EDA

Eric Leinweber, Quinn Bankson, Paige Hathaway, Betsy Norwood

With our data set, we are hoping to analyze the relationship between coal power plant emissions and health outcomes for the states of Colorado, Wyoming, and Idaho.

Size and and Central Tendency

Size: 123 observations and 37 variables

Some examples of central tendency statistics:

```
summary(data$lifetime_co2_state)
 Min. 1st Qu.  Median     Mean 3rd Qu.    Max.     NA's
 46.7     46.7    46.7    129.6   331.6   331.6       44
summary(data$lung_cancer_per_100000)
 Min. 1st Qu.  Median     Mean 3rd Qu.    Max.     NA's
20.90    38.75   47.90    48.38   57.05   80.50       29

> summary(data$Both_Asthma)
  Min. 1st Qu.  Median     Mean 3rd Qu.    Max.
0.8443  1.0771  1.2023   1.2761  1.4338  2.4043
```
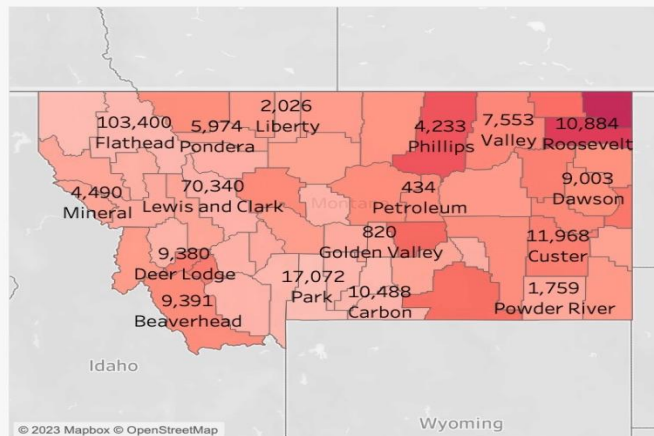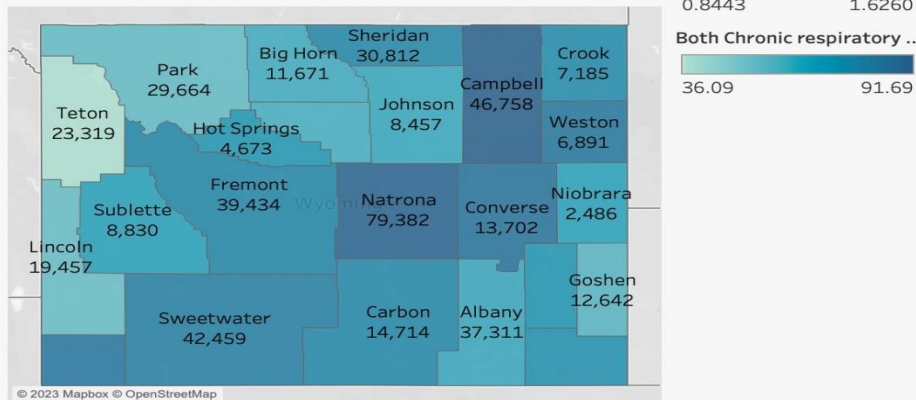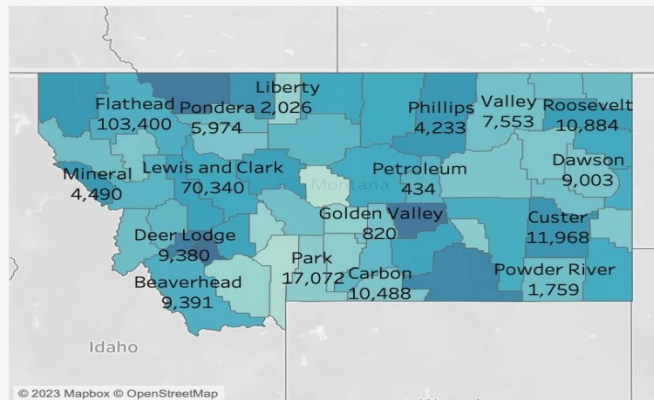
Missingness- Quinn
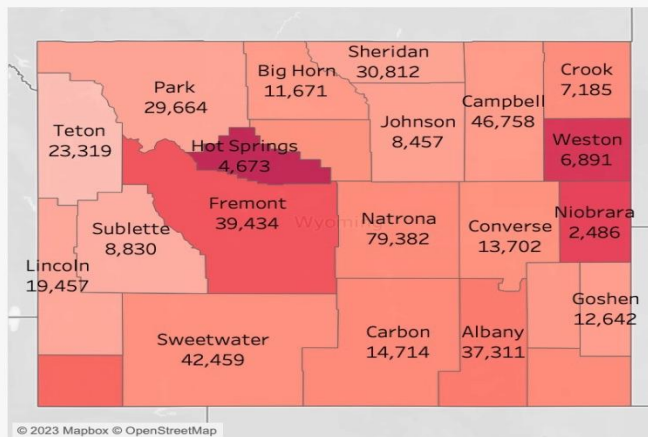
Asthma Diagnoses per Capita

Liberty
2,026
103,400 Flathead
5,974 Pondera
4,233 Phillips
7,553 Valley
10,884 Roosevelt
4,490 Mineral
70,340 Lewis and Clark
434 Petroleum
9,003 Dawson
820 Golden Valley
11,968 Custer
9,380 Deer Lodge
17,072 Park
10,488 Carbon
1,759 Powder River
9,391 Beaverhead
Montana
Idaho
Wyoming
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Chronic Resipratory Disease Diagnoses per Capita

Park 29,664
Big Horn 11,671
Sheridan 30,812
Crook 7,185
Campbell 46,758
Johnson 8,457
Weston 6,891
Teton 23,319
Hot Springs 4,673
Sublette 8,830
Fremont 39,434
Natrona 79,382
Converse 13,702
Niobrara 2,486
Lincoln 19,457
Sweetwater 42,459
Carbon 14,714
Albany 37,311
Goshen 12,642
Wyoming
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Both Asthma
0.8443   1.6260

Both Chronic respiratory ..
36.09   91.69

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Dawson 9,003
Golden Valley 820
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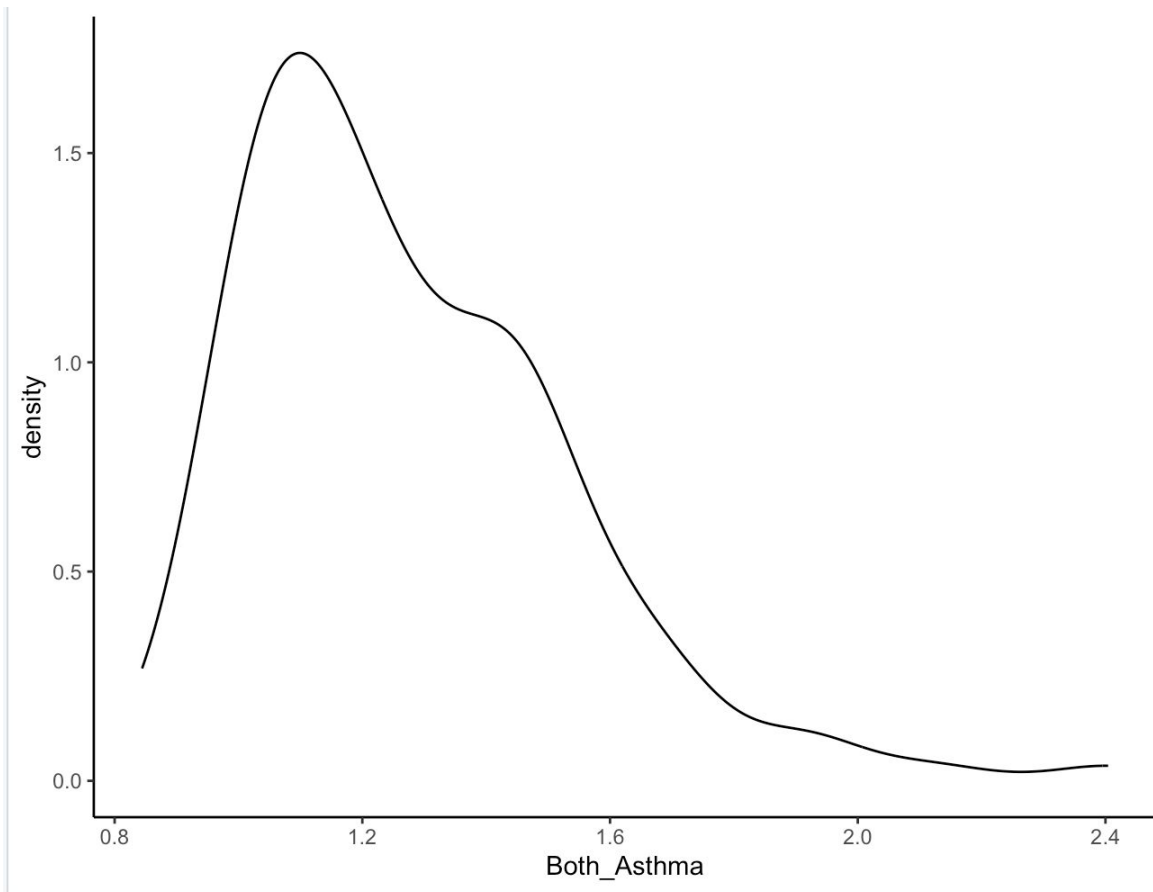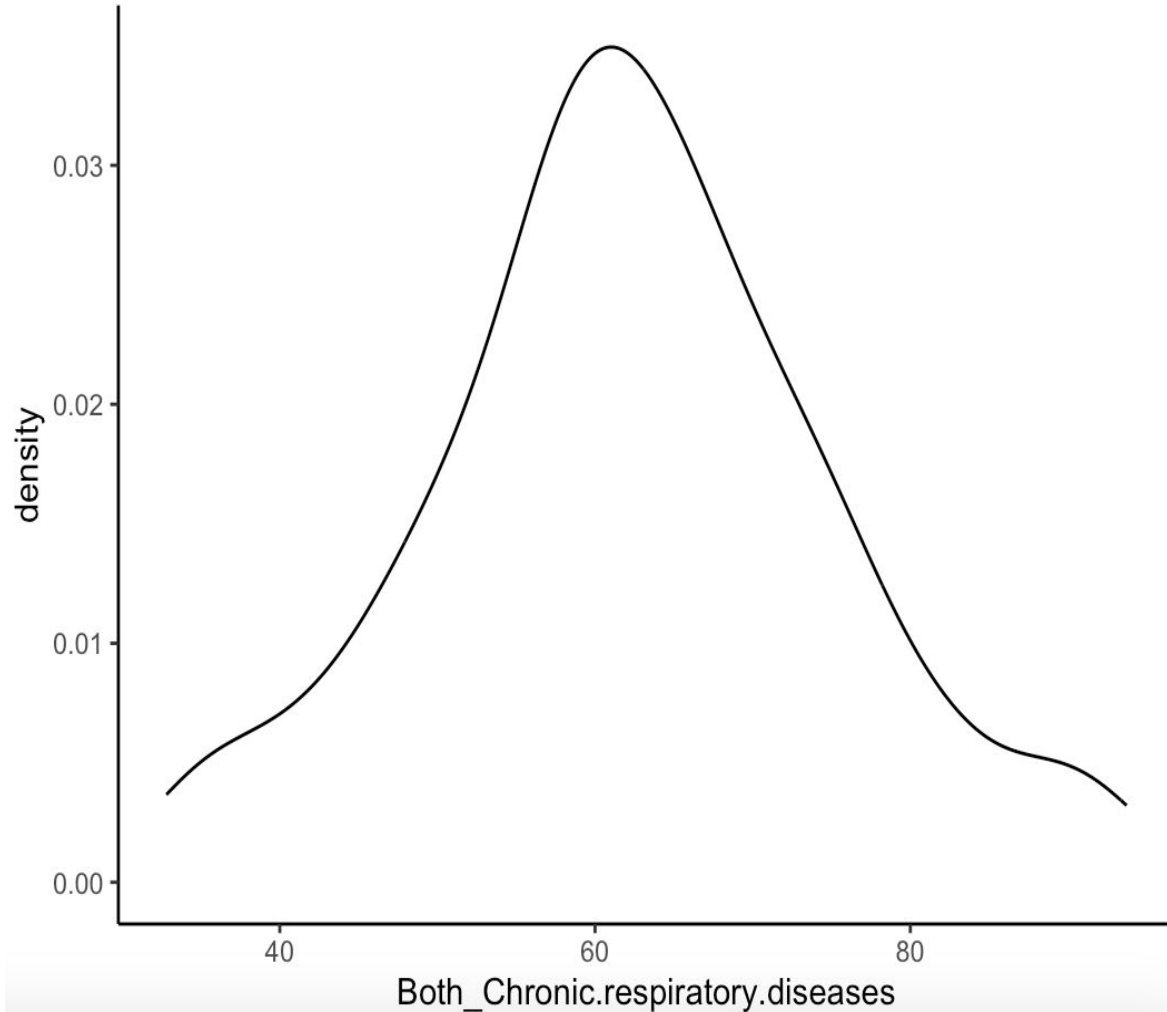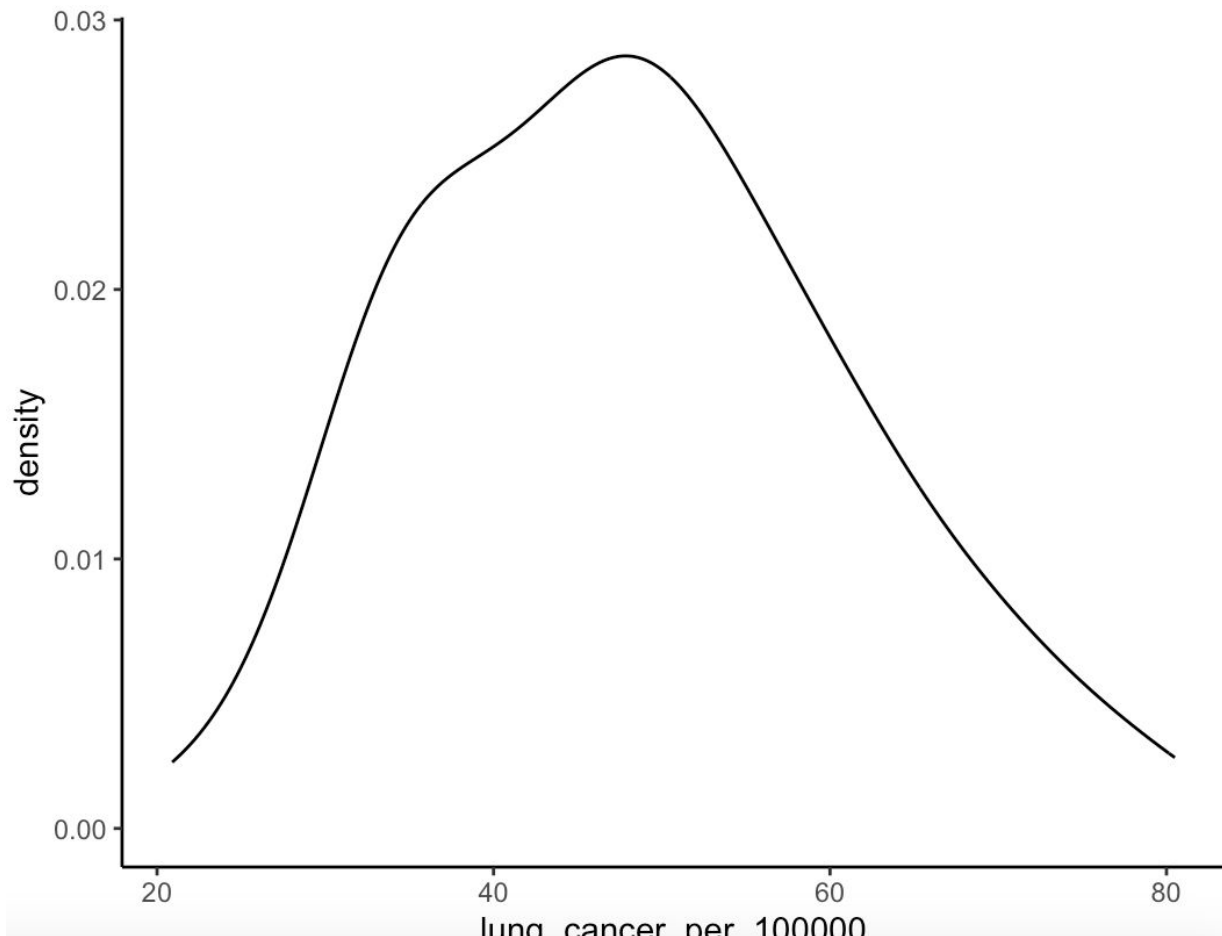
Asthma Shape

- Skewed

Chronic Respiratory Disease Shape
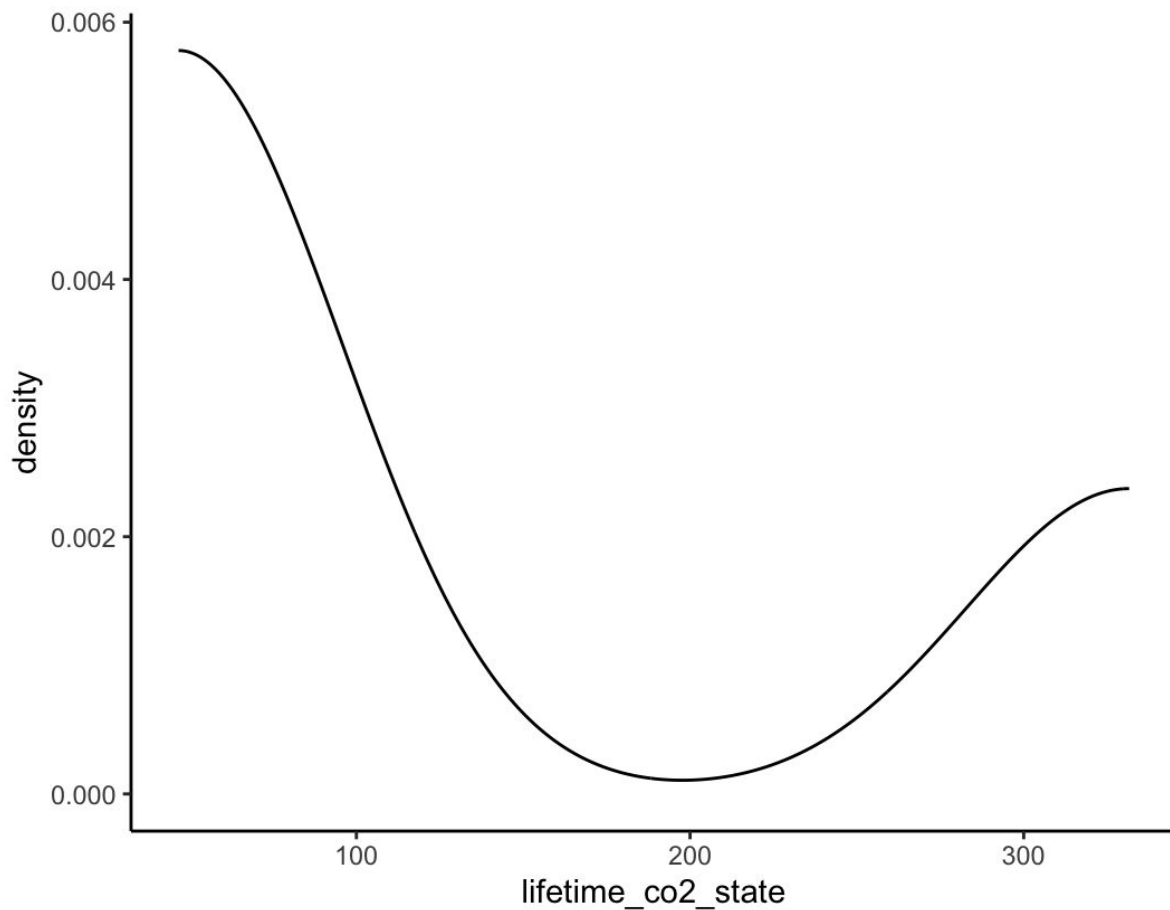
- Mostly normal

Lung Cancer Shape

- Mostly normal
- Skewed

Lifetime CO2 Shape

- Inverted, not normal
- Skewed

Correlation Matrix