

All Deaths:

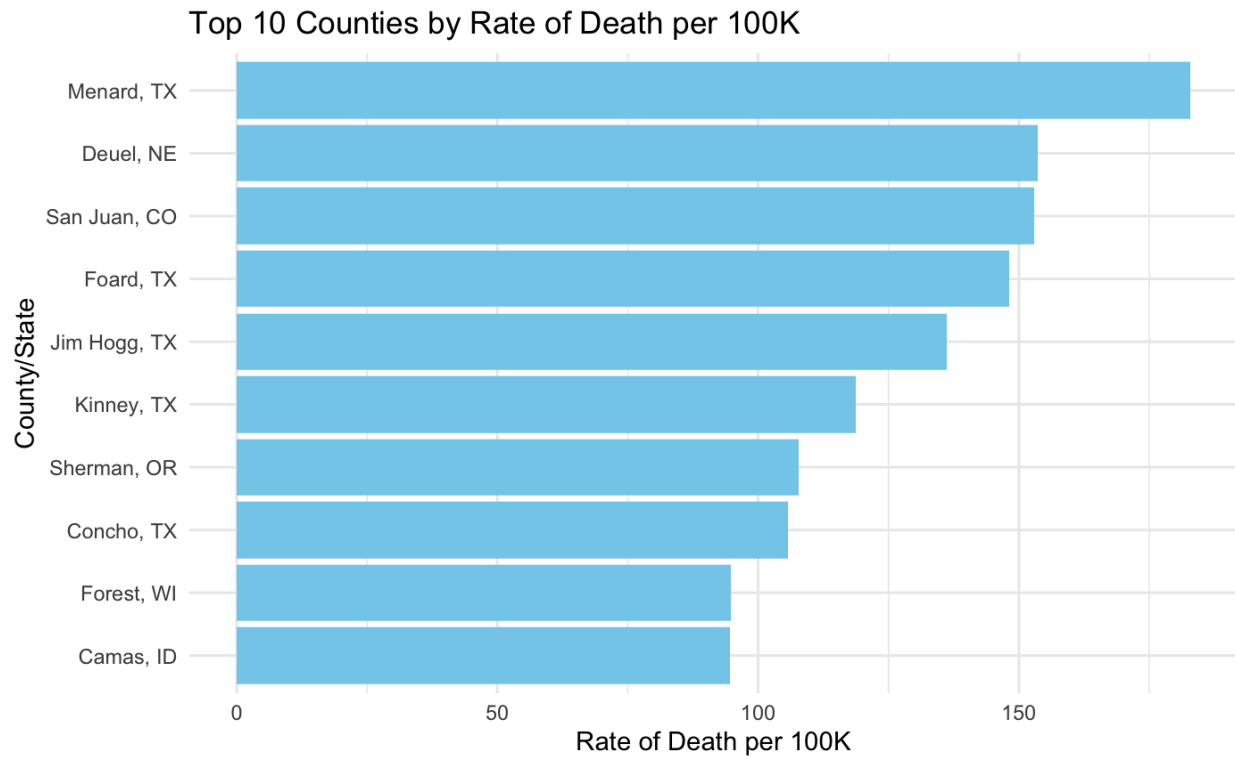
Numerical (does not take into account county populations):

| countystate <chr> | n <int> | percentage <dbl> |
|-----------------------------|-------------------|----------------------------|
| Los Angeles, CA | 1545 | 4.81248443 |
| Cook, IL | 640 | 1.99352106 |
| Harris, TX | 615 | 1.91564914 |
| Maricopa, AZ | 518 | 1.61350611 |
| San Bernardino, CA | 379 | 1.18053825 |
| San Diego, CA | 361 | 1.12447047 |
| Riverside, CA | 315 | 0.98118615 |
| St. Louis, MO | 311 | 0.96872664 |
| Clark, NV | 306 | 0.95315226 |
| Orange, CA | 298 | 0.92823324 |

Table (takes county populations into account):

| County | Deaths/100k Residents |
|---------------|------------------------------|
| Menard, TX | 182.87108 |
| Deuel, NE | 153.63605 |
| San Juan, CO | 152.98317 |
| Foard, TX | 148.07502 |
| Jim Hogg, TX | 136.20444 |
| Kinney, TX | 118.75309 |
| Sherman, OR | 107.83609 |
| Concho, TX | 105.69893 |
| Forest, WI | 94.70361 |
| Camas, ID | 94.57755 |

Bar chart (takes county populations into account):



GSW Deaths:

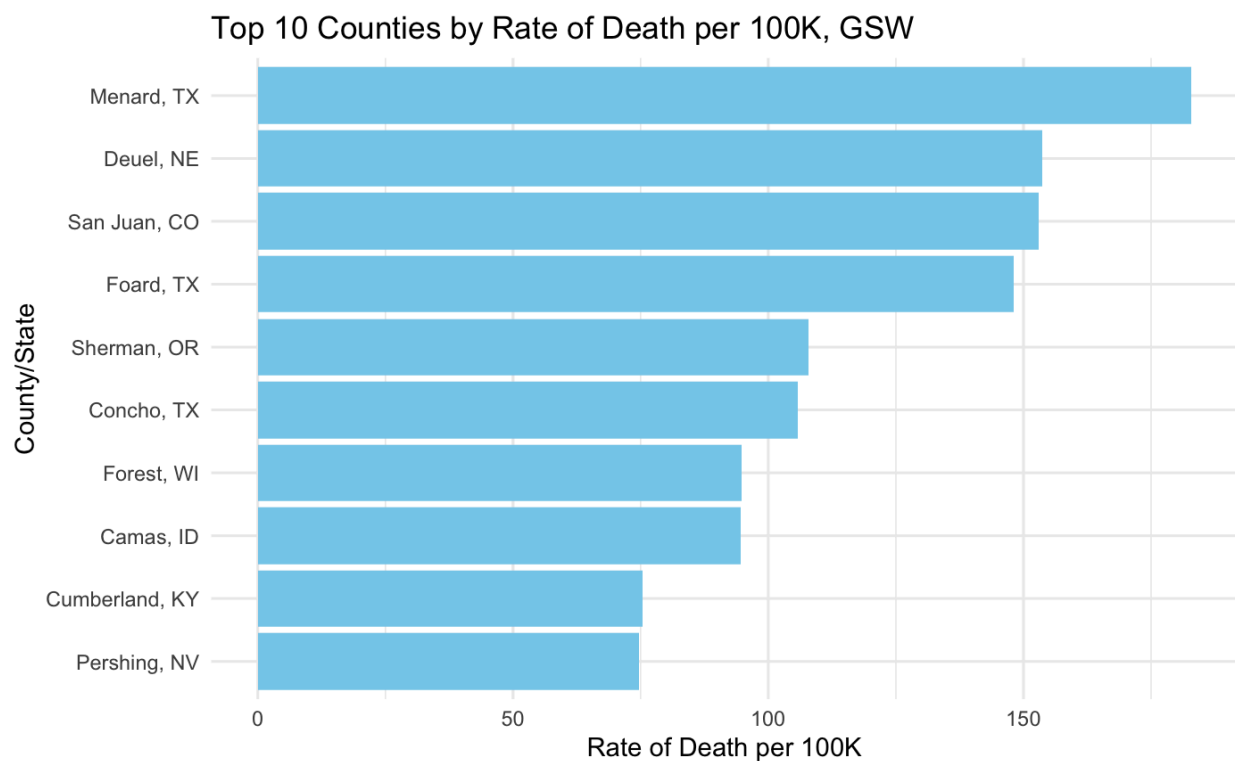
Numerical (does not take county population into account):

| countystate <chr> | n <int> | percentage <dbl> |
|----------------------|------------|---------------------|
| Los Angeles, CA | 1265 | 5.43268198 |
| Maricopa, AZ | 465 | 1.99699377 |
| Harris, TX | 455 | 1.95404767 |
| Cook, IL | 407 | 1.74790638 |
| San Bernardino, CA | 297 | 1.27549925 |
| Clark, NV | 273 | 1.17242860 |
| Riverside, CA | 254 | 1.09083101 |
| San Diego, CA | 236 | 1.01352802 |
| Orange, CA | 223 | 0.95769809 |
| Philadelphia, PA | 209 | 0.89757355 |

Table (takes county populations into account):

| County | GSW Deaths/100k Residents |
|----------------|----------------------------------|
| Menard, TX | 182.87108 |
| Deuel, NE | 153.63605 |
| San Juan, CO | 152.98317 |
| Foard, TX | 148.07502 |
| Sherman, OR | 107.83609 |
| Concho, TX | 105.69893 |
| Forest, WI | 94.70361 |
| Camas, ID | 94.57755 |
| Cumberland, KY | 75.45651 |
| Pershing, NV | 74.60831 |

Bar chart (takes county populations into account):



Non-GSW Deaths:

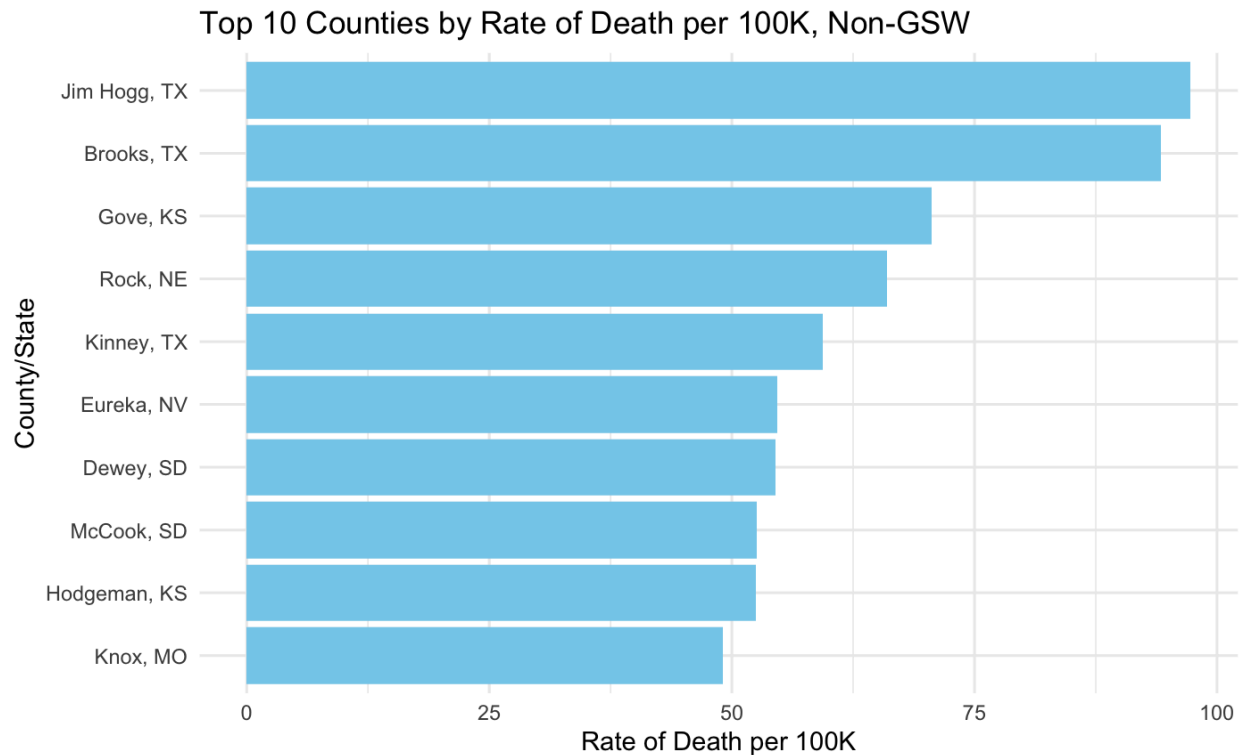
Numerical (does not take county populations into account):

| countystate <chr> | n <int> | percentage <dbl> |
|-----------------------------|-------------------|----------------------------|
| Los Angeles, CA | 280 | 3.17496315 |
| Cook, IL | 233 | 2.64202291 |
| Harris, TX | 160 | 1.81426466 |
| Wayne, MI | 126 | 1.42873342 |
| San Diego, CA | 125 | 1.41739426 |
| St. Louis, MO | 119 | 1.34935934 |
| Bexar, TX | 92 | 1.04320218 |
| Alameda, CA | 91 | 1.03186302 |
| Dallas, TX | 88 | 0.99784556 |
| San Bernardino, CA | 82 | 0.92981064 |

Table (takes county populations into account):

| County | Non-GSW Deaths/100k Residents |
|---------------|--------------------------------------|
| Jim Hogg, TX | 97.28888 |
| Brooks, TX | 94.22956 |
| Gove, KS | 70.61316 |
| Rock, NE | 66.00660 |
| Kinney, TX | 59.37655 |
| Eureka, NV | 54.64481 |
| Dewey, SD | 54.49261 |
| McCook, SD | 52.56395 |
| Hodgeman, KS | 52.44755 |
| Knox, MO | 49.04365 |

Bar chart (takes county populations into account):



Methodology:

I had the death data with county and state included, and I created a new column that combines county name and state into one value. The values in this column (“countystate”) appeared like this: “Lake, IL”, “Kern, CA”, etc.

I removed the Year column, so my dataset only had the columns State, County, cause (cause of death), and countystate.

Numerical Data Methods:

(How I found number of deaths in each county)

I ran code that summed up the number of times the same value in the column `countystate` showed up in the dataset. In other words, since each row of the dataset represents an individual death, you add up the number of rows where “Lake, IL” was the county the victim passed. This then equals the number of deaths that occurred in Lake, IL, and those values were assigned a new column.

(How I filtered them out by cause of death)

To filter this out by whether the victims passed from gunshot wounds or other causes, I created two separate datasets. I created code that searched the dataset to find rows where the cause of death included the word “gunshot”, and then created a dataset that is of victims who passed from gunshot wounds. I then did the opposite to create a dataset where the victims passed from any other cause of death other than gunshot wounds. For both datasets, I then ran the same code from

the paragraph before that adds up the total number of deaths in each county, and assigned those values to the column “n”.

Proportional Data Methods:

Datasets used to calculate county population are from [Index of /programs-surveys/popest/datasets](#)

(How I found the population for each county)

To find county population data, I took datasets from 2000-2010, 2010-2020, and 2020-2023. I standardized state names to state abbreviations, and created the column “countystate” once more. The census datasets were quite large, so I extracted the columns “ESTIMATESBASE20XX”, which is the census’ base estimate for the counties’ population. I then joined together all three datasets of census data by the countystate row. This then created a dataset where there was the countystate, population estimates from 2000, population estimates from 2010, and population estimates from 2020. I took the average of the three population estimates columns to create a new column called population.

(How I found the death rate per 100k residents)

I joined the death data (the dataset that was used for numerical calculations) and the population data by the countystate column. I then created a new column called “count_per_population”. The formula for that column was:

$$(\text{Number of deaths occurred/average population}) * 100,000$$

This calculates the rate of deaths occurred per 100,000 residents of each county. I extracted the top 10 counties, and turned them into tables and bar charts. For the GSW and non-GSW deaths, I joined together their respective datasets (deaths only by GSW and deaths only by non-GSW) with the county population data.

Error I made originally (all images are updated with correct data):

Some of the sums for deaths in GSW/non-GSW were under/overcounted due to how I dealt with duplicate values. Originally, I recalculated GSW and non-GSW deaths for population comparisons and kept only distinct values for countystate (i.e. only kept one value for Lake, IL) that had incorrect counts for deaths. The new values should have the correct counts of GSW and non-GSW deaths, and then had them divided by population (then multiplied by 100k) to get deaths per 100k residents.