

## **ISLCCC Abstract:**

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### **Financial Hardship and Non-adherence to Lifestyle and Screening Recommendations in Adult Survivors of Childhood Cancer: A Report from the Childhood Cancer Survivor Study (CCSS)**

**Background:** The association between different aspects of medical financial hardship and non-adherence to healthy lifestyle recommendations and screening for subsequent neoplasms (SN) and cardiomyopathy in long-term survivors of childhood cancer is unknown.

**Methods:** A randomly selected subset of participants in the CCSS completed a financial hardship survey and a follow-up survey assessing lifestyle behaviors and adherence to recommended screening. Presence of financial hardship was determined by affirmative response to  $\geq 1$  item in material (e.g., high out-of-pocket costs), behavioral (e.g., delaying care due to cost), or psychological (e.g., worry about financial situation) hardship domains. Outcomes included “not meeting physical activity guidelines” ( $< 9$  metabolic-equivalent-of-task-hour/week moderate to vigorous activity), “problematic drinking” ( $> 7$  drinks/week or  $> 3$  drinks/day [women],  $> 14$  drinks/week or  $> 4$  drinks/day [men]), current smoker, unhealthy BMI ( $< 18.5$  or  $\geq 30$  kg/m<sup>2</sup>), and non-adherence to screening for breast, colorectal, and/or skin cancer, and cardiomyopathy screening according to the Children's Oncology Group guidelines. Logistic regression models, adjusted for age at the most recent survey, sex, race/ethnicity, education, and chronic health conditions, examined the association of material, behavioral, and psychological hardship with healthy lifestyle and screening outcomes.

**Results:** A total of 3,322 survivors, at a median of 34.4 (range:19.7-51.4) years from diagnosis and 41 (20-69) years of age at the most recent survey were included. Presence of material hardship alone was associated with higher risk of not meeting physical activity guidelines (odds ratio 1.6, 95%CI 1.2-2.1) and unhealthy BMI (1.4, 1.1-1.8). Presence of both material and behavioral (1.8, 1.2-2.6) or material and psychological (1.8, 1.4-2.4) hardships further increased the risk for unhealthy BMI. Presence of all 3 hardship domains was associated with higher risk of unhealthy BMI (2.2, 1.8-2.7). Behavioral hardship (2.2, 1.1-4.6) and psychological hardship (3.9, 2.4-6.4) alone were associated with higher risk of being a current smoker at time of follow-up, with presence of both further increasing the risk for smoking (4.1, 2.3-7.3). Presence of psychological hardship alone was associated with higher non-adherence to cardiomyopathy screening (1.3, 1.0-1.8) among those at high risk. Associations between hardship and SN screening were not observed.

**Conclusions:** Financial hardship is associated with non-adherence to healthy lifestyle and recommended screening for cardiomyopathy among adult survivors of childhood cancer. Findings underscore the need for strategies to identify and mitigate financial hardship and improve adherence to recommended lifestyle and screening.