

Locating Potential Coronavirus Vaccination Sites

At Retail Pharmacies Near Public Transit Stations

in Morris County, New Jersey

by Chase Kruppo - 26 Feb 2021

Locating coronavirus vaccination sites is urgent and important to the Morris County Dept. of Health

- Limited vaccine availability has narrowed the field of applicants to administer the vaccine.
- Only 3 major retail pharmacy chains currently offer the vaccine.
- Eligible persons who rely on public transit may not have access to a vaccination site.
- ADA-compliant paratransit service is limited to $\frac{3}{4}$ mi from a station stop.
- Targeting rail stations and all the pharmacies within range to become a site.

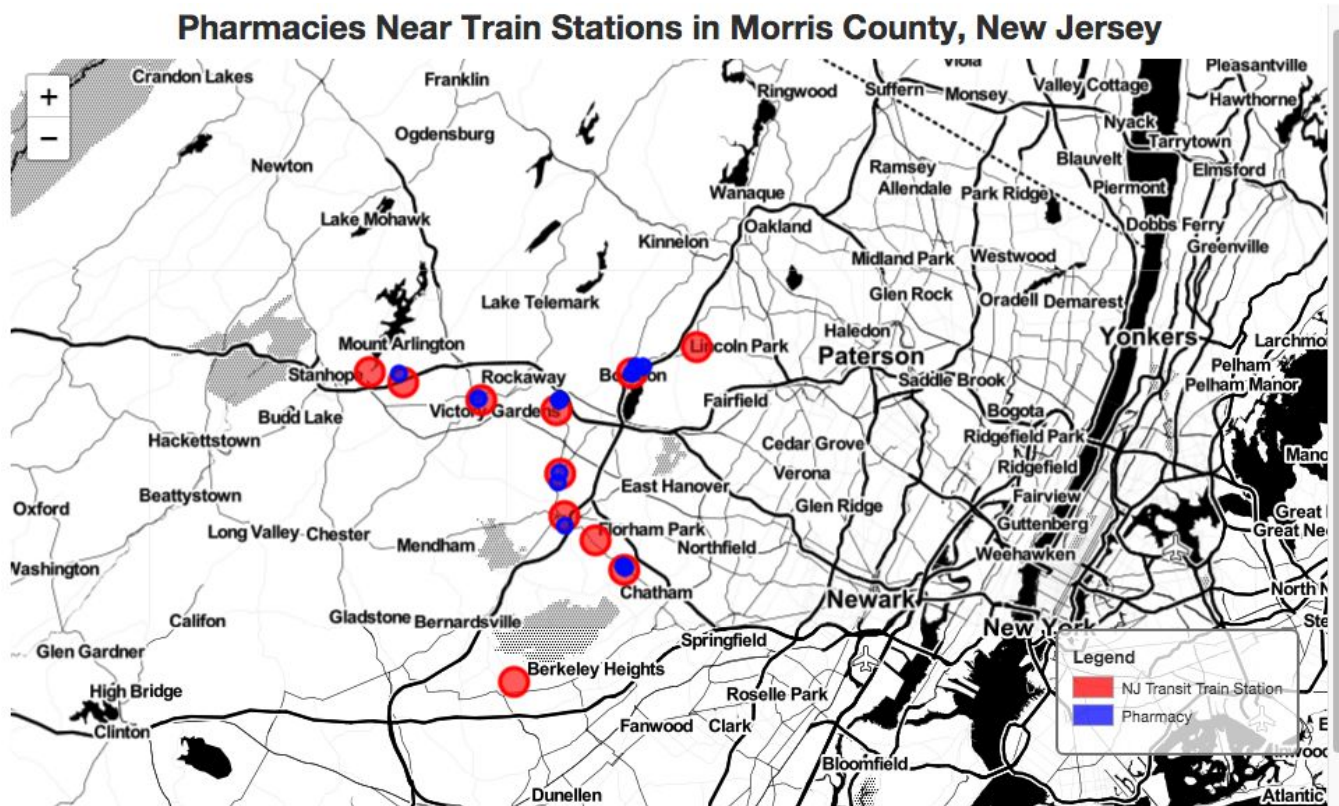
Data acquisition and cleaning

1. NJ Transit train stations
 - a. Data source: [NJ Transit API](#) - [stops.txt](#)
2. Wikipedia List of Railway Stations in Morris County, NJ
 - a. Data source: [Wikipedia](#)
3. Foursquare API
 - a. Data source: [Developer Tools portal for Foursquare API](#)

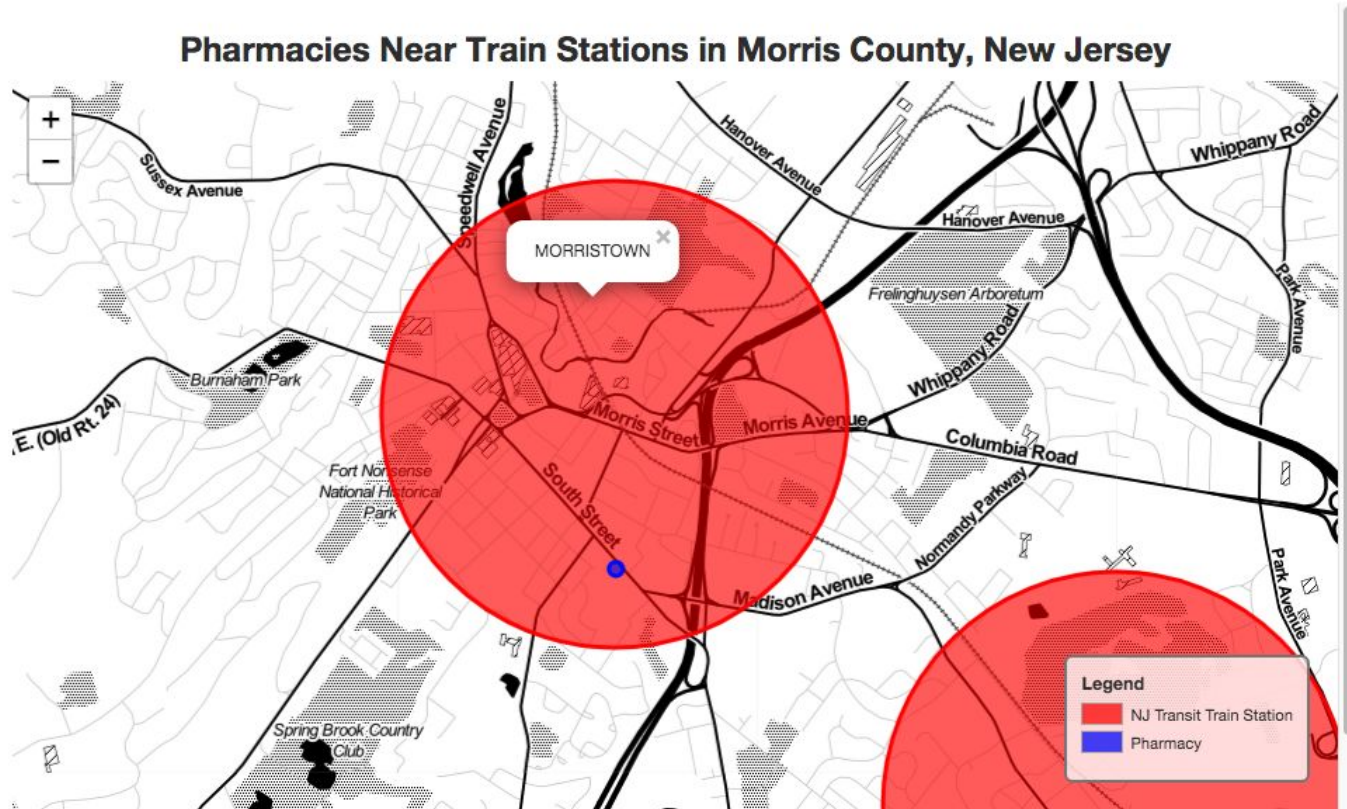
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- Went from 3 data sets with 256 results to 2 datasets with 11 results each.
- Reduced features to only location name, geographic coordinates.

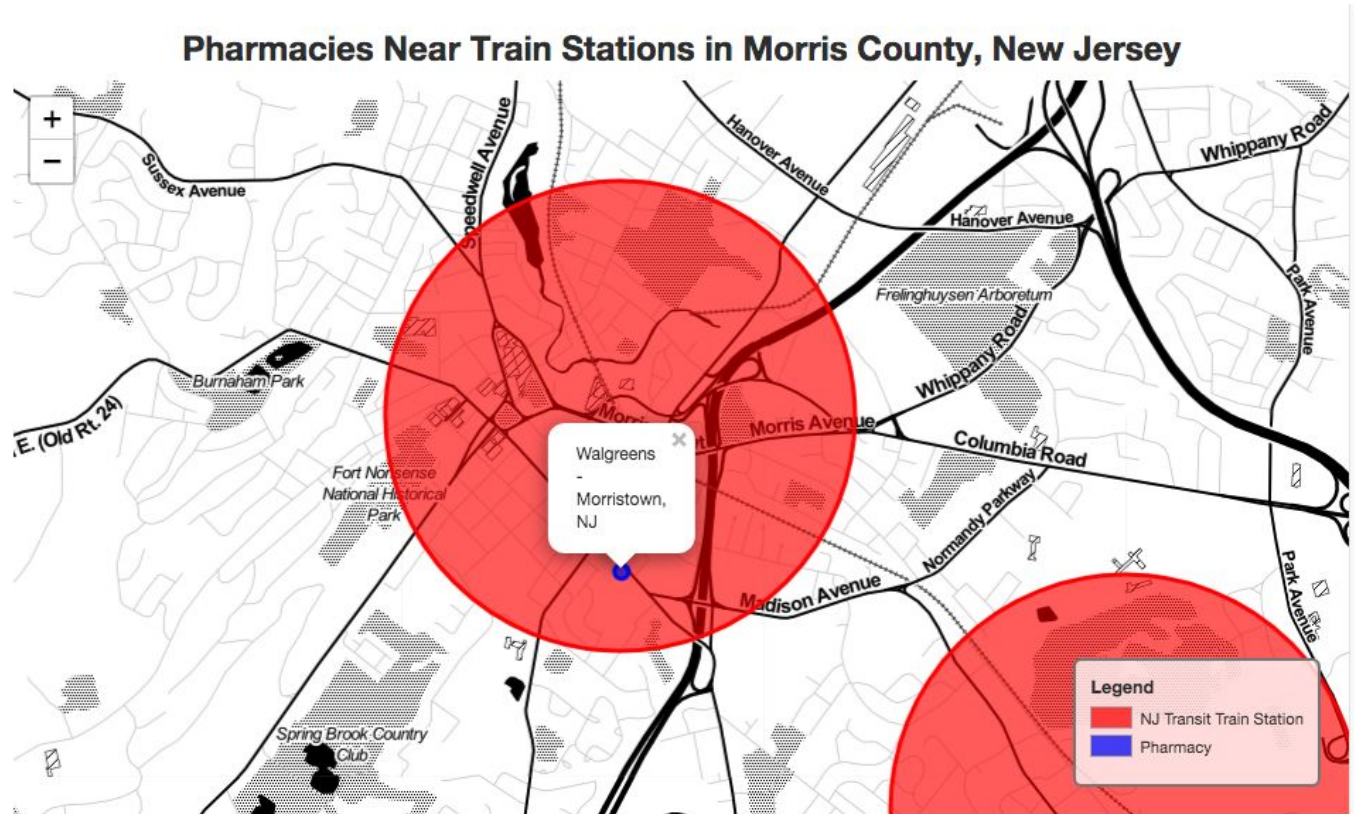
Result - Map Output



Result - Station Output with popup marker detail



Result - Pharmacy Output with popup marker detail



Conclusion

- **Only 7 stations** in Morris County have ADA-access to a pharmacy
- There are 3 stations (36%) with no ADA-compliant access to pharmacies
- **Insufficient access to coronavirus vaccine sites for those relying on ADA-compliant public train options at each of the county's train stations.**
- Pharmacy vacant stations **are within 1 station stop of access** to a pharmacy
- Expand access to pharmacies by **waiving train fare for vaccinations**
- Expand access by waiving the $\frac{3}{4}$ mi distance **limit for ADA Access Link**
- Expand access by opening vaccination sites in **non-pharmacy locations**