

The Emergence of Health Gaps in Early Life in France, the United Kingdom, and the United States: Effects of Childhood Deprivation

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Motivation

- Inequalities in health begin from the starting gate and children's early environment "get under the skin" from birth. **Early childhood is crucial** to understand health inequalities in later life.
- **National context and policy environments** may have a strong effect in moderating inequalities in early health.
- How to measure "socio-economic background" to describe health gaps in childhood? How do we capture its multi-dimensional nature? The **multidimensional deprivation** concept.

Research questions

- What are patterns of multidimensional deprivation across early childhood in France, the UK and the US?
- How are deprivation and its dimensions linked to early health?
- Do different policy environments and social institutions produce different patterns of early health inequalities?

Data

Three nationally representative cohort studies:

- **France: Etude Longitudinale Française depuis l'Enfance:**
 - ~18,000 children born in 2011;
- **UK: Millennium Cohort Study:**
 - ~19,000 children born in 2000-2002;
- **US: Early Childhood Longitudinal Study – Birth Cohort:**
 - ~10,700 children born in 2001;
- Four comparable ages: birth, 9m/1y, 3/3.5, and 5/5.5 years.

Health outcomes

- **Probability of becoming overweight;**
- **Respiratory health:** wheezing or asthma in the last year;
- **Unintentional injury:** injury required contact with medical services in the last year.

Measuring Early Childhood Deprivation

- Multidimensional deprivation is a measure of non-monetary poverty calculated based on deprivations in essential needs;
- Our adaptations is based on counting methods (Alkire and Foster, 2009):
 - Conceptualisation of deprivation as child-centered;
 - Dimension of deprivation are constant over time and over the three studies;
 - Items making up each dimension are a mix of stable and changing variables that adapt to children's needs and country relevance.

Dimensions:

Material deprivation: living conditions + inability to afford basic items;
Housing deprivation: poor housing (damp, noise, no room for child...);
Parenting deprivation: parents' involvement in childrearing and enriching activities (shared reading, playing with the child etc.);
Health behaviour deprivation: nutrition, enough sleep, physical activity, sedentary behaviour.

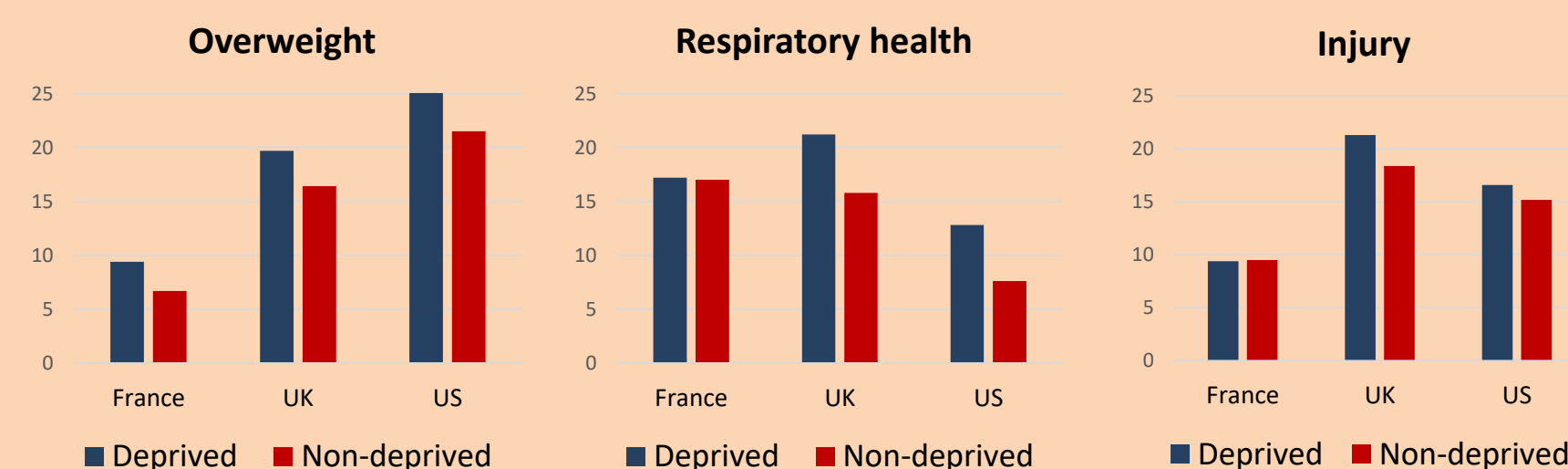
A child is classed as multidimensionally deprived if deprived in at least two dimensions

Descriptives

Table 1: Share of deprived children, %

	Total	9 m/1 year	3/3.5 years	5/5.5 years
France	7.1	8.4	5.7	7.3
United Kingdom	13.1	9.6	16.8	13.8
United States	14.3	11.7	18.2	13.1

Figure 1: Share of children with health issues, by deprivation status, %



Note: Respiratory health in France and the UK – wheezing/asthma; in the US – only asthma.

Associations between deprivation and early health

Table 2: (M1) Odds ratio of deprivation on health outcomes and (M2) Odds ratio of depth of deprivation on health outcomes, logit estimation, pooled data

	Overweight	Respiratory health	Injury
France			
M1: Multidimensional deprivation	1.371*	0.929	0.998
M2: Depth of deprivation			
1 dimension	1.250**	1.063	1.044
2 dimensions	1.382*	0.945	1.001
3+ dimensions	2.325**	1.001	1.094
N	26,728	31,797	31,788
United Kingdom			
M1: Multidimensional deprivation	1.103**	1.085*	0.993
M2: Depth of deprivation			
1 dimension	1.103***	1.242***	1.019
2 dimensions	1.151***	1.230***	1.028
3+ dimensions	1.212*	1.177*	0.883
N	45,608	47,329	47,413
United States			
M1: Multidimensional deprivation	1.036	1.297***	1.113
M2: Depth of deprivation			
1 dimension	1.204***	1.024	1.037
2 dimensions	1.142	1.203	1.008
3+ dimensions	1.220	1.633**	1.057
N	21,900	22,350	22,350
Controls:			
Time and region	Yes	Yes	Yes
Individual and family	Yes	Yes	Yes

Conclusion

- In the US and UK, around twice as many children are identified as multidimensionally deprived than in France during their early childhood in three nationally-representative samples;
- The association between deprivation and overweight is particularly high in France, less substantial in the UK, and not present in the US. In contrast, the association with respiratory health is more pronounced in the US, while there is no association with injuries in any country.