

## ISLCCC Abstract:

### Financial Hardship and Longitudinal Health Behaviors in Adult Survivors of Childhood Cancer: A Report from the Childhood Cancer Survivors Study (CCSS)

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**Background:** Poor health behaviors increase risk for early death in childhood cancer survivors. The association between financial hardship and health behaviors and body mass index (BMI) in survivors is unknown.

**Methods:** Survivors of childhood cancer enrolled in the CCSS and completed both a financial hardship survey (2017-2019) and a survey assessing chronic health conditions and behaviors (2020-2022) were identified. Standardized domain scores for material, behavioral, and psychological hardship were calculated by adding the survey item responses and dividing by the standard deviation, generating a score between 0 to 1 with higher scores representing greater hardship. Health 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”; and “unhealthy BMI” (<18.5 or  $\geq 30$  kg/m<sup>2</sup>). Logistic regression models adjusted for age at survey, sex, race/ethnicity, education, and chronic health conditions examined the association of standardized hardship domain scores with health behaviors and BMI.

**Results:** A total of 3,322 survivors, at a median of 34.4 (range:19.7-51.4) years from diagnosis and 41 years of age (20-69) were included. Mean domain scores of material, behavioral, and psychological hardship were 0.66 (95% confidence interval [CI]:0.62-0.69), 0.51 (95%CI:0.48-0.55), and 0.69 (95%CI:0.66-0.73). Higher psychological hardship score was significantly associated with higher risk of smoking (odds ratio [OR]:1.64, 95%CI:1.42-1.91) and unhealthy BMI (OR:1.16, 95%CI:1.06-1.27). Higher material hardship was significantly associated with higher risk of not meeting physical activity guidelines (OR:1.15, 95%CI:1.04-1.27) and unhealthy BMI (OR:1.25, 95%CI:1.14-1.37). Higher behavioral hardship was significantly associated with lower risk of not meeting physical activity guidelines (OR:0.88, 95%CI:0.80-0.97).

**Conclusions:** Financial hardship is associated with unhealthy behaviors and unhealthy BMI. Further work is needed to understand the differences in strength of association and directionality between various hardship domains and health behaviors to identify targets for intervention.