

Mapping Co-Occurrence of HIV, Hepatitis C, and Chlamydia in New York City to support Targeted Testing at Federally Qualified Health Centers



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OBJECTIVES

- To identify neighborhoods with high rates of HIV, hepatitis C, hepatitis B, tuberculosis (TB), gonorrhea, chlamydia and syphilis
- To identify and partner with Federally Qualified Health Centers (FQHCs) in the target neighborhoods to increase their capacity for integrated testing

BACKGROUND

The NYC DOHMH Division of Disease Control implemented a CDC initiative, **Program Collaboration and Service Integration (PCSI)**, which aims to integrate activities across disease areas to:

- Improve data sharing to better understand co-occurrence and co-infection of disease
- Facilitate delivery of integrated services to the public

HIV, viral hepatitis, STDs and TB often impact the same individuals and communities. Co-occurrence is 2 or more diseases in a population. We identified zip codes with the greatest burden of co-occurring disease and partnered with FQHCs to reach these communities with integrated testing.

METHODS

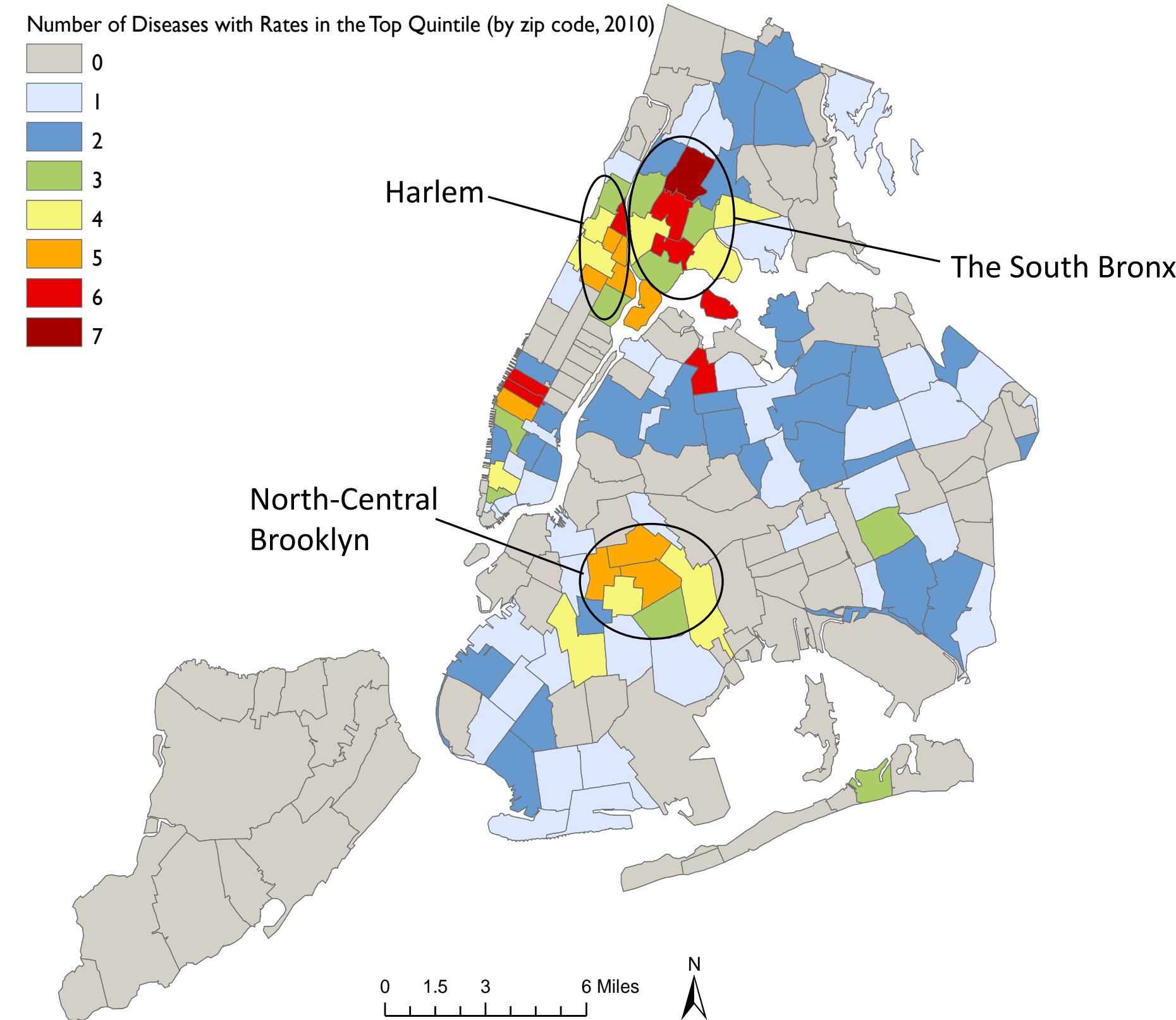
Disease rates per 100,000 people per zip code were calculated for each disease using 2010 DOHMH surveillance data.

The top quintile (20%) of all zip codes were identified for each disease. Zip codes were scored by the number of diseases for which they were in the top quintile (0-7).

Maps were created using Arc GIS based on zip code scores. FQHC sites were mapped to identify those within the highest scoring zip codes.

RESULTS

NYC Zip Codes with Disease Rates in the Top Quintile, 2010



Diseases analyzed include HIV, hepatitis B, hepatitis C, tuberculosis, gonorrhea, chlamydia, and primary and secondary syphilis.

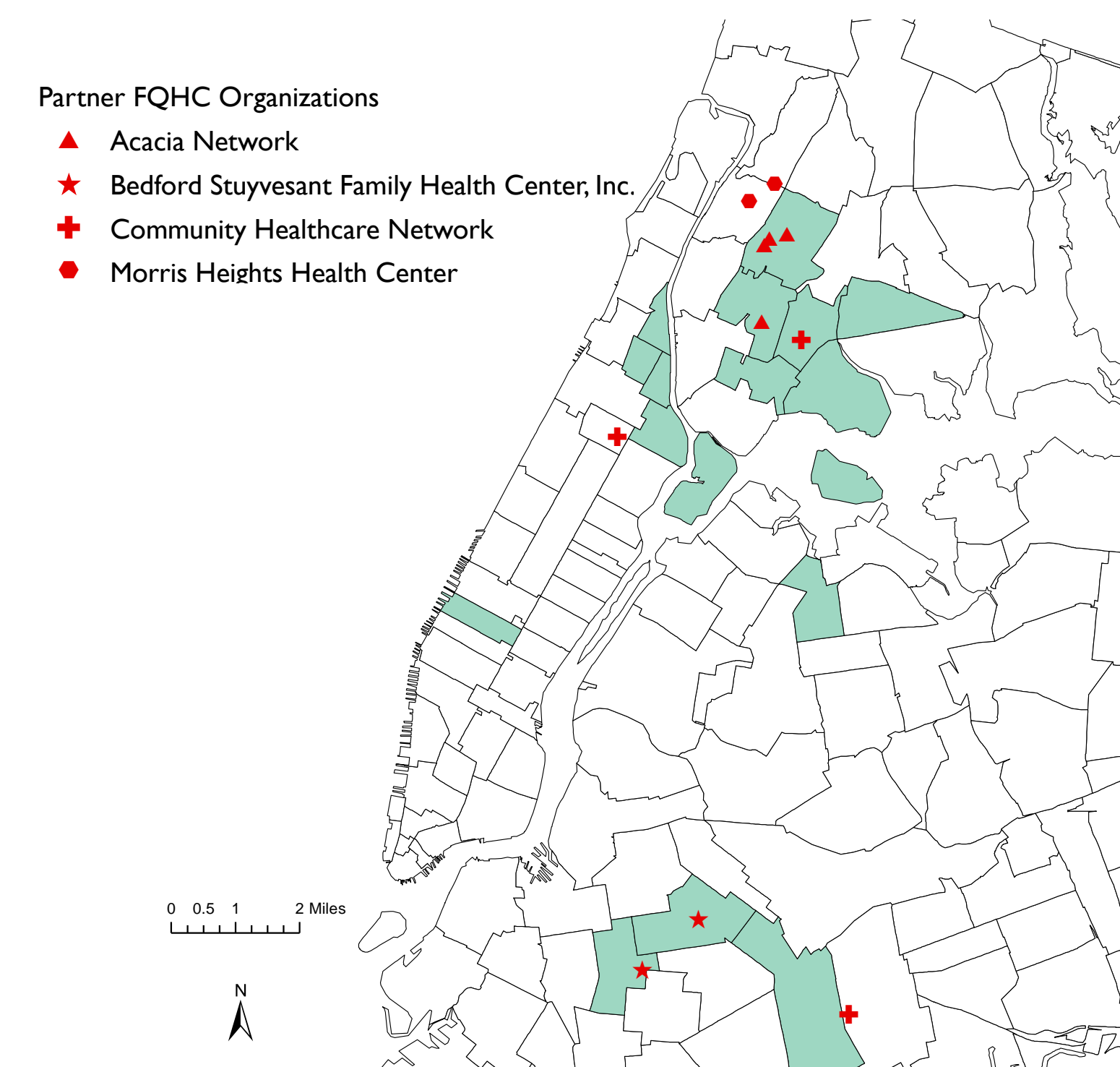
DOHMH is working with FQHCs in or near the target neighborhoods to:

- Assess current protocols for HIV, hepatitis C and chlamydia testing
- Increase testing for those at risk for >1 disease through
 - Staff training
 - Technical assistance
- Identify opportunities to leverage electronic health records (EHRs) to increase testing
- Evaluate the impact of these efforts by collecting baseline testing data from the EHR and comparing it to 6 months post-intervention

Of 181 zip codes:

- 60 (33%) have >1 disease in the top quintile
- In 14 (23%) of the 60 zip codes there are high rates of HIV, hepatitis C, and chlamydia
- 12 of the 14 zip codes are located in The South Bronx, North-Central Brooklyn and Harlem
- These 12 zip codes have an average poverty rate of 38%, compared to 21% in all of New York City

NYC Zip Codes with HIV, Hepatitis C and Chlamydia in the Top Quintile, 2010 and FQHC Partners



CONCLUSIONS

Local health departments can use surveillance data to partner with providers in high risk neighborhoods.

Mapping is a useful tool to:

- Identify priority geographic areas for integrated testing
- Identify service providers in the target neighborhoods
- Communicate with partners about where the burden of co-occurring disease is greatest

FQHCs are important partners for health departments because they are:

- Located in neighborhoods where infectious disease services are needed
- Able to provide testing, treatment and linkage to care

Electronic health records present an opportunity:

- Assist providers in identifying patients who are at risk and need testing
- Collect data to evaluate testing practices
- Give feedback to providers on their testing practices

DATA SOURCES

2010 NYC DOHMH surveillance data for TB, STDs, hepatitis B, hepatitis C and HIV. Surveillance data comes from laboratory and provider reports.

Rates per 100,000 were calculated using 2010 Census populations for each zip code.

Poverty data comes from the 2000 Census (most recent available).

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