Hepatitis C Care Cascade among Young People who Use Opioids in New York City

Shashi Kapadia MD MS   10/18/2019

Instructor in Medicine and in Healthcare Policy & Research

@ShashiKapadiaMD

Disclosures

Drs Kapadia and Eckhardt are co-investigators on research grants paid to our institutions from Gilead Sciences Inc, which manufactures hepatitis C medications.

Hepatitis C (HCV) incidence is rising in young people who inject drugs (PWID)

FIG Age distribution of people newly reported with chronic hepatitis C in New York City, 2006, 2011, 2016

Number of newly reported cases, 2006
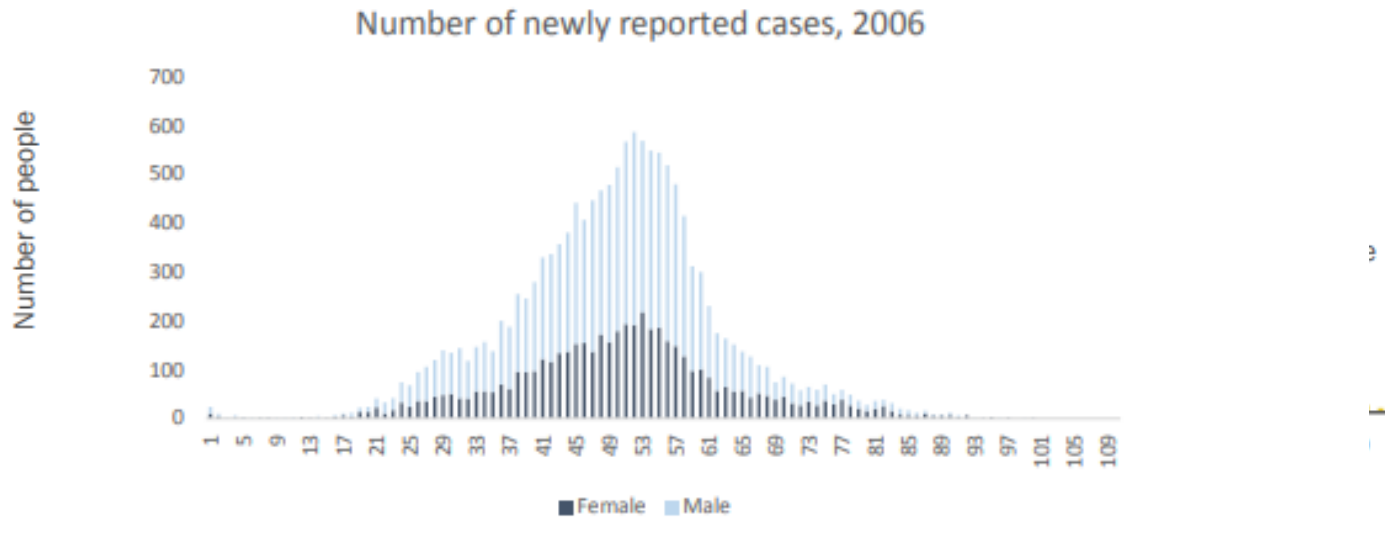
NYC DOH Hepatitis B and C Annual Reports, 2016 and 2017

HCV can be eliminated, but faces implementation barriers in young PWID

Favors HCV elimination:
Simple, effective treatments since 2014
Increasing awareness among patients and providers about drug use and HCV
Medicaid expansion provides insurance access to many PWID

| Hinders HCV elimination: |
|---|
| Disease is perceived as non-urgent |
| Stigma in healthcare settings prevents disclosure and access |
| Prior authorization requirements discourage treating for new infections |

We analyzed HCV testing patterns and care cascade from a sample of people who use drugs ages 18-29 in New York City

Study design and sampling

- **Design:** Cross-sectional study

- **Population:** People aged **18-29 years** who **lived in New York City** and reported **any heroin or nonmedical prescription opioid use** 3 or more times in the past 30 days

- **Time-frame:** Conducted from 2014 to 2016

- **Sampling:** Respondent driven sampling
  - 20 "seeds" who initiated recruitment chains

Recruitment chains

Brooklyn
Manhattan
Queens
Bronx
Staten Island
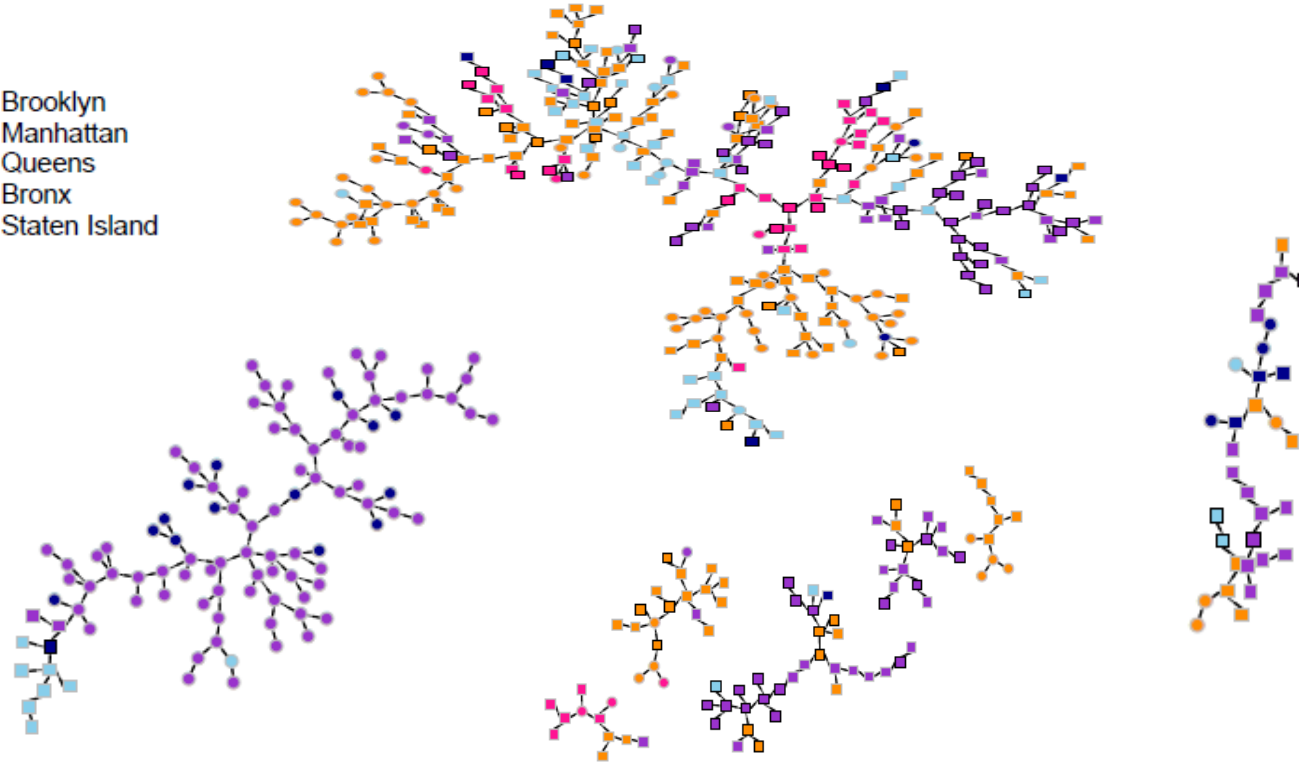
Injecting (HCV -)
Injecting (HCV+)
Non-Injecting

Data collected:

- **HCV Antibody testing** performed on all respondents

- **Socio-demographics and Drug Use Behavior**

- **Previous Receipt of HCV Services:**
  - Aware of diagnosis
  - Medical visit for HCV
  - Initiated Treatment
  - Completed Treatment

- **Barriers to HCV Testing**

Statistical analyses presented today:

- **For people who are injecting (PWID) and who are non-injecting (non-PWID)**
  - o **Descriptive Statistics** on HCV testing

- **For people who are injecting (PWID):**
  - o **Factors associated** with HCV testing using logistic regression
  - o **Perceived barriers** to HCV testing
  - o **Prevalence estimate** for HCV antibody using RDS-sampling weights
  - o **Care cascade** for testing and treatment

Sample characteristics

	Injecting (n = 353)	Non-Injecting (n = 186)
Median Age (Range)	25 (18-29)	23 (18-29)
Male Gender	230 (65%)	135 (73%)
Race/Ethnicity*		
Hispanic	66 (19%)	88 (47%)
NH-White	259 (73%)	73 (39%)
NH-Black	5 (1%)	17 (9%)
NH-Other	22 (6%)	6 (3%)

Sample characteristics

	Injecting (n = 353)	Non-Injecting (n = 186)
Born in US	295 (84%)	160 (86%)
Currently Homeless	127 (36%)	10 (5%)
Median # of years injecting (IQR)	3 (1-6)	-
Ever used Syringe Exchange	193 (55%)	3 (2%)
Ever in drug use treatment	301 (85%)	83 (45%)

Of non US-born PWID:
47 in Eastern Europe
4 in Latin America
2 each in Asia, Middle East, Western Europe

A note on HCV testing

Two-step diagnosis:

Antibody (Ab) testing

Does not distinguish current infection from past (cleared or treated)

Easier to field because of point-of-care option

RNA testing

Represents a current infection.

But harder to field because of venipuncture and cost

Hepatitis C Testing (injecting and non-injecting)

	Injecting (n = 353)	Non-Injecting (n = 186)	p*
Ever Tested for HCV?	283 (80%)	86 (46%)	<0.001
Tested for HCV in past-year?	279 (79%)	84 (45%)	<0.001
Number of times tested? (median and IQR)	3 (2-5)	2 (1-5)	0.04

*Chi-sq testing for ever tested, and Wilcoxon-Rank Sum for continuous
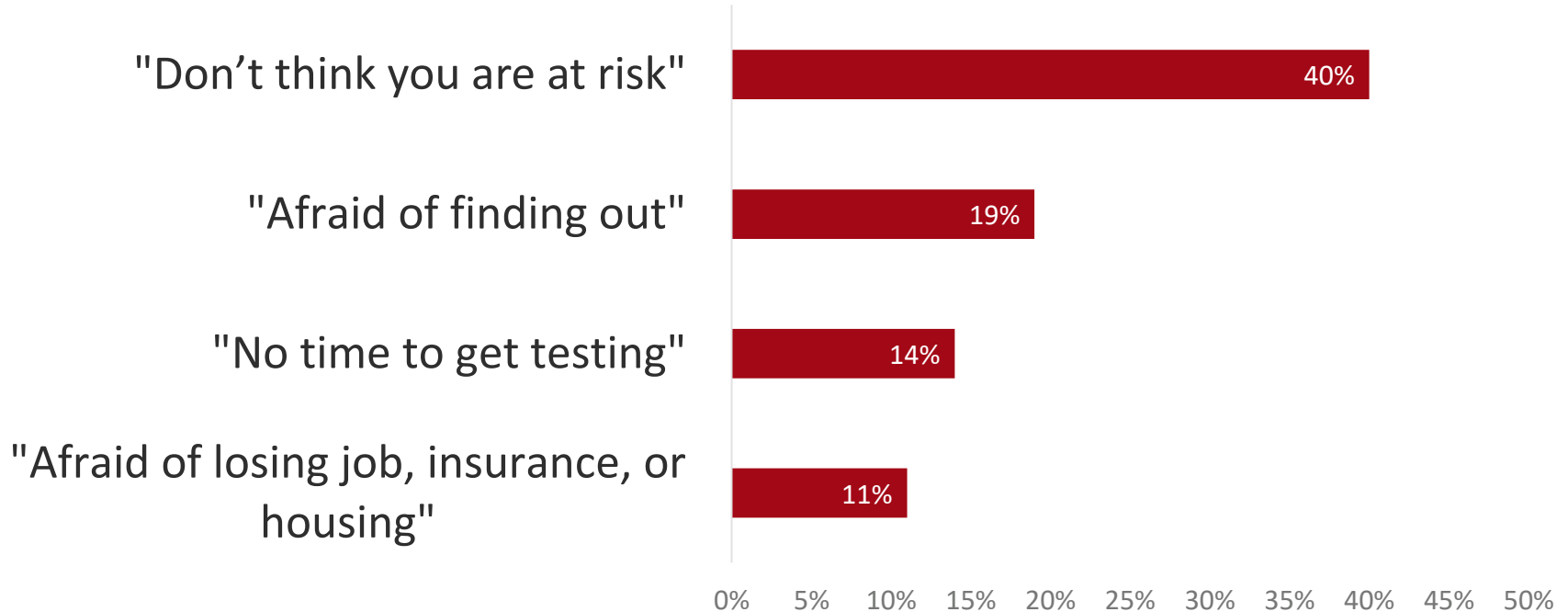**among 283 injecting and 86 non-injecting who were ever tested

Factors associated with receiving an HCV test for PWID

	aOR (95% CI)	P-value
# Years since first injection	1.16 (1.02-1.32)	0.02
Ever in substance use treatment	3.17 (1.53-6.61)	0.002
Used syringe exchange	1.86 (0.92-3.73)	0.08
US Born	2.06 (1.06-1.32)	0.05

Adjusted for age, gender, race, housing and prescription opioid injection (all nonsignificant).

Education, income, and health insurance were nonsignificant in bivariate testing and not included in the multivariate model.

Perceived barriers to HCV testing for PWID who had never been tested (n = 69)

Bar chart showing:
- "Don't think you are at risk" — 40%
- "Afraid of finding out" — 19%
- "No time to get testing" — 14%
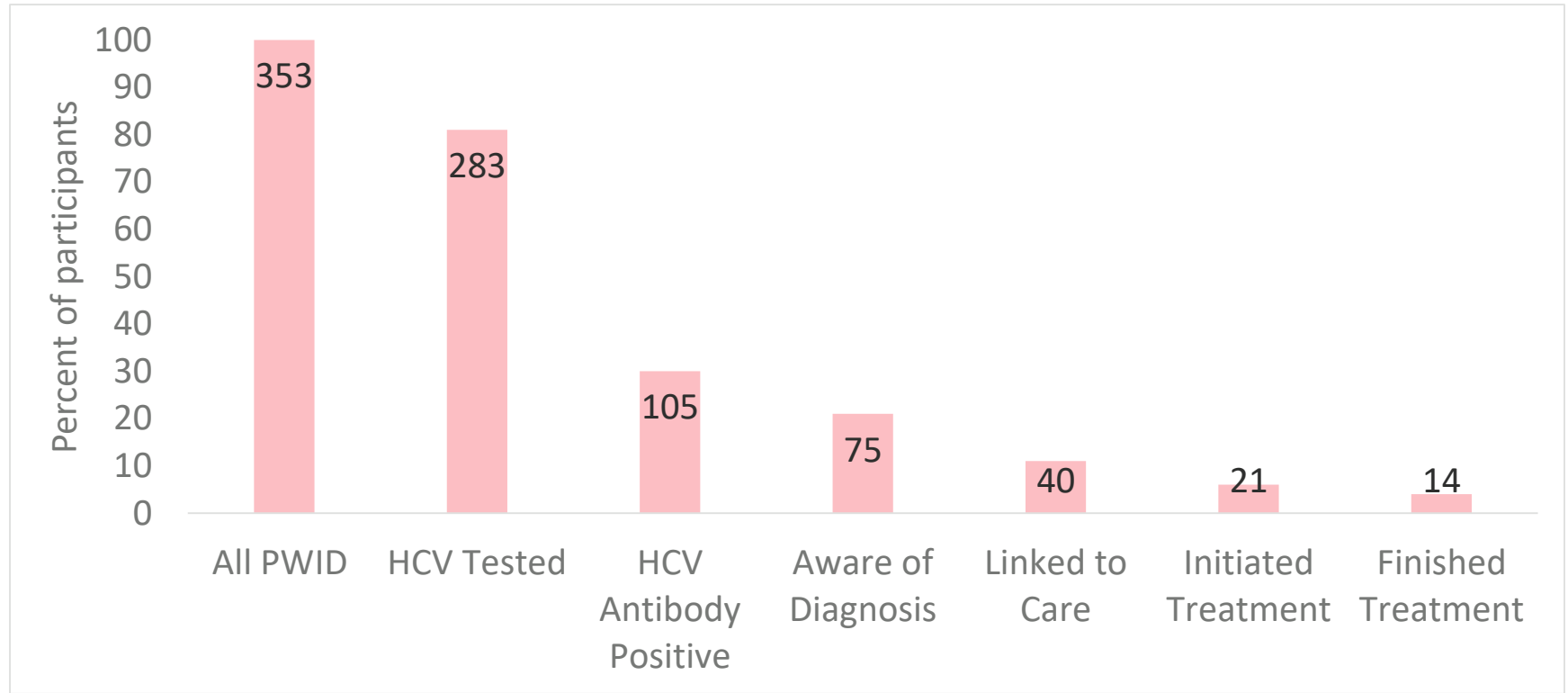- "Afraid of losing job, insurance, or housing" — 11%

105 of 353 PWID tested HCV Ab +:

Estimated prevalence of HCV Ab in PWID is 25% after adjusting for RDS sampling weights

None of the 186 people who did not inject tested HCV Ab +

Care cascade for HCV in PWID

Limitations

- Reliance on self-report for diagnosis, linkage and treatment data

- Respondent driven sampling design may introduce selection bias

- Early in direct acting antiviral era – may be rapidly changing

- NY Medicaid with few restrictions on treatment – may not apply to all states

Conclusions

- Substantial gaps to HCV testing and treatment among young people

- Subset of people who immigrated from Eastern Europe with lower testing uptake

- Non-injecting people have lower testing uptake and HCV prevalence

- Need strategies to start testing earlier in people's injecting careers

- Need low-threshold and stigma-free models to deliver care to young PWID

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@ShashiKapadiaMD