

The lasting impact of childhood health and circumstance

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Motivation

The gradient: Wealthier, better educated people live longer and healthier lives than those who are poorer and less well educated.

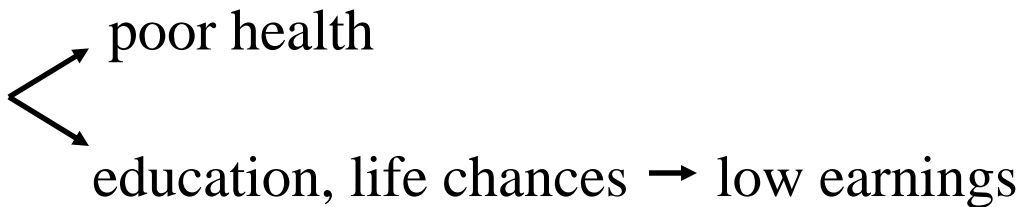
1. Does health affect income? Or does income affect health?
2. How do childhood factors fit in?

Theories

- Fetal Origins

Poor parents → deprived of nutrients in utero → poor health

- Life Course

Poor childhood health 

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graph LR; A[Poor childhood health] --> B[poor health]; A --> C[education, life chances → low earnings];
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- Human capital

Poor health → education, productivity → low earnings

- Pathways

Poor parents → low social status → poor health

Data:

National Child Development Survey

- Also known as 1958 British Birth Cohort
- All births in 1 week in March
- Sample: 17,409 births

Prenatal and child health measures

- Low birth weight (7.3%)
- Mother smoked during pregnancy
 - 12.3% smoked heavily after 4th month
- Number of chronic conditions
 - at age 7 (6.2% had at least 1)
 - at age 16 (10.0% had at least 1)
- Height at age 16

Adult outcomes

- Self-reported health status at age 22, 33, and 42
- Number of any O-level passes at age 16
- Employment status at age 33 and 42 (men only)
- SES at age 33 and 42 (men only)

Control Variables

- Mother's school leaving age dummies
- Father's school leaving age dummies
- Mother's marital status at birth dummies
- Number of siblings at age 16
- Log family weekly income at age 16
- Father's social class at birth
- Grandfathers' social classes when parents left school
- Parents' heights

Methods

1. Estimate effect of prenatal/child health on:
 - Education
 - Adult health
 - Employment Status (men only)
 - SES (men only)controlling for family background
2. Control for health and SES in young adulthood and see if prenatal/child health still matters (men only)

Child health → Education

- Prenatal smoking
 - Low birth weight
 - # chronic conditions at 7 and 16
 - Particularly mental/emotional conditions
- all significantly reduce # O-levels.
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- Height at age 16
- significantly increases # O-levels.

Child health → Adult health

- Prenatal smoking and low birth weight are related to worse adult health
 - Effect is larger at age 42 than at age 23
- # chronic conditions at 7 and 16 are related to worse adult health
 - Effect is smaller at age 42 than at age 23
 - Only those conditions that persist to age 16 matter at age 42
 - Driven by mental/emotional conditions
- Height at age 16 is related to better adult health

Child health → Employment (men only)

- Prenatal smoking
- Low birth weight
- # chronic conditions at 7 and 16

all significantly reduce likelihood of being employed full-time or part-time at age 33 and 42.

- Height at age 16
increases the probability of employment at age 33.

Child health → SES (men only)

- Prenatal smoking
- # chronic conditions at 7 and 16
lower one's social class at age 33 and 42.
- Low birth weight has no effect
- Height at age 16 raises one's social class

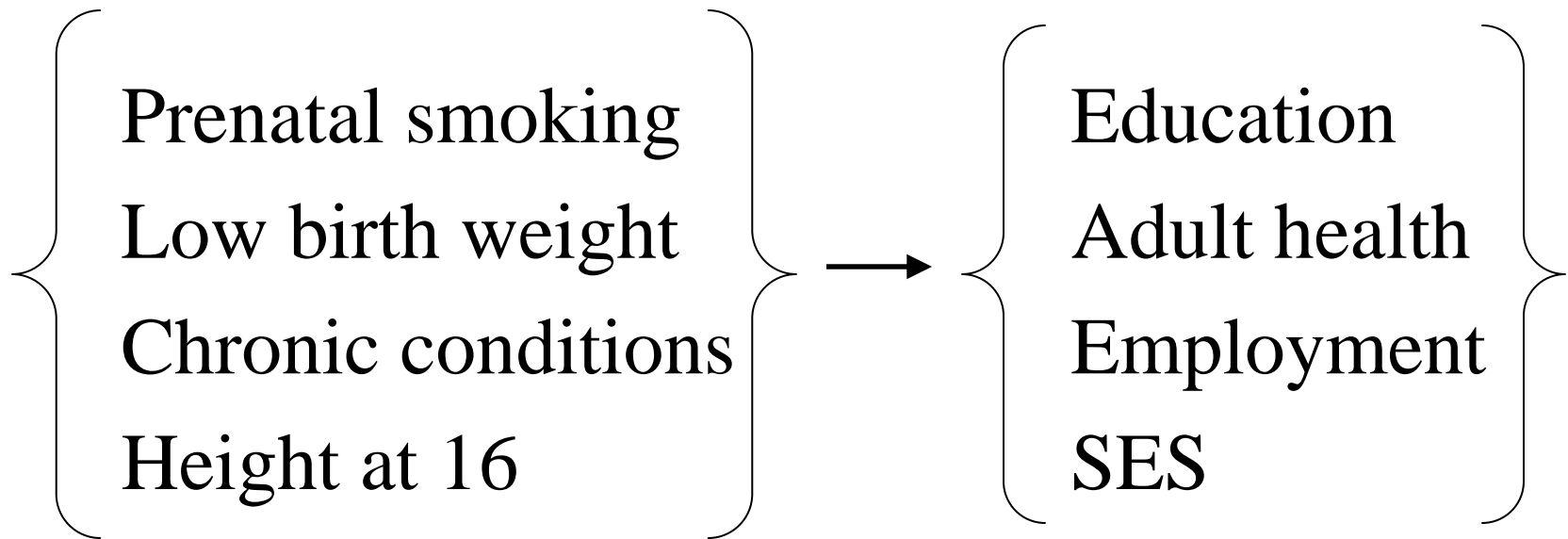
Controlling for characteristics in young adulthood

- How does young adulthood matter?
 - Health at age 23 affects both health and SES at age 42
 - SES at age 23 affects both health and SES at age 42
- Do childhood factors still matter?
 - Chronic conditions at 7 & 16 affect SES at 42 (but not uterine environment)
 - Uterine environment and childhood chronic conditions affect health at 42

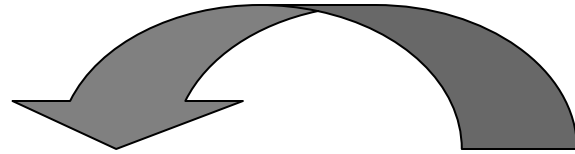
Returning to the theories

- Consistent with the **fetal origins hypothesis**, the uterine environment affects health in middle adulthood, even when controlling for health in young adulthood.
- Consistent with the **life-course model**, child health has a lasting impact on health and SES in middle adulthood.
- Consistent with **human capital model**, childhood health affects educational attainment and health in young adulthood affects SES in middle adulthood.
- Consistent with the **pathways model**, childhood factors affect initial adult social position which affects health in middle adulthood.

Conclusion 1

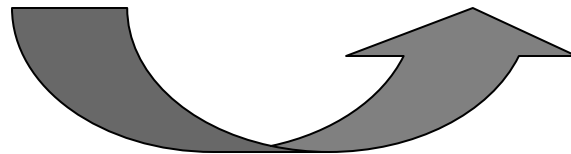


Conclusion 2



Health

Income



Conclusion 3

Childhood health plays a key role

Affects health and SES at age 42 even when
controlling for health and SES in young
adulthood