

Increase in out-migration in persons reported with AIDS in New York City since the introduction of HAART



David B. Hanna, Daniel M. Weglein, Elizabeth M. Begier
Bureau of HIV/AIDS Prevention and Control, New York City Department of Health and Mental Hygiene, USA
Contact: ebegier@health.nyc.gov; +1 212 442 3388

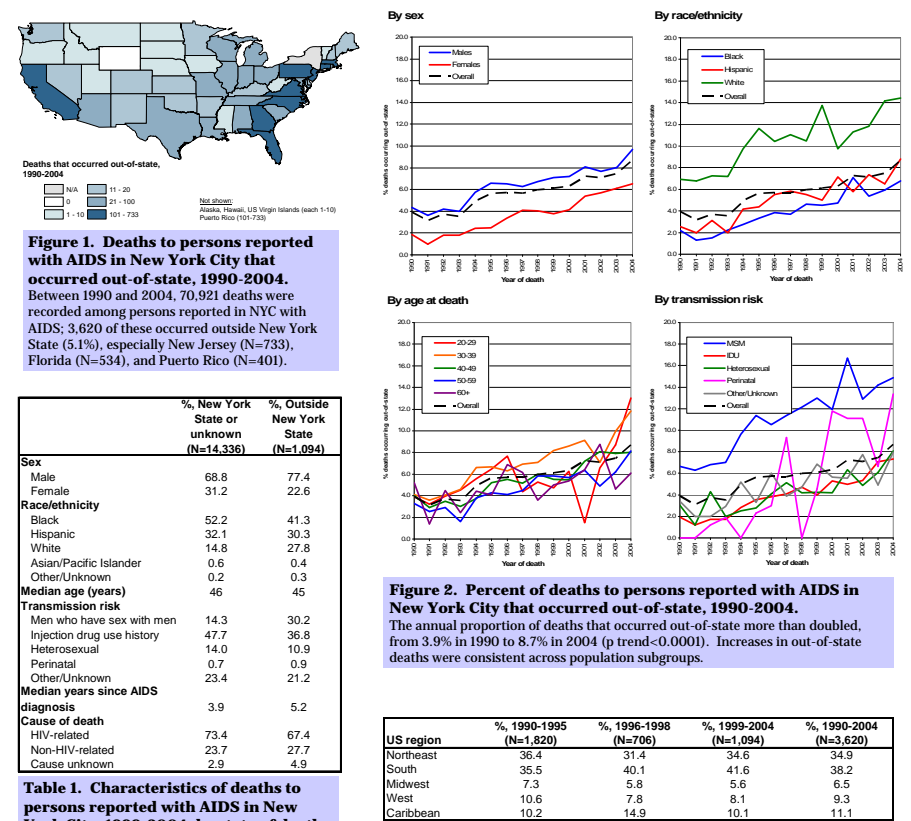
Introduction

- Survival and quality of life continue to improve for persons living with HIV/AIDS (PLWHA) since the introduction of highly active antiretroviral therapy (HAART), creating greater opportunities for migration
- However, out-migration among PLWHA creates challenges to surveillance systems in accurately measuring HIV/AIDS prevalence in a given area
- We assessed trends in out-of-state deaths occurring 1990-2004 among persons reported with AIDS in New York City (NYC), to:
 - better understand out-migration patterns among PLWHA in the era of HAART
 - inform strategies to improve the capture of out-migration patterns by surveillance systems

Methods

- The New York City HIV/AIDS Surveillance Registry records deaths of all persons reported with HIV/AIDS in NYC based on periodic matches with the local Vital Statistics registry and the National Death Index
- We determined the annual percentage of all deaths among persons with AIDS occurring out-of-state from 1990-2004, as a marker of out-migration, based on data reported through September 30, 2007
- We compared differences in characteristics of persons who died in-state versus out-of-state in the current HAART era (1999-2004)
- We assessed regional differences among out-of-state deaths before and after the introduction of HAART
- Analyses in SAS 9.1 (SAS Institute, Cary, NC) were limited to persons with AIDS because HIV reporting was implemented in NYC in 2000

Results



Limitations

- Out-of-state deaths were used as an extreme proxy for out-migration, since only limited information on out-migration prior to death was available
- Among deaths occurring in New York State identified through the NDI, we could not distinguish between those occurring in NYC versus those occurring upstate

Conclusions

- We demonstrated a consistent increase in out-migration among persons with AIDS since the widespread availability of HAART, based on mortality data
 - This is the first known description of this phenomenon in a US city
- Out-migration appears to be most common among MSM and among whites, and the respective gaps widen over time
 - Socioeconomic advantage when coupled with longer life expectancy may increase geographic mobility
- Overestimation of local disease prevalence may occur as the epidemic matures and treatment improves, unless steps are taken to measure out-migration
- In the US, HIV/AIDS surveillance systems should better capture out-migration patterns (especially prior to death) in order to improve the accuracy of prevalence estimates by:
 - Participating in the CDC's Routine Interstate Duplicate Review (RIDR) process with other jurisdictions
 - Conducting death matches with the National Death Index and Social Security Death Master File to ascertain vital status of those who migrate out
 - Improving epidemiologic monitoring of reported cases to assess loss to follow-up, such as linking all received CD4 and viral load tests to existing cases