

# Social vulnerability tied to worse pediatric head and neck cancer outcomes

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Among pediatric patients with head and neck cancers (HNCs),

increasing social vulnerability is associated with significant decreases in receipt of care and survival time, according to a study published online Feb. 17 in *JAMA Network Open*.

David J. Fei-Zhang, from the Northwestern University Feinberg School of Medicine in Chicago, and colleagues assessed whether 15 social determinants of health (SDoH) are associated with pediatric head and neck cancer (HNC) disparities. The Surveillance, Epidemiology, and End Results Program database (1975 to 2017) was used to identify 37,043 patients (aged 19 years and younger) with pediatric HNC.

The researchers found that increasing [social vulnerability](#) was associated with decreases in months under surveillance, ranging from 23.9 percent for malignant melanomas for lowest versus highest vulnerability to 41.9 percent for non-Hodgkin lymphomas. Findings were similar when examining [socioeconomic status](#), housing and transportation, and minority and language status.

A similar trend was seen for lower mean survival time, ranging from 11.3 percent for ependymomas and choroid plexus tumors to 61.4 percent for gliomas not otherwise specified for lowest versus highest vulnerability. Minority and language status, socioeconomic status, household composition, and housing and transportation were significantly associated with decreased survival.

"Our results not only confirm anecdotal understandings of SDoH in pediatric HNC but also further explore the [complex interactions](#) across a multitude of SDoH through establishing an integrative measure applicable to patients from all U.S. regions with differing sociodemographic and contextual influences," the authors write.

**More information:** David J. Fei-Zhang et al, Assessment of Social Vulnerability in Pediatric Head and Neck Cancer Care and Prognosis in

the United States, *JAMA Network Open* (2023). DOI: [10.1001/jamanetworkopen.2023.0016](https://doi.org/10.1001/jamanetworkopen.2023.0016)

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