Chart, line chart

Description automatically generated

**Notes**: This line graph plots mean lung hospitalizations across states by year. States are grouped by whether or not they adopted anti-vaping laws in 2021.

|  |  |  |
| --- | --- | --- |
|  | | |
|  | Lung Hospitalizations | |
|  | (1) | (2) |
|  | | |
| Constant | 22671.36 |  |
|  | (33011.12) |  |
| Treatment | -14856.10 |  |
|  | (48672.25) |  |
| Year | 45.54\*\*\* |  |
|  | (16.38) |  |
| Treatment x Year | 6.16 |  |
|  | (24.15) |  |
| Vaping Ban |  | -4030.46\*\*\* |
|  |  | (65.38) |
|  | | |
| Year and state fixed effects | No | Yes |
|  | | |
| Observations | 550 | 1050 |
| R2 | .65 | 1.00 |
| Adjusted R2 | .65 | 1.00 |
|  | | |
| *Note:* | \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 | |
|  | Standard errors in parentheses. | |

**Notes**: This table contains regressions predicting the number of lung-related hospitalizations. Column (1) evaluates the “parallel trends” requirement of a difference-in-difference estimate. Column (2) estimates the treatment effect of the laws, including time period fixed effects as well as state fixed effects. Standard OLS standard errors are reported.

The trends of states that did (treatment) and did not (control) adopt anti-vaping laws do not appear significantly different (column 1, row 4) prior to the year when anti-vaping laws were introduced (2021). Adopting anti-vaping laws appears to reduce lung-related hospitalizations by around 4000 on average (column 2).

Questions:

How many state-level fixed effects are there? - 49

What is the interpretation of the coefficient for each state-level fixed effect? - intercept for each state - average level of y for each state

Can you reject the hypothesis that state fixed effects are all zero? - no (p < .001)