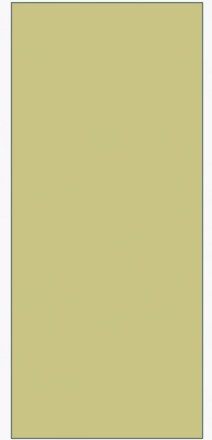


HEPATITIS C SURVEILLANCE IN NYC – AN OVERVIEW OF PROJECTS

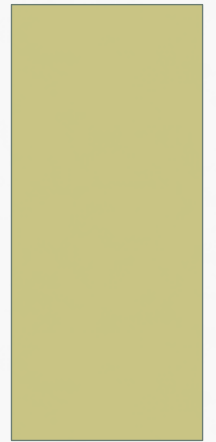
PERMINDER KHOSA, MPH
STATEN ISLAND HEP C TASK FORCE MEETING,
DATE 03/26/2015



HEPATITIS C SURVEILLANCE & NEW SCREENING LAW

1. Enhanced surveillance of youth
2. Negative HCV RNA reporting
3. Impact of NYS HCV testing law (Jan 2014)
 - HCV screening test must be offered to every Baby boomer

ENHANCED SURVEILLANCE OF YOUTH



ENHANCED SURVEILLANCE OF YOUTH - RATIONALE

- We need information on new/recent infections to plan prevention activities
- However, surveillance for acute HCV is difficult:
 - No lab test and usually no symptoms
 - When a person is newly diagnosed, it is usually not possible to know when they acquired the infection
- Young age is a proxy for recent infection: look at risk factors and case characteristics

ENHANCED SURVEILLANCE OF YOUTH - RATIONALE

- Increasing HCV infections among youth in several US jurisdictions
- Increase in injection drug use and prescription opioid misuse in young adults nationally¹⁻³ and (NYC)⁴⁻⁶

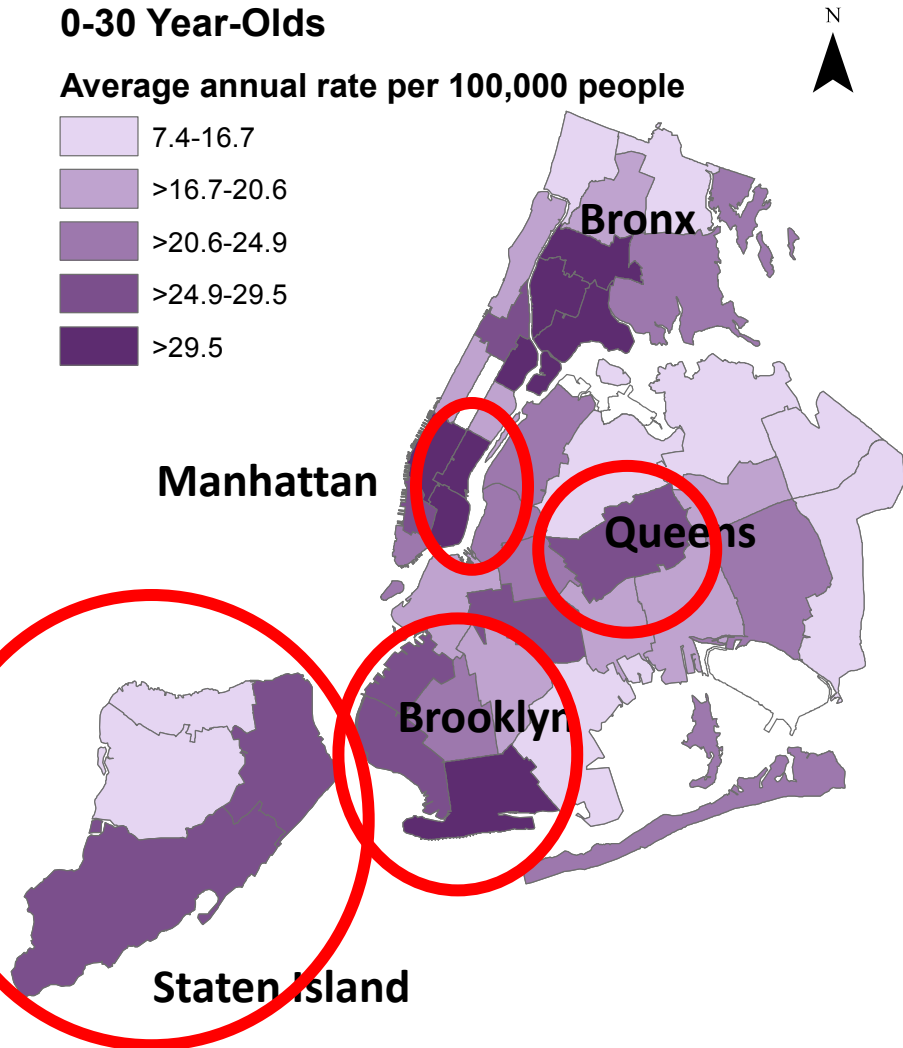
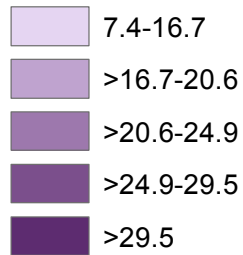
NYC RESIDENTS NEWLY REPORTED WITH HCV, 2009-2013

Age Group	N
0-17 year-olds	350
18-21 year-olds	613
22-25 year-olds	1,356
26-30 year-olds	2,492
31-45 year-olds	10,230
46-66 year-olds	23,219
>66 year-olds	4,587

HCV RATES BY UNITED HOSPITAL FUND NEIGHBORHOOD, 2009-2013

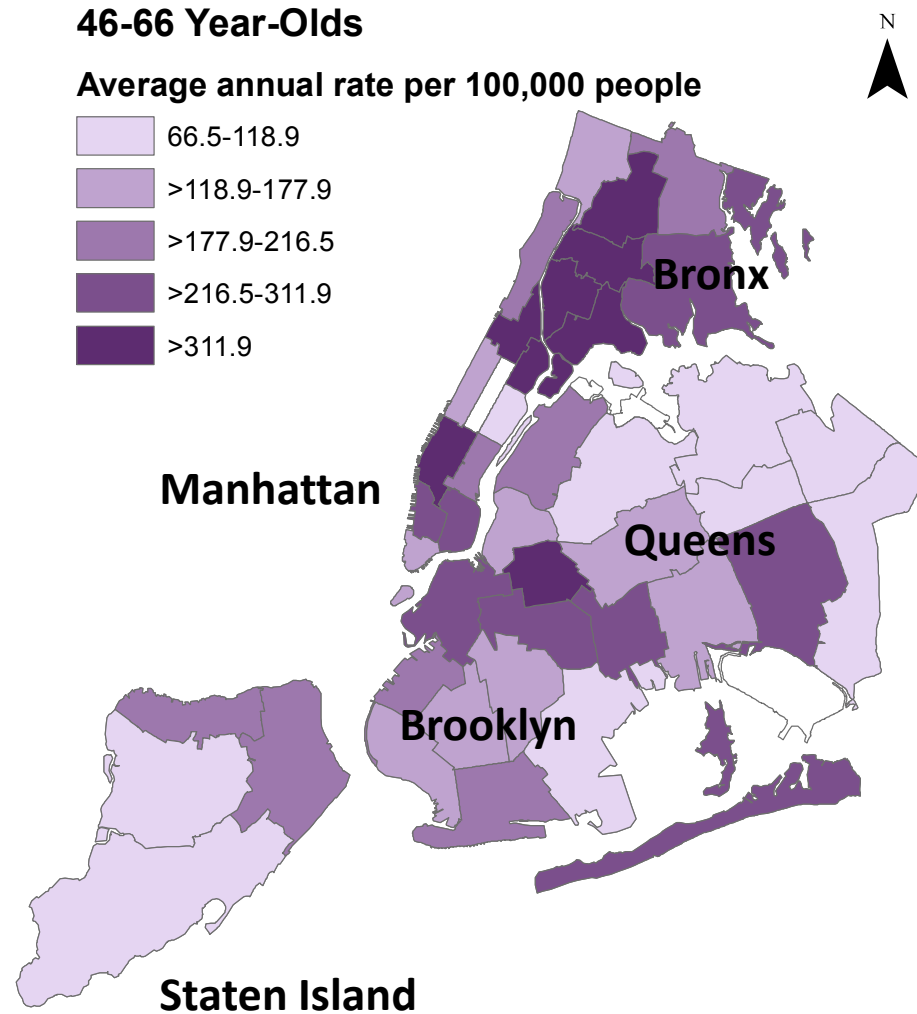
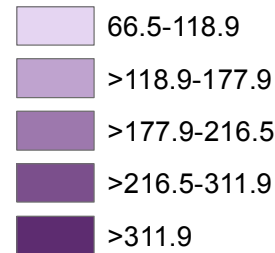
0-30 Year-Olds

Average annual rate per 100,000 people

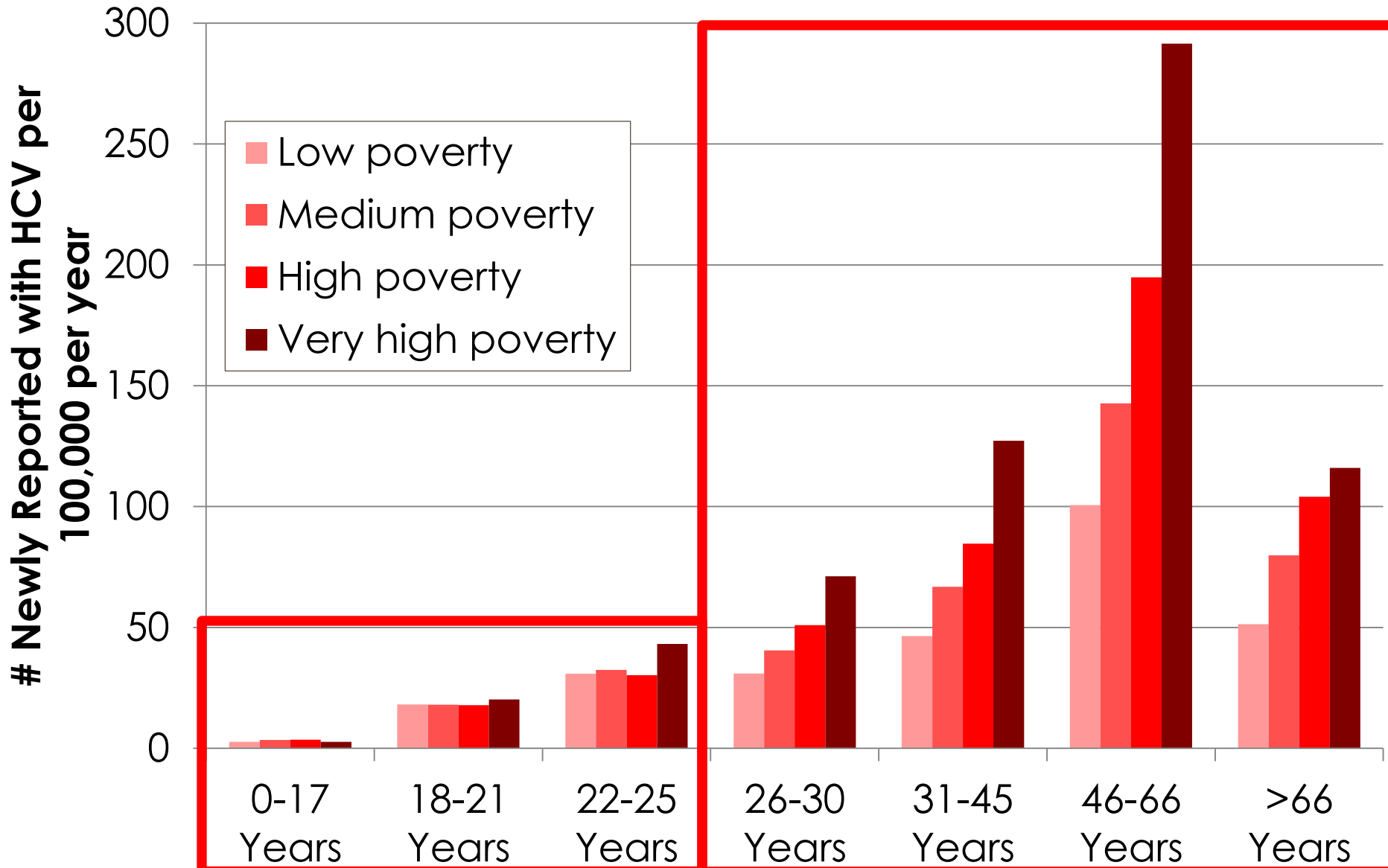


46-66 Year-Olds

Average annual rate per 100,000 people



RATES OF HCV BY CENSUS TRACT POVERTY LEVEL AND AGE GROUP, 2009-2013



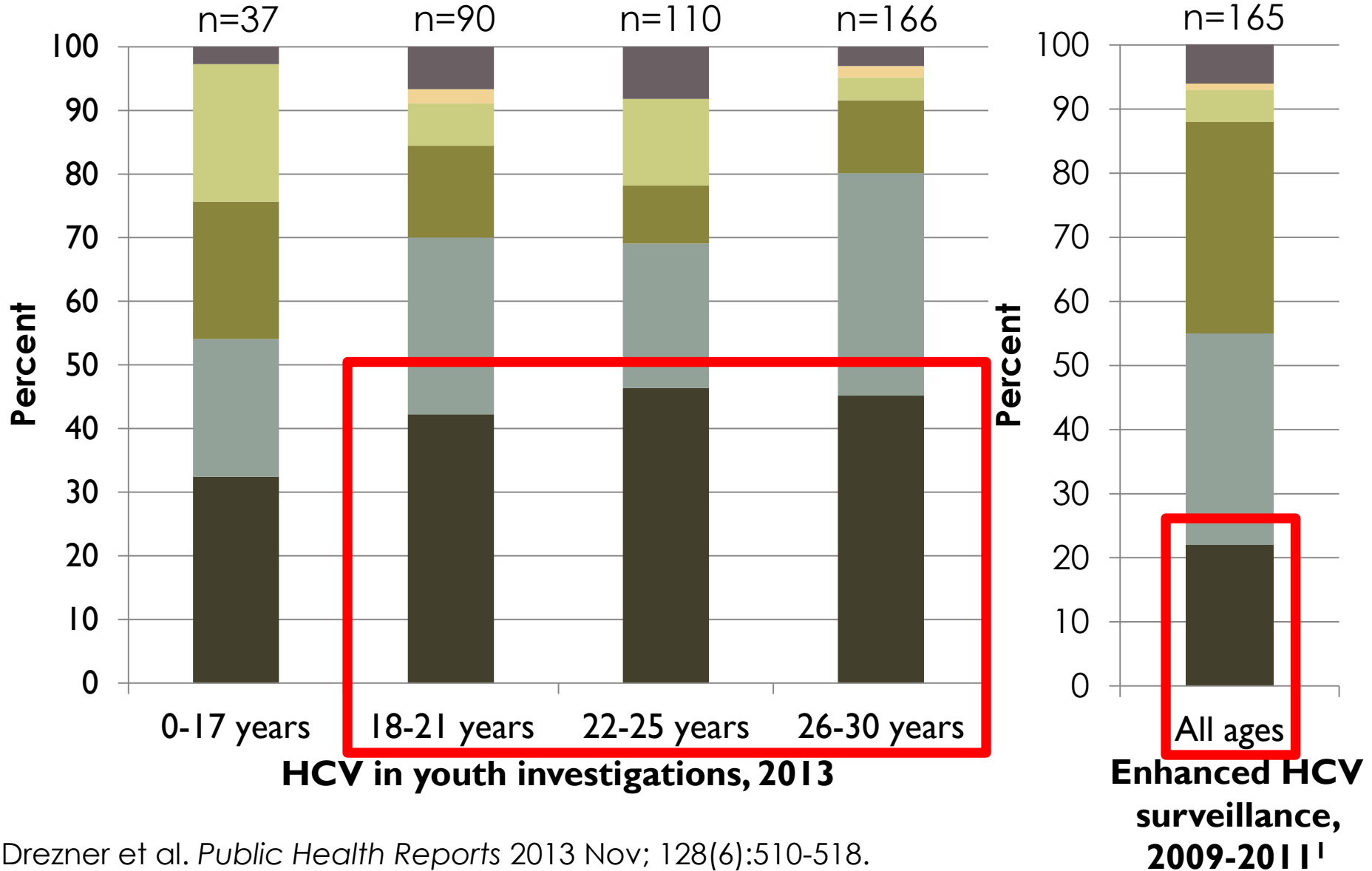
ENHANCED HCV SURVEILLANCE – YOUTH – GOALS AND METHODS

- Investigating youth **newly reported** with HCV
- Goals:
 - Understand risk factors for HCV among 0-30 year-olds
 - Inform HCV primary prevention planning
- Sampling scheme:
 - 100% of new reports of HCV among 0-21 year-olds
 - 50% of new reports of HCV among 22-30 year-olds
 - Diagnosis dates: January 1, 2013-December 31, 2013
- Data collected from clinician, No patient interviews

Enhanced surveillance of youth - RESULTS

RACE/ETHNICITY

- White, non-Hispanic
- Black, non-Hispanic
- Other
- Hispanic
- Asian, non-Hispanic
- Unknown



¹Drezner et al. *Public Health Reports* 2013 Nov; 128(6):510-518.

RISK FACTORS FOR HCV (NOT MUTUALLY EXCLUSIVE)

■ 0-17 year-olds ■ 18-21 year-olds ■ 22-25 year-olds ■ 26-30 year-olds

Number of cases (n=402)

0 50 100 150 200

Injection drug use

Intranasal drug use

Men who have sex with men

Ever diagnosed with an STD

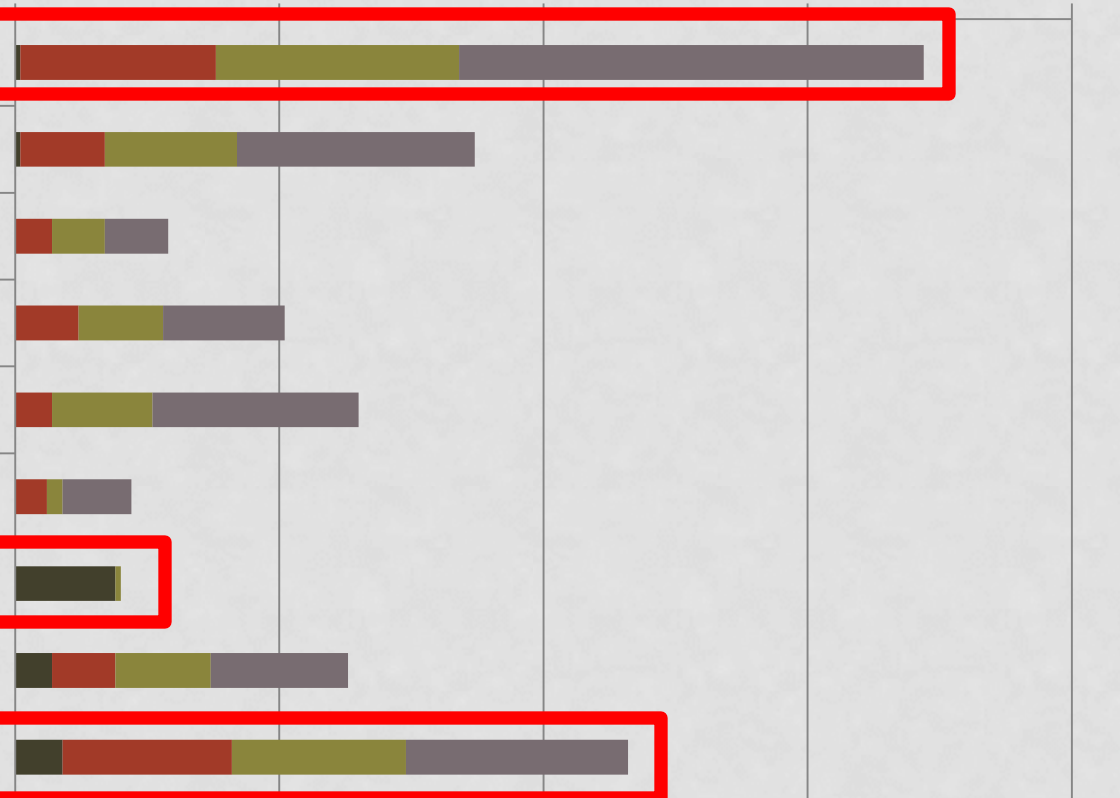
Ever incarcerated

Tattoo outside a licensed parlor

Perinatal HCV exposure

Other

No identified risk factors



TYPE OF DRUG USED (NOT MUTUALLY EXCLUSIVE)

Drug Type	N (%)
Drugs injected (n=172)	
Heroin	145 (84%)
Cocaine	46 (27%)
Prescription opioids	12 (7%)
Drugs snorted/sniffed (n=87)	
Heroin	46 (53%)
Cocaine	48 (55%)
Prescription opioids	7 (8%)

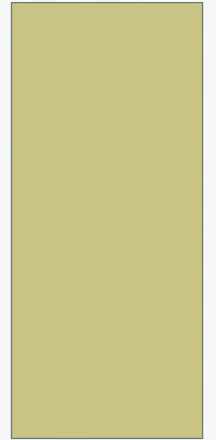
CONCLUSIONS

- The primary risk factor for HCV among youth in NYC was injection drug use (mostly heroin)
- Large proportion of youth with HCV were white, non-Hispanic
 - Different from baby boomers
- High rates of HCV among youth in neighborhoods without high rates among baby boomers
 - Few syringe exchanges/harm reduction programs in some of these neighborhoods

NEXT STEPS

- Continue monitoring HCV among youth using routine surveillance data (sex, age, ZIP)
- Seek additional resources to resume youth enhanced investigations
- Compare maps and demographics with data on HIV, heroin, opioid use in youth
- Education and outreach to youth
 - Prevent initiation of prescription opioid misuse
 - Prevent transition to injection drug use
 - Promote drug treatment, safe injection practices, harm reduction

NEGATIVE HCV RNA REPORTING



HEALTH CODE CHANGE

- The NYC Health code specifies what diseases are required to be reported to the Health Department as part of routine public health surveillance
- We want labs to be required to report negative HCV RNA results to the Health Department
- Board of Health approved the change on June 9, 2014
- Went into effect on July 21, 2014

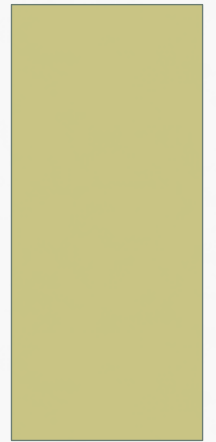
BY MAKING NEGATIVE RNA'S REPORTABLE WE CAN IDENTIFY:

- Gaps in diagnostic testing:
 - Antibody positive, no RNA test
- Patients who were treated and cured (SVR):
 - RNA positive, then ≥ 2 RNA neg



- This will allow us to evaluate rates:
 - Over time
 - by zip code/UHF neighborhood
 - by facility
 - Focus efforts in areas with highest need

NYS HCV TESTING LAW



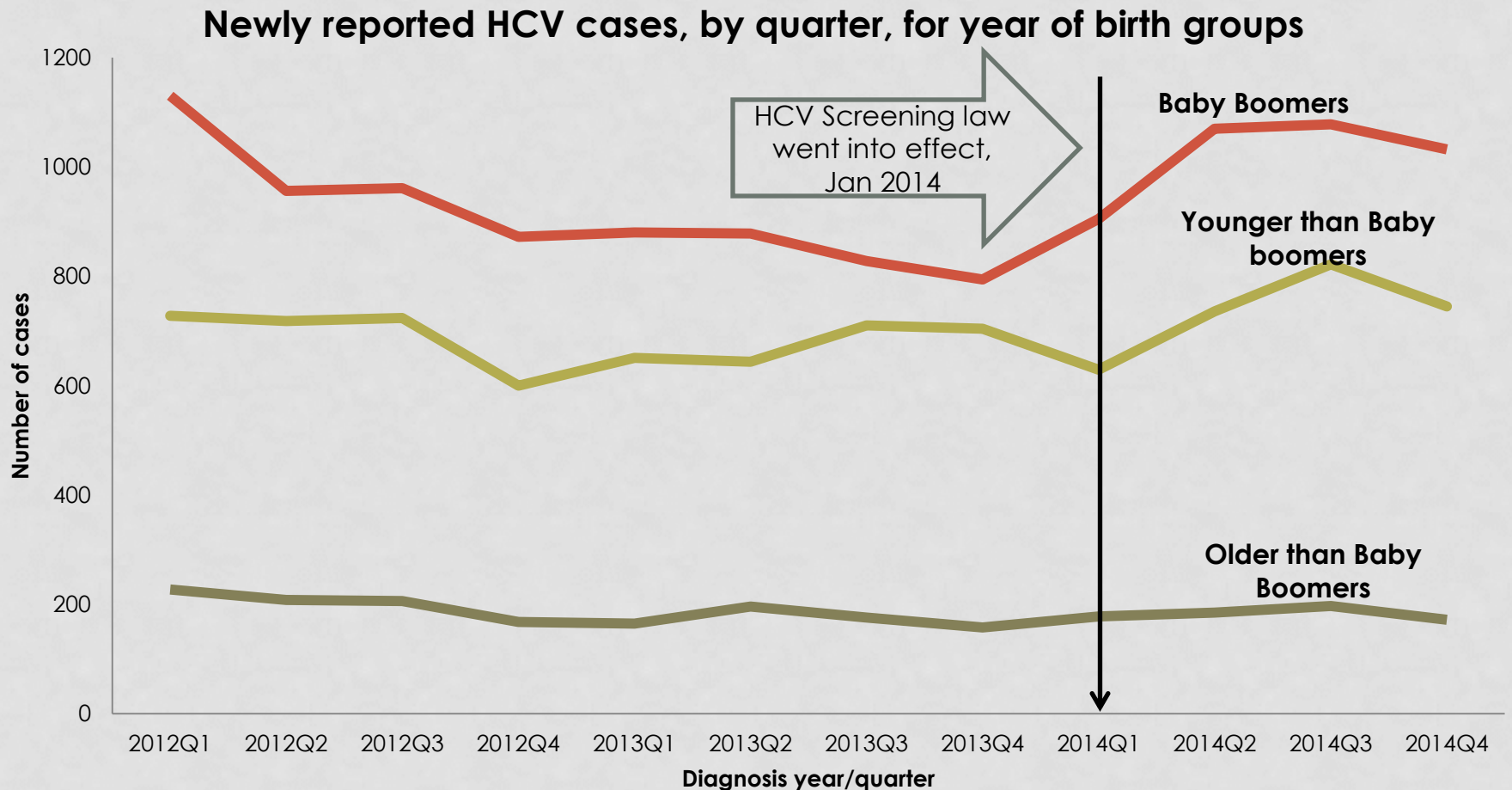
NEW YORK STATE HCV TESTING LAW – EFFECTIVE JANUARY 1,2014

- HCV screening test be offered to every individual born between 1945 and 1965 receiving health services
 - If test is positive, the healthcare provider must either offer follow-up health care or refer to a provider who can provide such care
- > 75% of adults with hepatitis C were born from 1945 through 1965 (baby boomers)

IMPACT OF THE HCV SCREENING LAW

- NYS DOH working on report evaluating HCV screening law, similar to the NYS HIV testing law evaluation
- Challenges to evaluation
 - Health dept. only gets **positive** HCV antibody results, no way of knowing if providers are offering/testing their baby boomer patients
 - No single data source available to measure directly the total number of baby boomers screened in NYC
 - Other factors impacting the number of people getting tested – New meds

IMPACT OF NYS HCV TESTING LAW ON NYC SURVEILLANCE



- Has your facility made changes due to the HCV screening law?
 - What kinds of changes?
 - What challenges have you encountered?

THANK YOU!

Any questions?

Please contact me:

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pkhosa@health.nyc.gov

(347) 396-2611

REFERENCES

- ¹Boyd et al. *Journal of Addictive Diseases*. 2009;28(3):232-242
- ²Chatterjee et al. *AIDS and Behavior*. 2011;15(7):1570-1578
- ³Sung et al. *Journal of Adolescent Health*. 2005;37(1):44-51
- ⁴<http://www.nyc.gov/html/doh/downloads/pdf/epi/databrief33.pdf>
- ⁵<http://www.nyc.gov/html/doh/downloads/pdf/epi/databrief32.pdf>
- ⁶<http://www.nyc.gov/html/doh/downloads/pdf/epi/databrief35.pdf>

BACKGROUND

- Positive HCV test results are reportable to the Health Department
 - Antibody with high s/co ratio
 - RNA
 - Genotypes
- Reports include:
 - Patient date of birth, sex, address
 - Test type, date and result
 - Provider and laboratory information