Timing and Duration of Neighbourhood Disadvantage: A Life Course Perspective on Health Behaviours

Justė Lekštytė (UAB/CED/CEDAR)

Johan Junkka (CEDAR)

2026 Annual Conference of the European Consortium for Sociological Research

June 16, 2026

Introduction

Growing up in disadvantaged areas is linked to:

- Poorer health
- Weaker educational & behavioural outcomes (Brandén et al., 2023)

Previous literature is mostly *cross sectional*, does not focus on *whole childhood*, focuses on *health outcomes*.

Health behaviours strongly shape long-term health outcomes

How do the timing and duration of exposure to neighbourhood disadvantage during childhood shape adult health behaviours?

Theoretical background

Mechanisms of neighbourhood influence

- institutional-environmental
  - resource-poor environments -> limited access -> lower health literacy and skills in adulthood (Aizer & Currie, 2004; Clarke et al., 2014; Kirby & Kaneda, 2005)
- social-interactive
  - interaction with peers and adult role models -> providing information, setting norms (Beaudoin, 2009)
  - preventable diseases linked to behavior
    - neighborhoods with higher smoking prevalence -> lung cancer and other smoking-related diseases
    - peer influence to substance abuse and other risk taking behavior -> persisting life course behavioral patterns (Jang & Kim, 2023)

Theoretical background

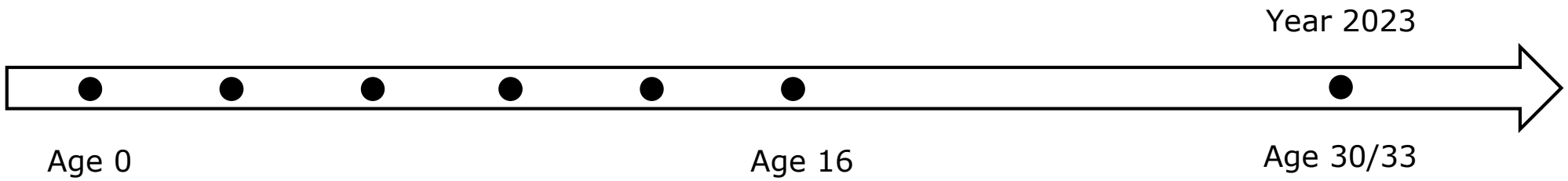
Cumulative exposure

- Short exposure to disadvantage -> lower influence on health exposure (Vanhoutte et al., 2017)

Sensitive periods

- early childhood model (Leventhal, 2018)
  - Period of primary socialisation - development of cognitive and educational skills
- adolescence model
  - children become more autonomous and explorative, making neighbourhoods more important
  - risky behaviours that peers may encourage

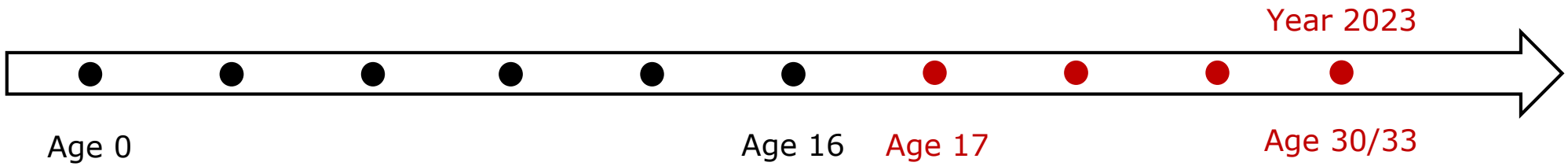
Data



Swedish register data

- 1990-1993 cohorts
- N = 398,301

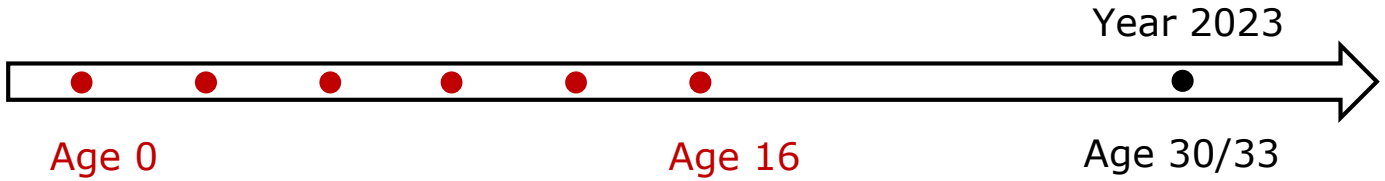
Variables



Health behaviours:

- Behaviour-related hospitalisations (5.7%)
  - obesity (E66)
  - substance-related disorders (ICD-10 F10-19)
  - ambulatory care sensitive conditions

Variables

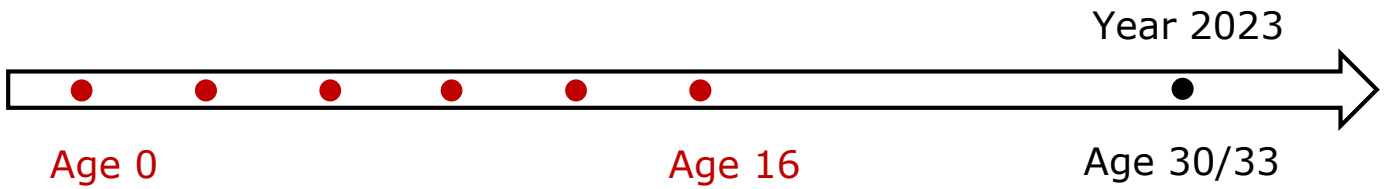


Neighbourhood exposure:

- DeSO administrative units

Source: SCB DeSO 2025

Variables



Neighbourhood exposure:

- DeSO administrative units
- Deprivation index
  - individuals aged 25–64 years:
    - low educational status
    - low income
    - unemployment
    - receipt of social welfare
- Top 10% → disadvantaged

Variables

LIFE LONG MOVE

Time in-variant

- Gender
- Parental migration status
- Health at birth
- Parental education at birth

Time varying

- Parental income (disposable household income)
- Parental employment (0, 1, 2)
- Number of children in the household (1, 2, 3+)
- Parental union (stable, single parent)
- Parental health behaviours

Method

- Marginal structural models estimated via inverse probability of treatment weighting
- Step 1: cumulative disadvantage
  - Never experienced disadvantage
  - 1 - 2 years
  - 3 - 9 years
  - 10 – 14 years
  - 15 - 17 years
- Step 2: sensitive periods
  - Never experienced disadvantage,
  - Only in early childhood,
  - Only during the early school years,
  - Only during adolescence,
  - Early childhood and early school years
  - Early childhood and adolescence
  - Early school years and adolescence
  - In three periods of childhood.

Results

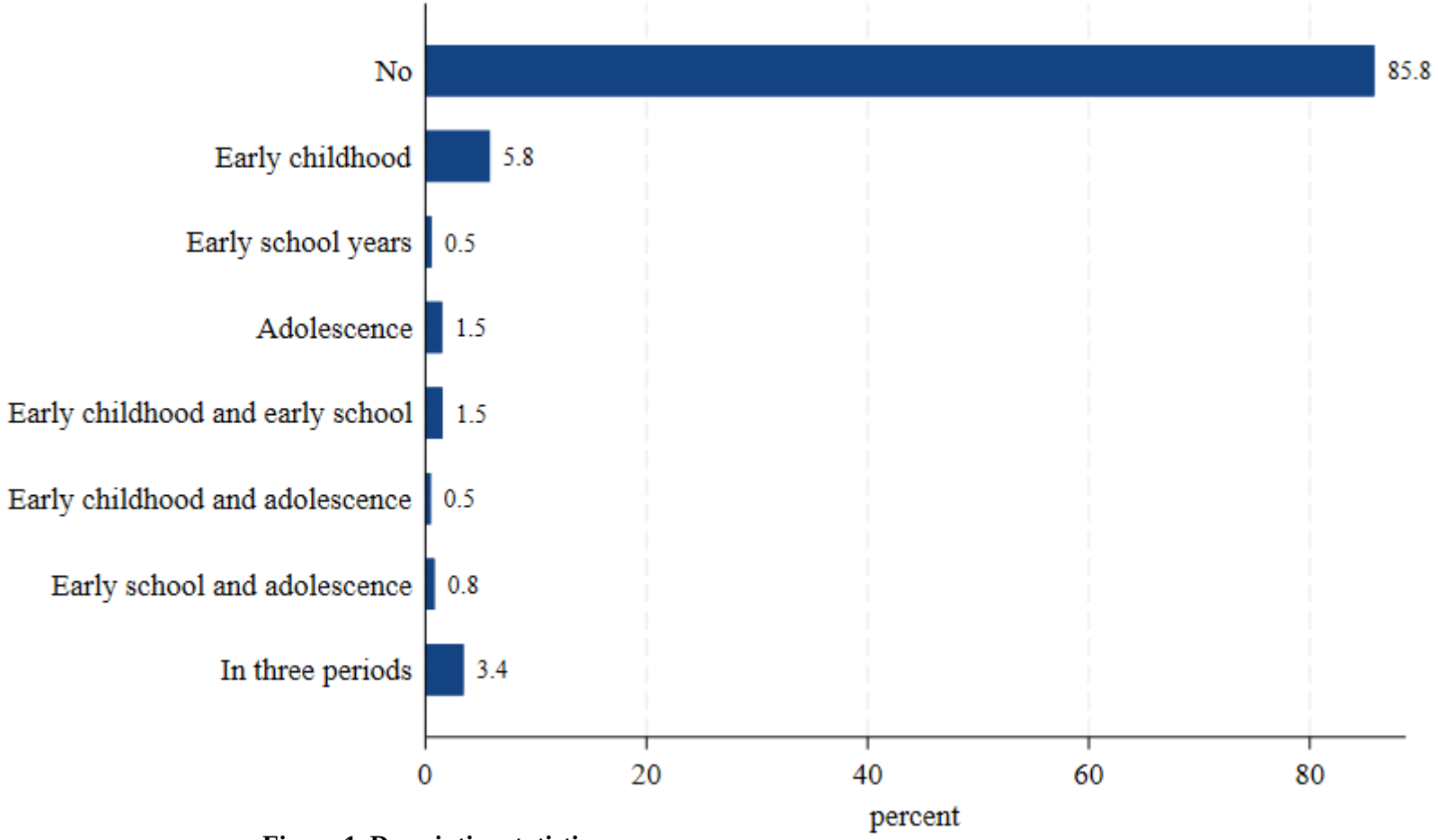


Figure 1. Descriptive statistics

Results

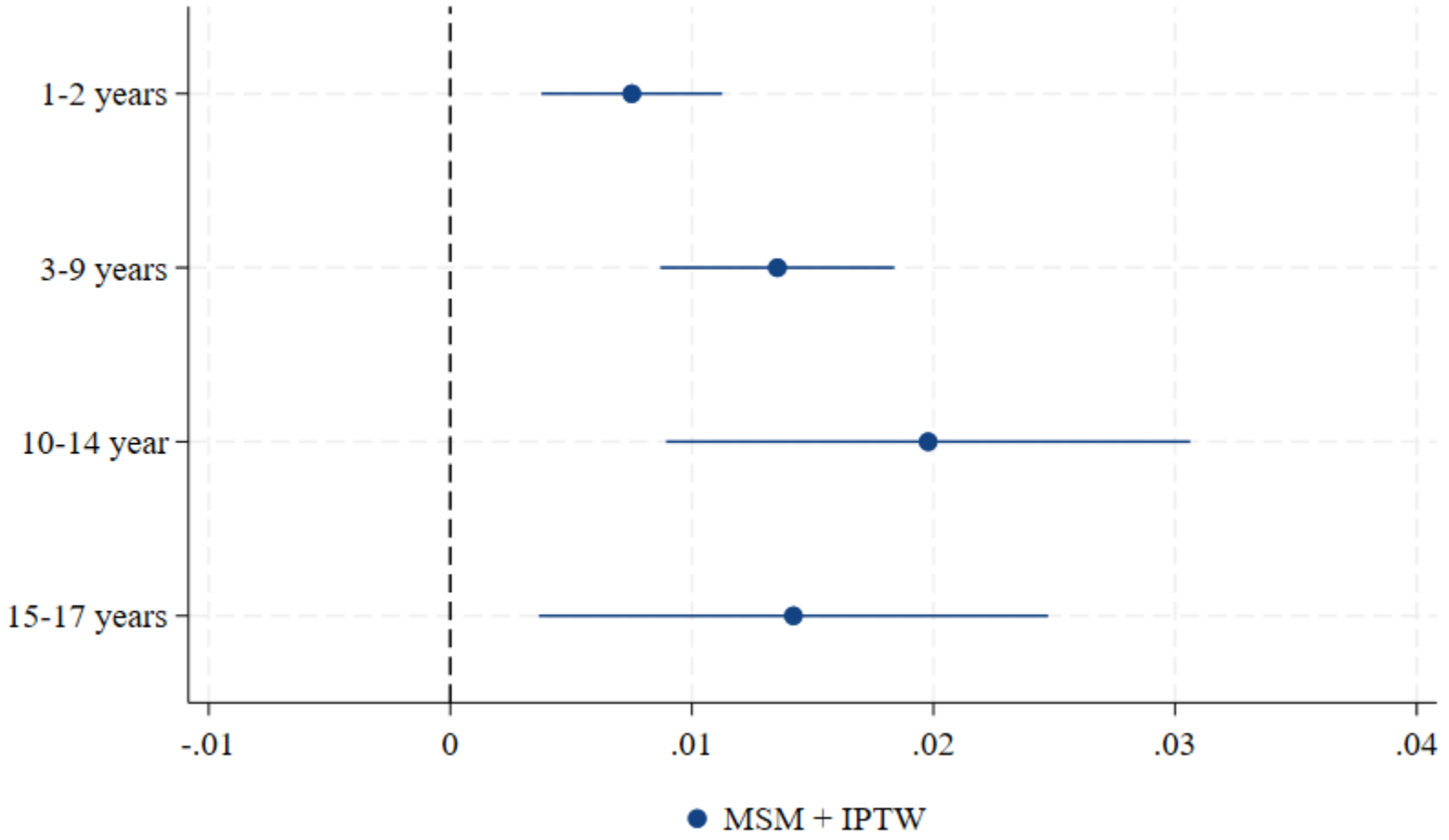


Figure 2. Cumulative disadvantage and health behaviours in adulthood. *Notes: 95% confidence interval in brackets, Blue dots represent MSM model with IPTW weights with time in varying controls.*

Results

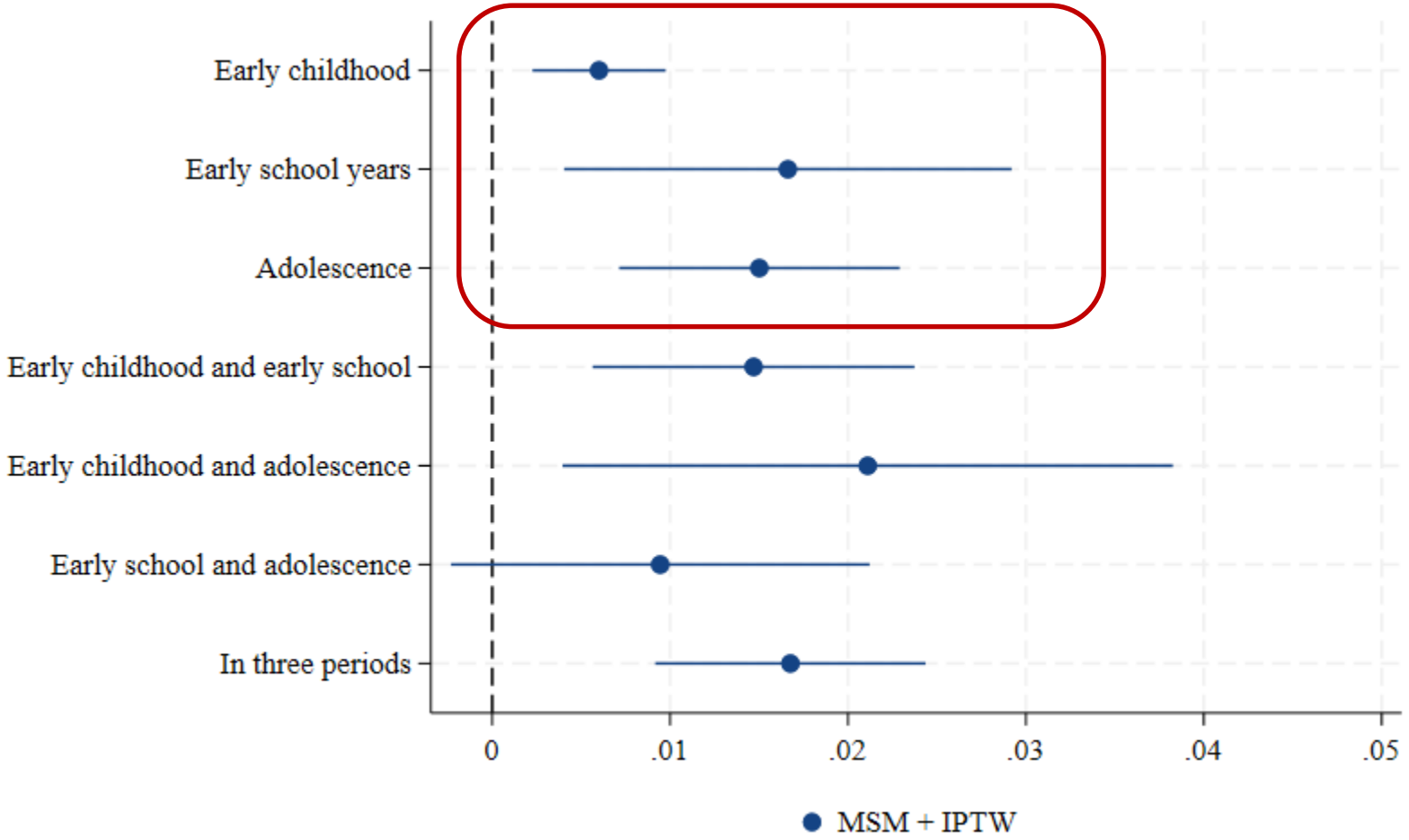


Figure 4. Sensitive periods and health behaviours in adulthood. *Notes: 95% confidence interval in brackets, Blue dots represent MSM model with IPTW weights with time in varying controls.*

Results

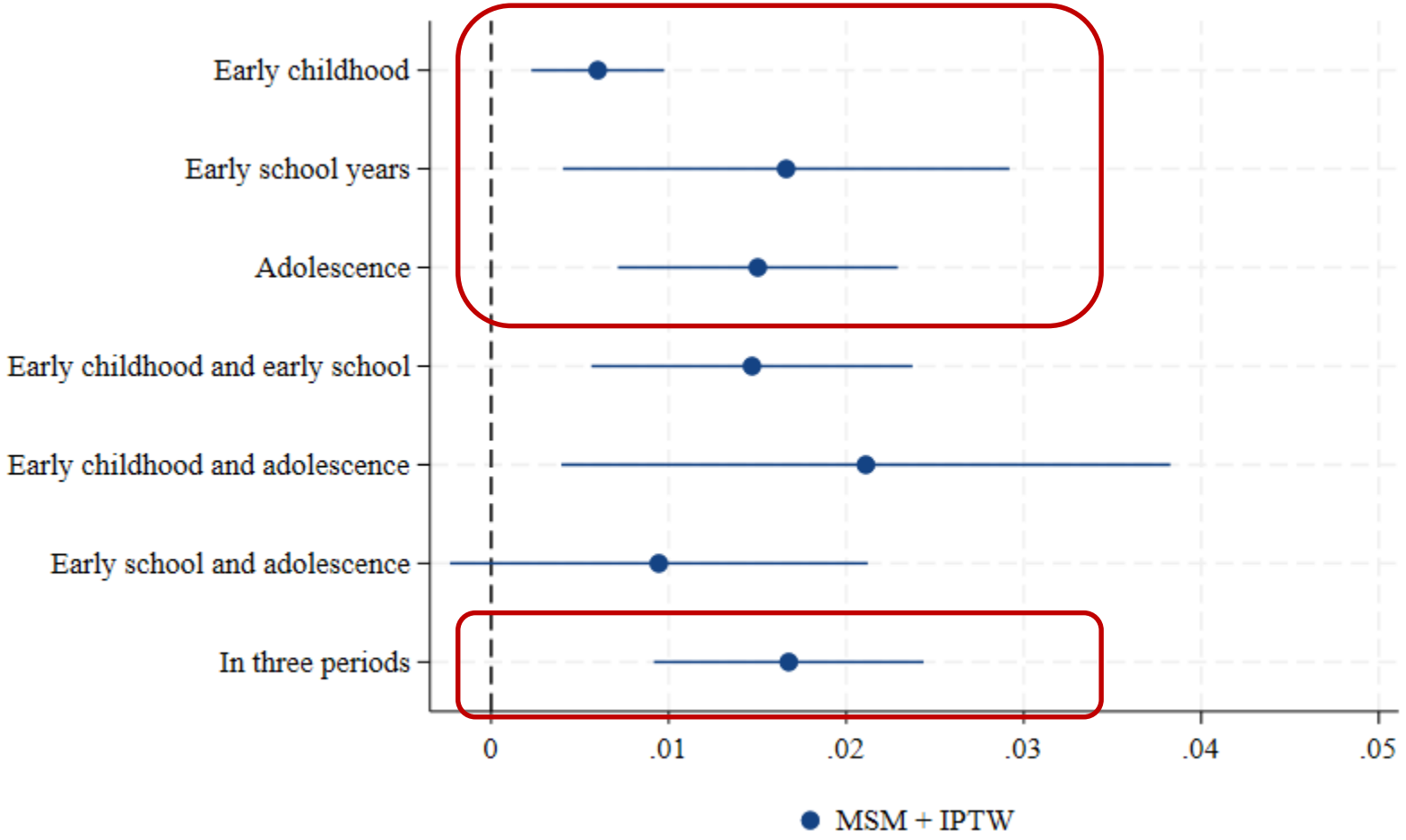


Figure 4. Sensitive periods and health behaviours in adulthood. *Notes: 95% confidence interval in brackets, Blue dots represent MSM model with IPTW weights with time in varying controls.*

Conclusions:

- Effects depend on when and for how long disadvantage is experienced
  - Longer exposure -> higher hospitalisation risk
  - Early school years/adolescence appear more sensitive than early childhood

Future steps:

- Assessing different measures of disadvantage
- Mechanisms - does disadvantage operate through structural access to healthcare or social neighbourhood processes

Thank you for your attention!

Justė Lekštytė

Universitat Autònoma de Barcelona, Centro de Estudios Demográficos

jlekstyte@ced.uab.es

LIFELONGMOVE

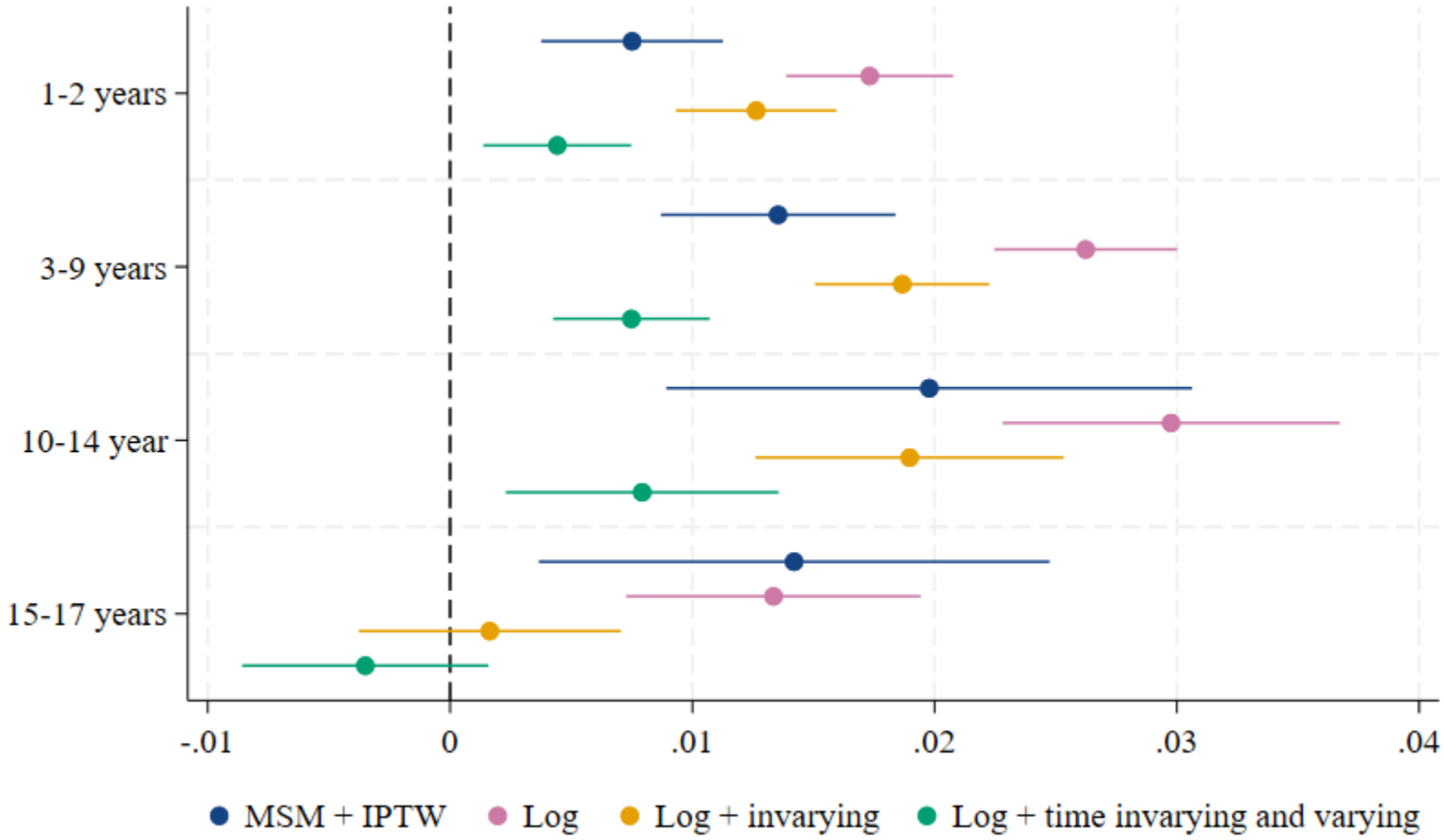
Understanding spatial mobility from early life into adulthood

European Research Council Consolidator Grant (CoG)

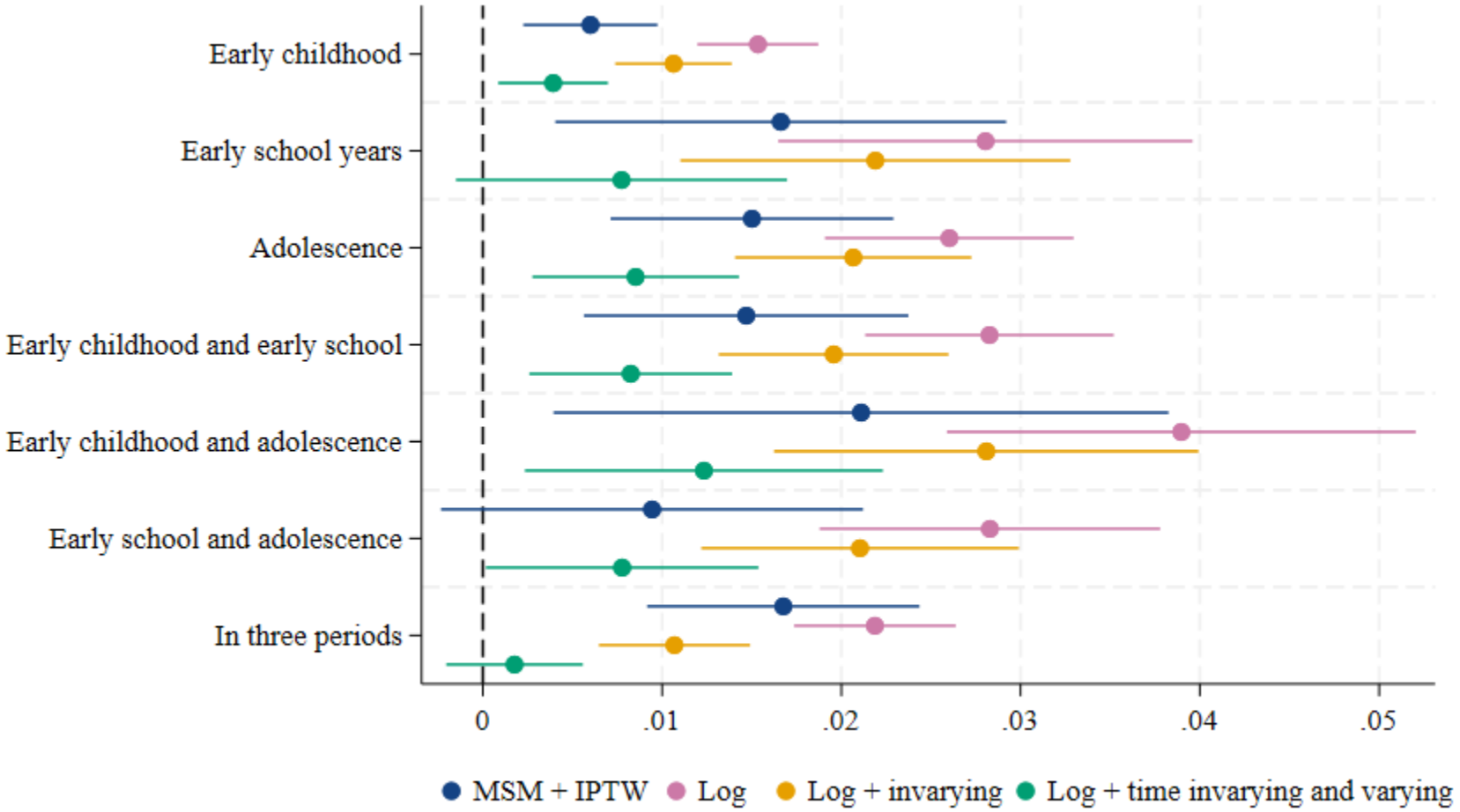
Ref: 101043981
Period: Jan 2023 – Dec 2027

Appendix

Condition	ICD-10 coding
Chronic conditions	
Anemia	D501, D508, D509
Asthma	J45, J46
Diabetes	E101–E108, E110–E118, E130–E138, E140–E148
Congestive heart failure	I50, I110, J81
Hypertension	I10, I119
Chronic obstructive pulmonary disease	J41, J42, J43, J44, J47 J20 if secondary diagnosis J41, J42, J43, J44 or J47
Angina pectoris	I20, I240, I248, I249
Acute conditions	
Bleeding ulcer	K250, K251, K252, K254, K255, K256, K260, K261, K262, K264, K265, K266, K270, K271, K272, K274, K275, K276, K280, K281, K282, K284, K285, K286
Diarrhea	E86, K522, K528, K529
Epileptic seizure	O15, G40, G41, R56
Inflammatory diseases of female pelvic organs	N70, N73, N74
Renal tubulo-interstitial disease	N390, N10, N11, N12, N136
Ear, nose and throat infection	H66, H67, J02, J03, J06, J312



Cumulative disadvantage and health behaviours in adulthood. *Notes: 95% confidence interval in brackets, Blue dots represent MSM model with IPTW weights with time in varying controls. Pink dots represent logistic regression without any controls. Yellow dots represent logistic regression with time in varying controls. Green dots represent logistic regression with time-varying and time-invariant controls.*



Sensitive periods and health behaviours in adulthood. *Notes: 95% confidence interval in brackets, Blue dots represent MSM model with IPTW weights with time in varying controls. Pink dots represent logistic regression without any controls. Yellow dots represent logistic regression with time in varying controls. Green dots represent logistic regression with time-varying and time-invariant controls.*