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TRENDS IN INCIDENCE OF KAPOSI SARCOMA AMONG MALES IN ALL 50 UNITED STATES, 2000-2014

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BACKGROUND

- Kaposi sarcoma (KS) is the most common neoplasm of people living with HIV today
- Although the overall incidence of KS has been reported to be declining in the US, KS has strong racial/ethnic, age, and regional diversity in incidence trends

OBJECTIVE

The U.S. has large racial, ethnic, and regional variation; we collected data from all 50 states to better analyze changes in the incidence of KS from 2000-2014.

METHODS

- US Cancer Statistics (USCS) registry
  - The USCS registry is the official data source for federal government–reported cancer incidence statistics and covers 97% of the US population
- We identified patients in the USCS registry with KS (ICD-O-3 histological code 9140, primary sites C000-809) diagnosed between 2000 and 2014
- Women were excluded due to low numbers of KS cases in certain geographic regions
- We also restricted our analyses to the 20 to 54 year-old age-group as prior validation studies indicated that ~94% of KS cases in this age-range are HIV-related
- AIDS prevalence in the U.S. in males 20-54 years old during our study period was ascertained using National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention AtlasPlus.

METHODS

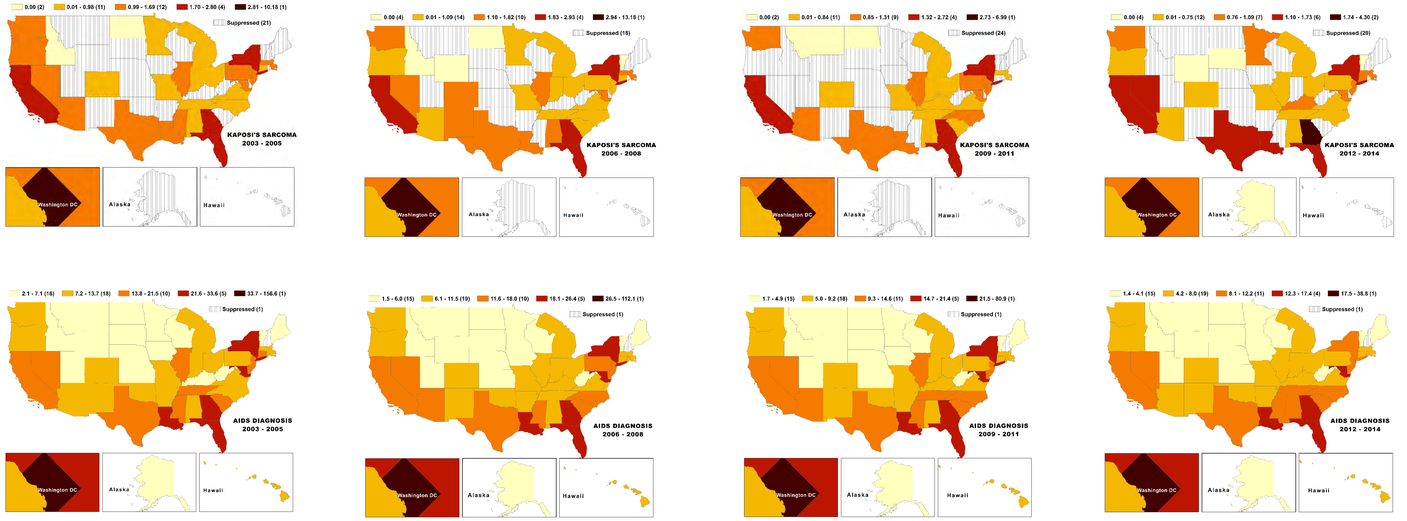
Statistical Analyses

- We obtained age-adjusted KS incidence rates by race/ethnicity and year
- We assessed annual KS trends overall and among sociodemographic and geographic subgroups using Joinpoint analysis, including average annual percentage change (AAPC) for each Joinpoint model
- We created separate maps of the US (50 states + Washington DC) for 3-year periods to show KS incidence and AIDS prevalence, with rates clustered into 5-class scale using Jenks optimization method using ArcGIS software

RESULTS

- During the study period, 12,549 men were diagnosed with KS. Overall incidence of KS among men decreased from 1.44/100,000 in 2000 to 0.94/100,000 in 2014, decreasing by 3.15% (95% CI, -3.55% to -2.76%) annually
- **Race/Ethnicity:** The AAPC between 2000 and 2014 was higher in Hispanics (AAPC, -5.11%; 95% CI, -6.43% to -3.78%) than in non-Hispanic whites (AAPC, -3.92%; 95% CI, -4.62% to -3.21%) and in Blacks (AAPC, -3.31%; 95% CI, -3.84% to -2.79%)
- **Age group:** While KS incidence decreased by 5.35% per year among 30-44-year-old individuals (95% CI, -6.10% to -4.61%), the incidence of KS increased among 20-29-year-old individuals (AAPC, 2.67; 95% CI, 1.21% to 4.15%) and remained stable among 45-54-year-old individuals (AAPC, -0.03; 95% CI, -0.63% to 0.59%)
- Between 2003 and 2014, overall KS incidence rates were highest in Georgia (2.71/100,000), New York (2.01/100,000), California (1.87/100,000), Florida (1.78/100,000), Texas (1.37/100,000)

FIGURES



RESULTS

- Rates for incident KS and AIDS prevalence have decreased over the study period though non-comparably, with the highest age-adjusted KS incidence rates between 2012-2014 in Georgia (3.03/100,000).
- Of the 4 states with highest AIDS prevalence (upper 2 classes) in 2012-2014, 3 were also in highest rate states for KS (FL, LA, GA); with additional states (NY, TX, NV, CA) also with highest KS rates

CONCLUSION

- We found that geographic and racial disparities in KS incidence remain in the United States
- Georgia has the highest KS incidence rates, and, unlike in other high incidence states where incidence has decreased, the incidence of KS has remained unchanged in Georgia

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