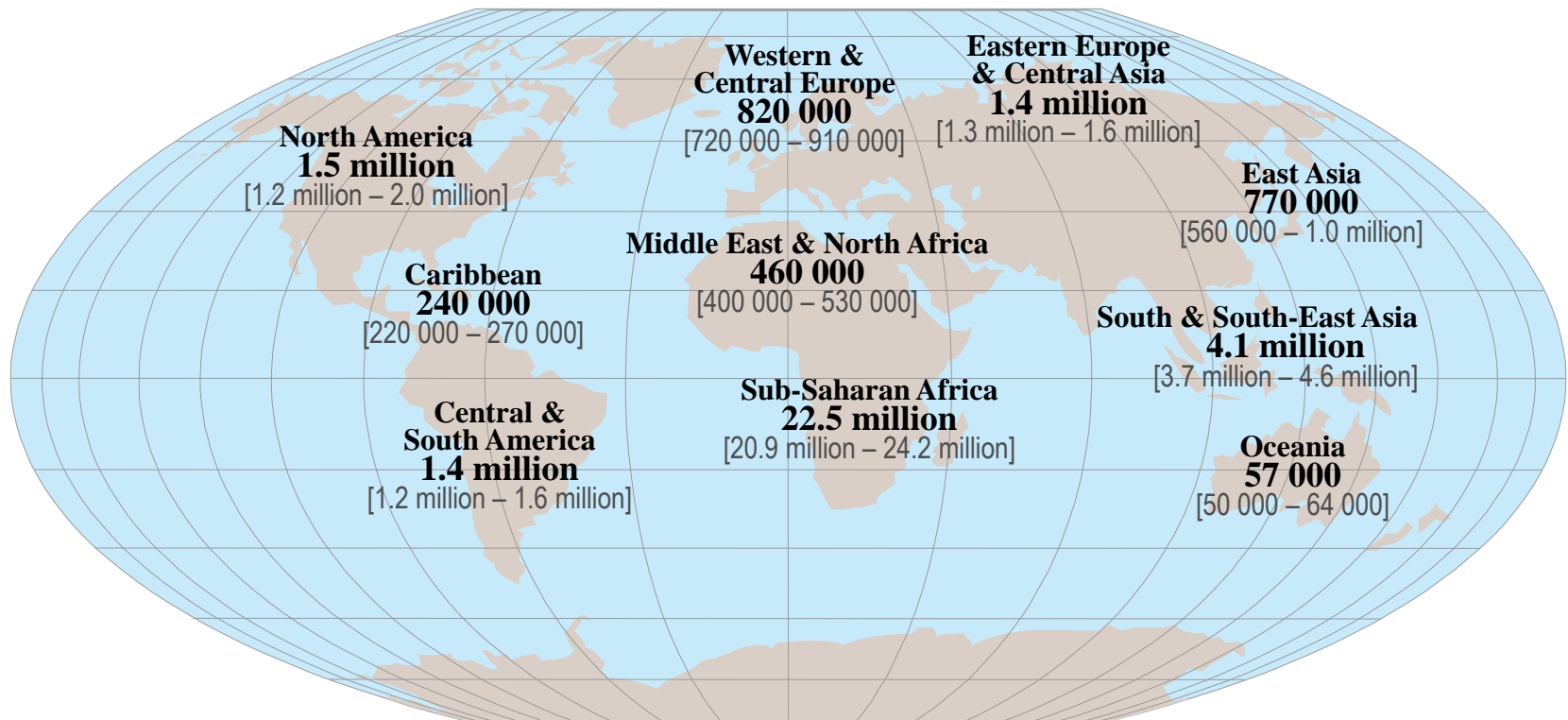


Geographic Distribution of HIV/AIDS in Texas

Joseph R. Oppong
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University of North Texas

Adults and children estimated to be living with HIV | 2009



Total: 33.3 million [31.4 million – 35.3 million]



Distribution of HIV/AIDS in the U.S.

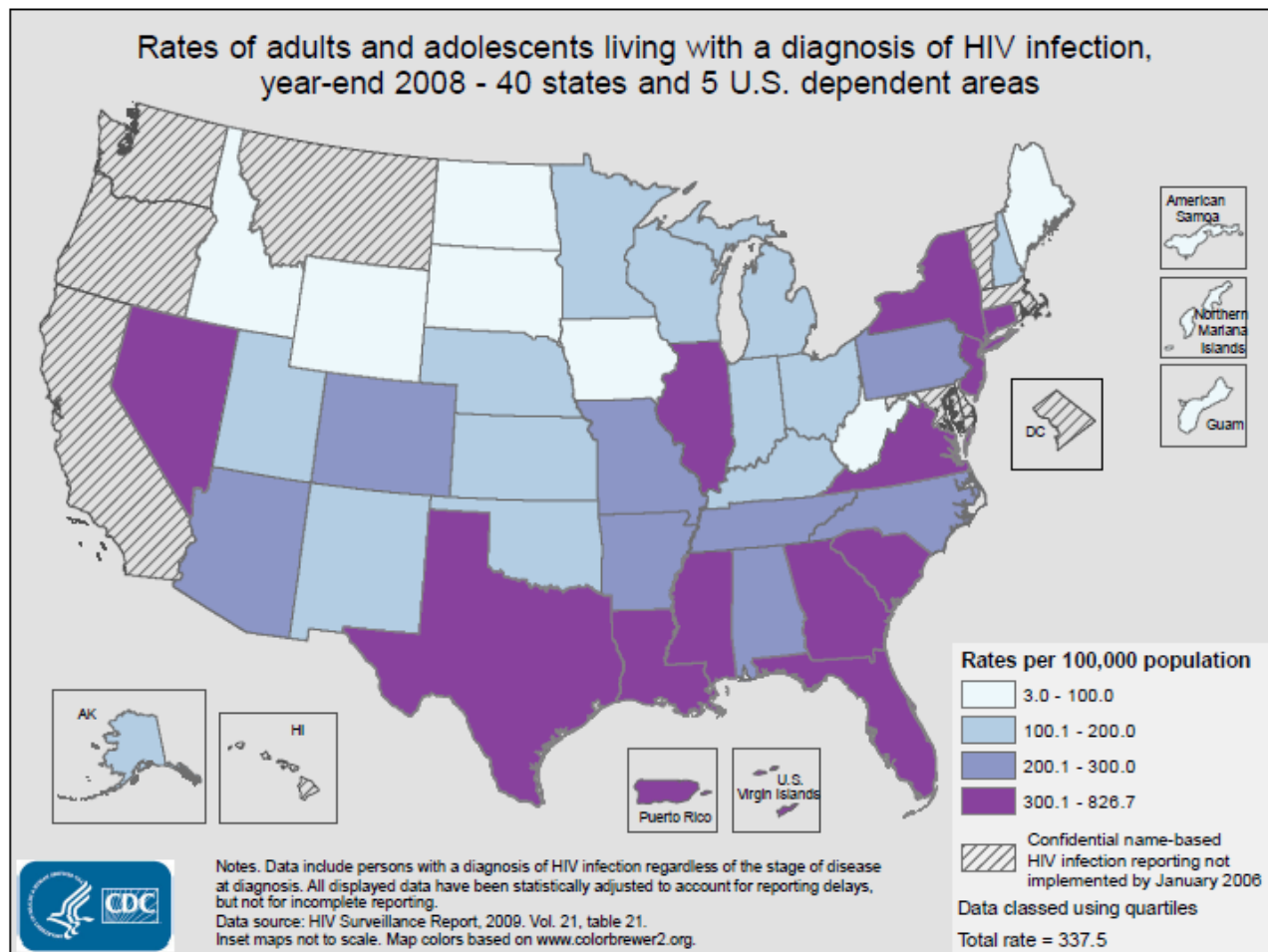
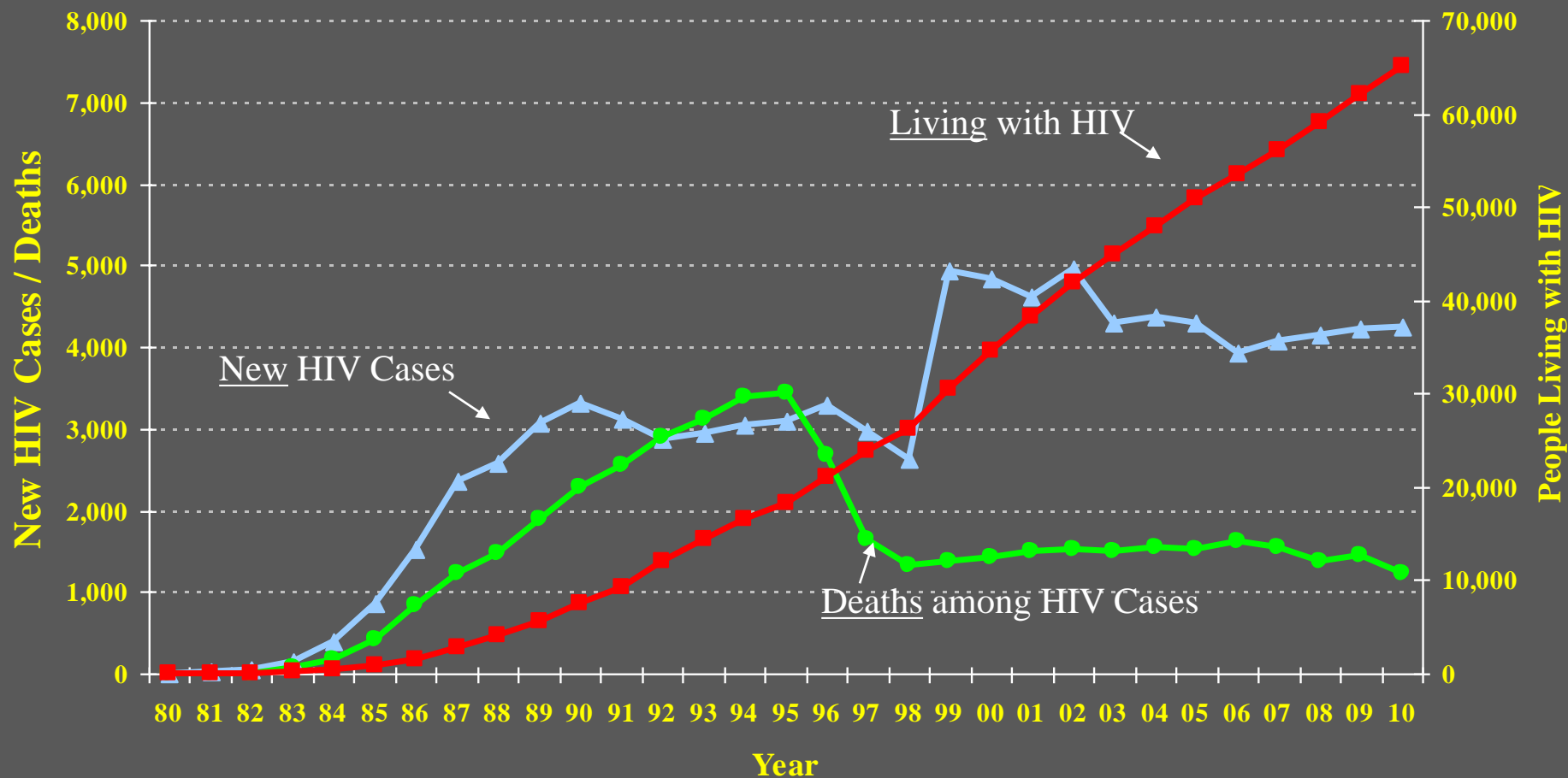


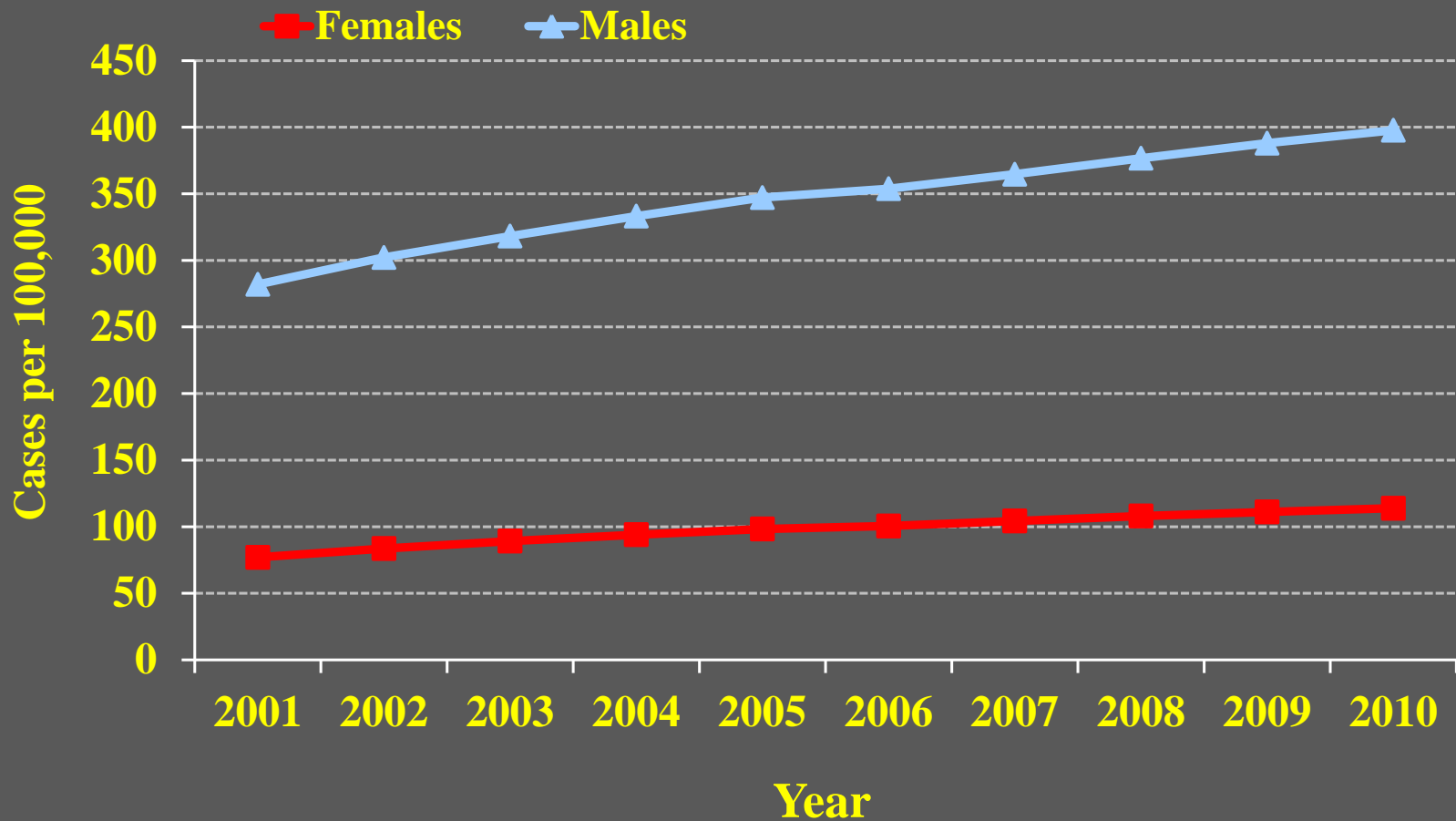
Fig. Rates of adults and adolescents living with HIV (CDC, 2011)

HIV Epidemiology in Texas 2010

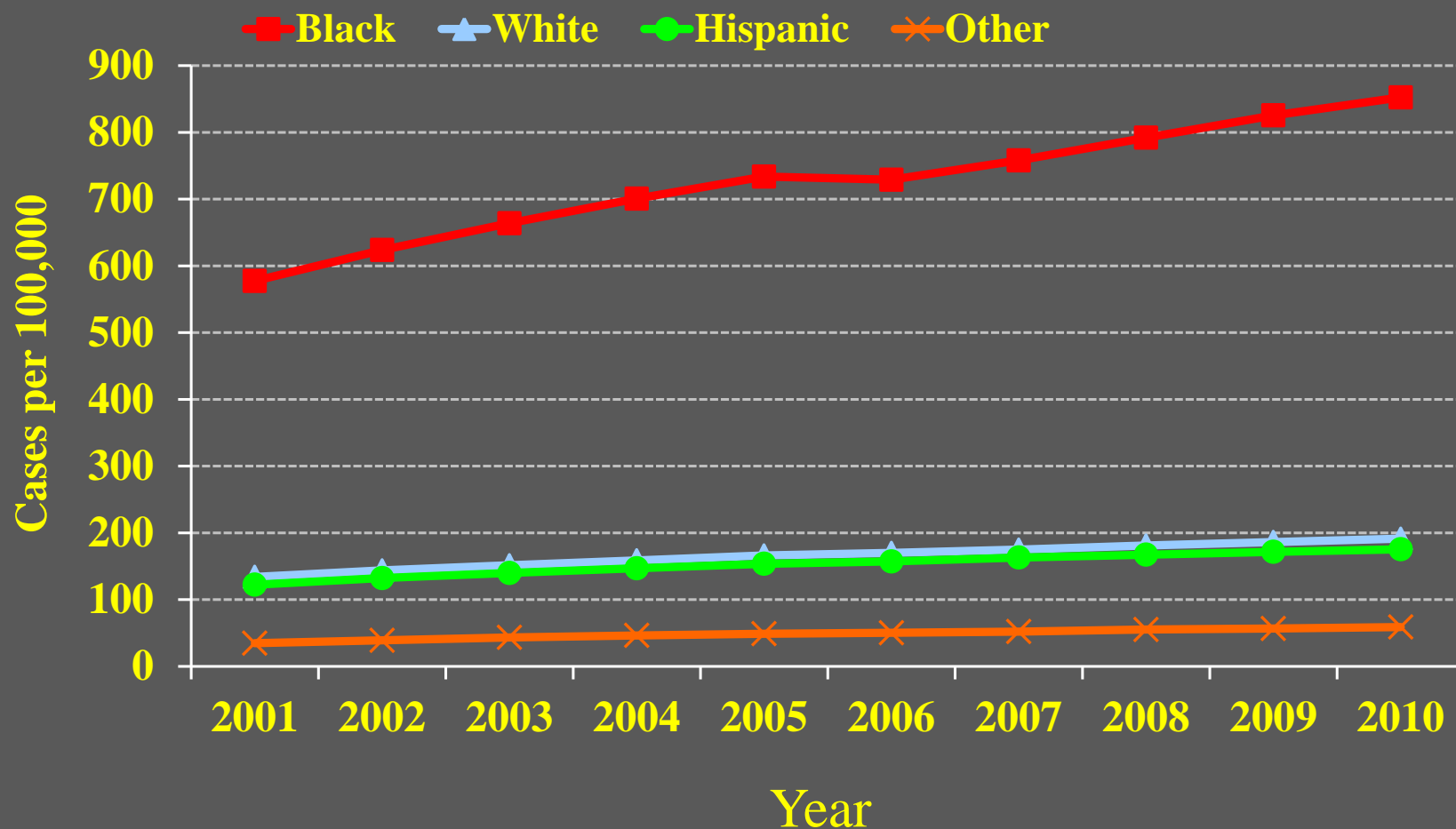
Newly Diagnosed HIV Cases, Deaths, and People Living with HIV: Texas, 1980-2010



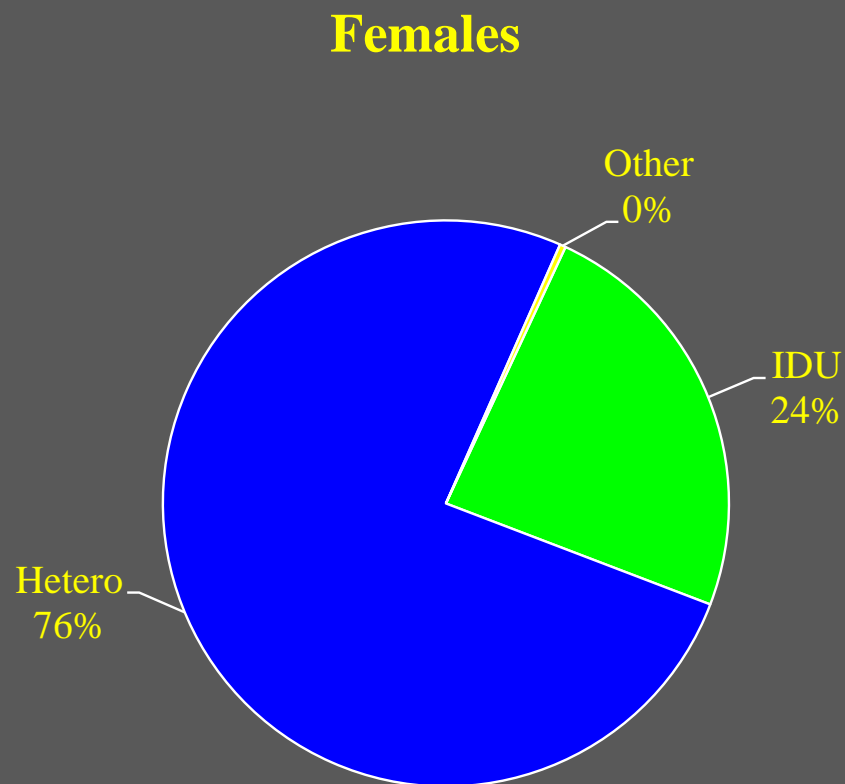
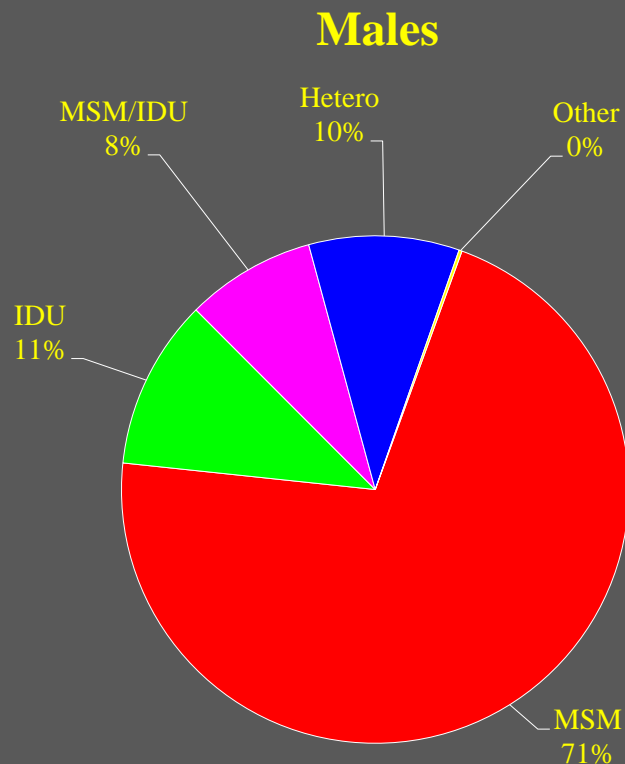
People Living with HIV Rates by Sex: Texas, 2001-2010



People Living with HIV Rates by Race/Ethnicity: Texas, 2001-2010



People Living with HIV by Sex and Transmission Category: Texas, 2010



MSM: Men who have sex with men
IDU: Injection drug users
Hetero: Heterosexual contact

GIS and Health Research Group

HIV/AIDS Research @UNT

The overwhelming weight of evidence indicates that physical, social and service characteristics of neighborhoods influence health in important ways, including by shaping choices and behaviors.

We need more research, conducted rigorously and on a large enough scale to yield results that can guide public and private-sector policies.



ROBERT WOOD JOHNSON FOUNDATION
Commission to Build a Healthier America

CDC Report 2010

- “... poverty is the single most important demographic factor associated with HIV infection among inner-city heterosexuals.
 - ... contrary to severe racial disparities that characterize the overall U.S. epidemic, researchers found no differences in HIV prevalence by race/ethnicity in this population.
 -prevalence was especially high in those with the lowest socioeconomic status....”
-

Research Questions

- How do characteristics of neighborhood (place of residence) impact risk of HIV infection?
 - Does the HIV epidemic in impoverished urban areas of Texas differ from the rest of the state?
 - How does HIV/AIDS survival vary with place of residence?
-

Distribution of HIV/AIDS in Texas

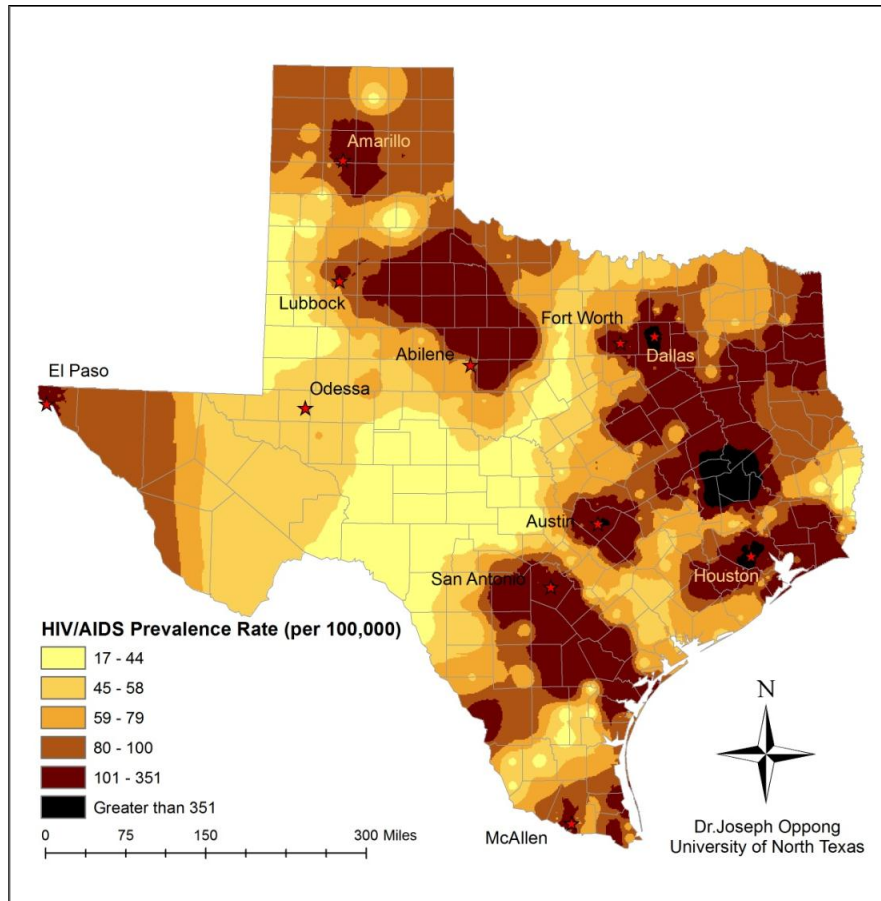


Fig. Cumulative Incidence of HIV/AIDS in Texas
Zip codes 1999-2007

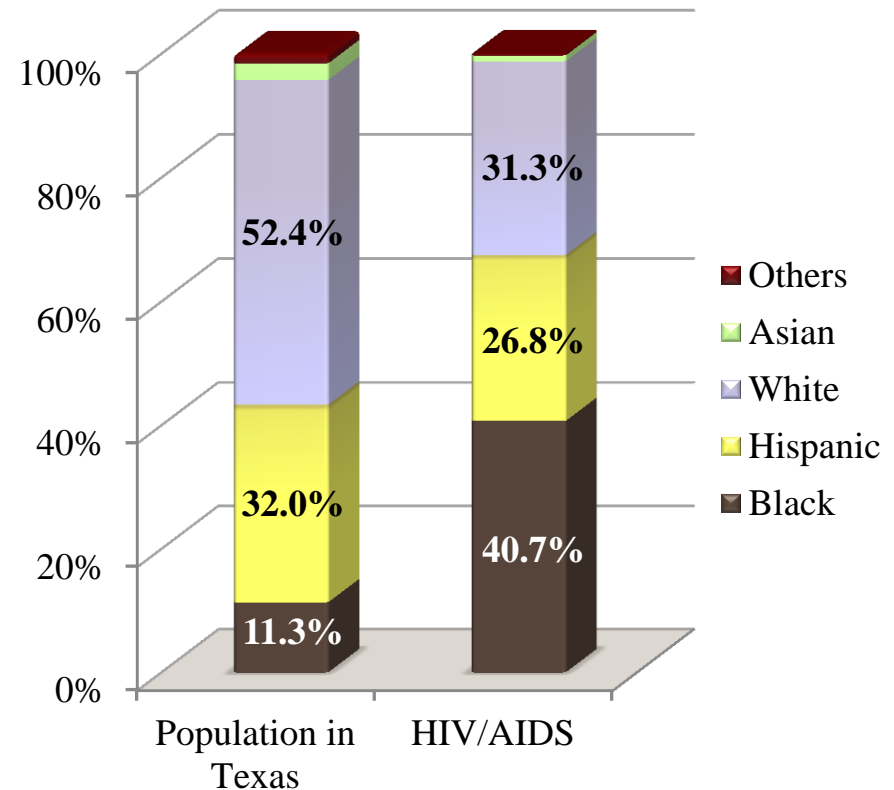
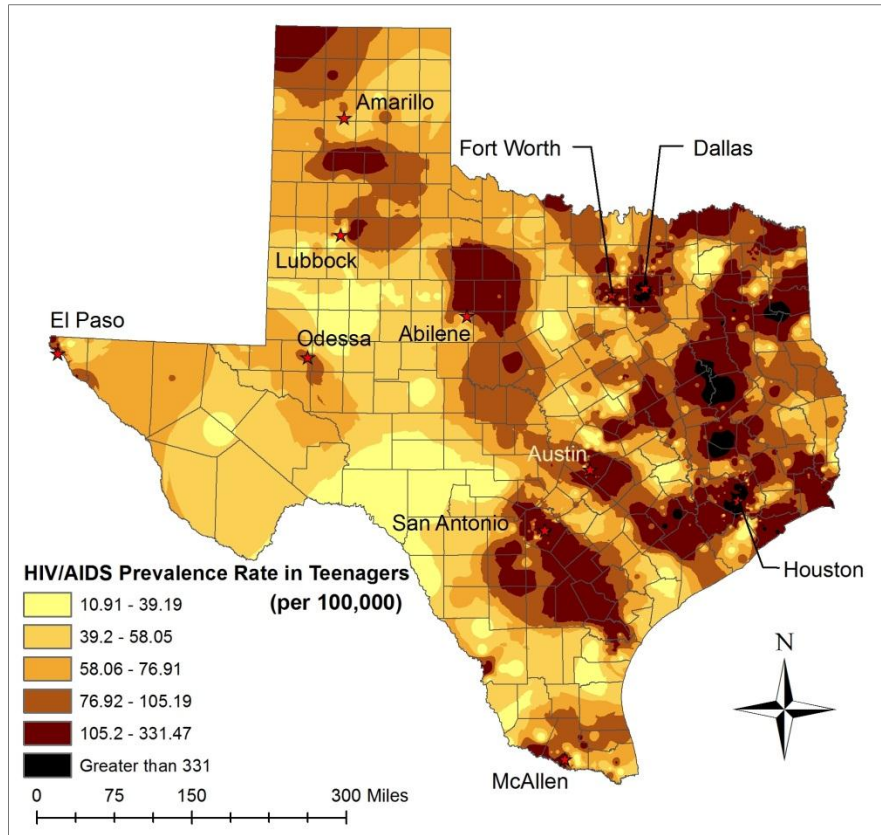


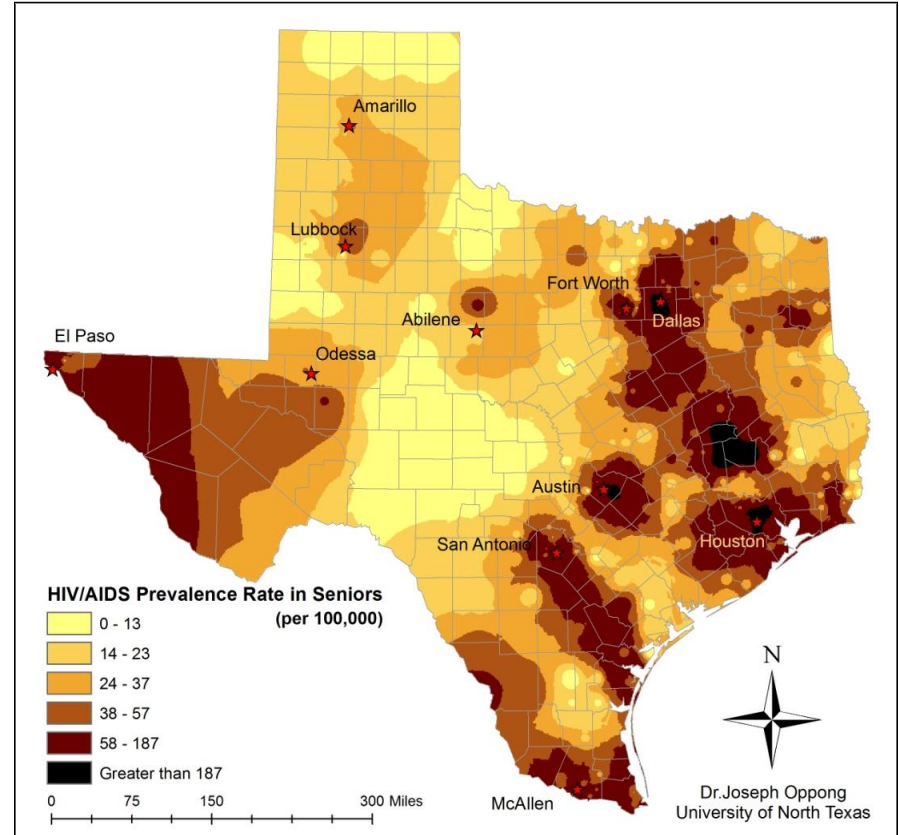
Fig. Proportions of total population and HIV/AIDS
by race/ethnic groups

HIV/AIDS in Texas Selected Age Groups

HIV/AIDS in Texans (aged 13 to 24)

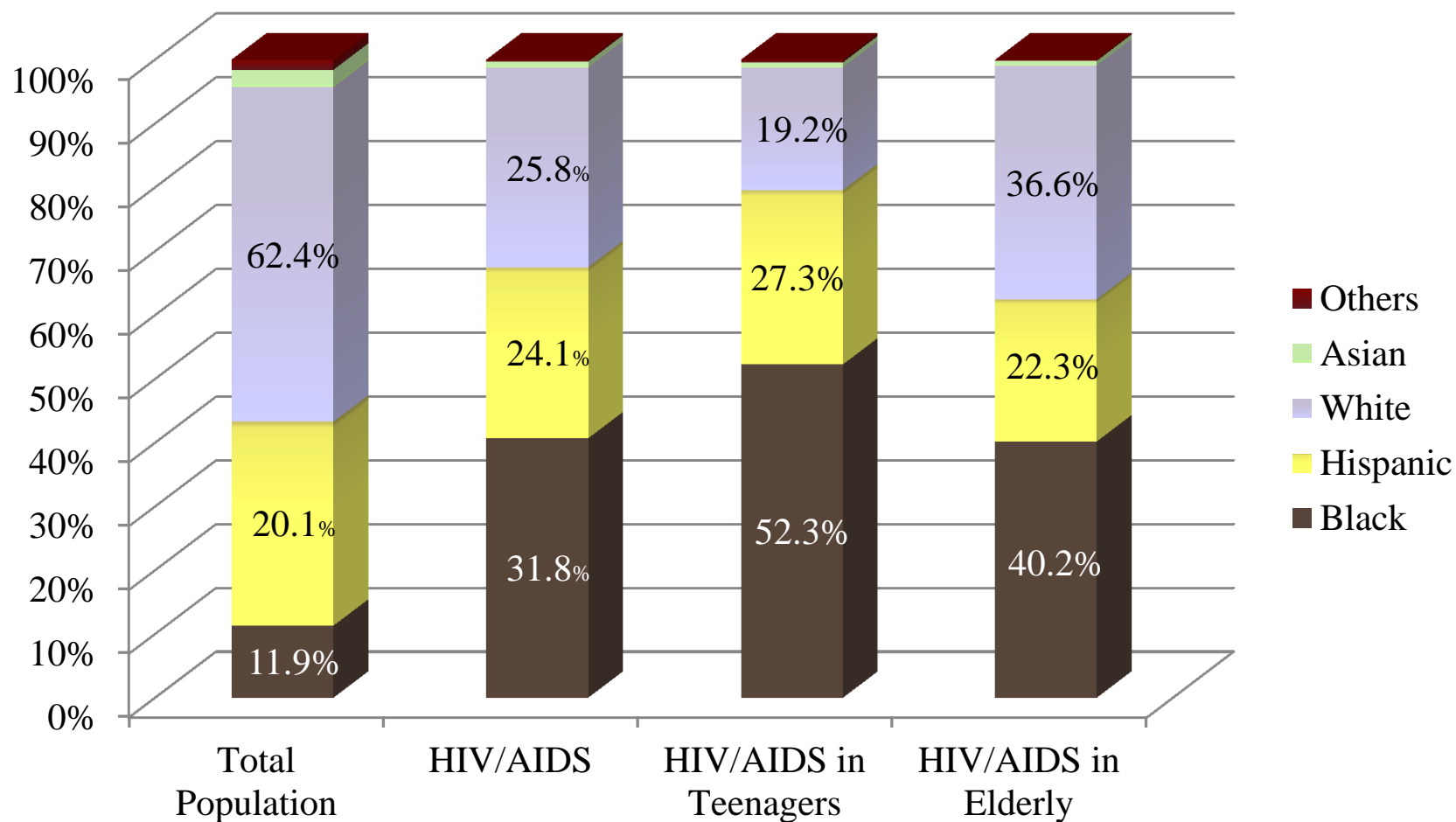


HIV/AIDS in Texans (aged 50 and over)

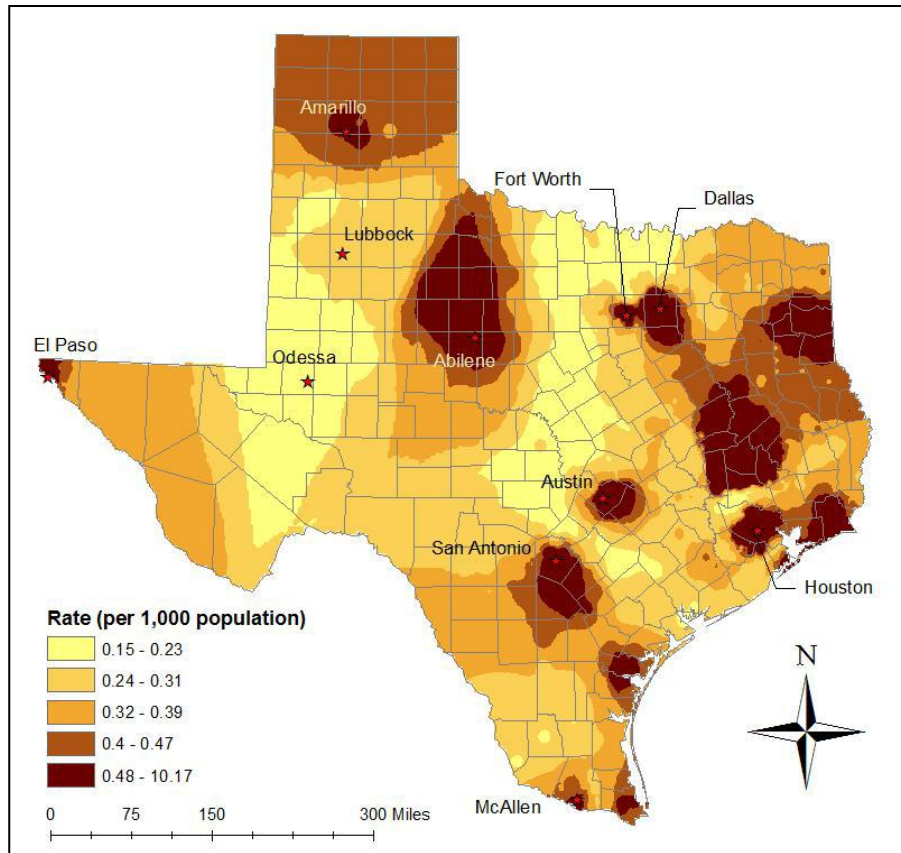


Prevalence of HIV/AIDS distribution in Texans (aged 13 to 24) and (50 and over) 1999-2007

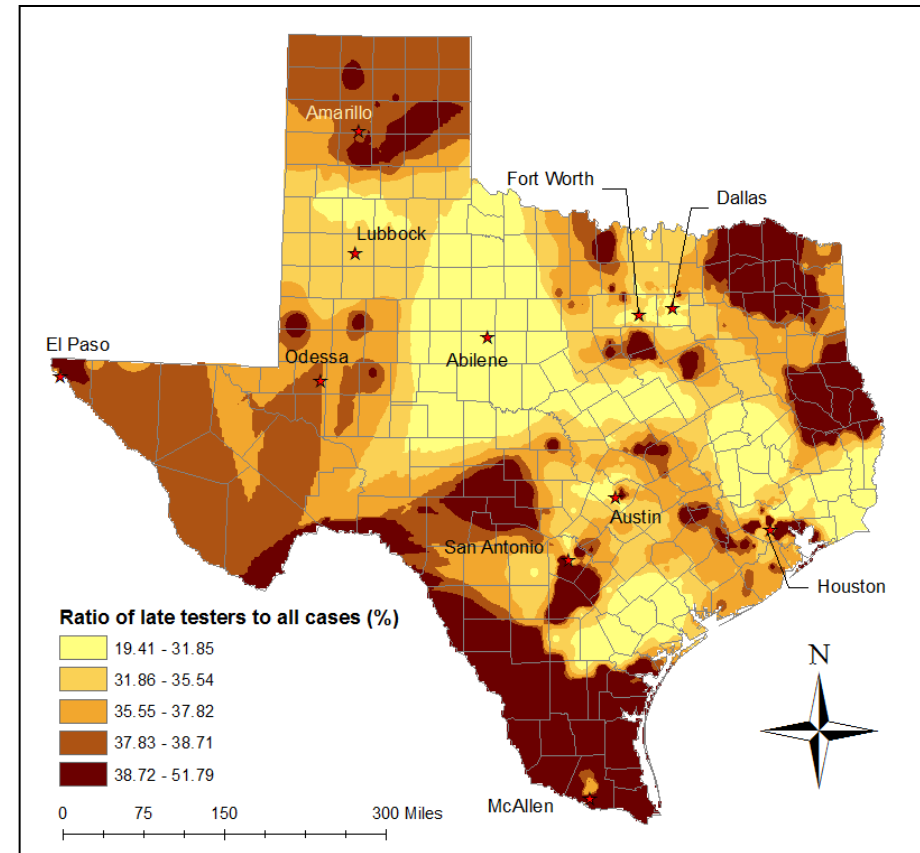
Proportion of Newly Diagnosed HIV/AIDS by Race/Ethnicity and Age Groups in Texas, 1999-2007



Late Testers for HIV/AIDS in Texas

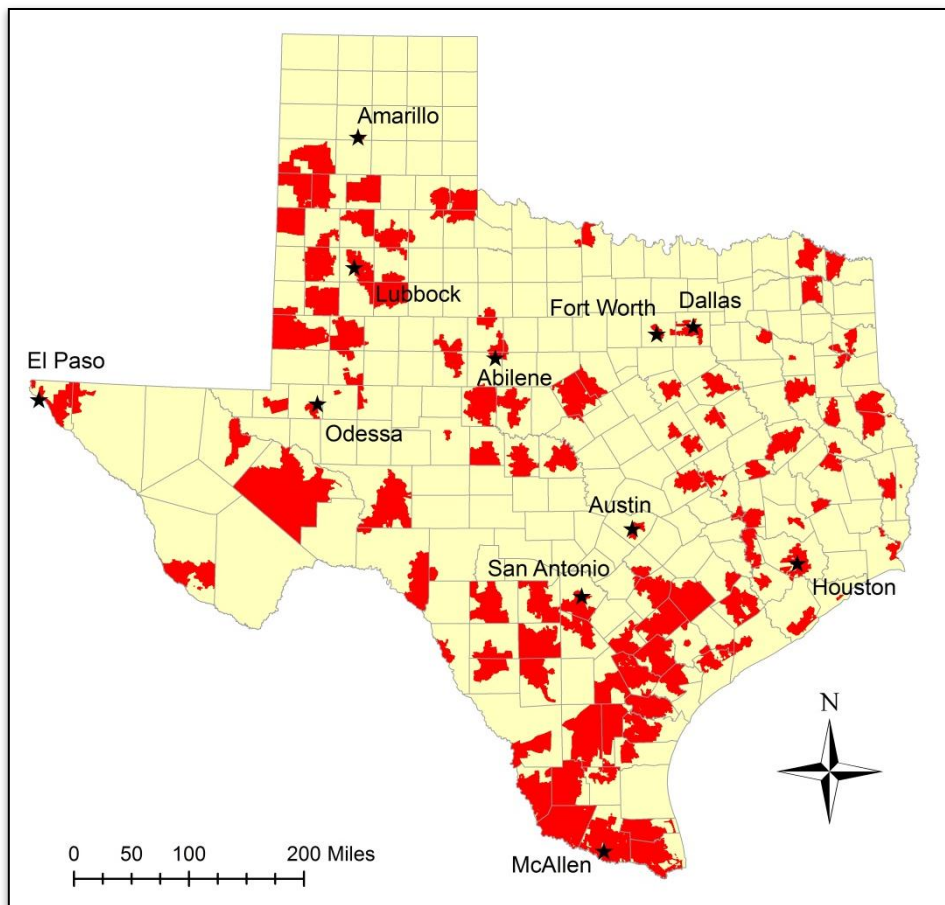


Prevalence of late testers from 1999-2008



Ratio of late testers to all cases from 1999-2008

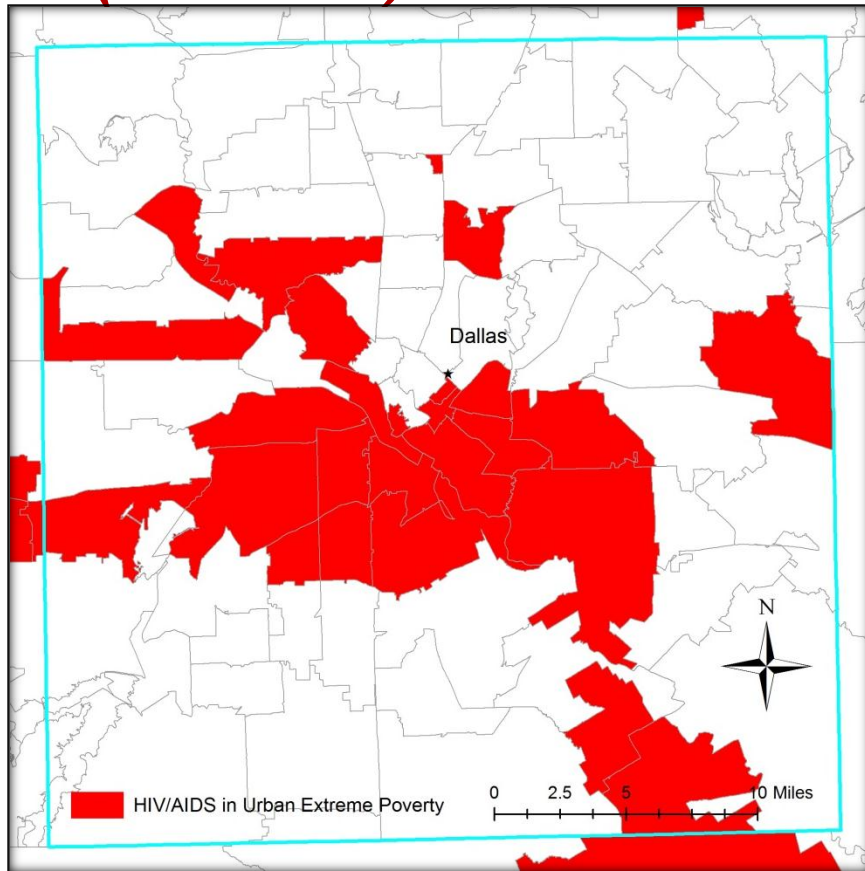
Extremely Poor Areas (17.9% of TX area)



- 291 ZCTAs from 1936 ZCTAs in total
- Colonias counties such as El Paso, McAllen, etc.
- West Texas such as Lubbock
- Urban impoverished areas such as Dallas, Fort Worth, Houston, San Antonio, Austin, etc.
- East Texas with high % Black

Extreme poverty areas in Texas

HIV/AIDS in Urban Extreme Poverty (Dallas)

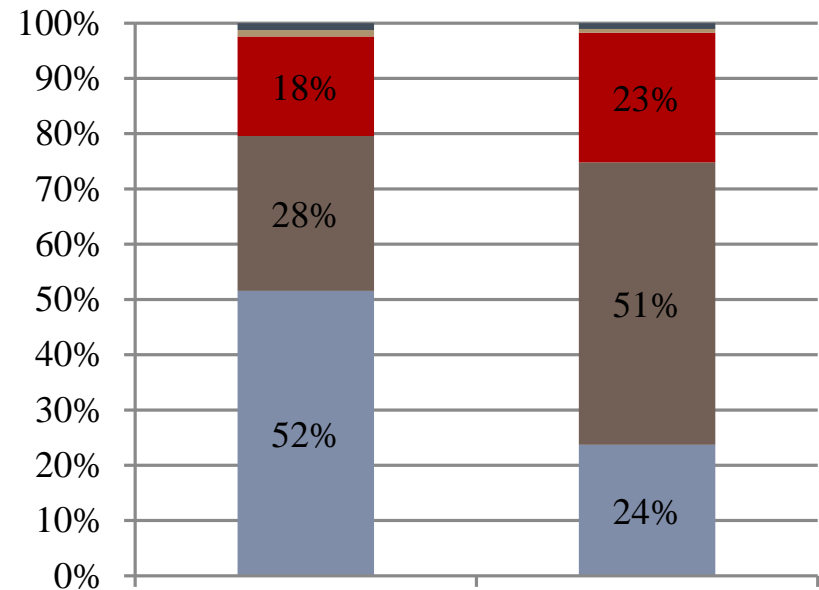


UEP - Avg. prevalence rate 913.24 per 100,000
 Surrounding – Avg. Prevalence rate 605.27 per 100,000

HIV/AIDS prevalence rate (per 100,000)

White	Black	Asian	Hispanic	Other	Avg.
944.42	1687.79	374.69	336.25	486.06	826.84

Dallas



General Population HIV/AIDS Population

■ Hispanic ■ Black ■ White ■ Asian ■ Other Race

Spatial Analysis of HIV/AIDS Survival in Dallas, Texas

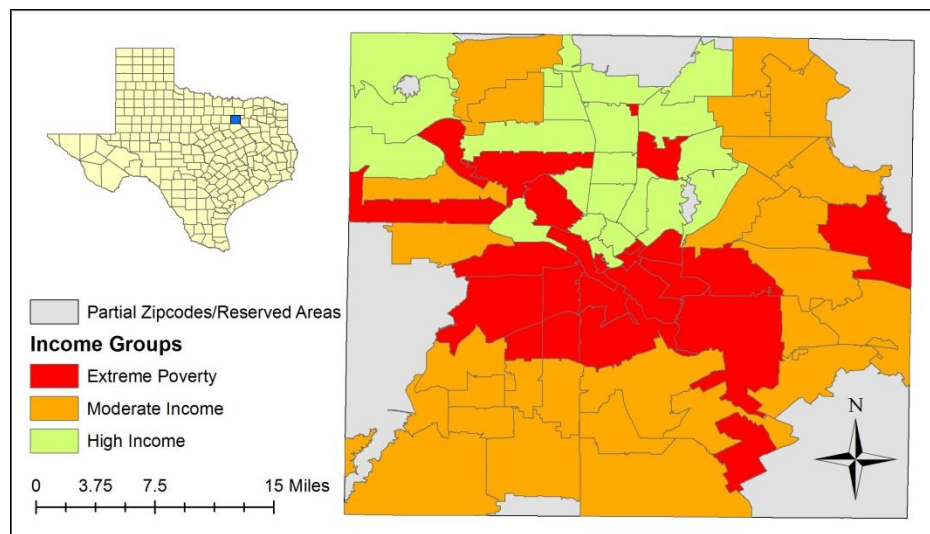


Fig. Income group of Dallas County by Zip codes

Table Median survival months

Group Number	Group Name	Median HIV Survival	Median AIDS Survival
1	Extreme Poverty	17 Months	23 Months
2	Moderate Income	11 Months	19 Months
3	High Income	14 Months	28 Months

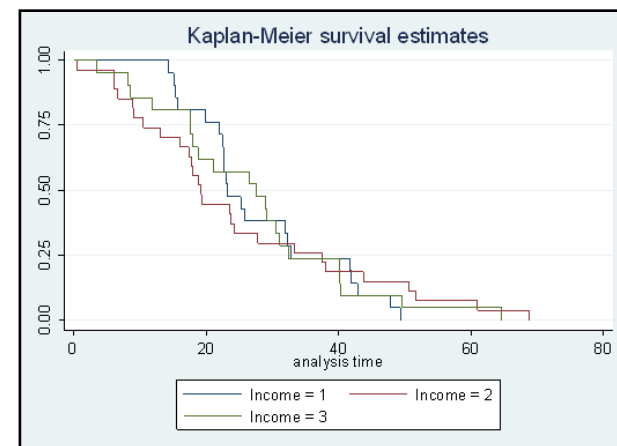


Fig. HIV to AIDS Survival by Income

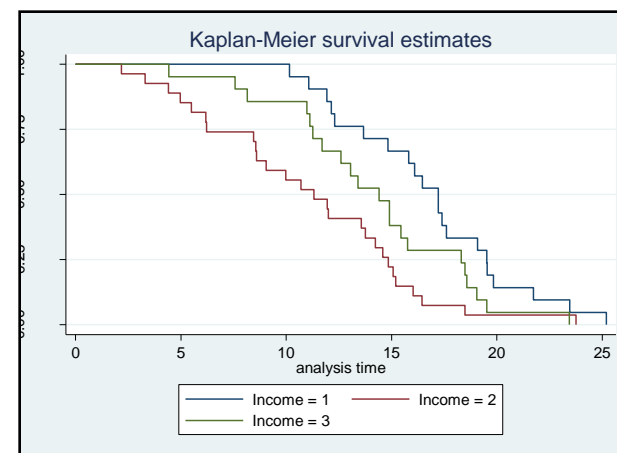


Fig. AIDS to Death Survival by Income

Conclusion

- Extreme urban poverty areas of Texas have much higher rates of HIV infection.
 - However, median HIV survival is lowest in urban middle income areas – falling between the cracks.
 - Vulnerability to HIV infection and HIV survival varies with place of residence.
-

Thank You!

Questions?

Health & Medical Geography Research

- Emmanuel Aggrey-Korsah
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- David Ferring
- Adam Harold
- Stephanie Heald
- Mara Hedrich
- Jody Huddleston
- Libbey Kutch
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- Haruna Miyakado
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- Susan Rice
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- Janthima Srisombat
- Chetan Tiwari

