

Cataloging the Vaccinated Counties of Illinois and to Identify Areas of Progress on Vaccinations

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COVID-19 Data Analysis

Our team name is Sky and Sea and the purpose of this science gateway will be to catalog the vaccinated portions of Illinois and to identify areas where progress on vaccinations is being made.

Using the questions we posed we looked for variables in the data that we wanted to investigate further. We created a graph that compares the number of vaccines administered to Illinois and the persons fully vaccinated. As the graph demonstrates a lot of people were getting vaccinated between March and May, but it has slowly started to plateau in June. The map shows the areas where vaccination rates are growing.

After observing the data and organizing it into a graph and map we can see that only about 50% of people are vaccinated compared to the population of Illinois. Vaccination rates were greatly increasing between March and May, but they are starting to plateau now in June and July. This data is important because Illinois needs to continue to increase its vaccination rates so more people can stay healthy and we can continue to re-open safely and hopefully one day go back to normal life.

Resources

The purpose of this science gateway will be to catalog the vaccinated counties of Illinois and to identify areas where progress on vaccinations is being made. The questions we asked ourselves to help us organize our data were:

1. How do the vaccination rates of Illinois counties compare with each other?
2. Are there similarities in how larger areas (combinations of county regions) receive COVID-19 vaccinations?
3. Is there a plateau on vaccination rate? If so, when did it begin to occur?

We utilized data found at

- <https://www.dph.illinois.gov/covid19/vaccinatedata?county=Illinois>
- <https://idph.illinois.gov/DPHPublicInformation/api/COVIDExport/GetVaccineAdministration?countyname=>

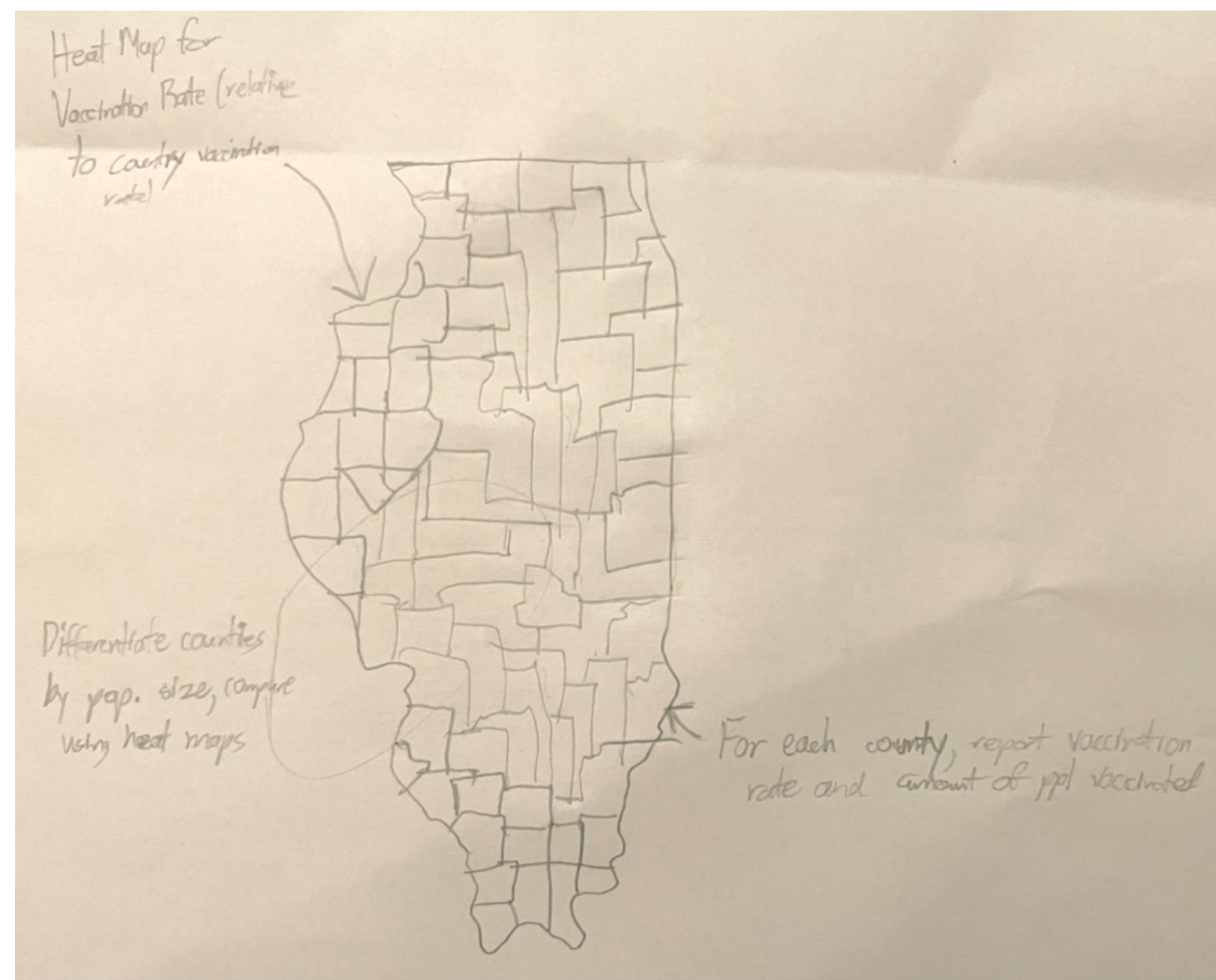
Method

Using these questions, we looked for variables in the data that we wanted to investigate further. We created a graph that compares the number of vaccines administered in Illinois counties and the persons fully vaccinated. As the graph demonstrates a lot of people were getting vaccinated between March and May, but it has slowly started to plateau in June. More data is being collected on individual counties and if the vaccination rate started to plateau around the same time period.

The map shows the areas where vaccination rates are growing. After observing the data and organizing it into a graph and map, we can see that only about 50% of people are vaccinated within the state of Illinois. Vaccination rates were greatly increasing between March and May, but they are starting to plateau now in June and July. Regarding the map, our team looks to make distinctions with the color of certain portions of land to distinguish between different percentages of those vaccinated within Illinois counties.

This data is important because Illinois needs to continue to increase its vaccination rates so more people can stay healthy. With more people getting vaccinated we can continue to re-open safely and hopefully one day return back to normal life.

Napkin Drawing

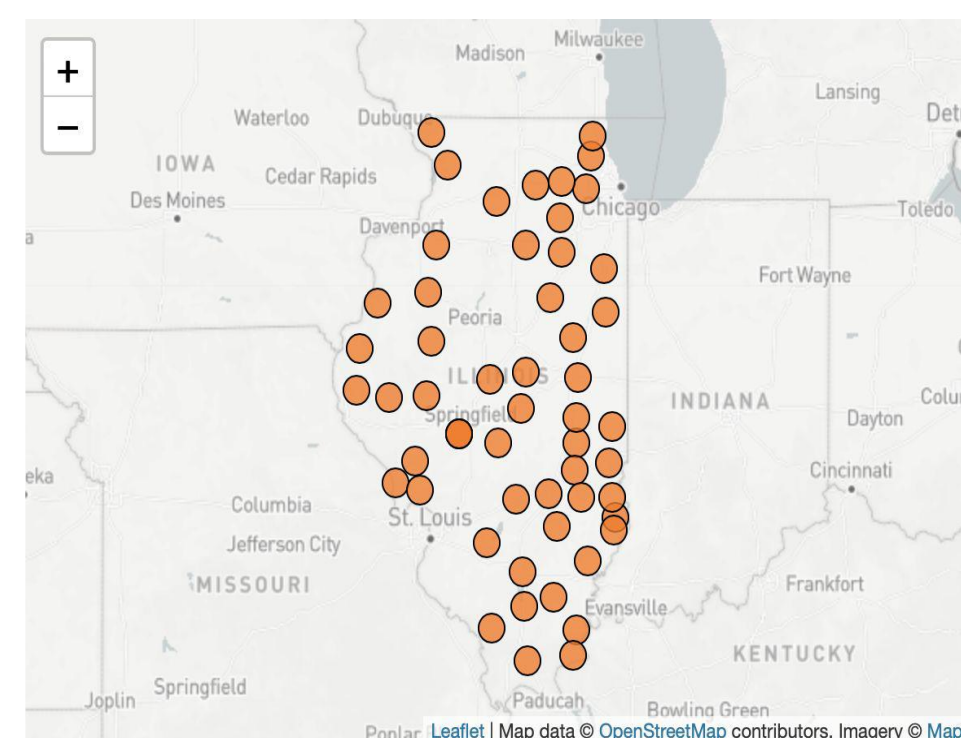
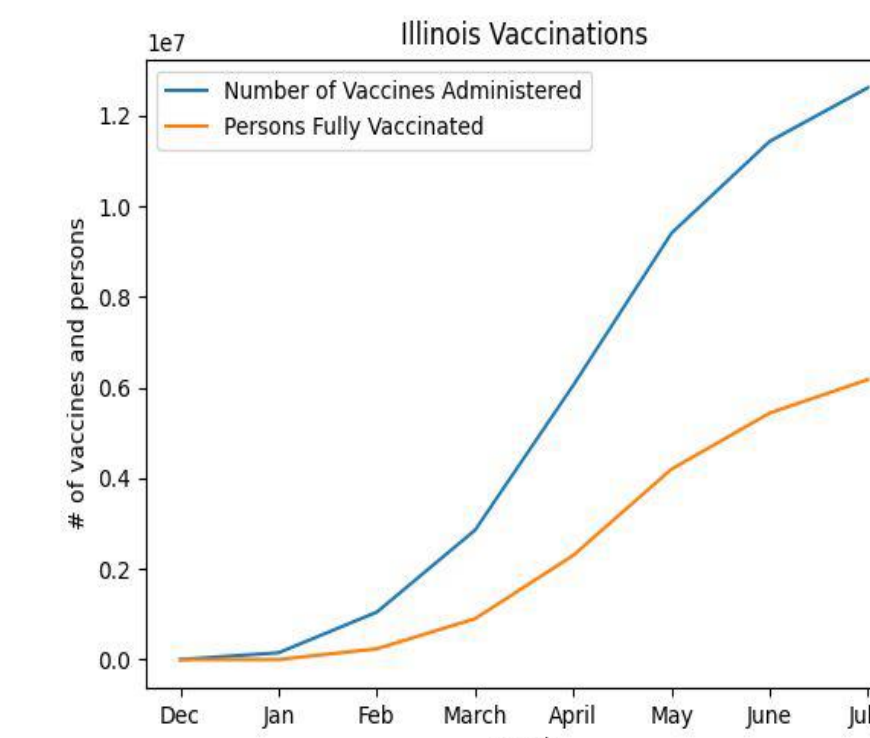


Source Code

```
graphpy > ...
1 import matplotlib.pyplot as plt
2
3 # line 1 points
4 x1 = ["Dec", "Jan", "Feb", "March", "April", "May", "June", "July"]
5 y1 = [1, 149760, 1046711, 2856397, 6054124, 9411594, 11438141, 12622470]
6 # plotting the line 1 points
7 plt.plot(x1, y1, Label = "Number of Vaccines Administered")
8
9 # line 2 points
10 x2 = ["Dec", "Jan", "Feb", "March", "April", "May", "June", "July"]
11 y2 = [0, 29, 237116, 901131, 2300488, 4203188, 5440604, 6180810]
12 # plotting the line 2 points
13 plt.plot(x2, y2, Label = "Persons Fully Vaccinated")
14
15 # naming the x axis
16 plt.xlabel('Month')
17 # naming the y axis
18 plt.ylabel('# of vaccines and persons')
19 # giving a title to my graph
20 plt.title('Illinois Vaccinations')
21
22 # show a legend on the plot
23 plt.legend()
24
25 # function to show the plot
26 plt.show()
27
```

<https://github.com/SGCI-Coding-Institute/skyandsea.git>

Graph & Map



Team Members



Andrea Vivar



JiWoo Lee



Chris Metellus

Data Set Sources

County	LHD Reported Inventory	Community Based Sites Inventory	Total Reported Inventory	Administered Vaccines	Administration 7-Day Rolling Avg.	Persons Fully Vaccinated	Population	% Population Fully Vaccinated
Illinois	208,501	270,315	483,700	12,622,470	43,239	6,180,810	12,741,080	48.51%
Adams	3,190	551	3,741	48,596	67	26,411	65,691	40.20%
Alexander	0	10	10	1,782	4	876	6,060	14.46%
Bond	488	0	488	11,126	27	5,543	16,630	33.33%
Boone	352	1,700	2,052	46,679	142	22,884	53,577	42.71%
Brown	961	0	961	5,113	5	2,596	6,556	39.60%
Bureau	272	0	272	27,296	69	13,277	32,993	40.24%
Calhoun	35	0	35	3,120	3	1,563	4,802	32.55%
Carroll	955	44	999	9,692	13	5,120	14,312	35.77%

Data is Provisional and subject to change. Data presented is reported as of 7/2/2021

CountyName	Administered	Administered	Administered	PersonsFuReport	D:PctVaccinated	Population
Illinois	1	1	0	0	#####	0
Illinois	1567	1566	224	0	#####	0
Illinois	11721	10154	1674	0	#####	0
Illinois	31275	19554	4468	11	#####	8.63E-07
Illinois	43372	12097	6196	11	#####	8.63E-07
Illinois	49492	6120	7070	11	#####	8.63E-07
Illinois	60935	11443	8705	28	#####	2.2E-06
Illinois	70052	9117	10007	28	#####	2.2E-06
Illinois	79801	9749	11176	28	#####	2.2E-06
Illinois	85099	5298	10483	28	#####	2.2E-06
Illinois	86232	1133	7851	28	#####	2.2E-06
Illinois	87551	1319	6311	28	#####	2.2E-06
Illinois	88541	990	5578	28	#####	2.2E-06
Illinois	94181	5640	4749	28	#####	2.2E-06
Illinois	111496	17315	5921	29	#####	2.28E-06
Illinois	130846	19350	7292	29	#####	2.28E-06
Illinois	144537	13691	8491	29	#####	2.28E-06
Illinois	149760	5223	9075	29	#####	2.28E-06
Illinois	153306	3546	9394	29	#####	2.28E-06
Illinois	155587	2281	9578	29	#####	2.28E-06
Illinois	168273	12686	10585	142	#####	1.11E-05
Illinois	191228	22955	11390	434	#####	3.41E-05
Illinois	211824	20596	11568	2867	#####	0.000225

<https://www.dph.illinois.gov/covid19/vaccinatedata?county=Illinois>
<https://idph.illinois.gov/DPHPublicInformation/api/COVIDExport/GetVaccineAdministration?countyname=>