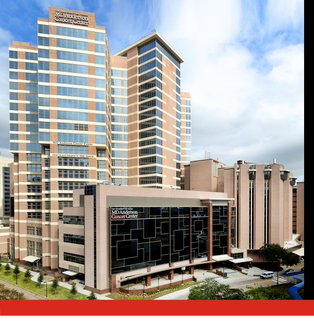

Associations between Sociodemographics and Pediatric Osteosarcoma Characteristics

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Making Cancer History®

Background

- Osteosarcoma is the most common malignancy of bone[1]
- Survival rates for osteosarcoma are around 70%[2]
- There has been little study of associations between patient characteristics, tumor features, and outcomes in pediatric osteosarcoma

Purpose

- Predictor variables: sex, age group, race/ethnicity, county SES, rurality
- Outcome variables: tumor size, tumor site, metastases, chemotherapy, amputation, treatment time, survival
- How are these variables related?

Methods

- Surveillance Epidemiology and End Results: a national cancer registry
- Patients ages 0-24
- Samples from 2004-2020
- 2391 osteosarcoma cases
- Multivariate logistic regression to assess tumor features/treatment
- Multivariate Cox regression to assess cause-specific survival

Conclusion

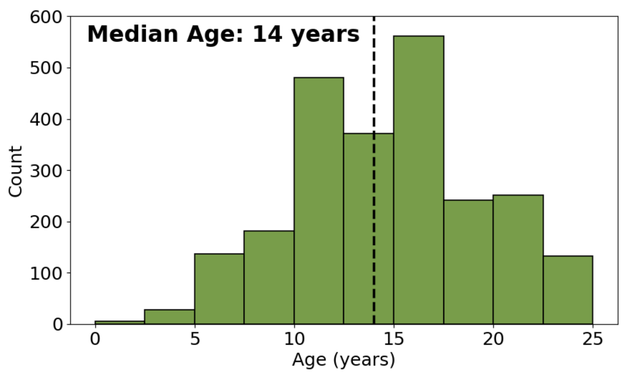
- Numerous disparities in pediatric osteosarcoma presentation, treatment and survival
- Differences occur across sex, race/ethnicity, age group and rurality
- Further work is needed to explain and address these disparities

References

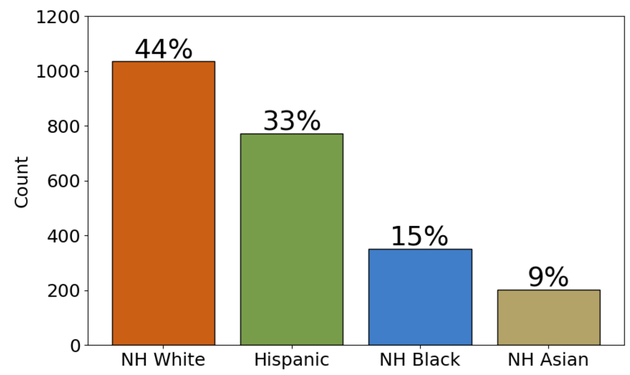
1. Damron T, Ward W, Stewart A (2007). Osteosarcoma, chondrosarcoma, and Ewing's sarcoma: National cancer data base report. *Clinical Orthopaedics and Related Research*
2. Siegel R, Miller K, Wagle N, Jemal A (2023). Cancer Statistics, 2023. *Cancer*

Sample Demographics

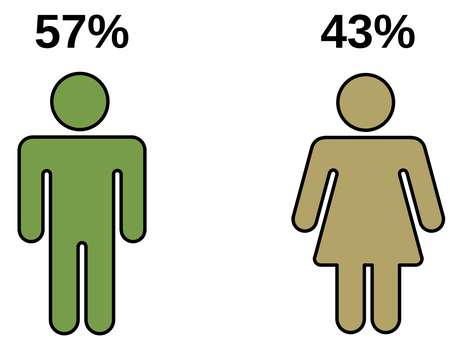
Age



Race and Ethnicity

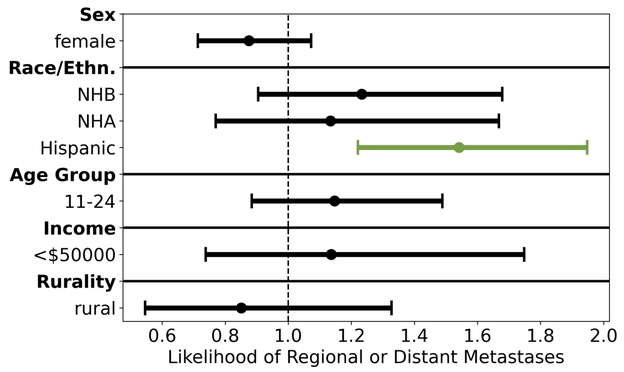


Sex

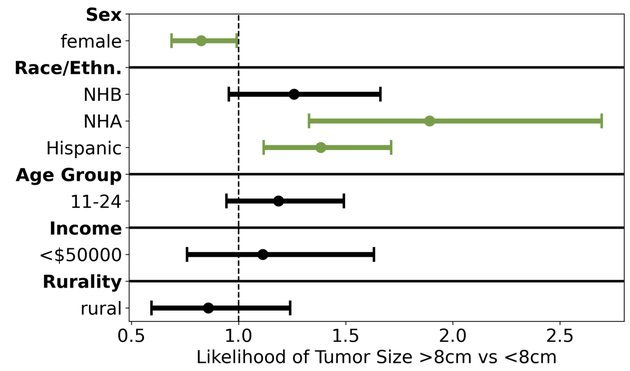


Presentation

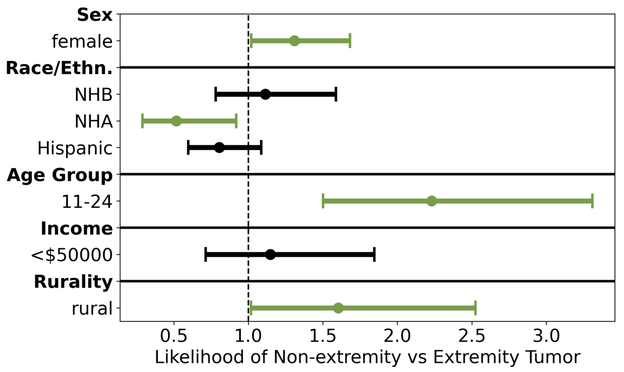
Metastases



Tumor Size

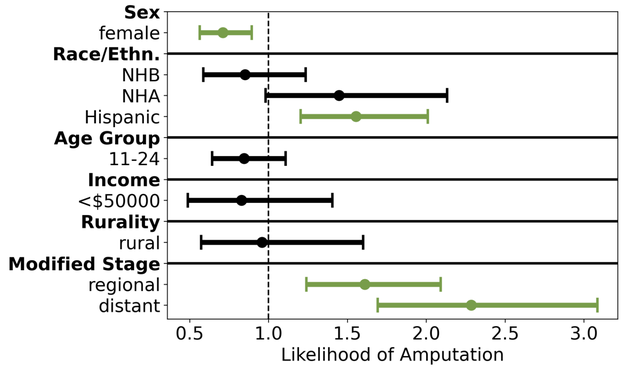


Tumor Location

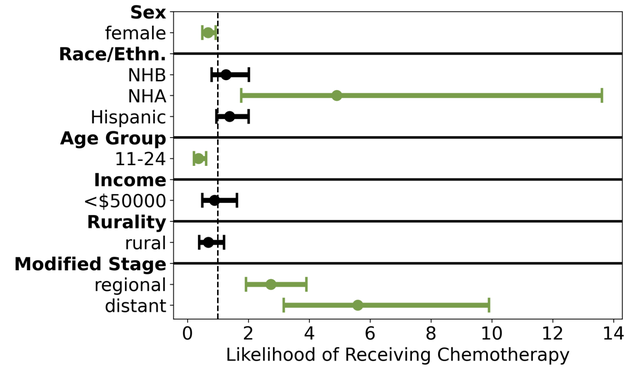


Treatment

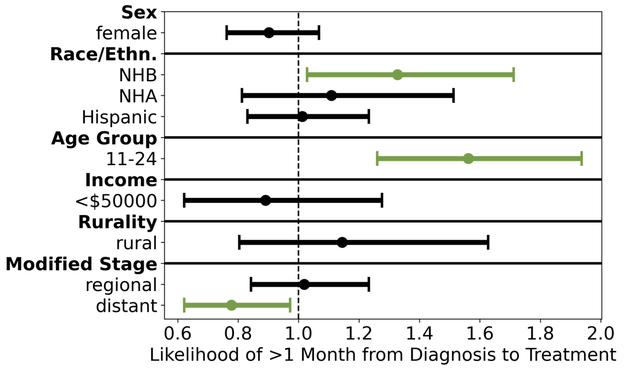
Amputation



Chemotherapy

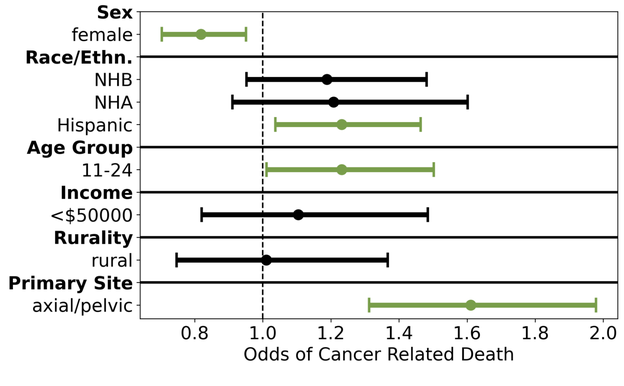


Time from Diagnosis to Treatment

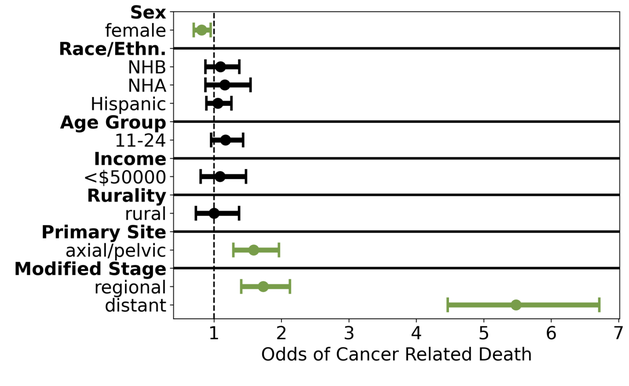


Survival

Survival, No Stage



Survival, With Stage



Reference Groups

Sex: male
Race/Ethn.: Non-Hispanic White
Age Group: 0-10
County Income: >$50000
County Rurality: urban
Modified Stage: local
Primary Site: extremity