

Fulton County COVID Stats

Melinda Higgins

2022-11-11

Report Overview

add text here on what this report is for...

Fulton County COVID Data

The dataset has 82101 COVID cases from mostly the Fulton County, GA area. These data cover COVID cases reported from December 2019 to July 2021.

Table of Demographics

	Overall (N=82101)
case__age	
N-Miss	48
Mean (SD)	39.685 (19.159)
Range	-20.000 - 106.000
case__gender	
N-Miss	63
Female	43299 (52.8%)
Male	38393 (46.8%)
Unknown	346 (0.4%)
case__race	
N-Miss	2630
AMERICAN INDIAN/ALASKA NATIVE	84 (0.1%)
ASIAN	3075 (3.9%)
BLACK	35048 (44.1%)
NATIVE HAWAIIAN/PACIFIC ISLANDER	79 (0.1%)
OTHER	5863 (7.4%)
UNKNOWN	3723 (4.7%)
WHITE	31599 (39.8%)
case__eth	
N-Miss	2574
HISPANIC/LATINO	8625 (10.8%)
NON-HISPANIC/LATINO	62677 (78.8%)
NOT SPECIFIED	8225 (10.3%)

Table of symptoms

	Overall (N=82101)
sym_fever	
N-Miss	31577
No	33951 (67.2%)
Unk	1446 (2.9%)
Yes	15127 (29.9%)
sym_subjfever	
N-Miss	37908
No	30457 (68.9%)
Unk	1024 (2.3%)
Yes	12712 (28.8%)
sym_myalgia	
N-Miss	32137
No	29210 (58.5%)
Unk	1220 (2.4%)
Yes	19533 (39.1%)
YES	1 (0.0%)
sym_losstastes	
N-Miss	50724
No	18109 (57.7%)
Unk	534 (1.7%)
Yes	12734 (40.6%)
sym_sorethroat	
N-Miss	32241
No	36106 (72.4%)
Unk	1238 (2.5%)
Yes	12516 (25.1%)
sym_cough	
N-Miss	31630
No	27474 (54.4%)
Unk	1054 (2.1%)
Yes	21943 (43.5%)
sym_headache	
N-Miss	32018
No	27196 (54.3%)
Unk	1212 (2.4%)
Yes	21675 (43.3%)
sym_resolved	
N-Miss	42294
No, still symptomatic	14466 (36.3%)
Unknown symptom status	2076 (5.2%)
Yes, date specified below	15304 (38.4%)
Yes, date unknown	7961 (20.0%)

Clean up data and recode

Table of some symptoms after recoding

Overall (N=82101)	
sym_fever.c	
No, unk, na	66974 (81.6%)
Yes	15127 (18.4%)
sym_sorethroat.c	
No, unk, na	69585 (84.8%)
Yes	12516 (15.2%)
sym_cough.c	
No, unk, na	60158 (73.3%)
Yes	21943 (26.7%)
sym_headache.c	
No, unk, na	60426 (73.6%)
Yes	21675 (26.4%)

Table of symptoms by race

Let's also add some nicer labels and then make the table of these recoded symptoms by race.

Table 4: Symptoms by race

	Black (N=35048)	Other, unknown or missing (N=15454)	White (N=31599)	Total (N=82101)
Fever				
No, unk, na	28725 (82.0%)	13017 (84.2%)	25232 (79.9%)	66974 (81.6%)
Yes	6323 (18.0%)	2437 (15.8%)	6367 (20.1%)	15127 (18.4%)
Sore Throat				
No, unk, na	30356 (86.6%)	13393 (86.7%)	25836 (81.8%)	69585 (84.8%)
Yes	4692 (13.4%)	2061 (13.3%)	5763 (18.2%)	12516 (15.2%)
Cough				
No, unk, na	25000 (71.3%)	12471 (80.7%)	22687 (71.8%)	60158 (73.3%)
Yes	10048 (28.7%)	2983 (19.3%)	8912 (28.2%)	21943 (26.7%)
Headache				
No, unk, na	25909 (73.9%)	12415 (80.3%)	22102 (69.9%)	60426 (73.6%)
Yes	9139 (26.1%)	3039 (19.7%)	9497 (30.1%)	21675 (26.4%)

Table of Symptoms by Race for People who Died

Table 5: Symptoms by race - people who died

	Black (N=1042)	Other, unknown or missing (N=63)	White (N=599)	Total (N=1704)
Fever				
No, unk, na	848 (81.4%)	46 (73.0%)	485 (81.0%)	1379 (80.9%)
Yes	194 (18.6%)	17 (27.0%)	114 (19.0%)	325 (19.1%)
Sore Throat				
No, unk, na	1020 (97.9%)	61 (96.8%)	581 (97.0%)	1662 (97.5%)
Yes	22 (2.1%)	2 (3.2%)	18 (3.0%)	42 (2.5%)
Cough				
No, unk, na	839 (80.5%)	48 (76.2%)	482 (80.5%)	1369 (80.3%)
Yes	203 (19.5%)	15 (23.8%)	117 (19.5%)	335 (19.7%)

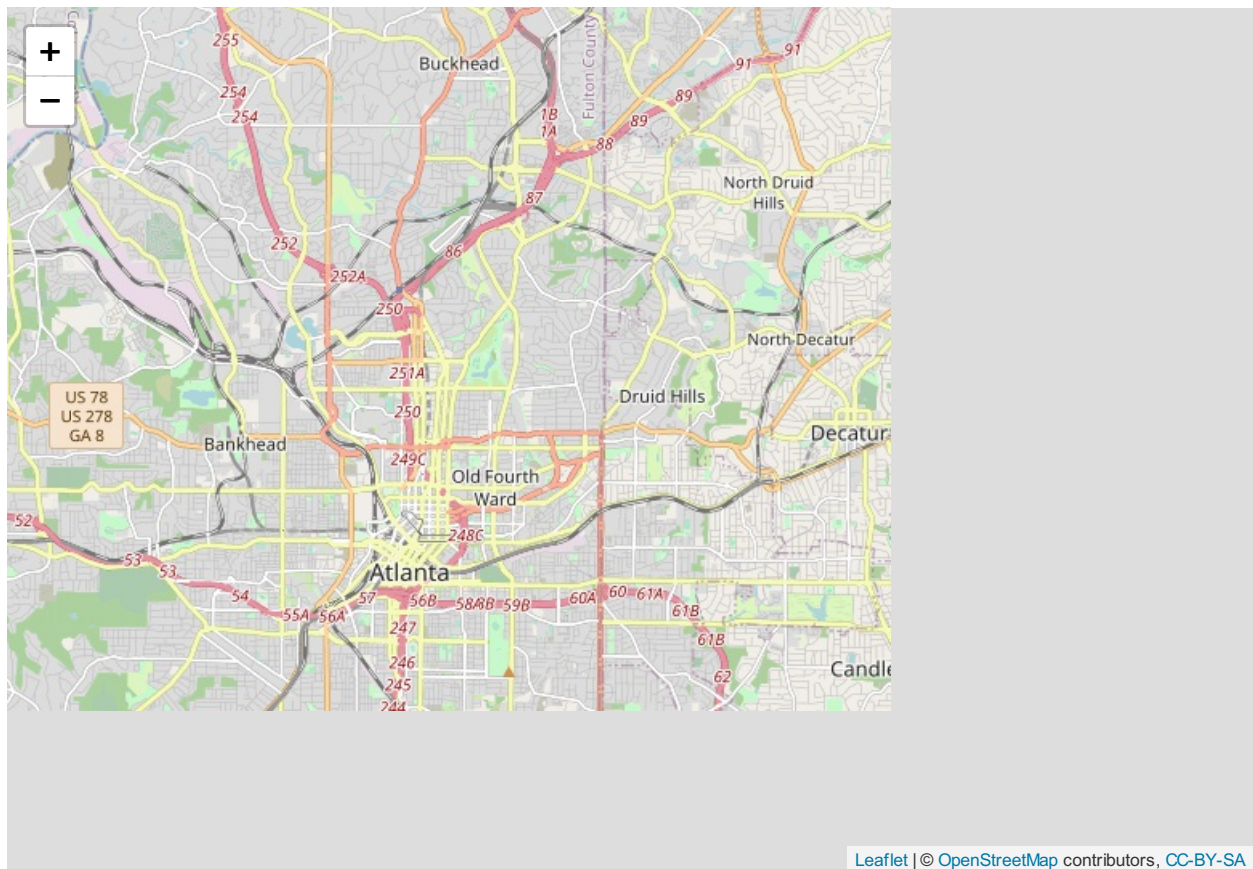
	Black (N=1042)	Other, unknown or missing (N=63)	White (N=599)	Total (N=1704)
Headache				
No, unk, na	1007 (96.6%)	61 (96.8%)	577 (96.3%)	1645 (96.5%)
Yes	35 (3.4%)	2 (3.2%)	22 (3.7%)	59 (3.5%)

Maps with points and markers

intro to making maps with data points on them

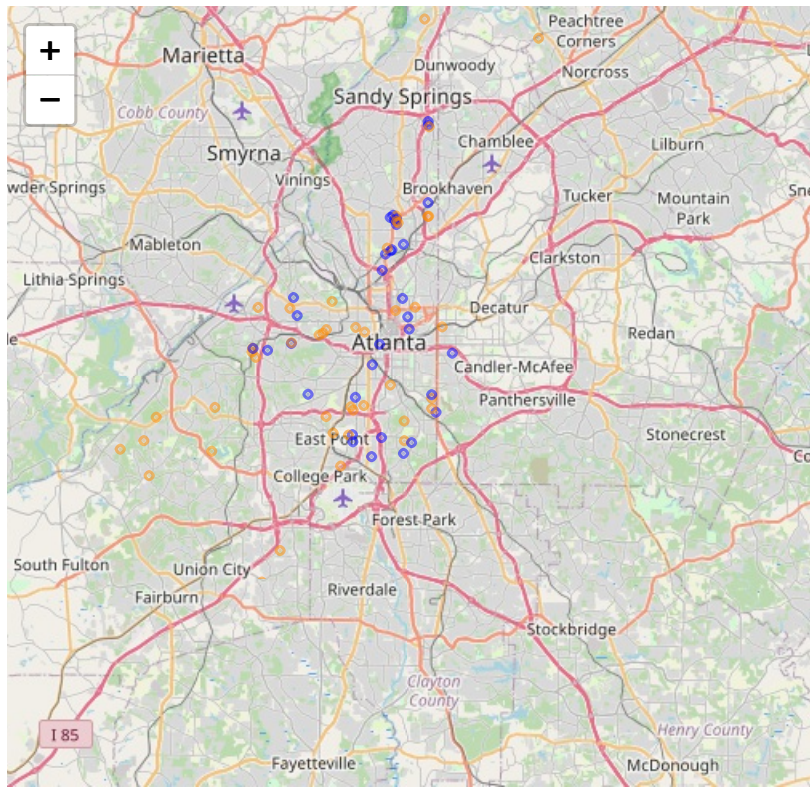
Make a Map of Atlanta with leaflet

Learn more about the `leaflet` package.



add data to the map

Let's look at the locations of the COVID deaths under review and color the points by gender.



Leaflet | © OpenStreetMap contributors, CC-BY-SA

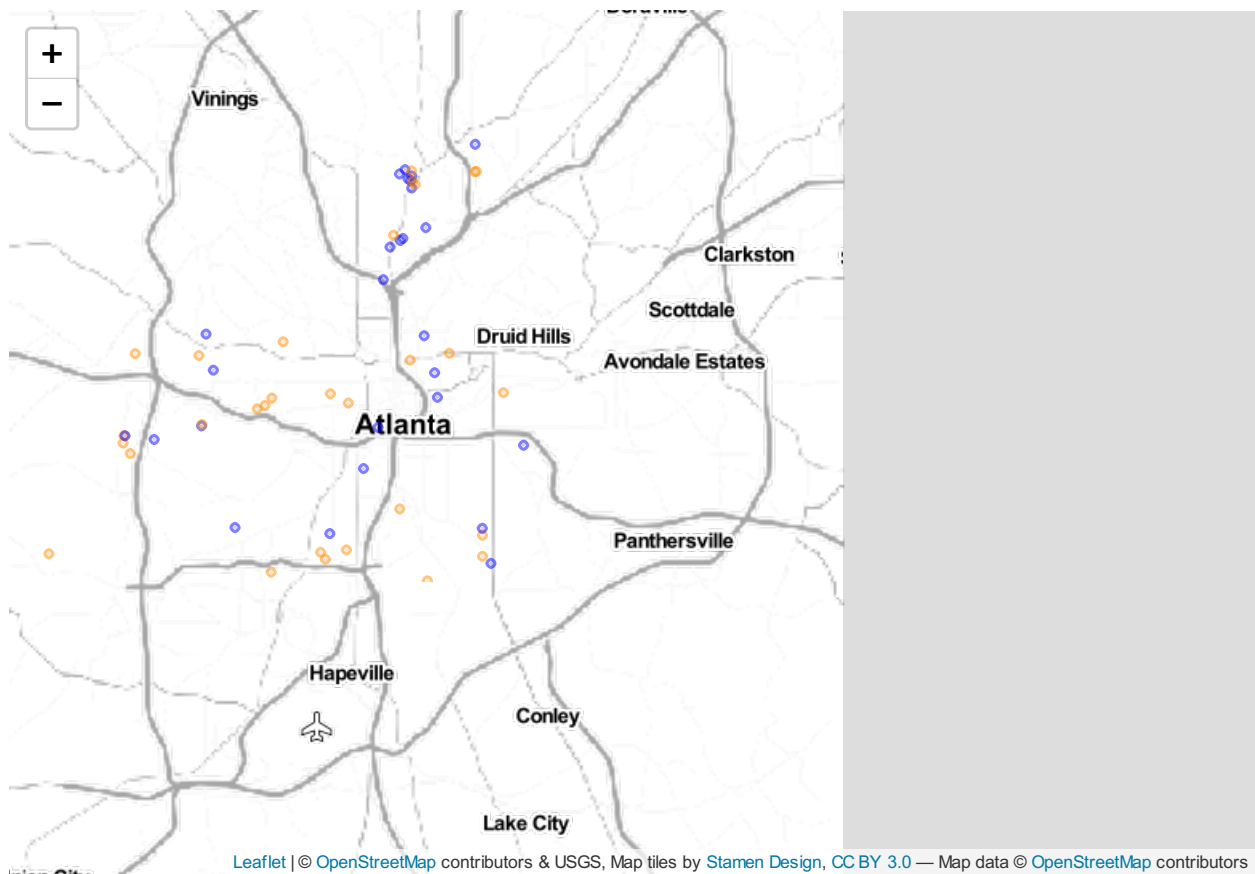
Change the base layer if wanted to simpler road map

Learn more with basemaps at <https://rstudio.github.io/leaflet/basemaps.html>.



Leaflet | © OpenStreetMap contributors & USGS, Map tiles by Stamen Design, CC BY 3.0 — Map data © OpenStreetMap contributors

Add some data to the map



Aggregating data

info here on aggregating data by categories - like by zipcode

then merge with the shapefile data for the Fulton County zipcodes

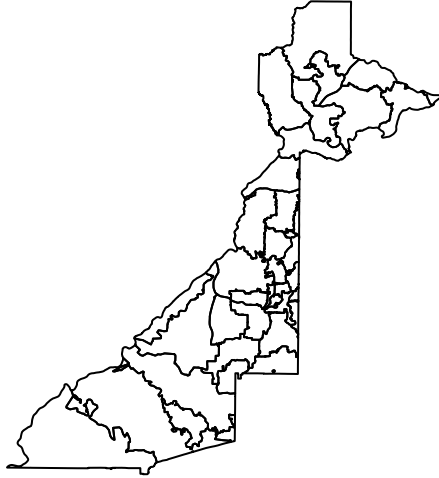
and then we can make choropleth maps - maps with colored areas filled in to represent values or categories.

Load shapefiles for Fulton County Map

Read in the SHP shapefile for Fulton County, GA using the `sf` package. Then plot the map.

```
## Reading layer `FultonCountyZipCodes' from data source
##   `C:\MyGithub\Emory_RWorkshop_11Nov2022\FultonCountyZipCodes\FultonCountyZipCodes.shp'
##   using driver `ESRI Shapefile'
## Simple feature collection with 48 features and 4 fields
## Geometry type: MULTIPOLYGON
## Dimension:      XY
## Bounding box:   xmin: 2087952 ymin: 1274336 xmax: 2317492 ymax: 1522856
## Projected CRS:  NAD83 / Georgia West (ftUS)
```

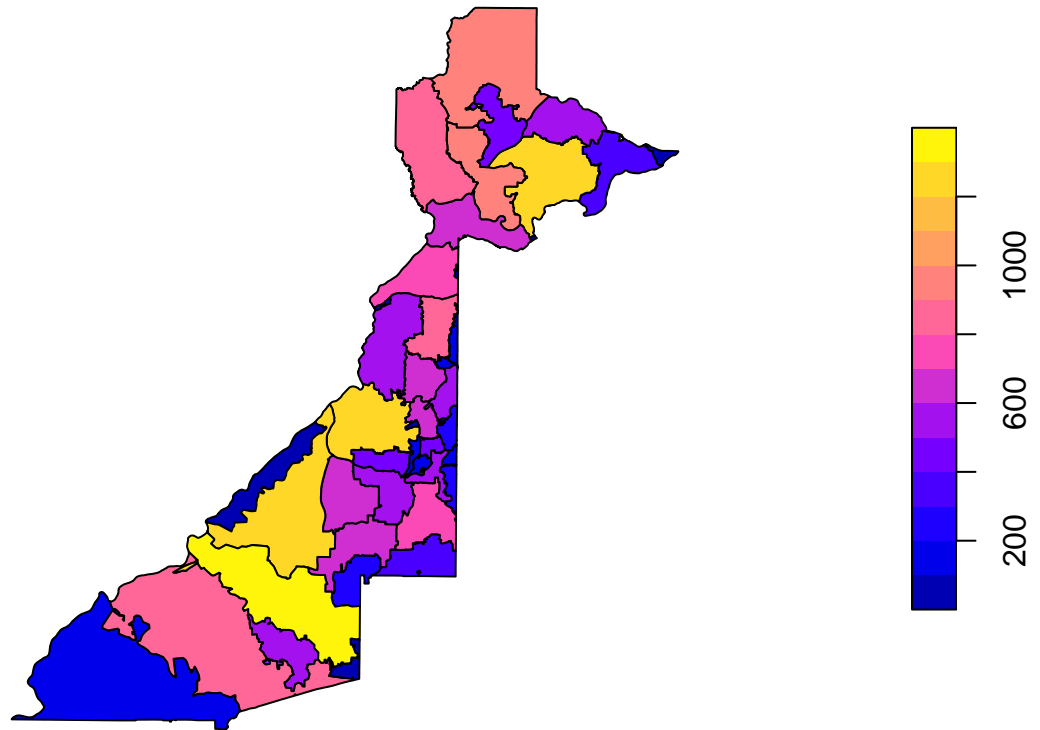
Fulton County Geometry



pull data of interest and summarize by zipcode

then merge and make a choropleth map

Number of People with Cough Reported



another map option with ggplot2

