DIFFERENTIAL EFFECTS OF ADOLESCENT HEALTH BEHAVIORS ON CARDIOMETABOLIC DISEASES AND CANCER IN ADULTHOOD BY PARENTAL INCOME

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1 OBJECTIVE

To assess the differential effects of health behavior clusters during adolescents on adult cardiometabolic diseases and cancers by parental income.

2 BACKGROUND

- Cardiometabolic diseases (CMDs) and cancers exhibit a **socioeconomic gradient** whereby those experiencing socioeconomic disadvantage have higher risks of these diseases than those with better socioeconomic conditions.
- From a life course perspective, unhealthy behaviors (e.g. smoking, high alcohol intake, physical inactivity and poor diet) during adolescence increase the risk of CMD and cancer outcomes in adulthood.
- No studies have examined the differential effect of unhealthy behaviors in adolescence by parental income.

3 METHODS

• Data source: National Longitudinal Study of Adolescent to Adult Health (Add Health), nationally representative prospective



4 PRELIMINARY RESULTS

Results of health behavior clustering of Add Health

adolescents (unweighted):



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cohort in US, 1994 – now



- **Descriptive analysis:** assess presence of clusters of health behaviors using latent class modeling
- Causal analysis: estimate conditional average causal effect of clusters of health behaviors during adolescence on CMDs and cancers in adulthood by parental income

Proposed causal model:



Socioeconomic background Individual antecedents: in adolescence: History of disability Individual factors: Parental education, parental Sex, race, age at occupation, parental income, **Other antecedents:** baseline neighborhood deprivation neighborhood urbanicity, parental age at birth, parental income in childhood **Parental health behaviors:**



PUBLIC HEALTH SIGNIFICANCE 5

If effects of unhealthy behaviors are larger in



socioeconomically disadvantaged adolescents,

efforts to improve population health by reducing unhealthy behaviors could also mitigate socioeconomic inequalities or require a targeted susceptible population approach.

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