



# Research Week 2022

## Pediatric Solid Tumors: Meeting the Socioeconomic Needs of Children and Their Families

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### Keywords

Wilms Tumor, Hepatoblastoma, Neuroblastoma, Pediatric Solid Tumors, Oncology, Social Work

### Abstract

#### *Background*

Malignant solid tumors account for approximately 30% of childhood cancers<sup>1</sup>, most commonly Wilms tumor, Hepatoblastoma, and Neuroblastoma. Financial hardship is a comprehensive part of psychosocial care in pediatric oncology and there is emerging evidence that family income may be an independent factor in disease mortality<sup>2</sup>. This study focuses on describing the relationship between a solid tumor diagnosis and subjective family opinion of socioeconomic needs during the care of their child.

#### *Methods*

Following IRB approval, 37 patients treated at DCH for Wilms Tumor, Hepatoblastoma, or Neuroblastoma between 2014 and 2019 were included in a cross-sectional study. The primary outcome was satisfaction with financial support provided by OHSU. Surveys were conducted using REDCap. Zip codes from US Census data were utilized to determine average income across the three cohorts. A single factor ANOVA was used for statistical analysis.

#### *Results*

This study includes responses from 9 families. 67% of families paid out of pocket for some part of their medical expenses. 56% of patients had OHP, 44% Private Insurance, and 44% of families utilized additional crowdfunding. 22% of families felt that financial stressors were a barrier to treatment. 33% of participants felt travel distance and transportation to the hospital were significant burdens and 67% utilized supportive housing services. 78% were satisfied with the amount of financial support they received and the involvement of social work. The average household incomes across diagnoses were \$82,851 for Wilms Tumor, \$93,120 for Hepatoblastoma, and \$88,406 for Neuroblastoma,  $p = 0.51$ .

## *Discussion*

Survey results demonstrate that although families faced significant financial burdens, most felt satisfied with the amount of support received from OHSU and community nonprofits. Some dissatisfaction, 29% within the Wilms cohort, demonstrates the need for further research with a larger cohort to investigate the relationship between socioeconomic need and clinical outcomes for solid tumors.

## *Citations*

1. Kline NE, Sevier N. Solid tumors in children. *J Pediatr Nurs*. 2003 Apr;18(2):96-102. doi: 10.1053/jpdn.2003.12. PMID: 12720206.
1. Pelletier W, Bona K. Assessment of Financial Burden as a Standard of Care in Pediatric Oncology. *Pediatr Blood Cancer*. 2015 Dec;62 Suppl 5:S619-31. doi: 10.1002/pbc.25714. PMID: 26700920.