

# NEW DIAGNOSES OF HIV AMONG INJECTING DRUG USERS, NEW YORK CITY 2006-2016

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## BACKGROUND

Unintentional drug poisoning and overdose deaths in New York City (NYC) increased 143% between 2010 and 2016 and are on track to increase further in 2017. One contributing factor has been the transition of users of medical and non-medical opioid analgesics to non-injection heroin use, with rapid (median 6 months) transition to heroin injection. This has led to concern that a resurgent HIV epidemic among injecting drug users (IDU) in NYC would follow, as has been seen elsewhere in the US.

## METHODS

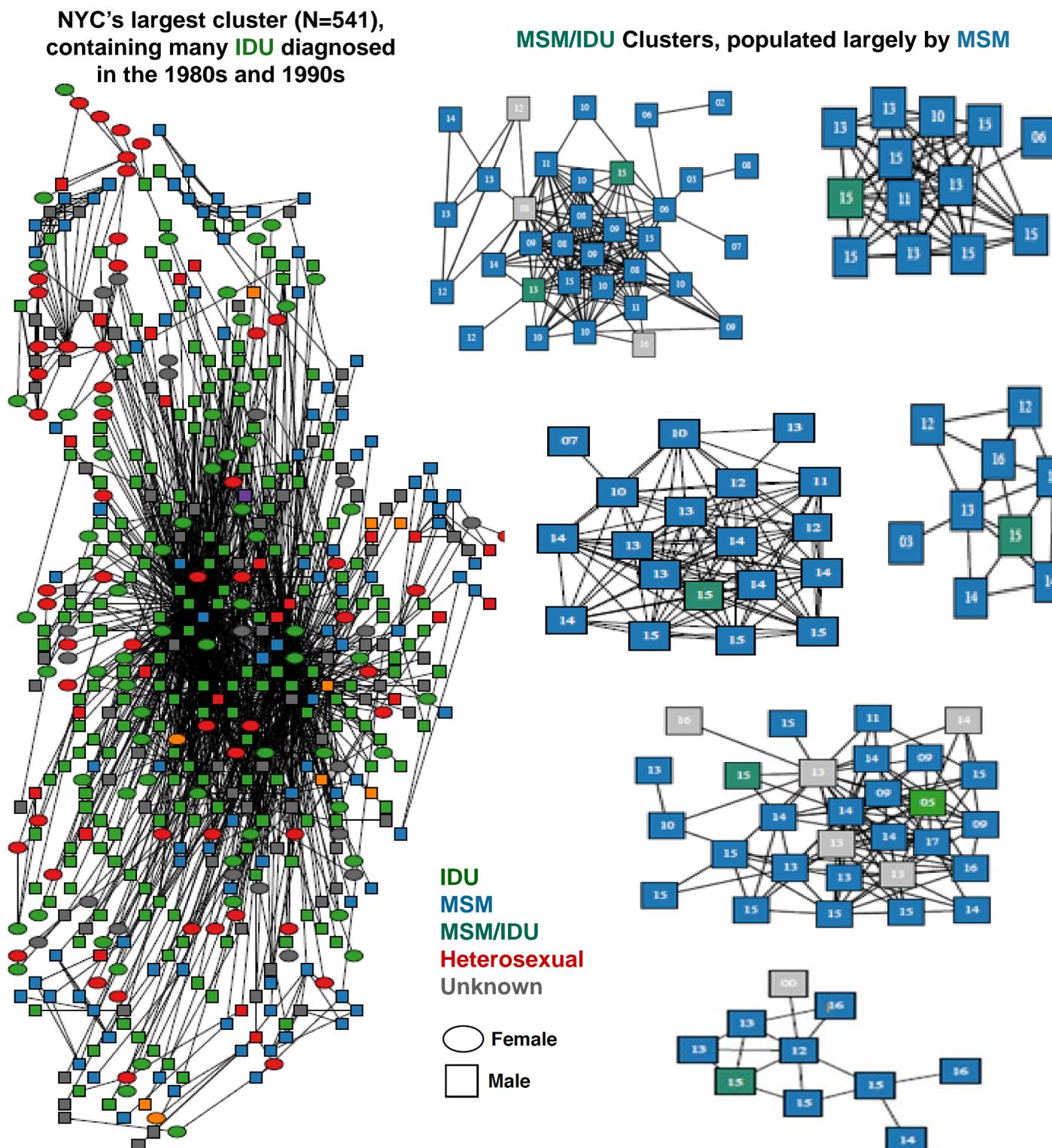
We analyzed new HIV diagnoses reported to surveillance to ascertain the trajectory, demographics and risk factors of the HIV epidemic during the era of the opioid overdose epidemic, focusing on trends among the 2,037 new HIV diagnoses with IDU as a risk factor that occurred in 2006-2016. Pairwise concordance analysis, a genetic distance-based clustering tool, was used to construct transmission networks populated by IDU and MSM/IDU.

## RESULTS

HIV Diagnoses among IDU and MSM/IDU, New York City, 2006-2016

Year	New HIV diagnoses	IDU HIV diagnoses	MSM-IDU HIV diagnoses	All IDU HIV diagnoses
2006	4,320	267	79	346
2011	3,398	108	56	164
2016	2,279	32	28	60
%Δ	-47.2%	-88.0%	-64.6%	-82.7%

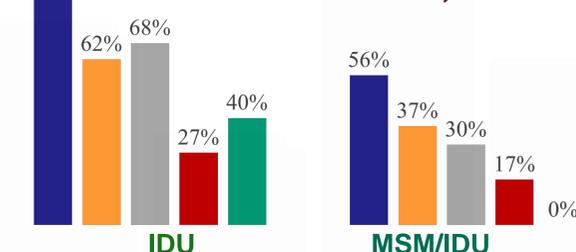
## Examples of Transmission Networks: IDU and MSM/IDU



## OBSERVATIONS

- The epidemiologic data and network analysis indicate that NYC has experienced two major waves of injection-related HIV.
  - The first wave began in the mid-1970s and involved traditional inner-city neighborhoods, older, black and Hispanic injectors, both genders, and traditional drugs of abuse.
  - The second wave began in the late 1990s, is composed of men who have sex with men and inject drugs, is younger at diagnosis, more broadly distributed by race and geography, and uses a wider variety of drugs, including party drugs.
- There is minimal overlap between the networks and minimal recent growth.

97% New Diagnoses of HIV among IDU and MSM/IDU, 2016



- Between 2006 and 2016, diagnoses declined in both IDU and MSM/IDU. Demographic shifts similar to those seen citywide in overdose deaths have not been observed among injectors newly diagnosed with HIV.
- However, NYC has 16,000 IDU and 2,800 MSM/IDU PWHA. Any bridge between the risk sharing networks of new injectors and the survivors of the first and second waves has the potential to spark a third wave of injection-related HIV.