Distribution of cancer-related characteristics for childhood central nervous system tumors among American Indian and white children in Oklahoma

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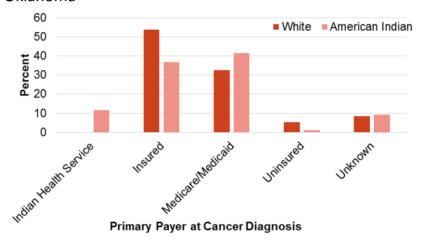


Methods

- Data for incidence and survival were obtained from the Oklahoma Central Cancer Registry
- Chi-Square tests used to determine differences in the distribution of cancer-related characteristics by racial group
- We used the Log-rank test in Kaplan-Meier survival analysis to calculate differences in survival curves by age and stage at cancer diagnosis

Results

Distribution of primary payer at cancer diagnosis for children with CNS tumors by race, 1997-2012 in Oklahoma



Discussion

- We observed higher 5-year survival for AI compared to white children for all CNS tumors and for astrocytoma specifically
- Although the only statistical difference by racial group was primary payer at diagnosis, differences by age and stage at diagnosis were also notable
- Future studies should consider pooling data from multiple states with high proportions of Als and further examine the relationship between insurance and survival for CNS tumors

References

- 1. Heron M. Deaths: Leading Causes for 2010. *National Vital Statistics Reports.* 2013;62, 6.
- Ries L, Smith M, Gurney J, Linet M, Tamra T, Young J, et al. Cancer Incidence and Survival among Children and Adolescents: United States SEER Program 1975-1995. Bethesda, MD: National Cancer Institute, SEER Program;1999.
- 3. Howlader N, Noone A, Krapcho M, Garshell J, Miller D, Altekruse S, et al. SEER Cancer Statistics Review, 1975-2011. Bethesda, MD: National Cancer Institute; 2014.
- Janitz A, Campbell J, Pate A, Anderson A, McNall-Knapp R. Racial, Ethnic, and Age Differences in the Incidence and Survival of Childhood Cancer in Oklahoma, 1997-2012. Submitted to the Journal of the Oklahoma State Medical Association, in Press, Feb 2016.