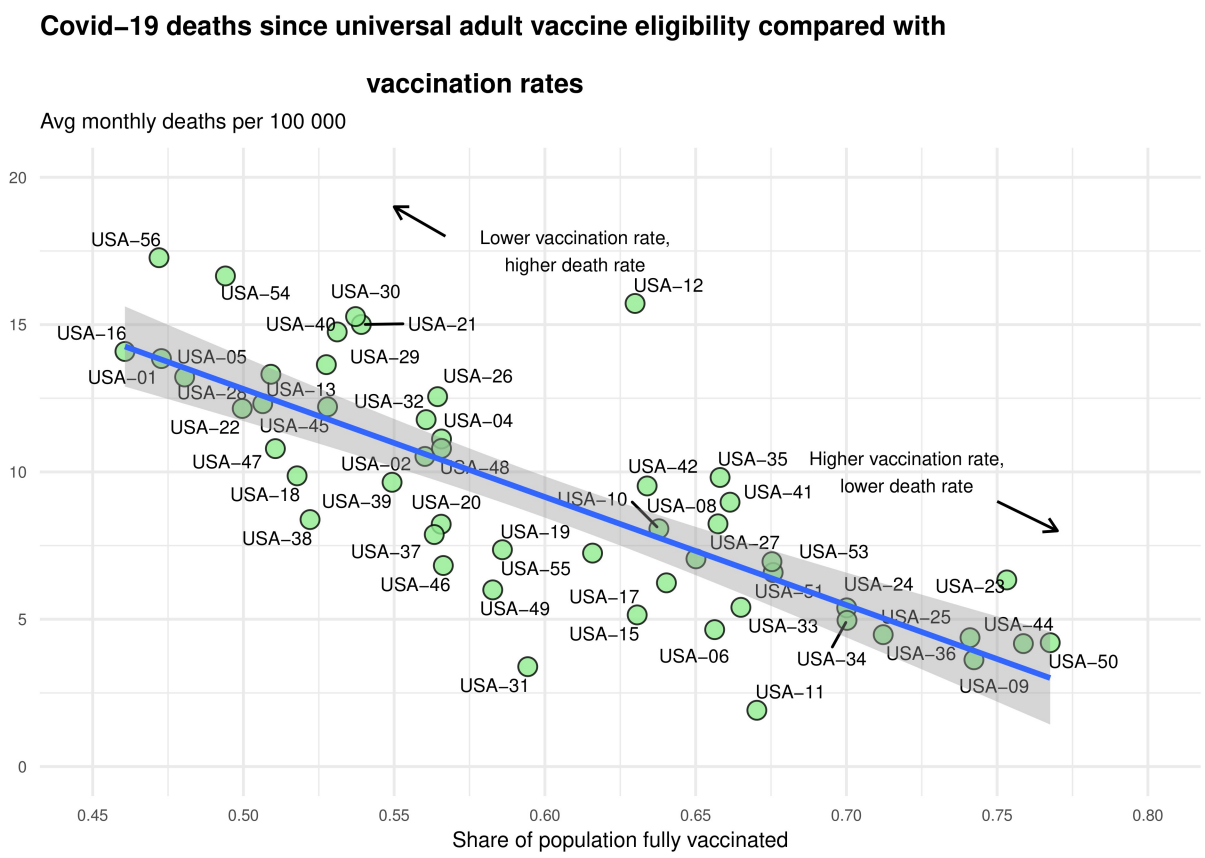
```
library(jsonlite)
library(ggplot2)
library(ggrepel)
options(scipen=999)
```

```
df <- fromJSON("https://static01.nyt.com/newsgraphics/2021/12/20/us-coronavirus-deaths-2021/ff0adde21623

ggplot(df, aes(x=fully_vaccinated_pct_of_pop, y=deaths_per_100k)) +
  geom_point(size=3, shape=21, alpha=0.8, fill = "lightgreen", color = "black") +
  theme_minimal() +
  scale_x_continuous(breaks = seq(0.45, 0.80, 0.05), limits=c(0.45, 0.8)) +
  scale_y_continuous(breaks = seq(0, 20, 5), limits=c(0, 20)) +
  labs(title = "Covid-19 deaths since universal adult vaccine eligibility compared with \n
                                          vaccination rates",
       subtitle = "Avg monthly deaths per 100 000",
       x = "Share of population fully vaccinated", y = " ") +
  theme(plot.title = element_text(size=10, face="bold"),
        plot.subtitle = element_text(size=8),
        axis.text.x=element_text(size=rel(1.0)),
        text = element_text(size=8)) +
  annotate("text", x=0.61, y=17.5, size=2.5,
           label="Lower vaccination rate,\nhigher death rate") +
  annotate("segment", x=0.567, xend = 0.55, y = 18, yend = 19,
           colour = "black", size=0.5, arrow = arrow(length = unit(.2,"cm"))) +
  annotate("text", x=0.72, y=10, size=2.5,
         label="Higher vaccination rate,\nlower death rate") +
  annotate("segment", x=0.75, xend = 0.77, y = 9, yend = 8,
           colour = "black", size=0.5, arrow = arrow(length = unit(.2,"cm"))) +
  geom_text_repel(aes(label = geoid), max.overlaps = Inf, size = 2.5) +
  geom_smooth(method = 'lm')
```




```
coef(lm(df$deaths_per_100k ~ df$fully_vaccinated_pct_of_pop))[2]
```

```
## df$fully_vaccinated_pct_of_pop
##                       -36.6635
```

Det er forventet at en 100pst.p. økning i andel fullvaksinerte vil føre til en reduksjon i antall dødsfall per 100 000 innbyggere på 36.66, alt annet likt.