

# Covid-19 Nursing home Mortality rate nursing home level

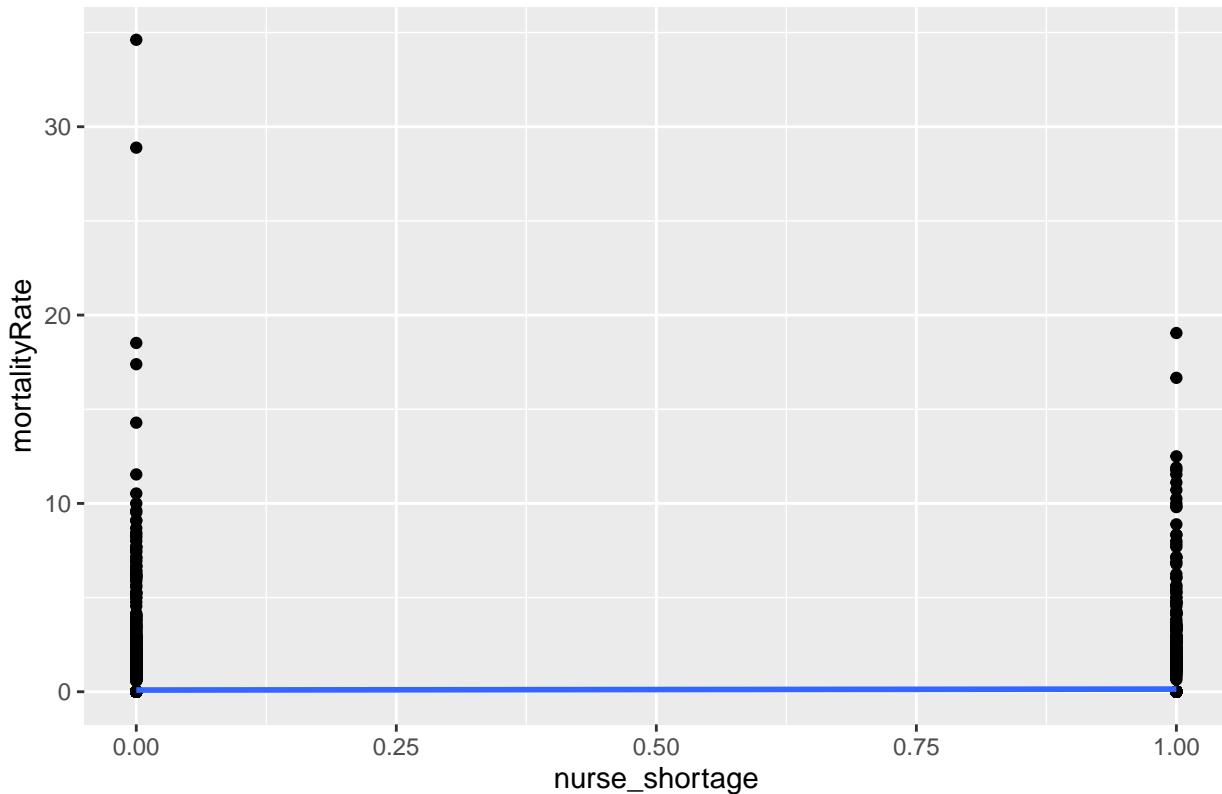
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2022-06-21

## Linear models for mortalityRate VS nurse\_shortage

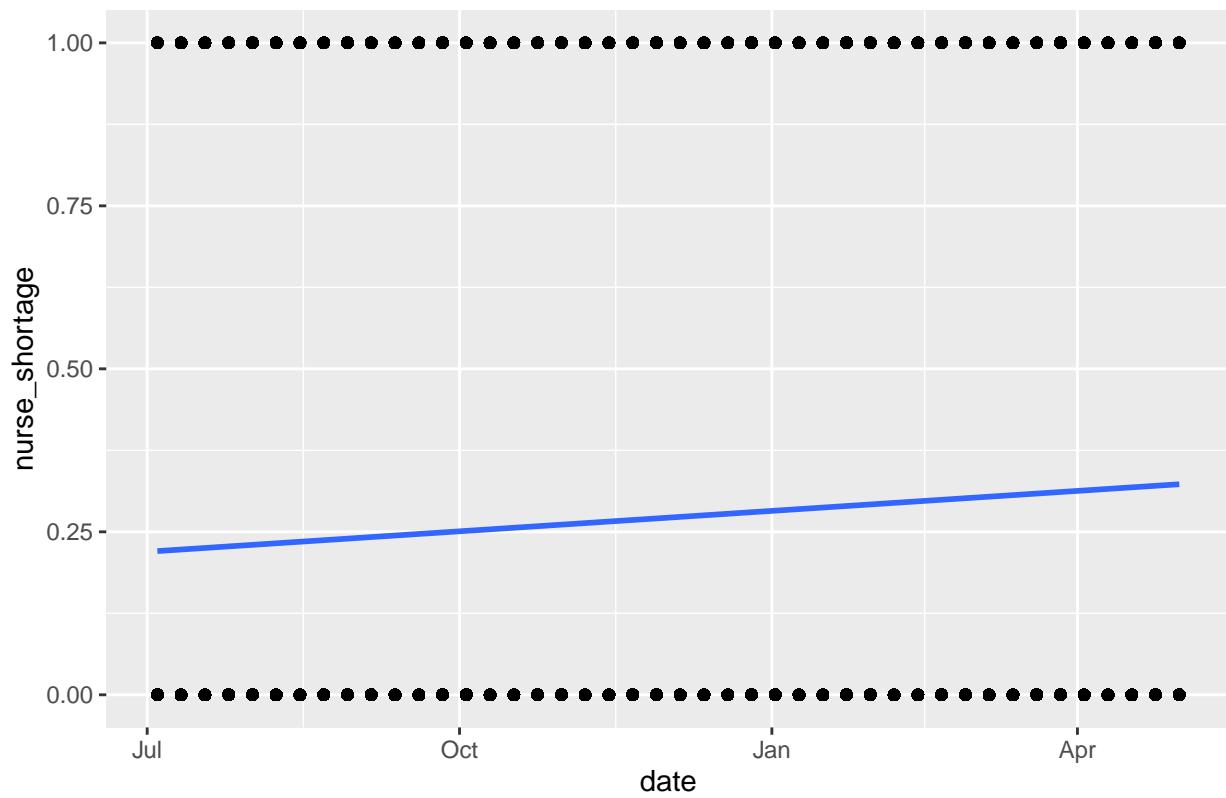
```
##  
## Call:  
## lm(formula = mortalityRate ~ nurse_shortage, data = nurse_home)  
##  
## Residuals:  
##     Min      1Q Median      3Q     Max  
## -0.142 -0.142 -0.090 -0.090 34.525  
##  
## Coefficients:  
##             Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.090457  0.007568 11.953 < 2e-16 ***  
## nurse_shortage 0.051175  0.014523  3.524 0.000427 ***  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.8016 on 15399 degrees of freedom  
##   (21 observations deleted due to missingness)  
## Multiple R-squared:  0.0008057, Adjusted R-squared:  0.0007408  
## F-statistic: 12.42 on 1 and 15399 DF, p-value: 0.0004267
```

mortalityRate VS nurse\_shortage



## Time series of the nurse\_shortage

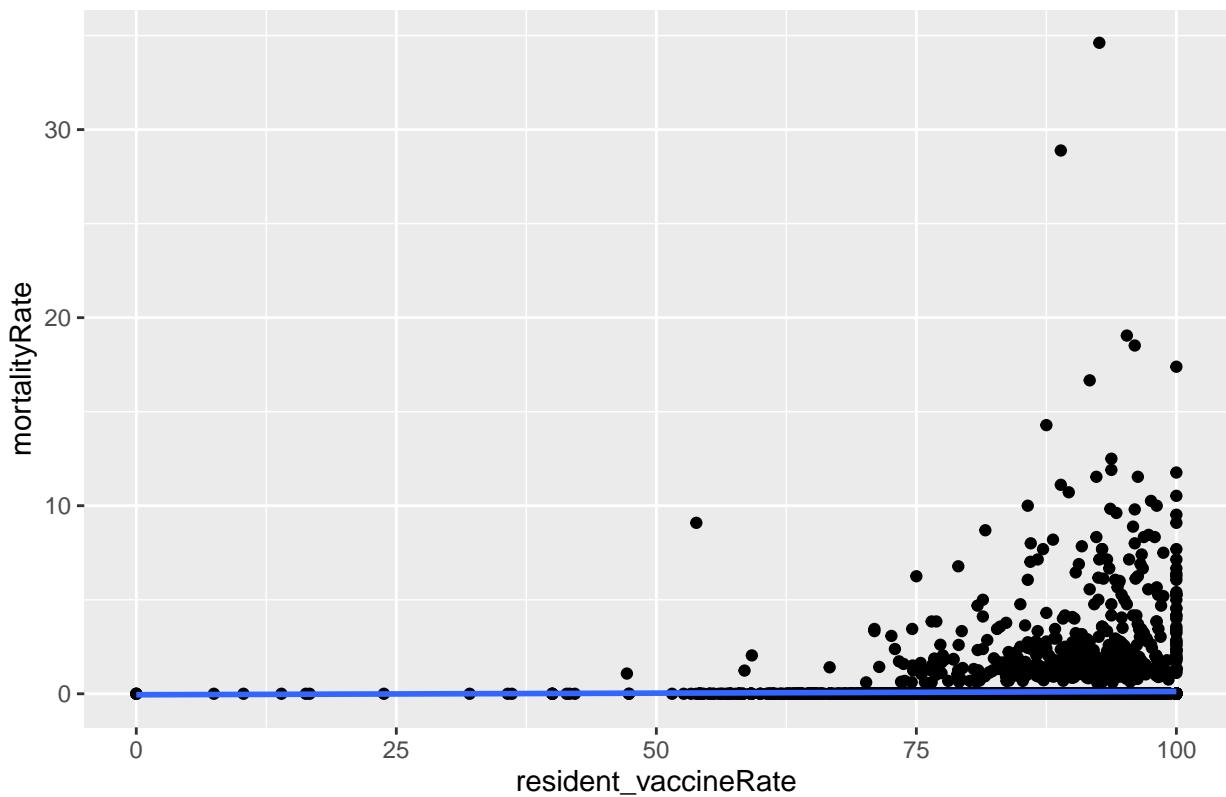
nurse\_shortage from July 2021



## Linear models for mortalityRate VS resident\_vaccineRate

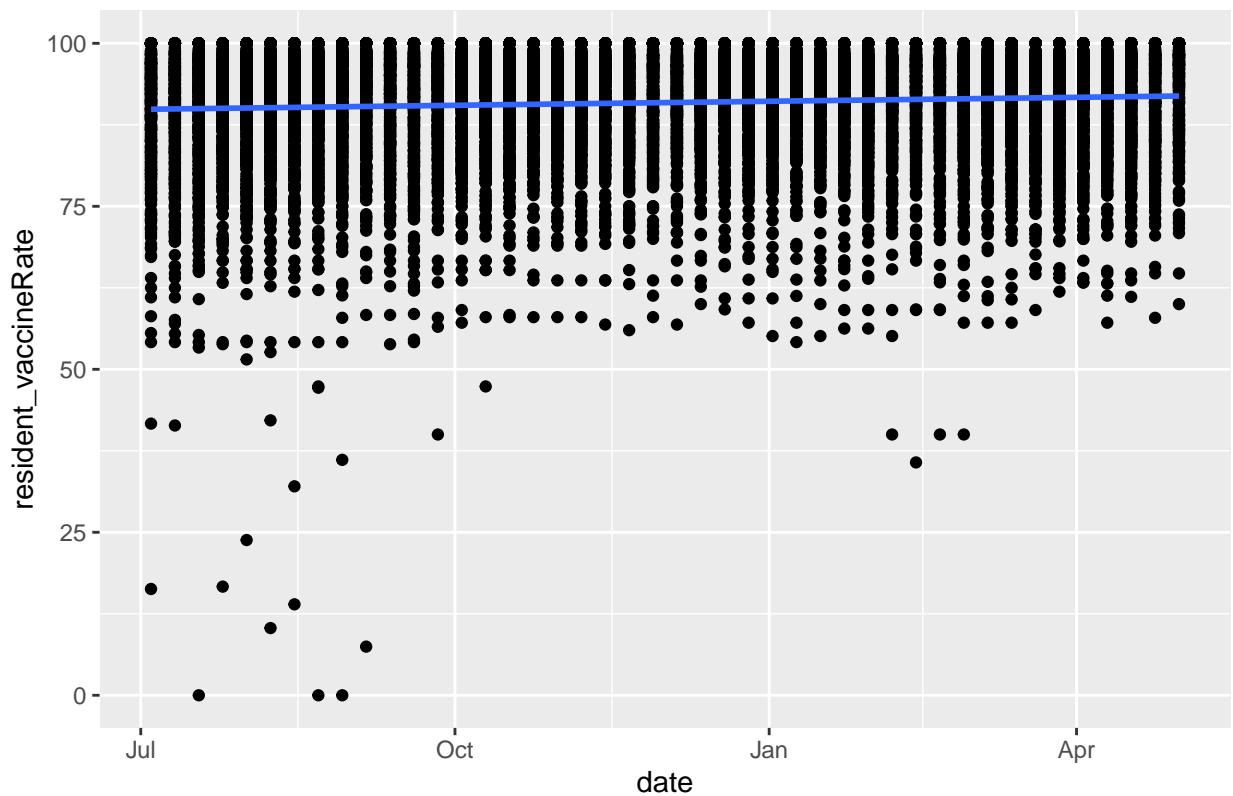
```
##  
## Call:  
## lm(formula = mortalityRate ~ resident_vaccineRate, data = nurse_home)  
##  
## Residuals:  
##     Min      1Q Median      3Q     Max  
## -0.121 -0.116 -0.108 -0.096 34.507  
##  
## Coefficients:  
##              Estimate Std. Error t value Pr(>|t|)  
## (Intercept) -0.0519002  0.0724322 -0.717  0.4737  
## resident_vaccineRate 0.0017303  0.0007937   2.180  0.0293 *  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.806 on 15234 degrees of freedom  
##   (186 observations deleted due to missingness)  
## Multiple R-squared:  0.0003119, Adjusted R-squared:  0.0002463  
## F-statistic: 4.753 on 1 and 15234 DF, p-value: 0.02927
```

mortalityRate VS resident\_vaccineRate



## Time series of the resident\_vaccineRate

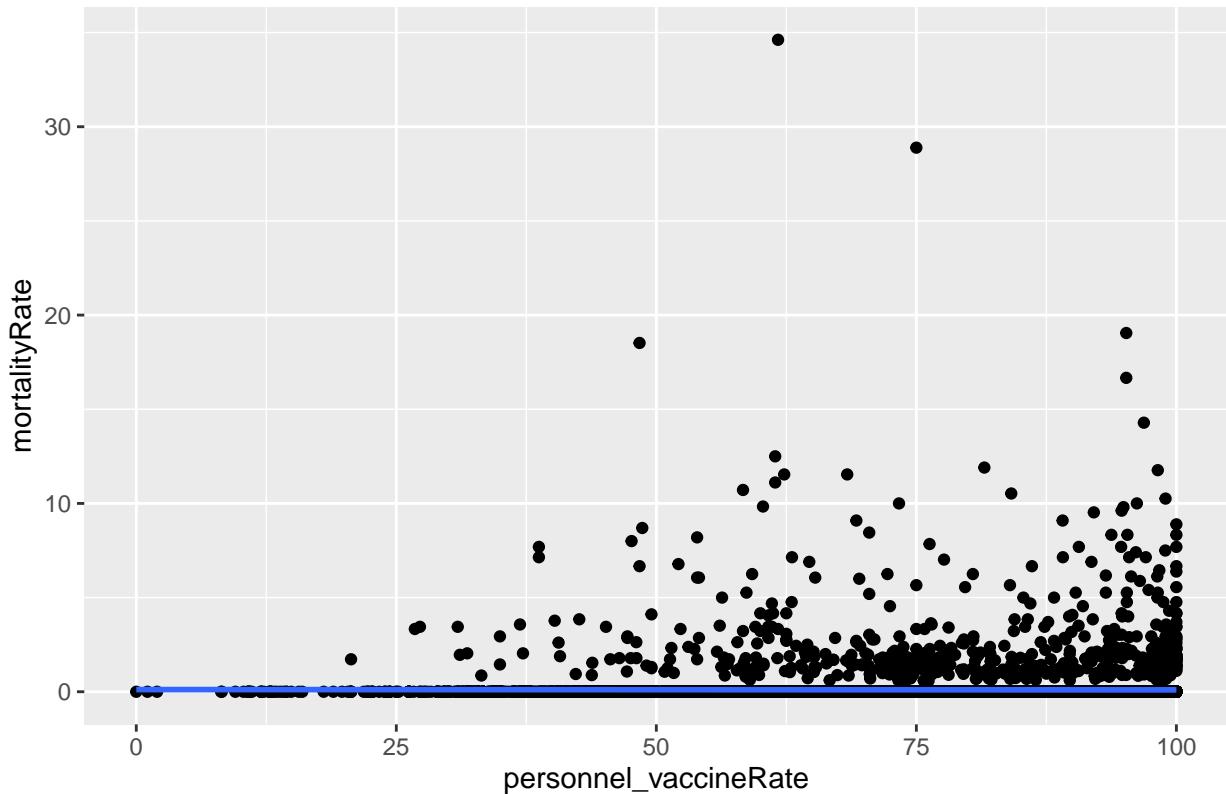
resident\_vaccineRate from July 2021



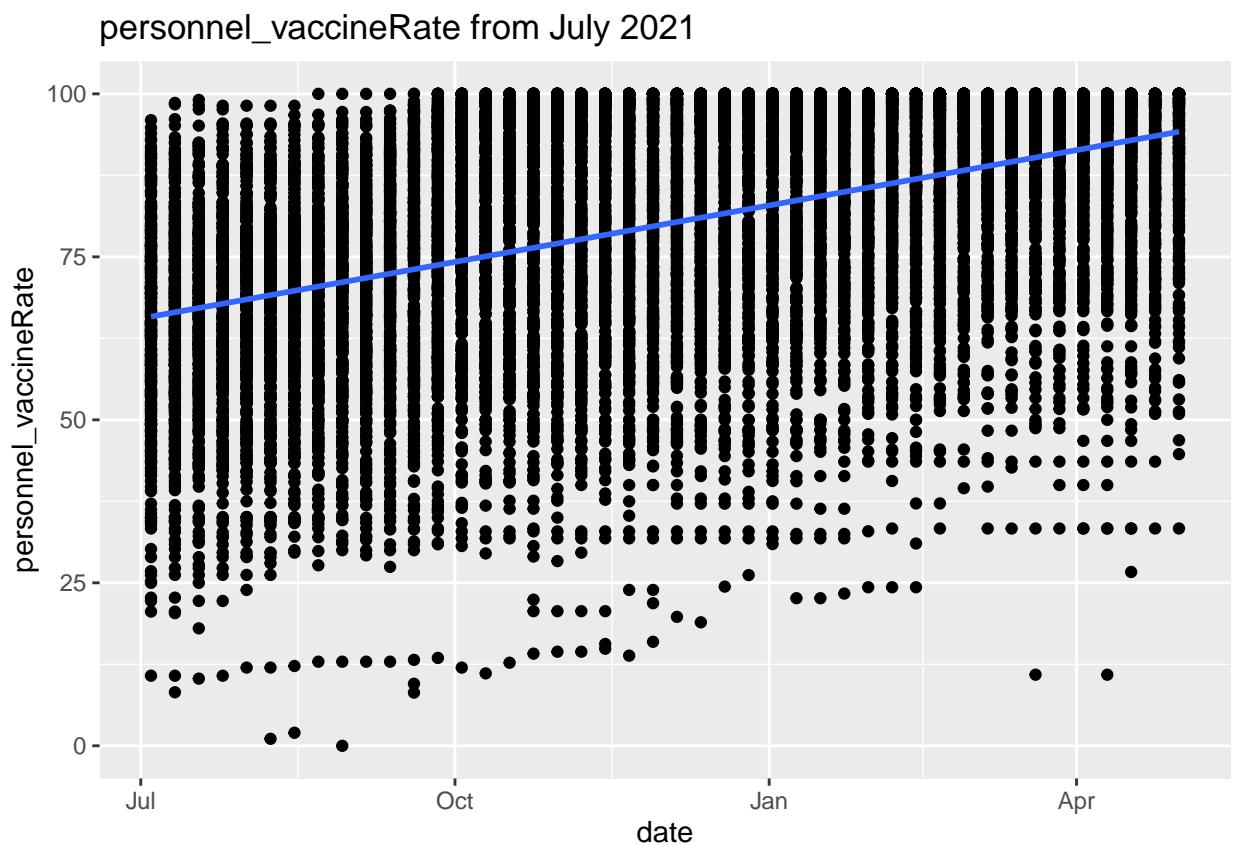
## Linear models for mortalityRate VS personnel\_vaccineRate

```
##  
## Call:  
## lm(formula = mortalityRate ~ personnel_vaccineRate, data = nurse_home)  
##  
## Residuals:  
##     Min      1Q Median      3Q     Max  
## -0.116 -0.106 -0.103 -0.101 34.509  
##  
## Coefficients:  
##                         Estimate Std. Error t value Pr(>|t|)  
## (Intercept)          0.1159622  0.0296093  3.916 9.03e-05 ***  
## personnel_vaccineRate -0.0001517  0.0003619 -0.419    0.675  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.7918 on 15213 degrees of freedom  
##   (207 observations deleted due to missingness)  
## Multiple R-squared:  1.156e-05, Adjusted R-squared:  -5.418e-05  
## F-statistic: 0.1758 on 1 and 15213 DF,  p-value: 0.675
```

mortalityRate VS personnel\_vaccineRate



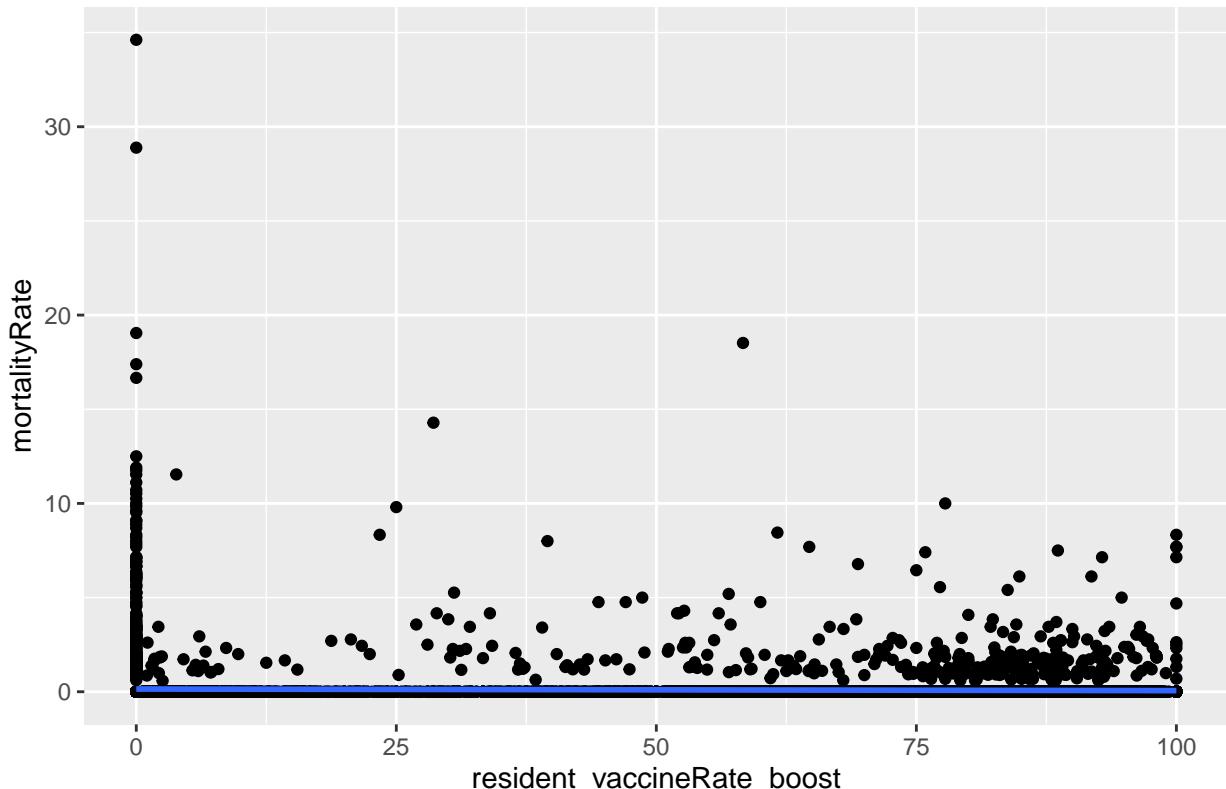
## Time series of the personnel\_vaccineRate



## Linear models for mortalityRate VS resident\_vaccineRate\_boost

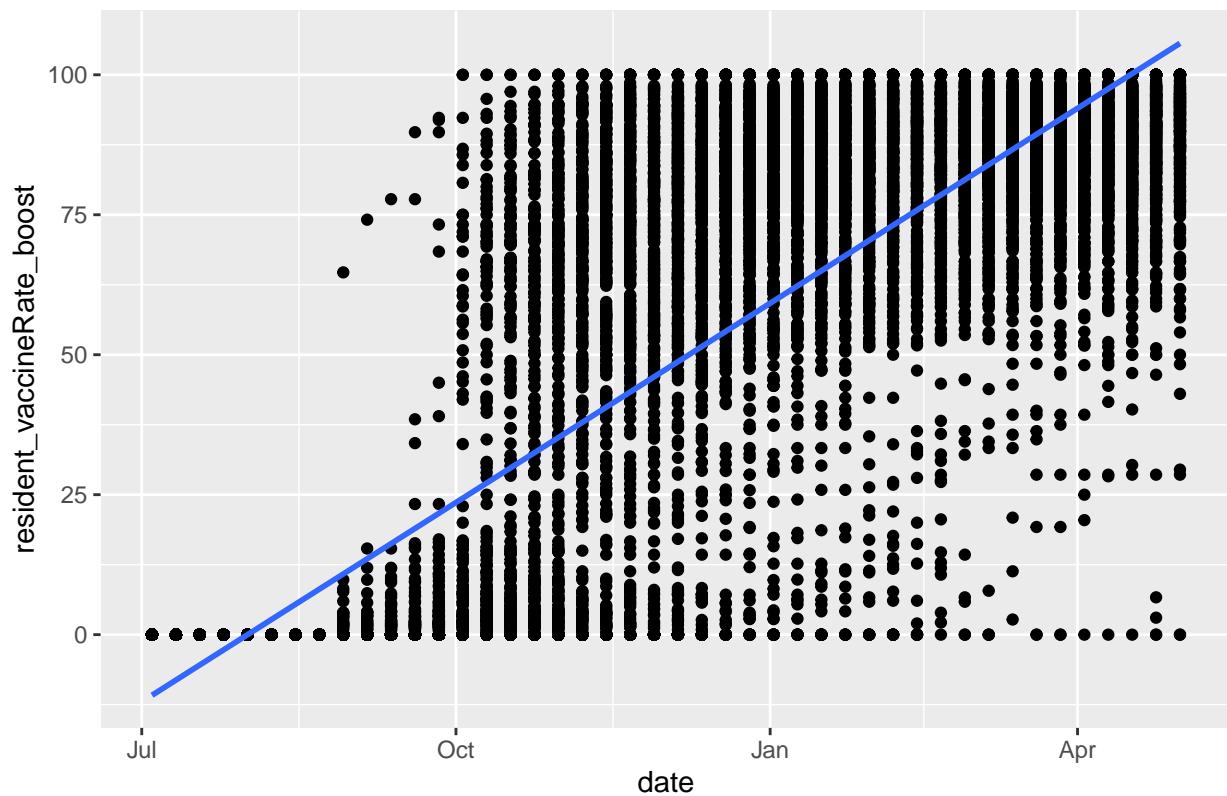
```
##  
## Call:  
## lm(formula = mortalityRate ~ resident_vaccineRate_boost, data = nurse_home)  
##  
## Residuals:  
##     Min      1Q Median      3Q     Max  
## -0.146 -0.146 -0.089 -0.070 34.470  
##  
## Coefficients:  
##                               Estimate Std. Error t value Pr(>|t|)  
## (Intercept)             0.1455549  0.0098905 14.717 < 2e-16 ***  
## resident_vaccineRate_boost -0.0008594  0.0001590 -5.407 6.52e-08 ***  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.8053 on 15234 degrees of freedom  
##   (186 observations deleted due to missingness)  
## Multiple R-squared:  0.001915,  Adjusted R-squared:  0.00185  
## F-statistic: 29.23 on 1 and 15234 DF,  p-value: 6.516e-08
```

mortalityRate VS resident\_vaccineRate\_boost



## Time series of the resident\_vaccineRate\_boost

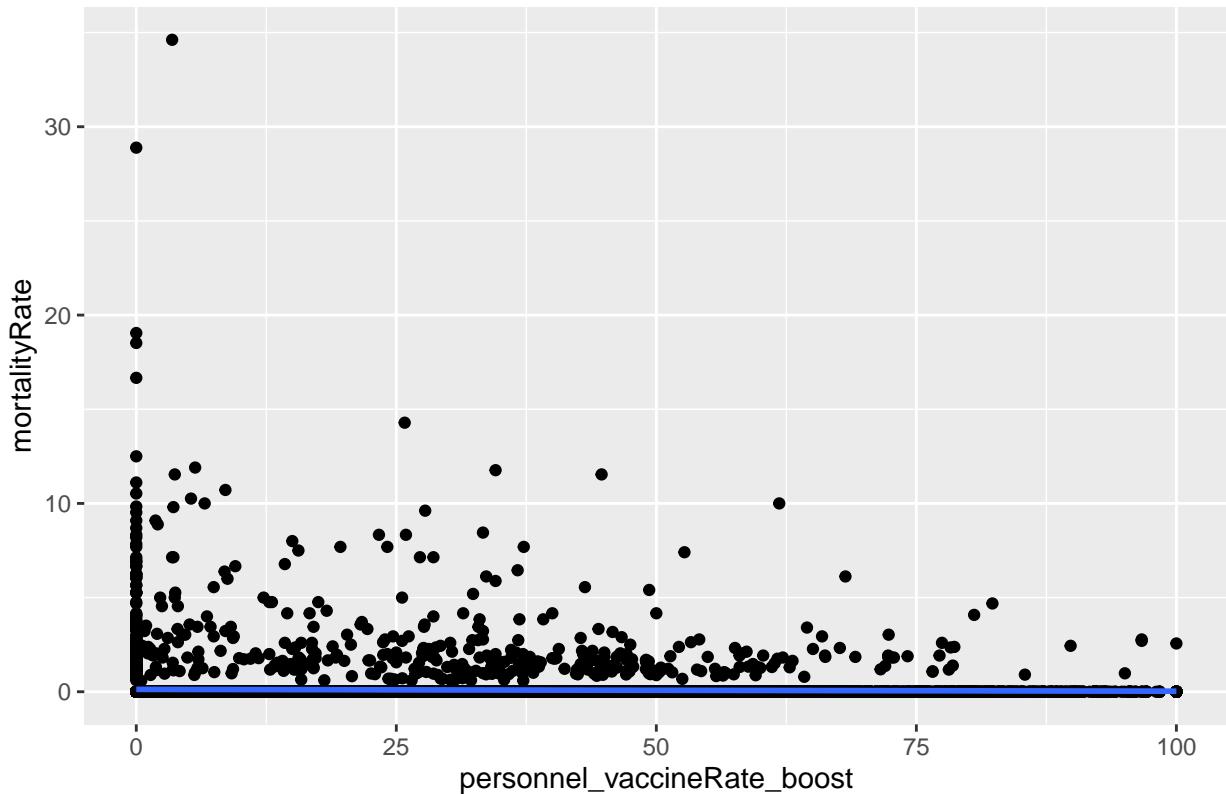
resident\_vaccineRate\_boost from July 2021



## Linear models for mortalityRate VS personnel\_vaccineRate\_boost

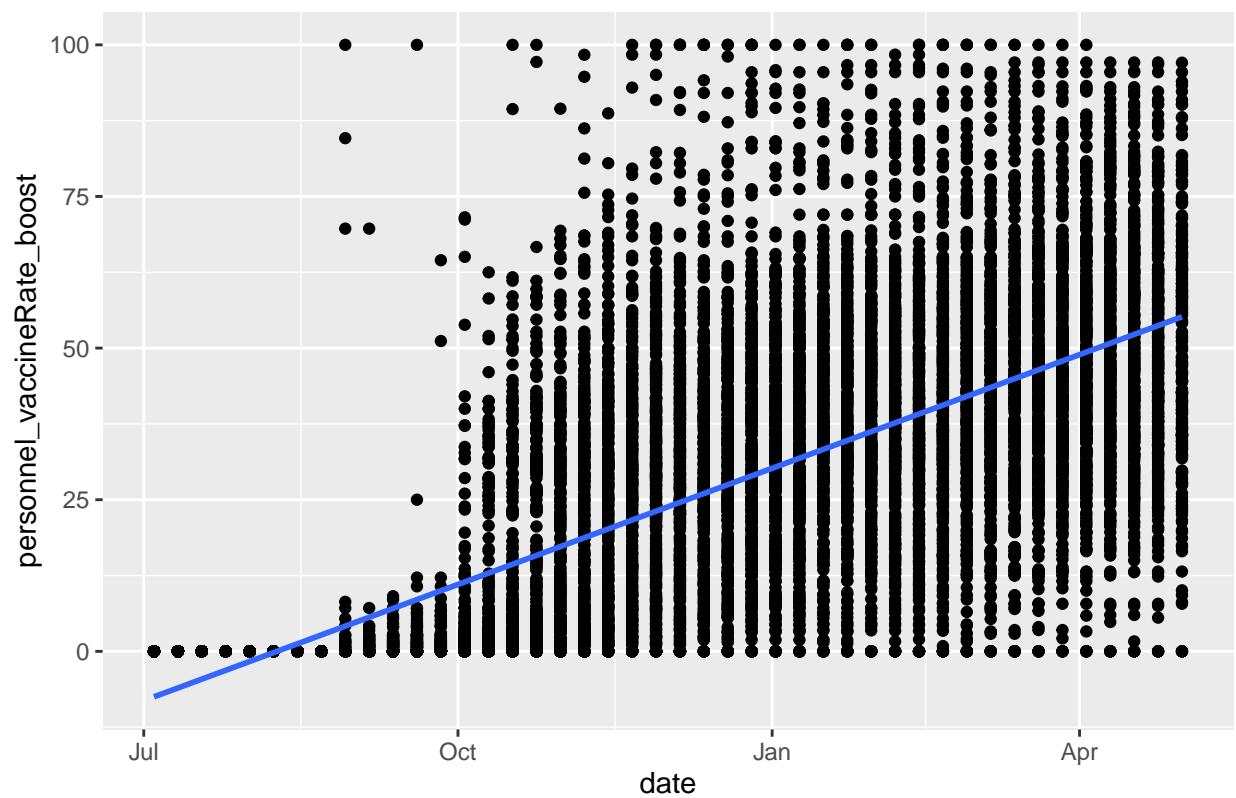
```
##  
## Call:  
## lm(formula = mortalityRate ~ personnel_vaccineRate_boost, data = nurse_home)  
##  
## Residuals:  
##     Min      1Q Median      3Q     Max  
## -0.126 -0.126 -0.106 -0.084 34.492  
##  
## Coefficients:  
##                               Estimate Std. Error t value Pr(>|t|)  
## (Intercept)             0.1262921  0.0088546 14.263 < 2e-16 ***  
## personnel_vaccineRate_boost -0.0009546  0.0002595 -3.679 0.000235 ***  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.7915 on 15213 degrees of freedom  
## (207 observations deleted due to missingness)  
## Multiple R-squared:  0.000889,  Adjusted R-squared:  0.0008233  
## F-statistic: 13.54 on 1 and 15213 DF,  p-value: 0.0002348
```

mortalityRate VS personnel\_vaccineRate\_boost



## Time series of the personnel\_vaccineRate\_boost

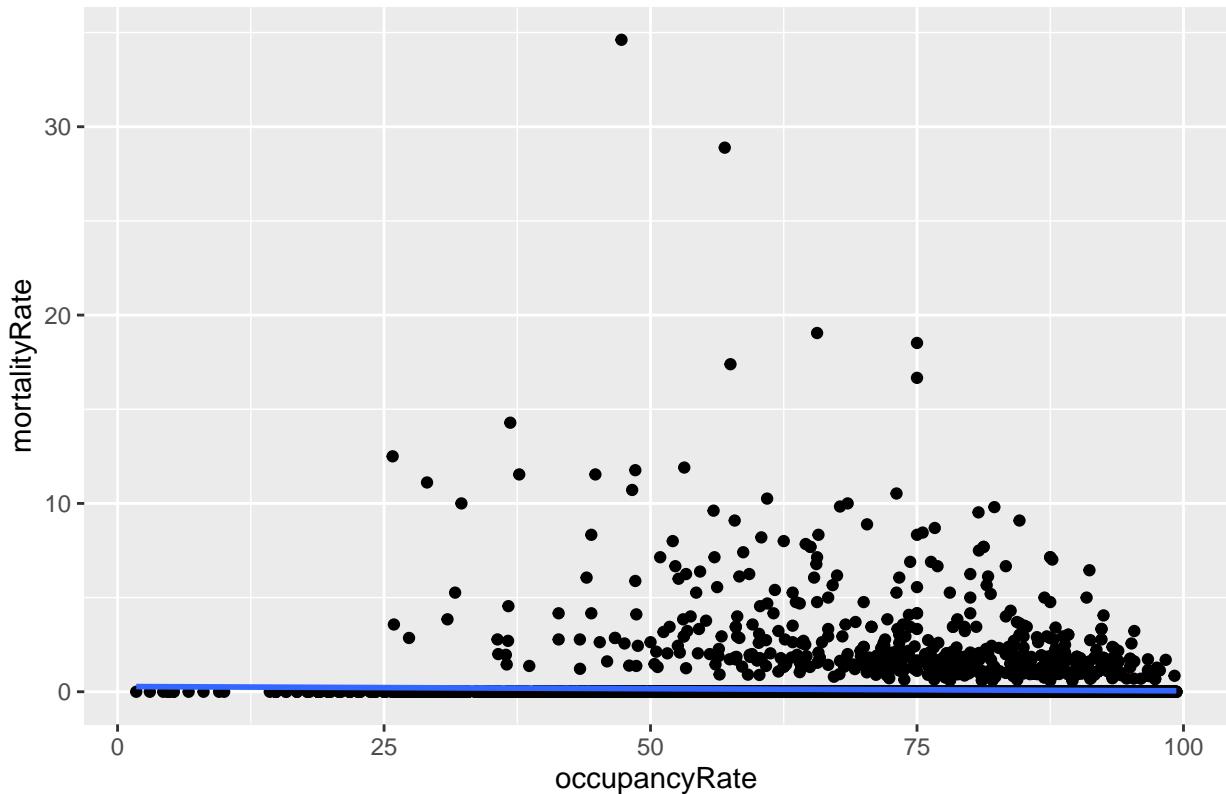
personnel\_vaccineRate\_boost from July 2021



## Linear models for mortalityRate VS occupancyRate

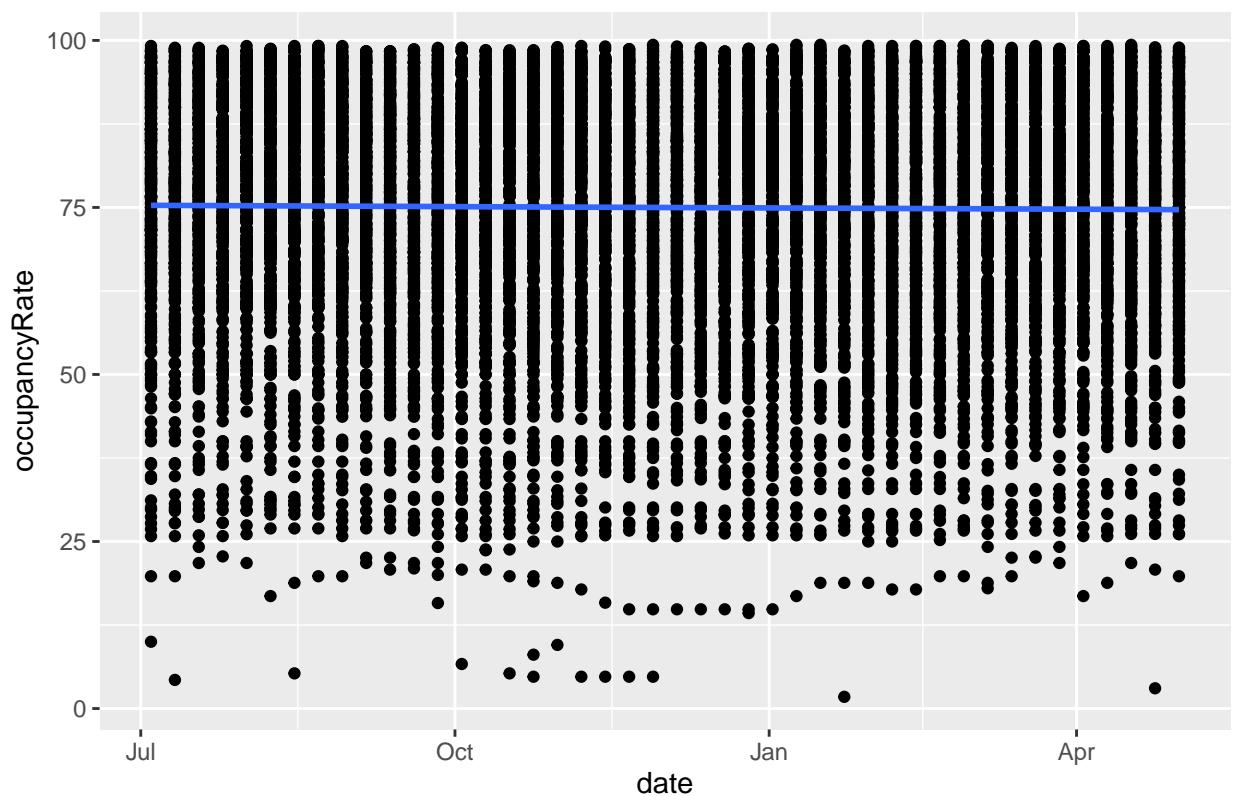
```
##  
## Call:  
## lm(formula = mortalityRate ~ occupancyRate, data = nurse_home)  
##  
## Residuals:  
##     Min      1Q Median      3Q     Max  
## -0.274 -0.127 -0.098 -0.073 34.446  
##  
## Coefficients:  
##                 Estimate Std. Error t value Pr(>|t|)  
## (Intercept)  0.2777967  0.0301489   9.214 < 2e-16 ***  
## occupancyRate -0.0022859  0.0003923  -5.827 5.78e-09 ***  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.8088 on 15099 degrees of freedom  
## (321 observations deleted due to missingness)  
## Multiple R-squared:  0.002243,  Adjusted R-squared:  0.002177  
## F-statistic: 33.95 on 1 and 15099 DF,  p-value: 5.775e-09
```

mortalityRate VS occupancyRate



## Time series of the occupancyRate

occupancyRate from July 2021



## Time series of the mortalityRate

mortalityRate in county level from July 2021

