Poster #1579

RACIAL DISPARITIES IN BASELINE GENOTYPING IN THE ERA OF "ART FOR ALL" IN NEW YORK CITY, 2006-2017

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BACKGROUND

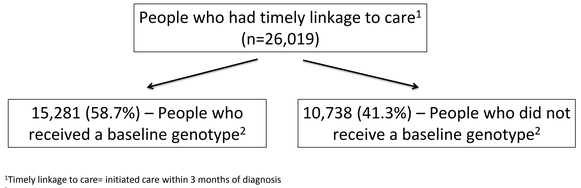
- Since the introduction in 1996 of highly active combination antiretroviral therapy (ART), a major concern of the clinical community has been the emergence and transmission of drug-resistant (TDR) viruses.
- For this reason, since 2007, U.S. Department of Health and Human Services (DHHS) guidelines for the care and treatment of persons with HIV have recommended genotyping at the initial HIV care visit, both to establish a baseline and to guide ART.
- However, previous studies have indicated that patients were more likely to receive a baseline genotype if their CD4 at diagnosis reached the ART threshold in use at the time.

OBJECTIVES

- We sought to observe the extent to which different demographics of patients newly diagnosed with HIV have received baseline genotypic resistance testing since genotypes became reportable in NYC in 2006 and from what type of care provider.
- We focused on the possibility that social determinants of health highlighted in recent analyses of other HIV-related care outcomes might be associated with disparities in baseline genotyping.

METHODS

- We used laboratory data routinely reported to NYC HIV surveillance to conduct a cross sectional analysis to ascertain whether persons newly diagnosed with HIV from 2006-2017 received or did not receive a baseline genotype.

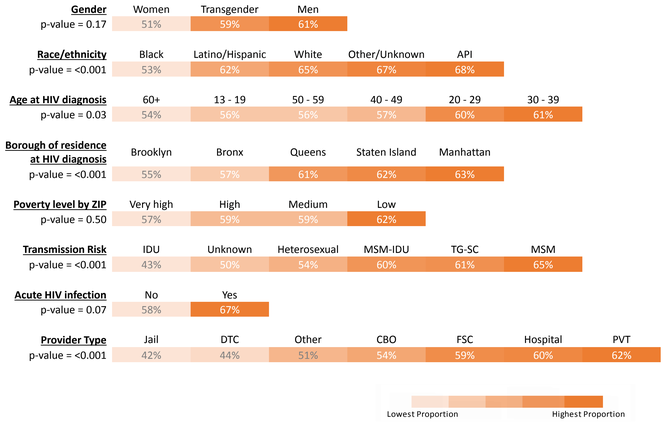


[1]Timely linkage to care= initiated care within 3 months of diagnosis
[2]Baseline genotype= a genotype within 3 months of diagnosis.

- We examined the demographic characteristics, clinical differences and provider type associated with the presence or absence of receiving a baseline genotype.
- To inspect the likelihood of a provider ordering a genotype, we looked at two time periods, 1. the Treatment Threshold Era (2006-2012) - where CD4 thresholds were established for initiation of ART and 2. the "ART for all" Era (2012-2017) – where CD4 thresholds were removed.

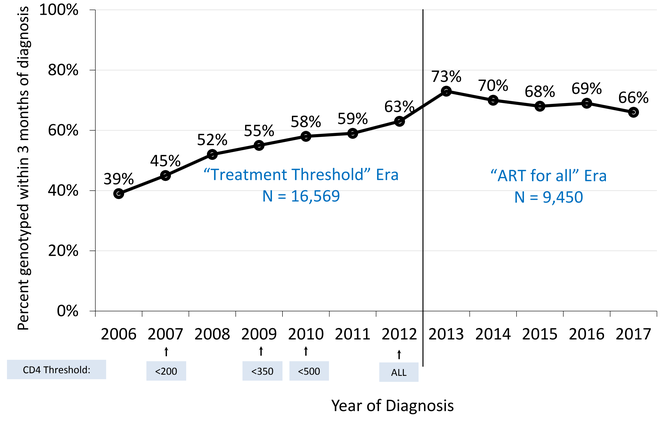
RESULTS

FIGURE 1: Demographics of people with baseline genotype (N=26,019), NYC 2006-2017



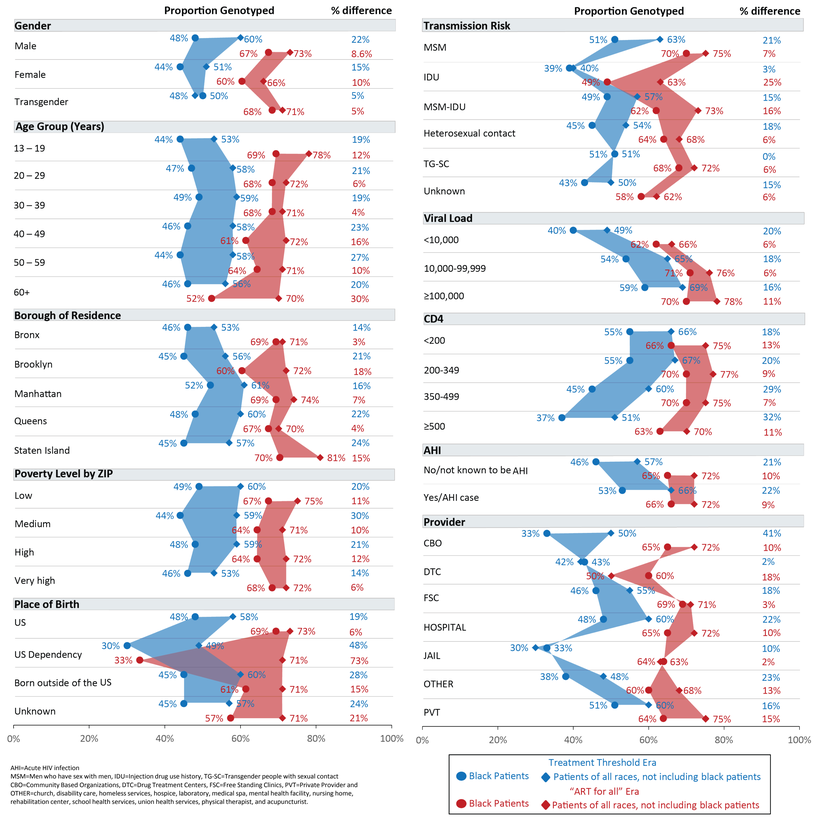
- Patients less likely to be genotyped included women, black people, adults over 60 years of age, people living in very high poverty areas, people living in Brooklyn, injecting drug users (IDU), persons diagnosed during established infection (AHI-yes), and people in jail.

FIGURE 2: Proportion with baseline genotyping by year of HIV diagnosis



- When broken down by CD4 interval (<200, 200-349, 350-499, ≥500), there was a steady increase in baseline genotyping at all CD4 intervals, with a dramatic jump at the in 2013, after the recommendation of ART for all.
- Baseline genotyping before 2012 was most prominent for people at the prevailing ART threshold, presumably to guide therapy.

FIGURE 3: Proportion with baseline genotyping by race by era, NYC 2006-2017



AHI=Acute HIV infection
MSM=Men who have sex with men, IDU=Injection drug use history, TG-SC=Transgender people with sexual contact
CBO=Community Based Organizations, DTC=Drug Treatment Centers, FSC=Free Standing Clinics, PVT=Private Provider and OTHER=church, disability care, homeless services, hospice, laboratory, medical spa, mental health facility, nursing home, rehabilitation center, school health services, union health services, physical therapist, and acupuncturist.

- The gap in testing for black people was apparent in every demographic and clinical category. Black people were independently associated with a 49.7% (95% CI 0.41, 0.62) lower likelihood of receiving a baseline genotype in the "treatment threshold" era, regardless of age, risk factor, neighborhood poverty level, clinical status, provider type, and year of diagnosis, and a 23.1% (95% CI 0.66, 0.9) lower likelihood of being genotyped in the era of "ART for all".
- All providers, except Drug Treatment Centers (DTC's) and Jails, genotyped black patients less often than non-black patients. However, DTC's and Jails still had the lowest proportion of patients genotyped in both eras compared to all other types of providers.

CONCLUSION

- Five years into the era of "ART for all," substantial inequity in baseline genotyping remains.
- Strategies to increase testing of black people are needed to improve quality of care.
- Investigation into the dynamics and logic behind the provider decision to withhold baseline genotyping is under way.

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