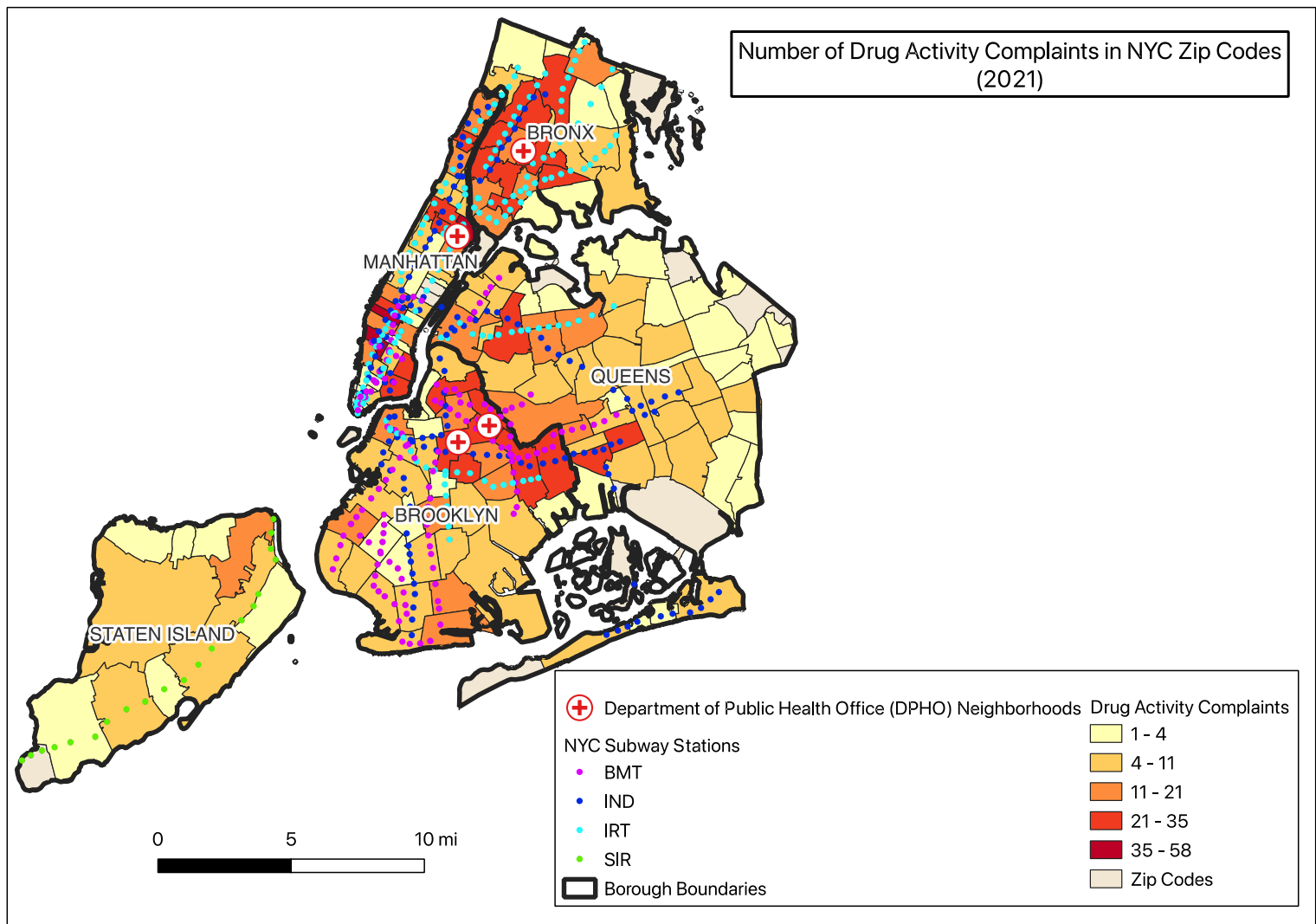The policy I'm addressing is the number of Drug Activity complaints in NYC (year 2020), more specifically by incident zip codes. I created a graduated map of the complaints by incident zip codes then added a NYC District Public Health Office (DPHO) Neighborhoods shapefile to see the location of DPHOs. My analysis shows that DPHOs are located in areas that experience the highest number of drug activity complaints. However, this poses some serious lingering questions about the effectiveness of DPHOs in their respective regions.

From one perspective, the DPHOs being located in the highest areas of drug activity could mean that DPHOs are not doing a well enough job in addressing drug activity within the surrounding areas. If this is the case, then DPHOs need to reassess their objectives and policy implementations/executions. Furthermore, I strongly believe that there is a severe lack of DPHOs in NYC, which could translate to as why they happen to be in areas of high drug activity because there is not enough of them to address drug use within their regions.

MAP A

Number of Drug Activity Complaints in NYC Zip Codes (2021)

Department of Public Health Office (DPHO) Neighborhoods

NYC Subway Stations
- BMT
- IND
- IRT
- SIR
- Borough Boundaries

Drug Activity Complaints
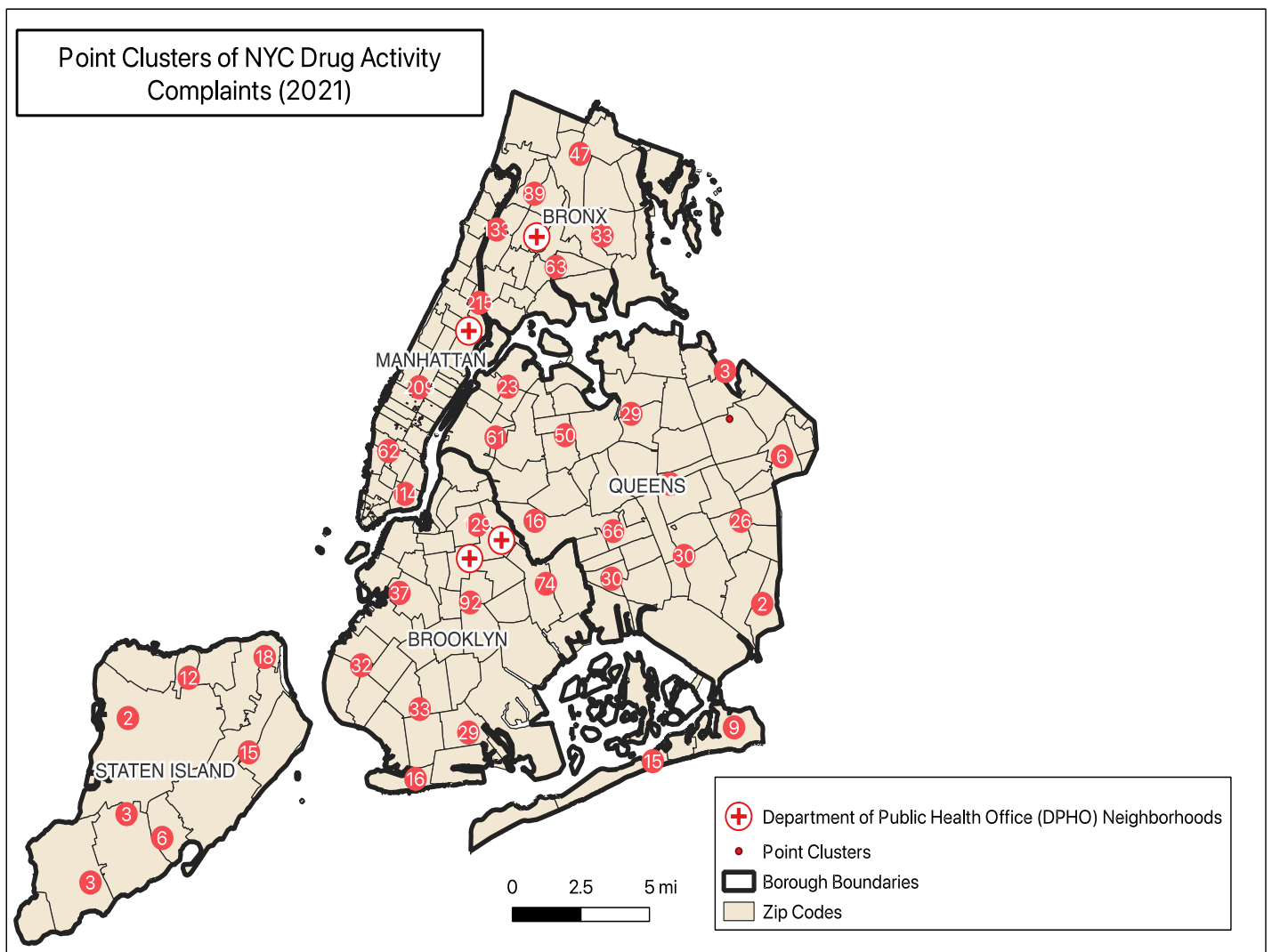- 1 - 4
- 4 - 11
- 11 - 21
- 21 - 35
- 35 - 58
- Zip Codes

For Map A, I inserted Drug Activity Complaints, NYC Subway Stations, Borough Boundaries, Zip Codes, and the Department of Public Health Office (DPHO) Neighborhoods. I did a Joined Layer with Drug Activity Complaints and Zip code by joining the zip code layer. Once the joined layer was complete, I then did a graduated map to show the total number of complaints in each zip code. This allowed me to see which zip codes had the highest number of complaints. Since the Drug Activity complaint data only contained Incident Zip Codes the zip codes that did not have any complaint data were left out from the graduated map as they were read as "NULL" meaning that the zip codes that are not colored is because no drug activity complaints were made in those zip codes for the year 2020.

Furthermore, the DPHOs point data also showed me that DPHOs are situated in areas that have the highest number of drug activity complaints. In regard to the subway stations, the information lets me know which divisions of the subway stations happen to cross into zip codes
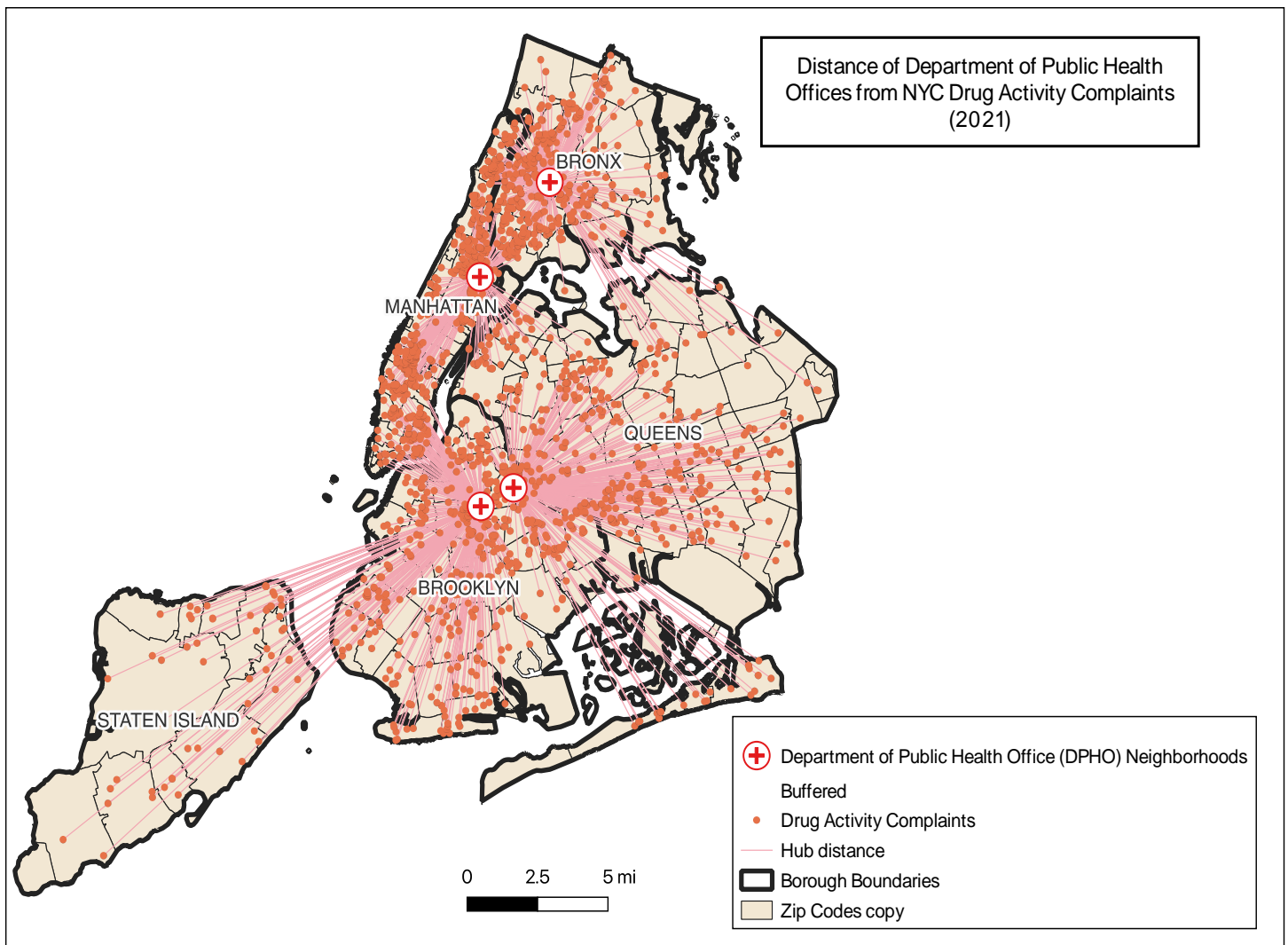
with high number of complaint data. This can be useful if one is considering which subway station divisions are the safest to ride.

Map B

Point Clusters of NYC Drug Activity Complaints (2021)

For Map B, I used the Complaint Data and converted it into Point Clusters in order to see which Zip Codes had the highest and lowest number of Drug Activity Complaint Data. This will prove to be beneficial for city officials who want to focus on zip codes that have the cluster of complaints in the surrounding region. Furthermore, this information can be used for DPHOs to conduct analysis on where they should be targeting their services and which zip code locations might benefit the most from another office opening up.

Map C

For Map C, I did a Buffer of 3000 feet for my DPHOs in order to see the number of drug activity complaints were recorded within my buffer zone of 3000 feet. I also did a Distance analysis (Line to Hub) from the location of where the drug activity complaints were made to the location of DPHOs. I did this to see If there was a correlation of more drug activity level complaints the further the location of DPHOs.

JOINED TABLES:

Map A (Zip Code Layer)

Zip Codes — Features Total: 263, Filtered: 263, Selected: 0

		STATE	COUNTY	ST_FIPS	CTY_FIPS	URL	SHAPE_AREA	SHAPE_LEN	Created Da	Complaint	Borough	Unique Key	Latitude	Longitude
1	68...	NY	New York	36	061	http://www.us...	0	0	2021	Drug Activity	MANHATTAN	6	40.7628373...	-73.949249...
2	2.1...	NY	New York	36	061	http://www.us...	0	0	2021	Drug Activity	MANHATTAN	5	40.8728991...	-73.9181810...
3	.6...	NY	New York	36	061	http://www.us...	0	0	2021	Drug Activity	MANHATTAN	3	40.7998434...	-73.9466672...
4	43...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	3	40.7736463...	-73.9288671...
5	14...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	3	40.61165841...	-73.9439974...
6	61...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	3	40.5852551...	-73.8200195...
7	.5...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	3	40.7066326...	-73.834793...
8	.0...	NY	Richmond	36	085	http://www.us...	0	0	2021	Drug Activity	STATEN ISLA...	3	40.63719771...	-74.1264457...
9	.3...	NY	Bronx	36	005	http://www.us...	0	0	2021	Drug Activity	BRONX	2	40.8865581...	-73.8791666...
10	.0...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	2	40.78297478...	-73.9191797...
11	.0...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	2	40.77011389...	-73.7398811...
12	.5...	NY	New York	36	061	http://www.us...	0	0	2021	Drug Activity	MANHATTAN	2	40.72146547...	-73.9902522...
13	.3...	NY	New York	36	061	http://www.us...	0	0	2021	Drug Activity	MANHATTAN	2	40.73135118...	-73.9825546...
14	.2...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	2	40.7038607...	-73.7667713...
15	.5...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	2	40.6896172...	-73.9113852...
16	20...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	2	40.6672248...	-73.734486...
17	74...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	2	40.67758414...	-73.9835168...
18	.3...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	2	40.61317618...	-73.9972734...
19	75...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	2	40.5790254...	-74.0003815...
20	10...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	2	40.72172160...	-73.7617087...
21	76...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	2	40.6969015...	-73.852282...
22	.4...	NY	Queens	36	081	http://www.us...	0	0	2021	Drug Activity	QUEENS	1	40.6806389...	-73.7997628...
23	43...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	1	40.6797643...	-73.9378400...
24	07...	NY	Kings	36	047	http://www.us...	0	0	2021	Drug Activity	BROOKLYN	1	40.6747246...	-73.905240...

Show All Features

Map A (Drug Activity Complaint Data)

The Zip Code layer is joined with the Drug Activity Complaint data as shown by the "Unique Key" table field.

Conclusion:

From my analysis, I conclude that there is a severe lack of DPHOs throughout NYC. More importantly, it is difficult to tell whether DPHOs are truly serving their communities as their surroundings areas are flooded with drug activity level complaints. Further analysis has to be done to see if there are underlying problems in the regions that DPHOs serve. For example, maybe NYPD precincts are not doing their job well enough, which is affecting the regions surrounding DPHOs. Likewise, there is also a possibility that the surrounding areas have changed over time. To clarify, maybe DPHOs did have a substantial impact on their regions but in the recent months things could've gotten worse due to some policy changes like the legalization of weed that could bring in harsher drugs.

Statistics and Tables

Hub Distance

Subway Lines

OBJECTID		TYPE	STATION	DIV	LINE	ROUTE_NEW	STATN_DL_S	COMPLEX
1	1	Station	233rd St	IRT	White Plains ...	2-5	233rd St IRT...	*NULL*
2	2	Station	Nereid Ave (2...	IRT	White Plains ...	2-5	Nereid Ave (2...	*NULL*
3	3	Station	149th St - Gr...	IRT	White Plains ...	2-5	149th St - Gr...	*NULL*
4	4	Station	3rd Ave - 149...	IRT	White Plains ...	2-5	3rd Ave - 149...	*NULL*
5	5	Station	161st St - Ya...	IRT	Jerome Ave	4	161st St - Ya...	*NULL*
6	6	Station	167th St	IRT	Jerome Ave	4	167th St IRT ...	*NULL*
7	7	Station	3rd Ave - 138...	IRT	Pelham	6	3rd Ave - 138...	*NULL*
8	8	Station	Brook Ave	IRT	Pelham	6	Brook Ave IR...	*NULL*
9	9	Station	33rd St	IRT	Flushing	7	33rd St IRT ...	*NULL*
10	10	Station	40th St	IRT	Flushing	7	40th St IRT ...	*NULL*
11	11	Station	145th St	IND	8th Ave	A-B-C-D	145th St IND...	*NULL*
12	12	Station	155th St	IND	Concourse	B-D	155th St IND...	*NULL*
13	13	Station	161st St - Ya...	IND	Concourse	B-D	161st St - Ya...	*NULL*
14	14	Station	167th St	IND	Concourse	B-D	167th St IND...	*NULL*
15	15	Station	Ralph Ave	IND	Fulton St	A-C	Ralph Ave IN...	*NULL*
16	16	Station	Utica Ave	IND	Fulton St	A-C	Utica Ave IN...	*NULL*
17	17	Station	36th St	IND	Queens Blvd	E-G-R-V	36th St IND ...	*NULL*
18	18	Station	Steinway St	IND	Queens Blvd	E-G-R-V	Steinway St I...	*NULL*
19	19	Station	Kosciusko St	BMT	Jamaica	J	Kosciuszko S...	*NULL*
20	20	Station	Gates St	BMT	Jamaica	J-Z	Gates St BM...	*NULL*
21	21	Station	Central Ave	BMT	Myrtle Ave	M	Central Ave ...	*NULL*
22	22	Station	Knickerbocke...	BMT	Myrtle Ave	M	Knickerbocke...	*NULL*
23	23	Station	Broadway	BMT	Astoria	N-W	Broadway B...	*NULL*
24	24	Station	30th Ave	BMT	Astoria	N-W	30th Ave BM...	*NULL*

Show All Features

References:

Drug Activity Number of Complaint - https://data.cityofnewyork.us/Social-Services/Drug-Activity-Complaint-2021-MAP-FINAL-DATA-/nqs4-wzks/data

Department of Public Health Offices (Point Data) - https://www.nyc.gov/site/doh/data/data-sets/maps-gis-data-files-for-download.page

NYC Zip Code Data - https://data.cityofnewyork.us/Business/Zip-Code-Boundaries/i8iw-xf4u/data?no_mobile=true