



Addressing inequalities in child health

Lessons from the UK policy experiments in poverty and adversity

David Taylor-Robinson
HIPR (health inequalities policy research)
Department of Public Health, Policy and Systems
University of Liverpool

Alder Hey Children's 
NHS Foundation Trust



**“65,000 children’s
lives lost each year
unnecessarily in
England”**

William Farr 1864

Annual sacrifice of children's lives

“The children passed through the fire to Moloch scarcely incurred more danger than is incurred by children born in several districts in our large cities...

....a strict investigation of all the circumstances of the children's lives might lead to important discoveries, and may suggest remedies for evils of which it is difficult to exaggerate the magnitude”

William Farr, 1864



Child Poverty and the Cost of Living Crisis:

A report prepared for the APPG Child of the North



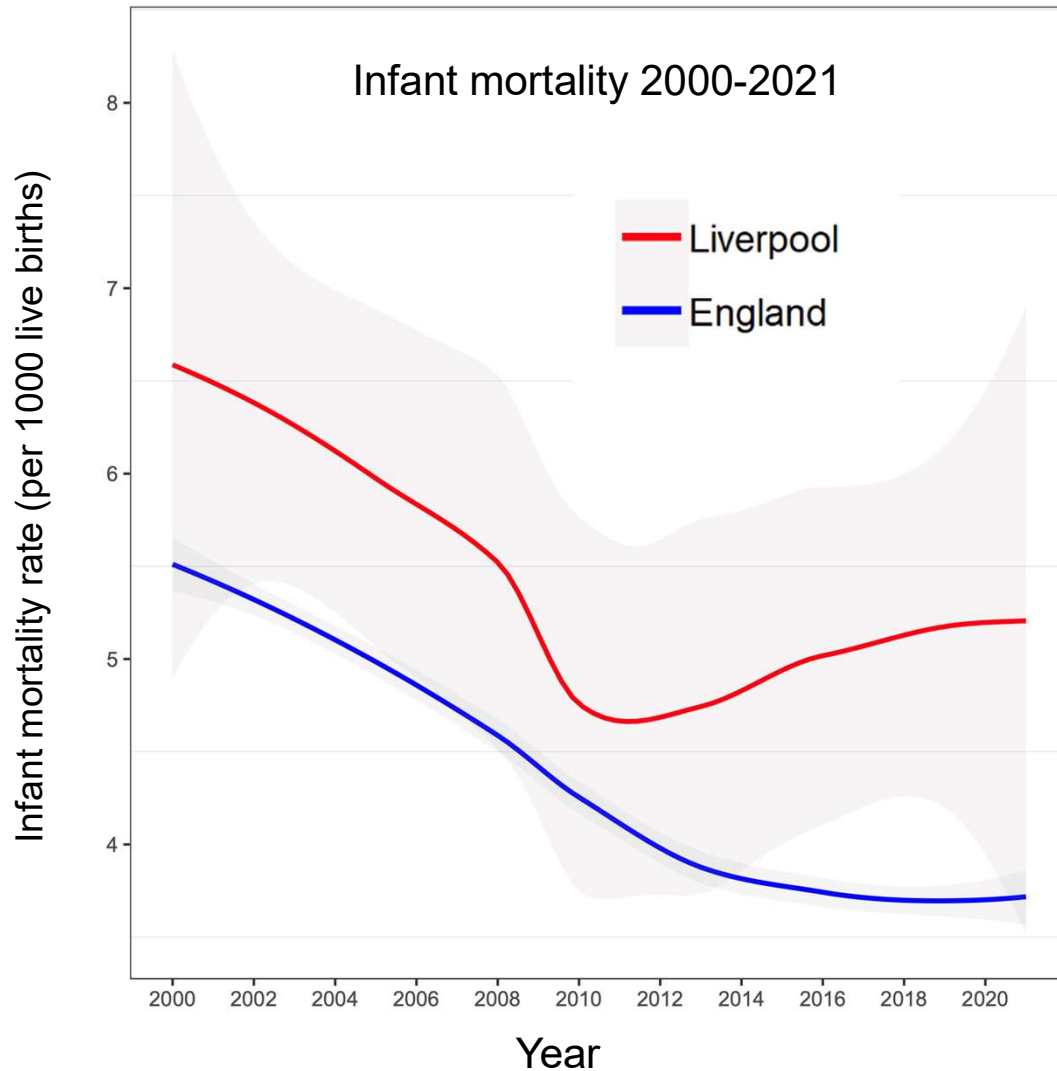
Parents using watered-down evaporated milk in their babies' bottles because of the soaring price of formula – and putting off weaning because of fears about the cost of solid food

A child turning up to school without any shoes – and a school which routinely buys shoes for its pupils out of its budget

People unable to attend medical appointments because of travel costs

Parents terminating wanted pregnancies because they just cannot afford the costs of a new baby

Early Origins of lifelong inequalities in Liverpool



34% born in poverty

Age 10 years

45% obese/overweight

Age 5-16 years

>20% mental ill-health

**POOR CHILD HEALTH IN THE UK
LARGE INEQUALITIES**

UNICEF league table of child well-being

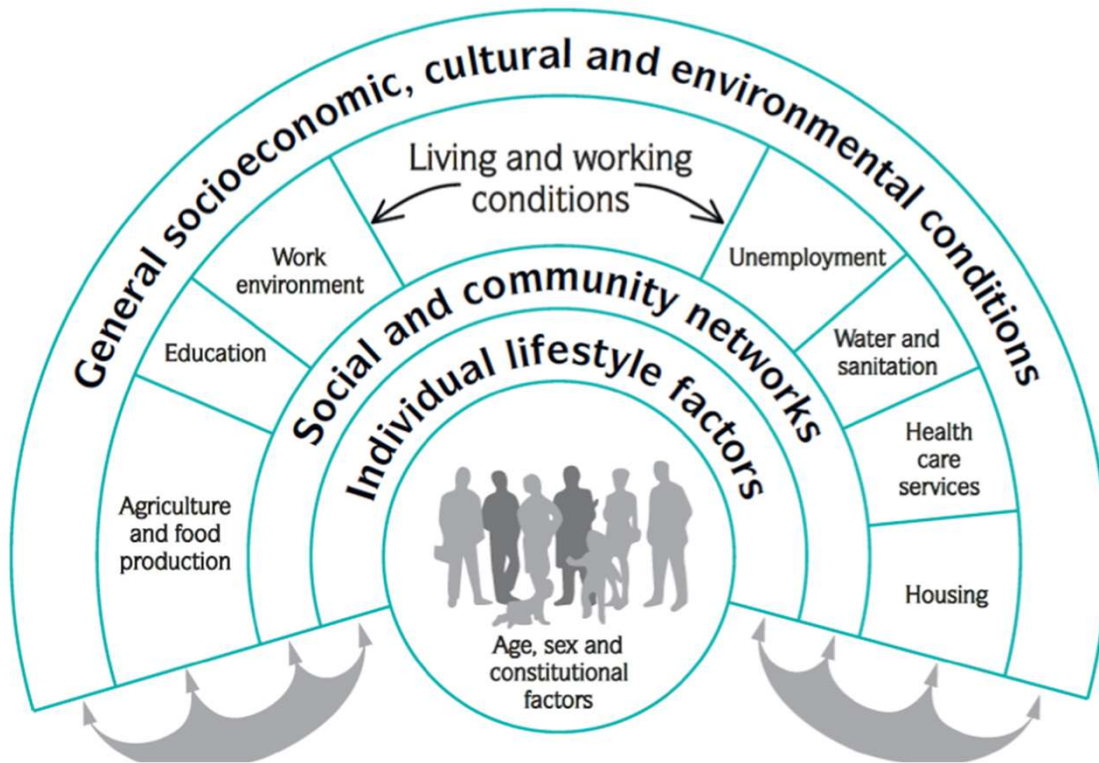


Overall ranking	Country	Mental well-being	Physical health	Skills
1	Netherlands	1	9	3
2	Denmark	5	4	7
3	Norway	11	8	1
4	Switzerland	13	3	12
5	Finland	12	6	9
6	Spain	3	23	4
7	France	7	18	5
8	Belgium	17	7	8
9	Slovenia	23	11	2
10	Sweden	22	5	14
11	Croatia	10	25	10
12	Ireland	26	17	6
13	Luxembourg	19	2	28
14	Germany	16	10	21
15	Hungary	15	21	13
16	Austria	21	12	17
17	Portugal	6	26	20
18	Cyprus	2	29	24
19	Italy	9	31	15
20	Japan	37	1	27
21	Republic of Korea	34	13	11
22	Czech Republic	24	14	22
23	Estonia	33	15	16
24	Iceland	20	16	34
25	Romania	4	34	30
26	Slovenia	14	27	36
27	United Kingdom	29	19	26
28	Poland	25	24	29
29	Greece	8	35	31
30	Canada	31	30	18
31	Poland	30	22	25
32	Australia	35	28	19
33	Lithuania	36	20	33
34	Malta	28	32	35
35	New Zealand	38	33	23
36	United States	32	38	32
37	Bulgaria	18	37	37
38	Chile	27	36	38





THE MAIN INFLUENCES ON HEALTH



The Dahlgren and Whitehead Rainbow

PATHWAYS and MECHANISMS

Assessing pathways and policy impacts



Adult social and health disadvantage



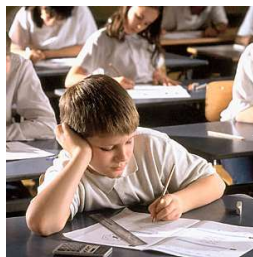
Poor Antenatal Health



Poor Development



Poor Child Health

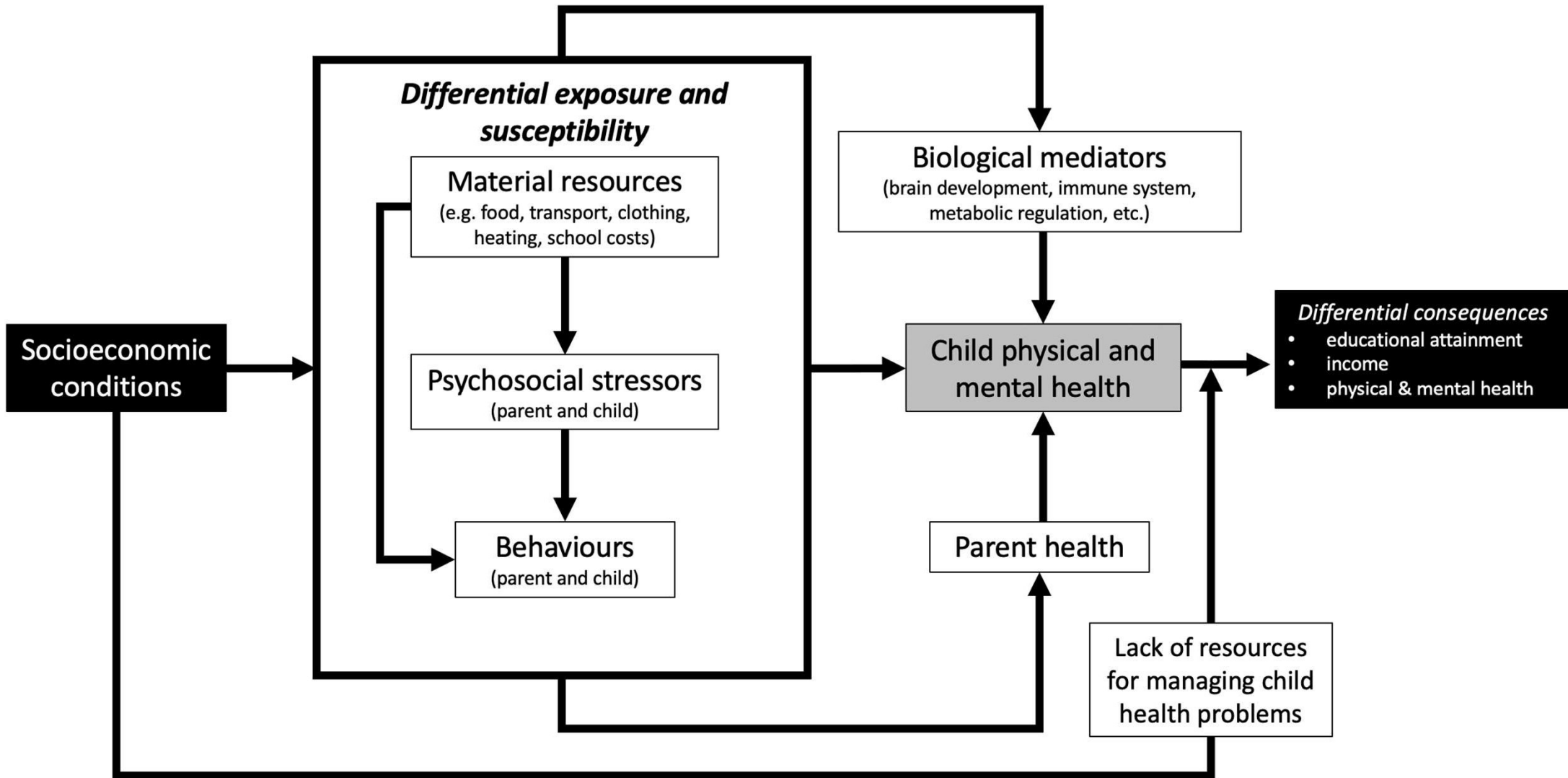


Poor Learning



Adult social and health disadvantage





Death of two-year-old from mould in flat a 'defining moment', says coroner

Awaab Ishak died in 2020, eight days after his second birthday, following 'chronic exposure' in Rochdale



📷 Awaab Ishak. A number of things went wrong in the case, some of them contributing to the boy's death, the coroner said. Photograph: Family handout/PA

A coroner has said the death of an “engaging, lively, endearing” two-year-old from prolonged exposure to mould in his family’s flat should be a “defining moment” for the UK’s housing sector.

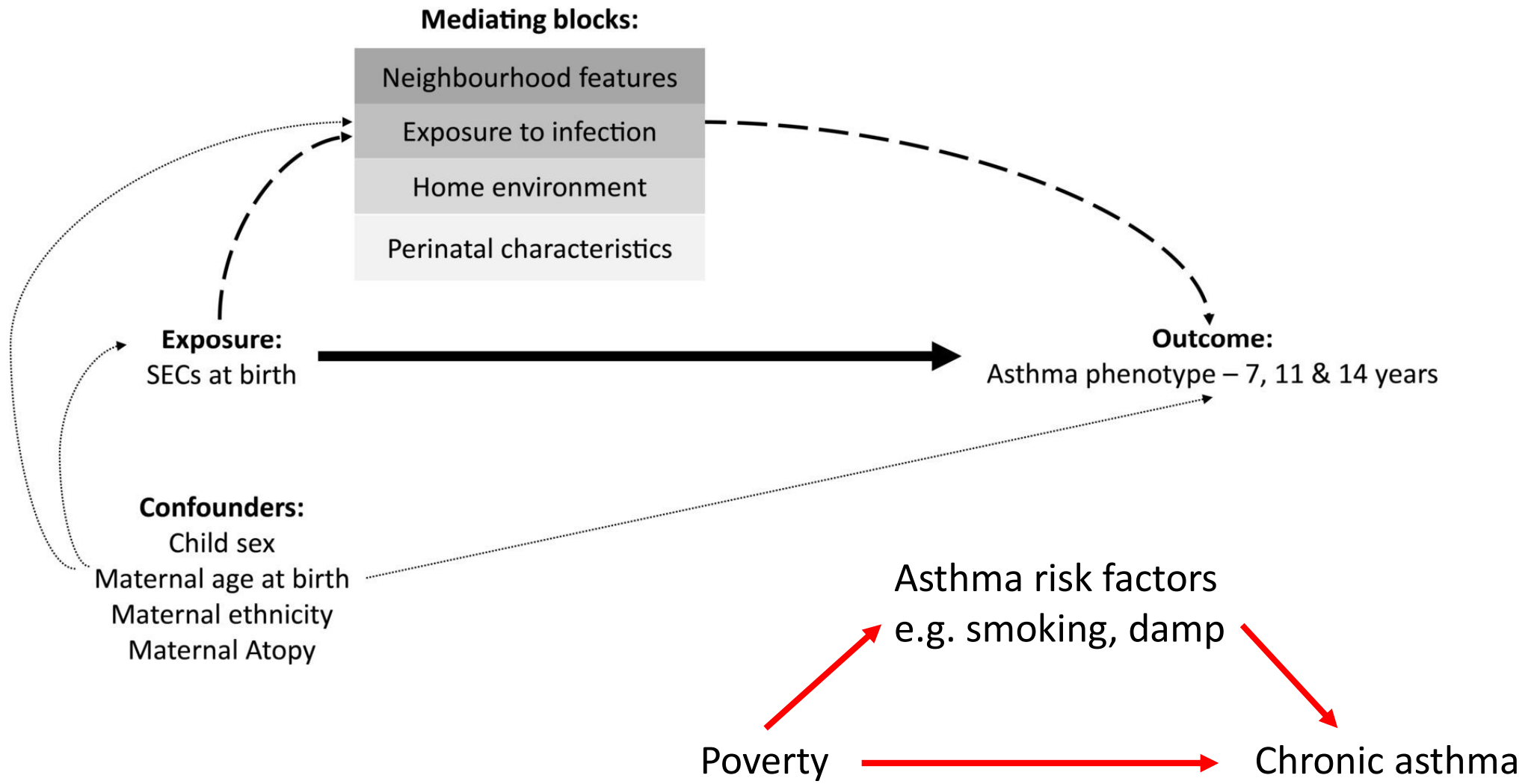
Air pollution a cause in girl's death, coroner rules in landmark case

Coroner says failure to reduce pollution levels to legal limits was factor in death of Ella Kissi-Debrah, who had severe asthma

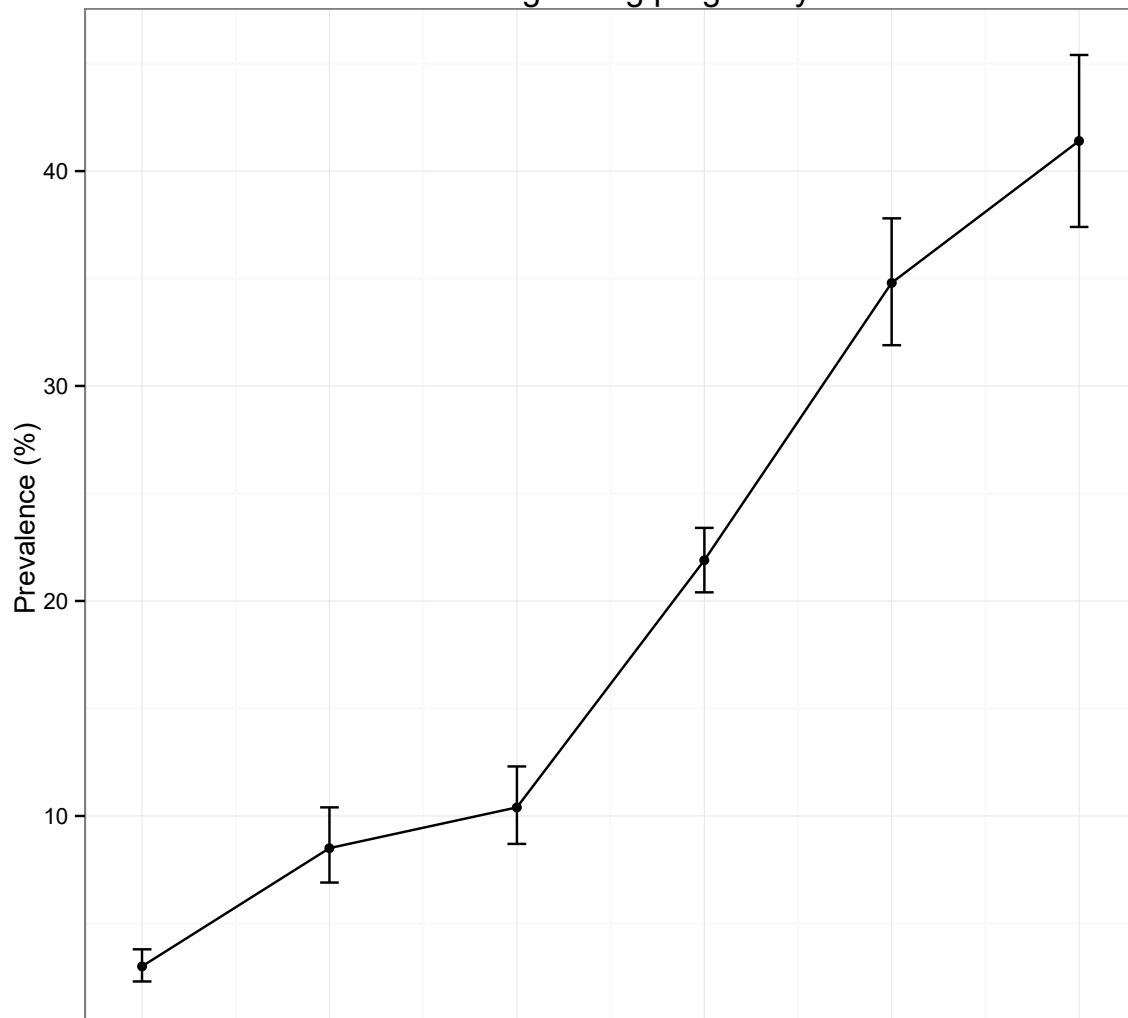


📷 Ella Kissi-Debrah lived within 30 metres of London's South Circular road. Photograph: PA

A coroner has made legal history by ruling that air pollution was a cause of the death of a nine-year-old girl.



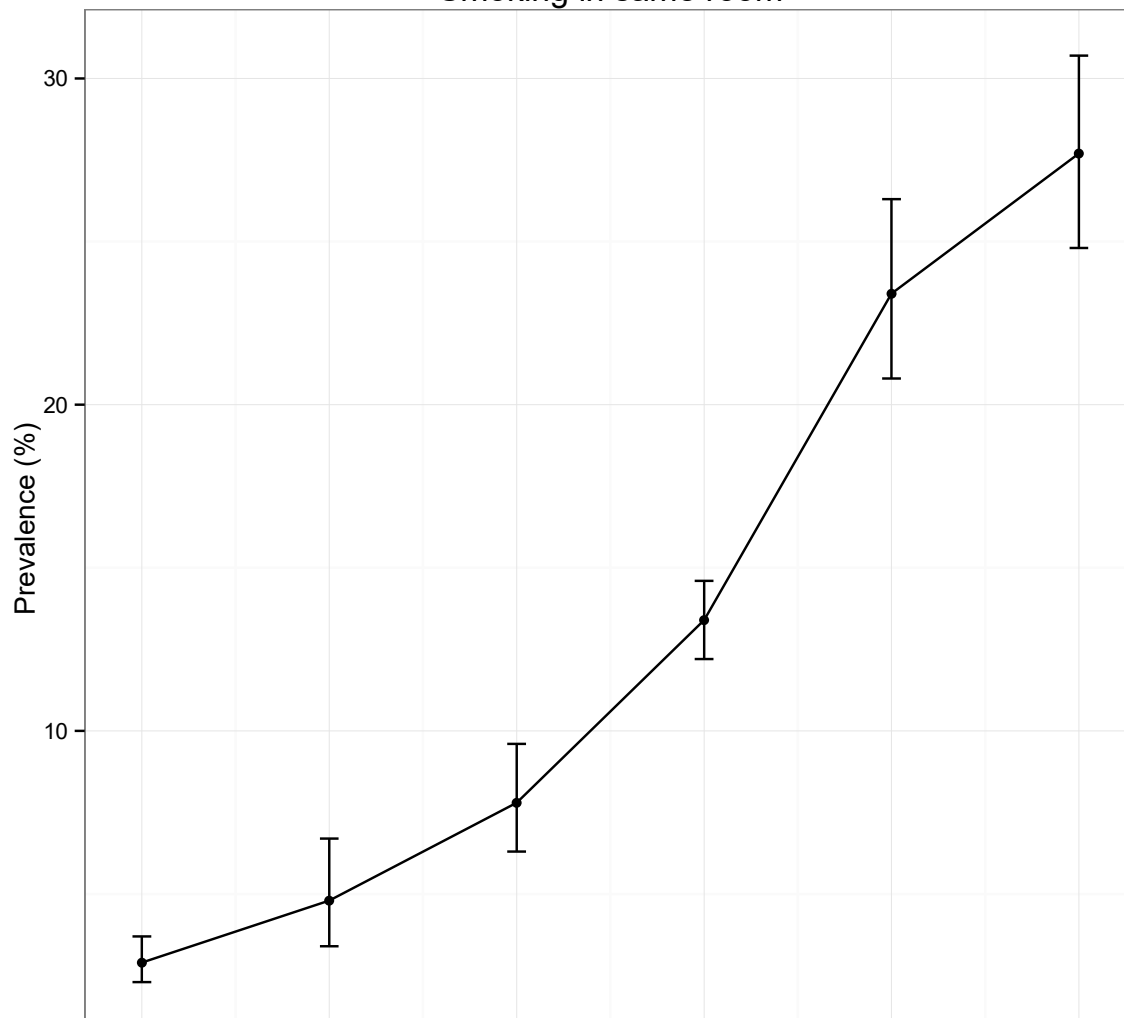
Smoking during pregnancy



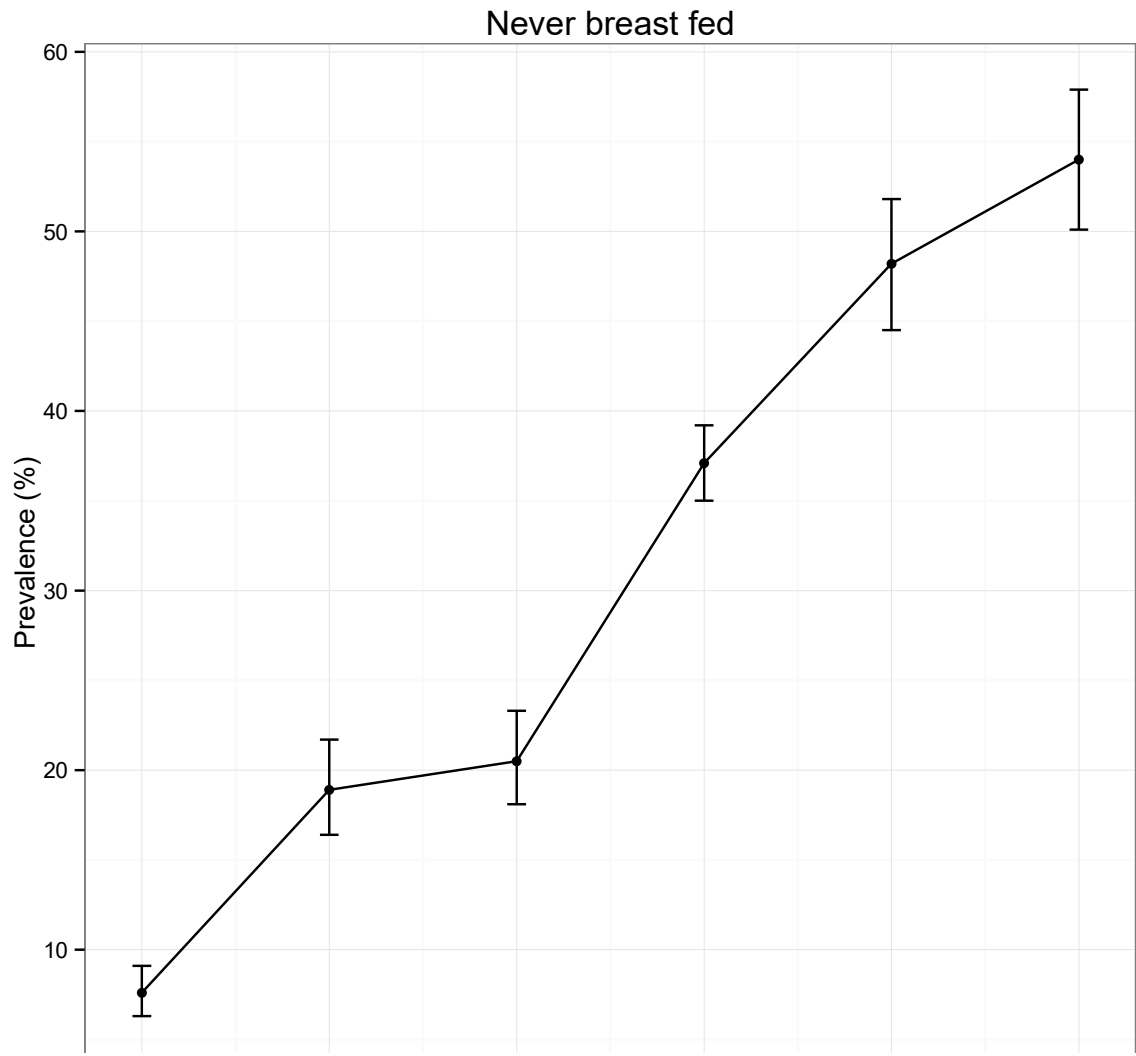
More disadvantaged



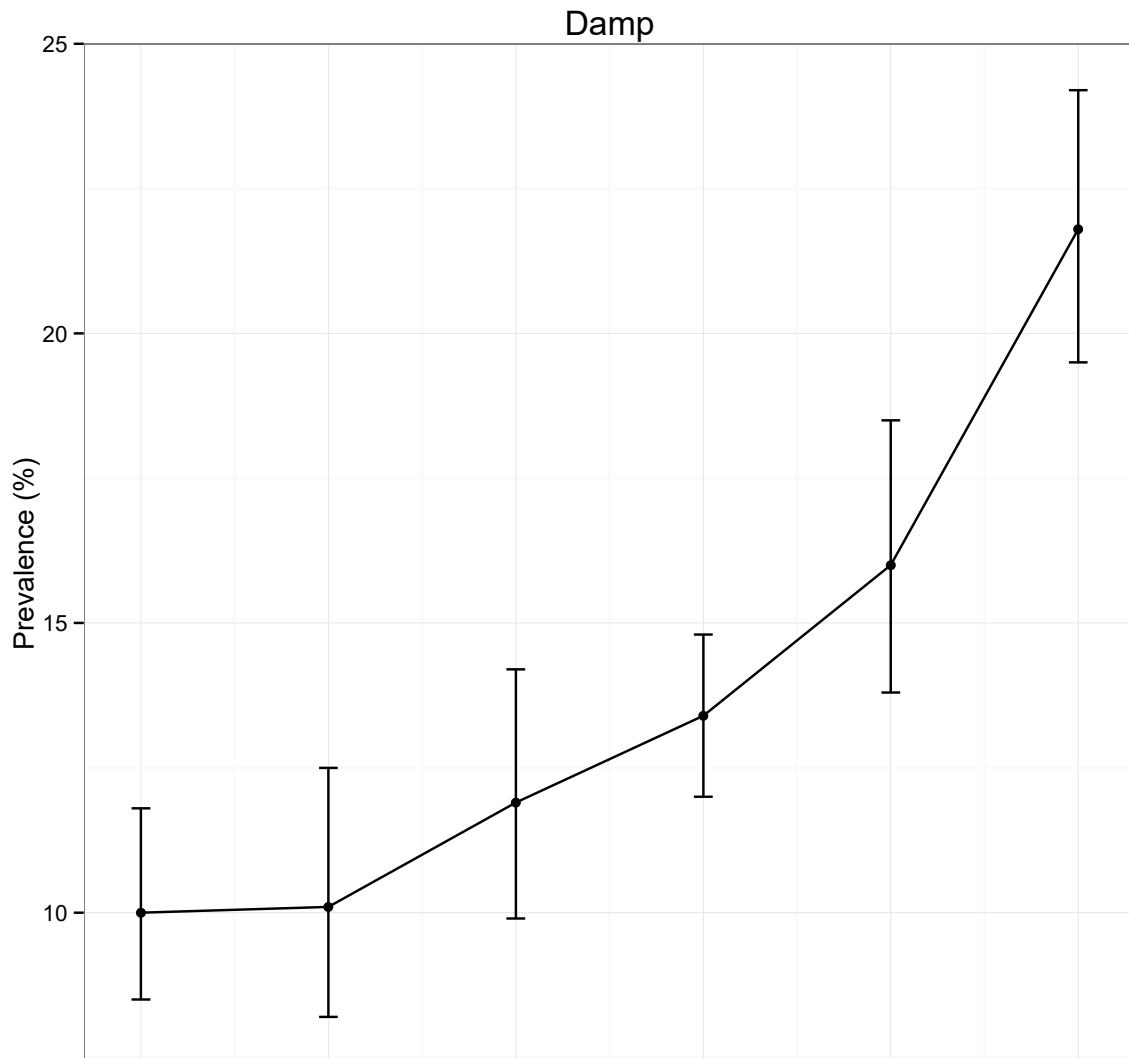
Smoking in same room



More disadvantaged



More disadvantaged



More disadvantaged

Social disadvantage in the UK has a lasting impact on childhood asthma

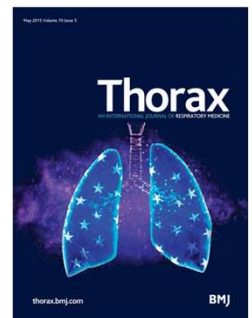
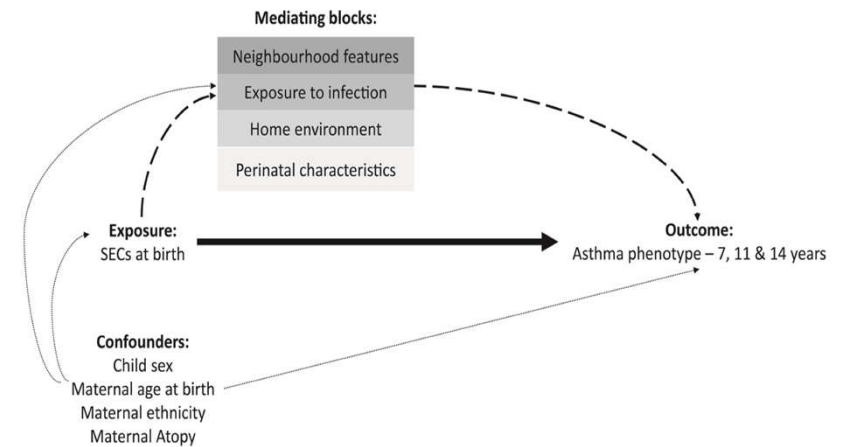


Children experiencing social disadvantage in their first few years of life have a greatly increased risk of asthma persisting into adulthood.

*‘Disadvantage in early-life is associated with almost doubling of persistent asthma in adolescents in the UK. Around **two-thirds** of the excess risk is explained by perinatal and environmental mediators by the age of 3 years’*

Creese H, et al. *Thorax* 2021;**0**:1–11. doi:10.1136/thoraxjnl-2021-217312

Asthma



Box 1

Letters to landlords—a possible structure

The details that Ian Sinha, consultant respiratory paediatrician at Alder Hey Hospital, includes in letters to landlords when he sees a patient affected by mould in the home include:

- Interval symptoms when well, list of exacerbations or acute episodes, family and social history, immunisation history
- Assessment of height and weight
- List of medical investigations, including chest radiology, full blood counts, bronchoscopy results (including cytology), immune work-up, allergies, sweat test
- Description of issues at home
- Map of house in relation to main roads and industrial sources of air pollution
- Local data on air pollution in the child's area
- Summary: the child's health now, the factors that are atypical or worrying, and how housing might have a role



[ONLINE FIRST, 100279](#)



PDF [1023 KB]



Figures

Impact of poverty and family adversity on adolescent health: a multi-trajectory analysis using the UK Millennium Cohort Study

[Nicholas Kofi Adjei](#)   • [Daniela K. Schlüter](#) • [Viviane S. Straatmann](#) • [Gabriella Melis](#) • [Kate M. Fleming](#) •
[Ruth McGovern](#) • [Louise M. Howard](#) • [Eileen Kaner](#) • [Ingrid Wolfe](#) • [David C. Taylor-Robinson](#) •
on behalf of the ORACLE consortium • [Show less](#)

[Open Access](#) • Published: November 30, 2021 • DOI: <https://doi.org/10.1016/j.lanepe.2021.100279>

11726 families

Low adversity and poverty – 43%

Persistent poverty – 23%

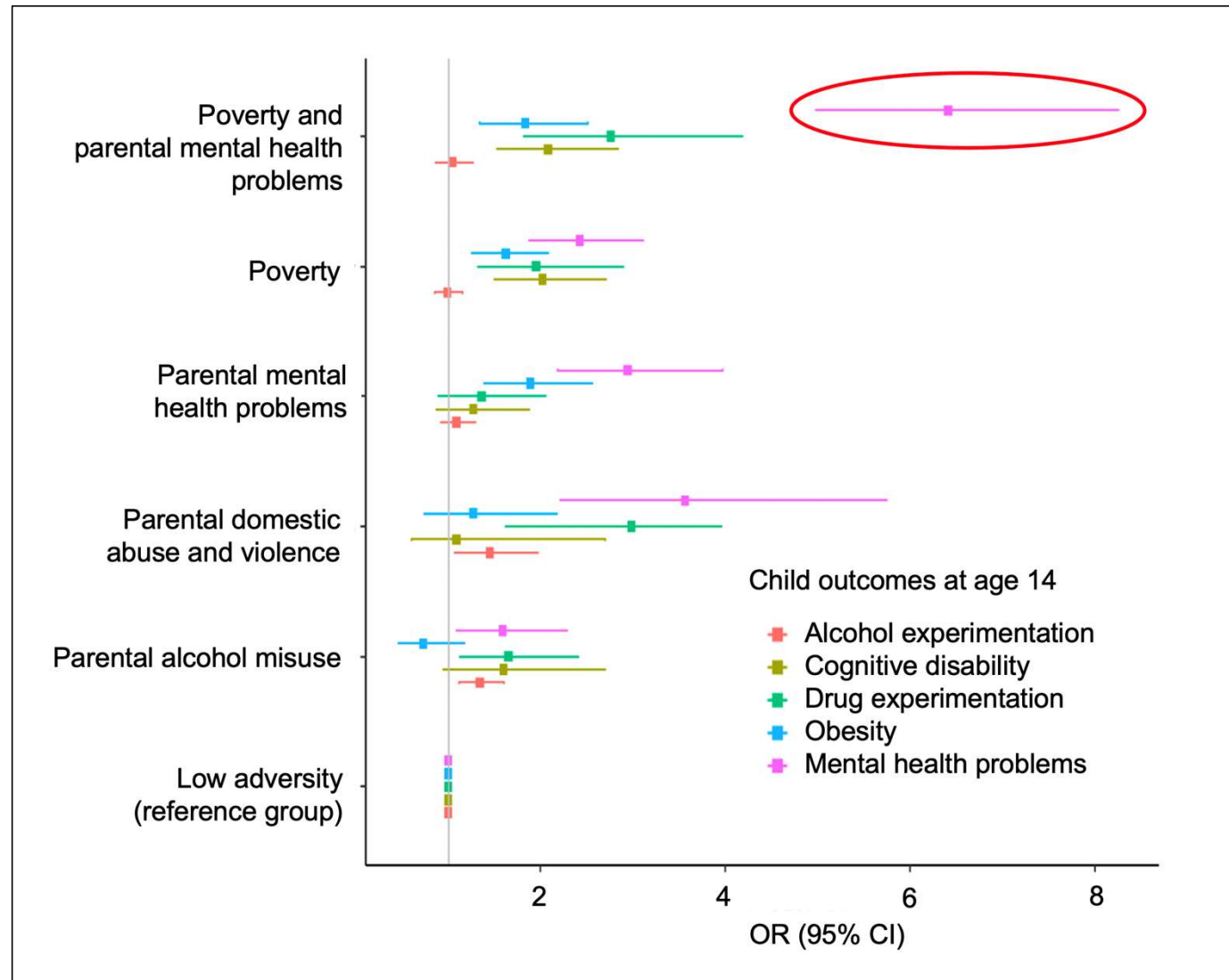
Persistent parental mental illness – 12%

Parental mental illness & poverty – 11%

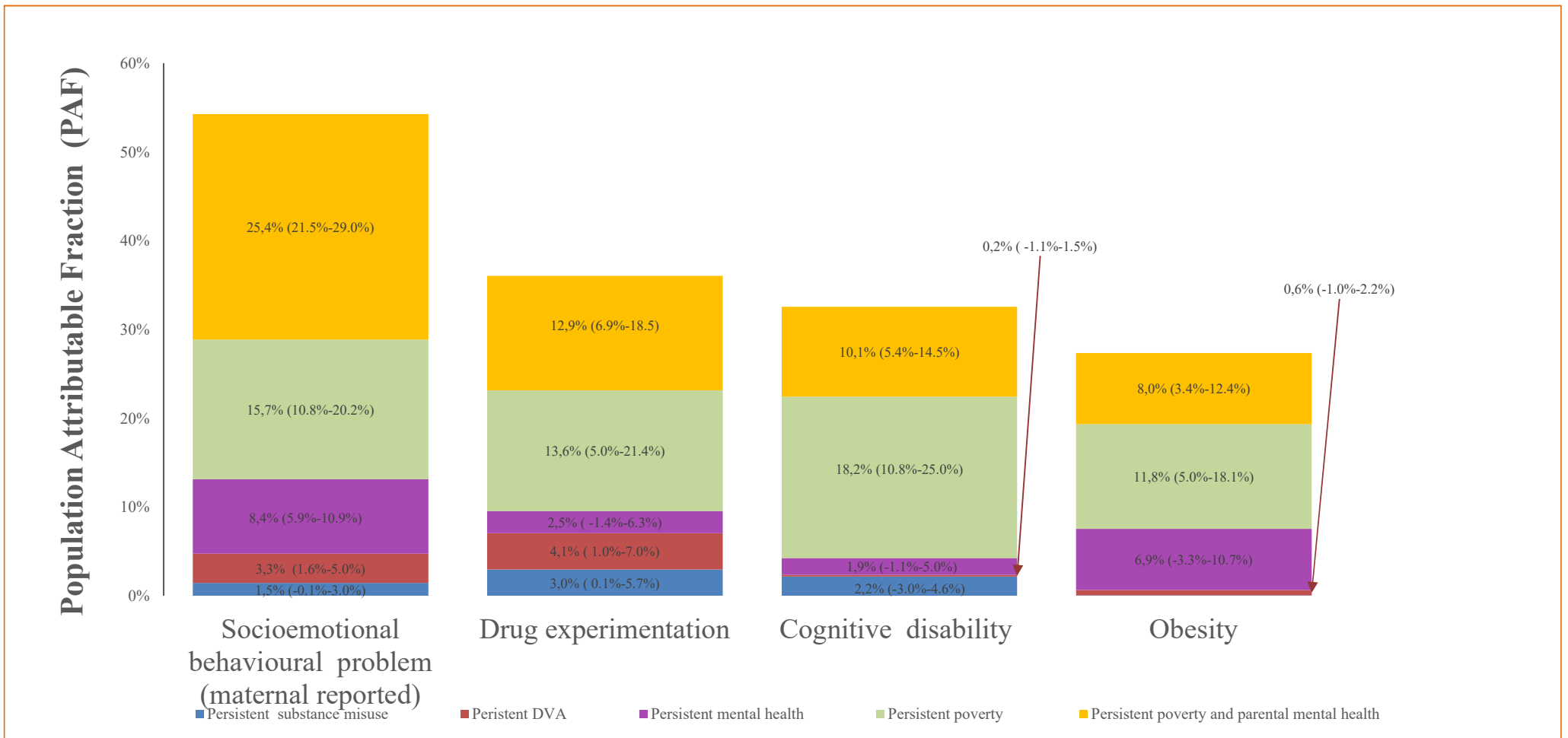
Persistent parental alcohol use – 8%

Persistent DVA – 3.4%

Impact of childhood adversity trajectories on child outcomes at age 14 years in the UK Millennium Cohort Study



What proportion of adverse child health outcomes could be prevented if exposure to poverty and family adversity during childhood were reduced?





Life events or socioeconomic conditions?

Comment

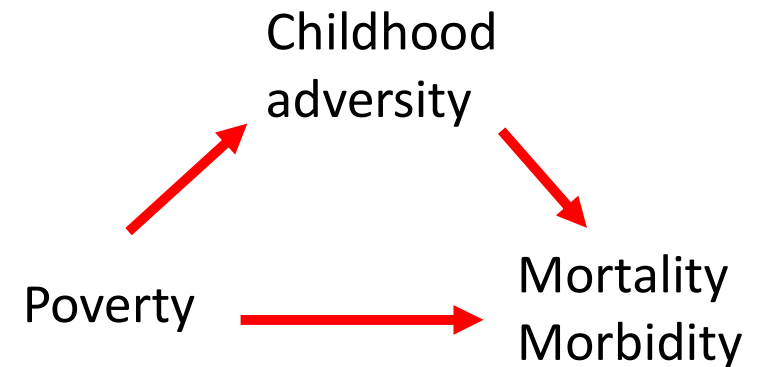
Adverse childhood experiences or adverse childhood socioeconomic conditions?



If a child lives with an adult who has a mental health disorder or an alcohol-related illness, how does that affect the risk of emergency hospital admission for that child? In *The Lancet Public Health*, Shantini Paranjothy and colleagues¹ use the excellent record linkage system established in Wales to address this question, showing that these exposures independently increase the risk of childhood admission due to all causes, external causes and injury, and victimisation. A great strength of this

The main results show a 17% increase in the risk of all cause admission, 14% for injuries, and 55% for childhood victimisation for children living with families with parental mental disorders. There are similar associations for living with a household member who had had an alcohol-related hospital admission. There was no association between household alcohol misuse and all-cause admissions in children. The researchers go on to assess how the risk of admissions in children

Published Online
May 15, 2018
[http://dx.doi.org/10.1016/S2468-2667\(18\)30094-X](http://dx.doi.org/10.1016/S2468-2667(18)30094-X)
See [Articles](#) page e279



Taylor-Robinson DC, Straatmann VS, Whitehead M. *Lancet Public Health* 2018

Trajectories of childhood adversity and mortality in early adulthood: a population-based cohort study

Naja H Rod, Jessica Bengtsson, Esben Budtz-Jørgensen, Clara Clipet-Jensen, David Taylor-Robinson, Anne-Marie Nybo Andersen, Nadya Dich, Andreas Rieckmann

Follow up of **1 million children** born between 1980 and 1998

Dimensions of childhood adversities

Material deprivation

- Family poverty
- Parental long-term unemployment

Loss or threat of loss

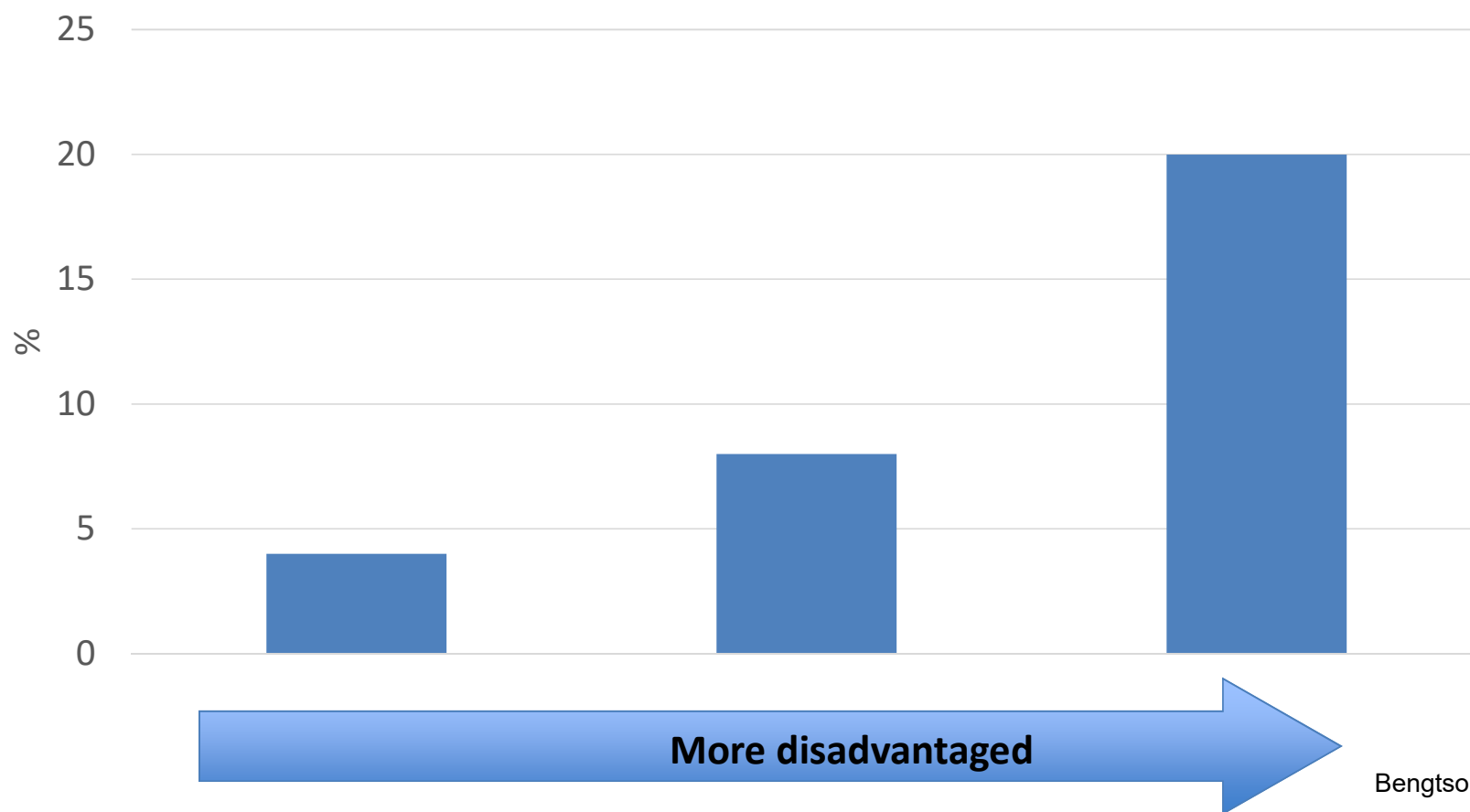
- Death of a parent
- Death of a sibling
- Parental somatic illness
- Sibling somatic illness

Family dynamics

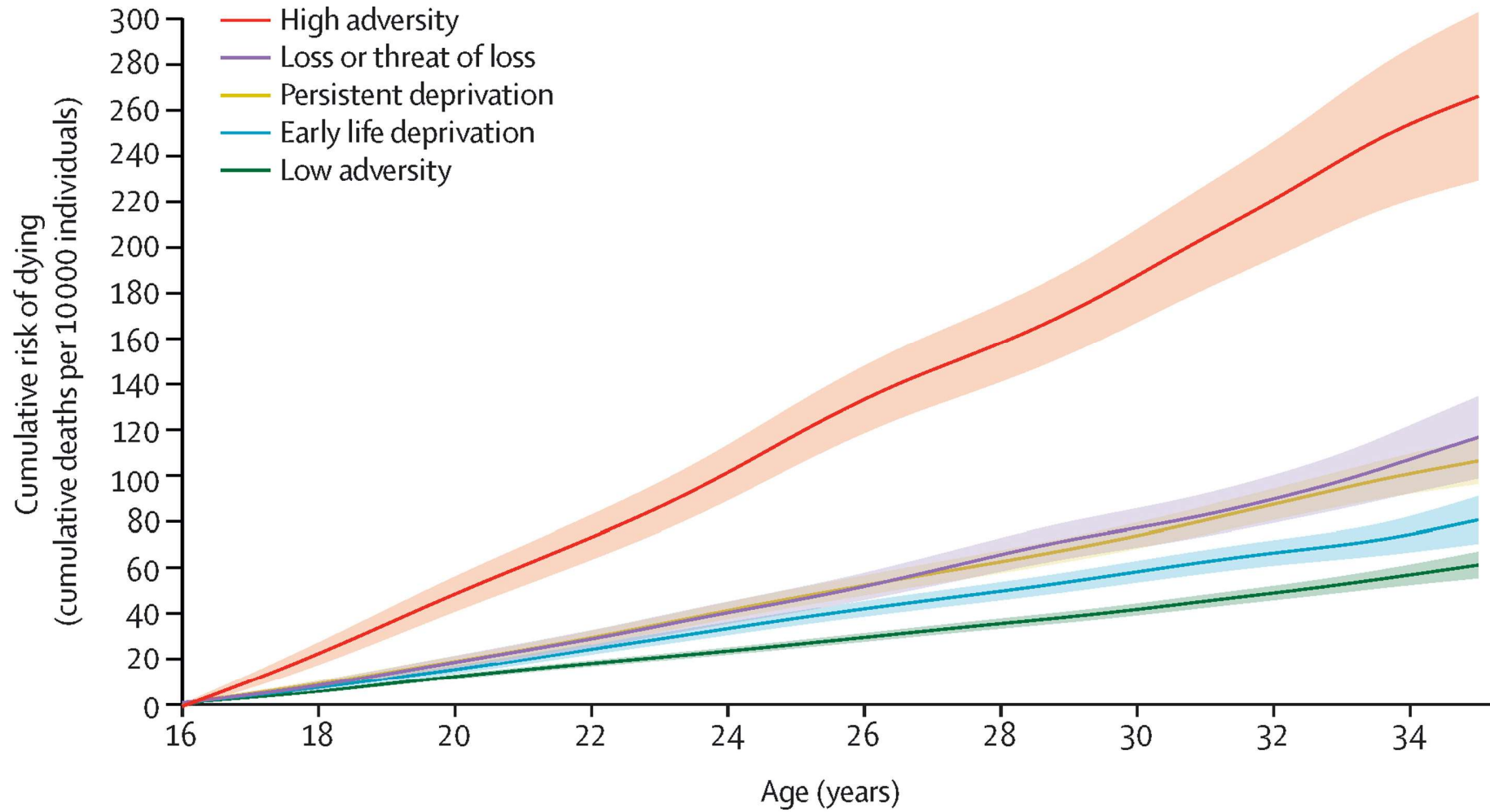
- Foster care
- Parental psychiatric illness
- Sibling psychiatric illness
- Parental alcohol abuse
- Parental drug abuse
- Parental separation

Adverse social experiences cluster with social disadvantage, interact and accumulate over time

Fig 1. Accumulation of childhood adversities (3 or more) according to maternal education



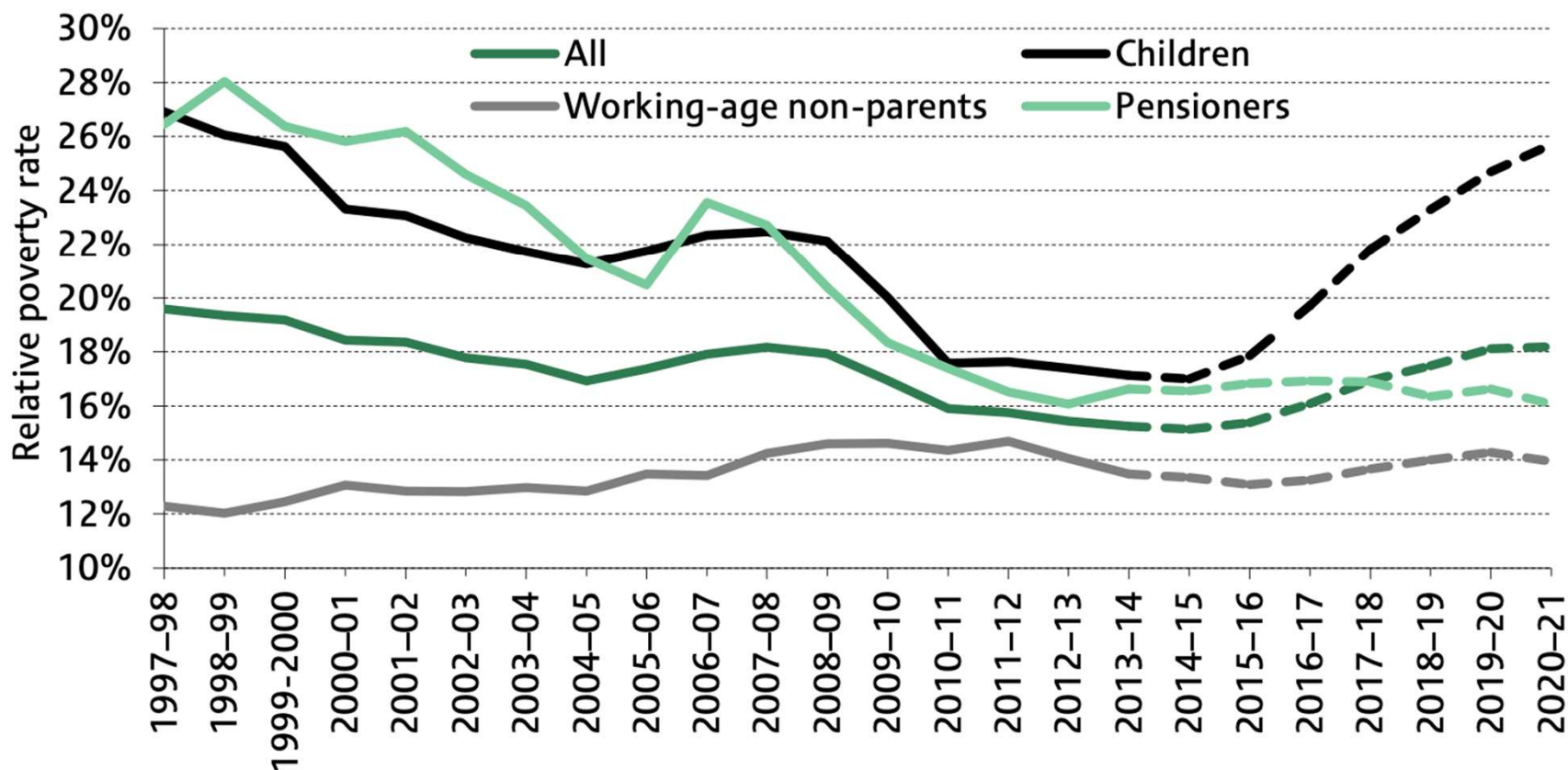
Risk of dying in early adulthood by early experience of adversity





POLICY EXPERIMENTS

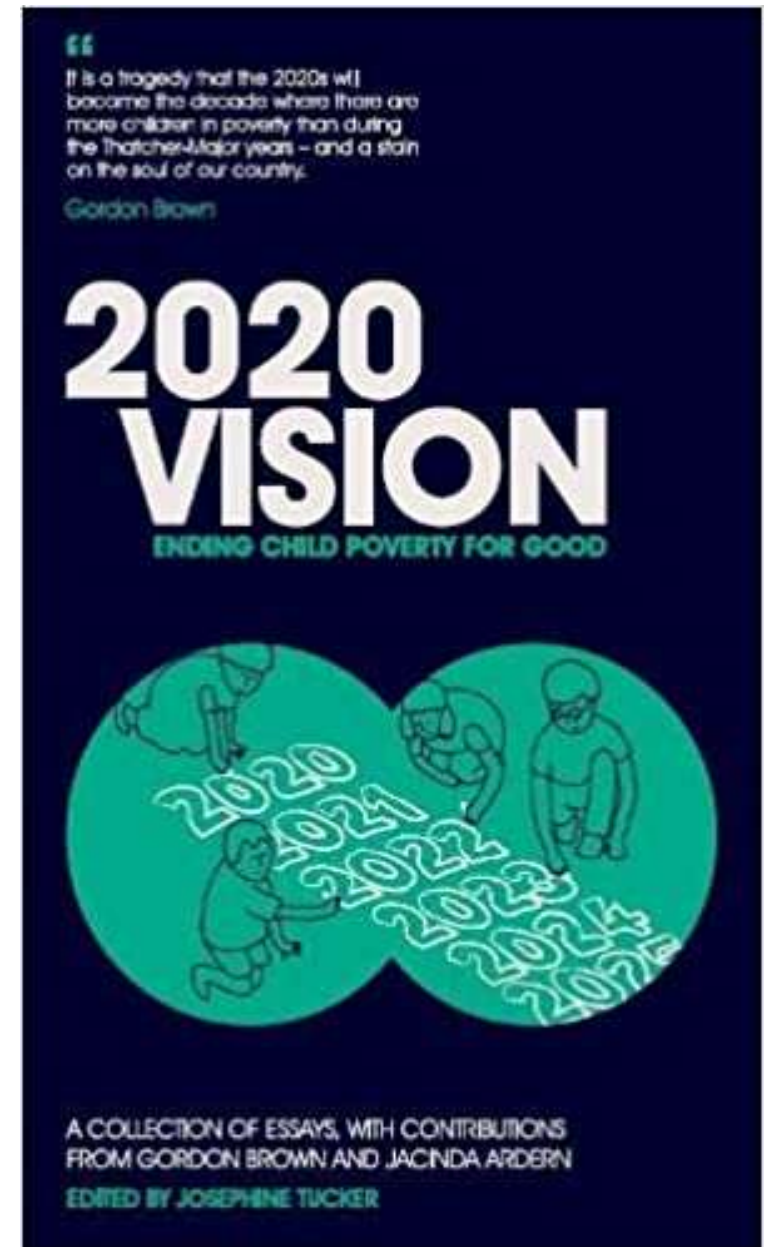
Figure 3.9. Relative poverty rates: 1997–98 to 2020–21



Note: Incomes measured before housing costs have been deducted. Poverty line is 60% of median household income in the current year. Pensioners are those aged 65 or over.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2014–15 onwards using TAXBEN and assumptions specified in the text.

In 1999, Tony Blair pledged to end child poverty by 2020. This was one element of New Labour's broader inequality strategy which included the English Health Inequalities Strategy, regarded as the world's largest experiment in tackling health inequalities.

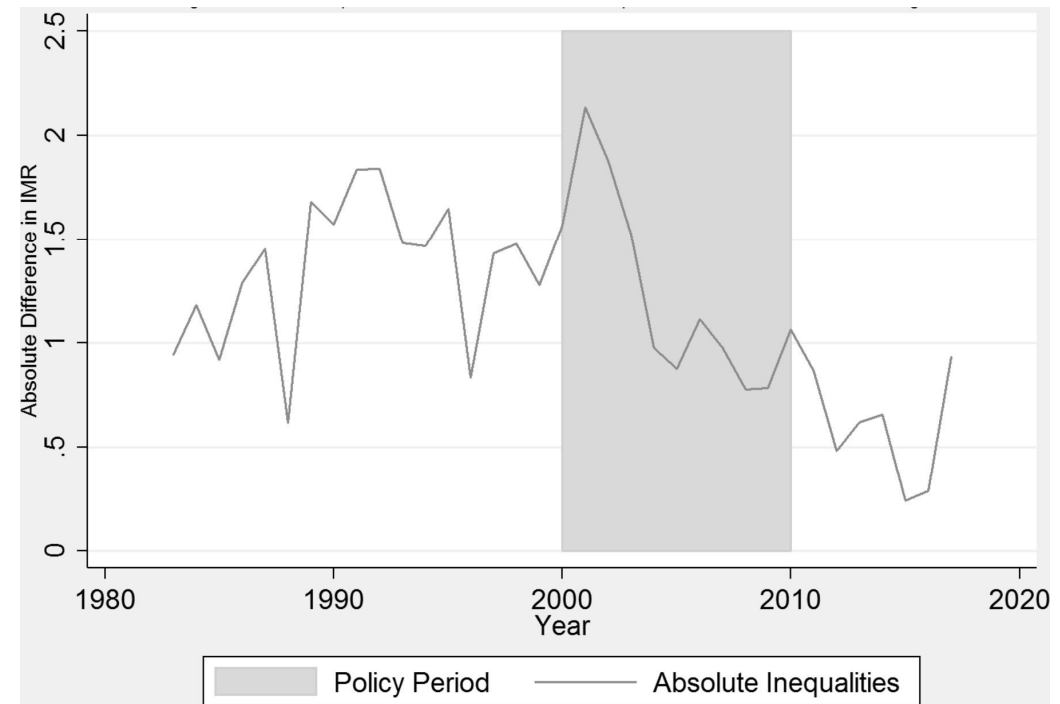
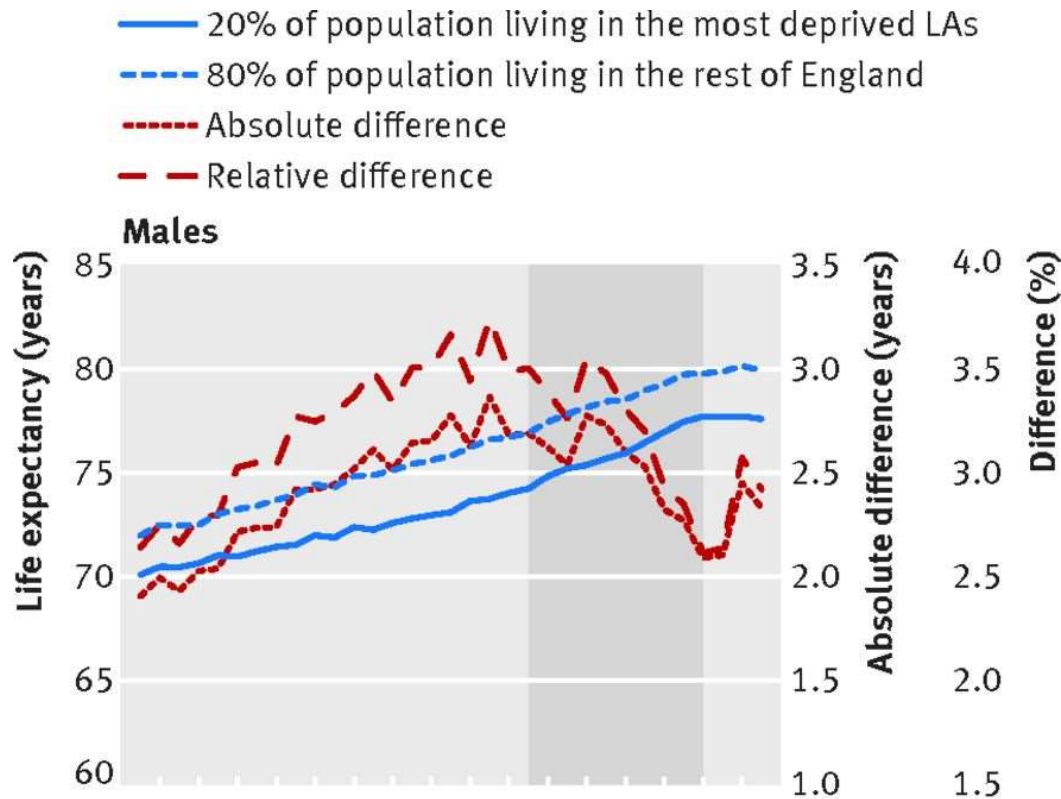


“By 2010 to **reduce by at least 10% the gap in life expectancy** between the fifth of local authorities with the worst health and deprivation indicators (the Spearhead areas) and the population as a whole”. (DH, 2003).



- Targets
- Resource allocation
- Area based regeneration
- Tax and benefit changes
- Minimum wage
- Sure Start
- Targeted primary and secondary prevention services
- Technical support for improved chronic disease management

Decrease in inequalities life expectancy and infant mortality as a result of strategy



Barr et al. BMJ 2014

ECONOMY

How can 29% of British children live in poverty?

James Beal, Social Affairs Editor

Thursday March 23 2023,
5.20pm, The Times



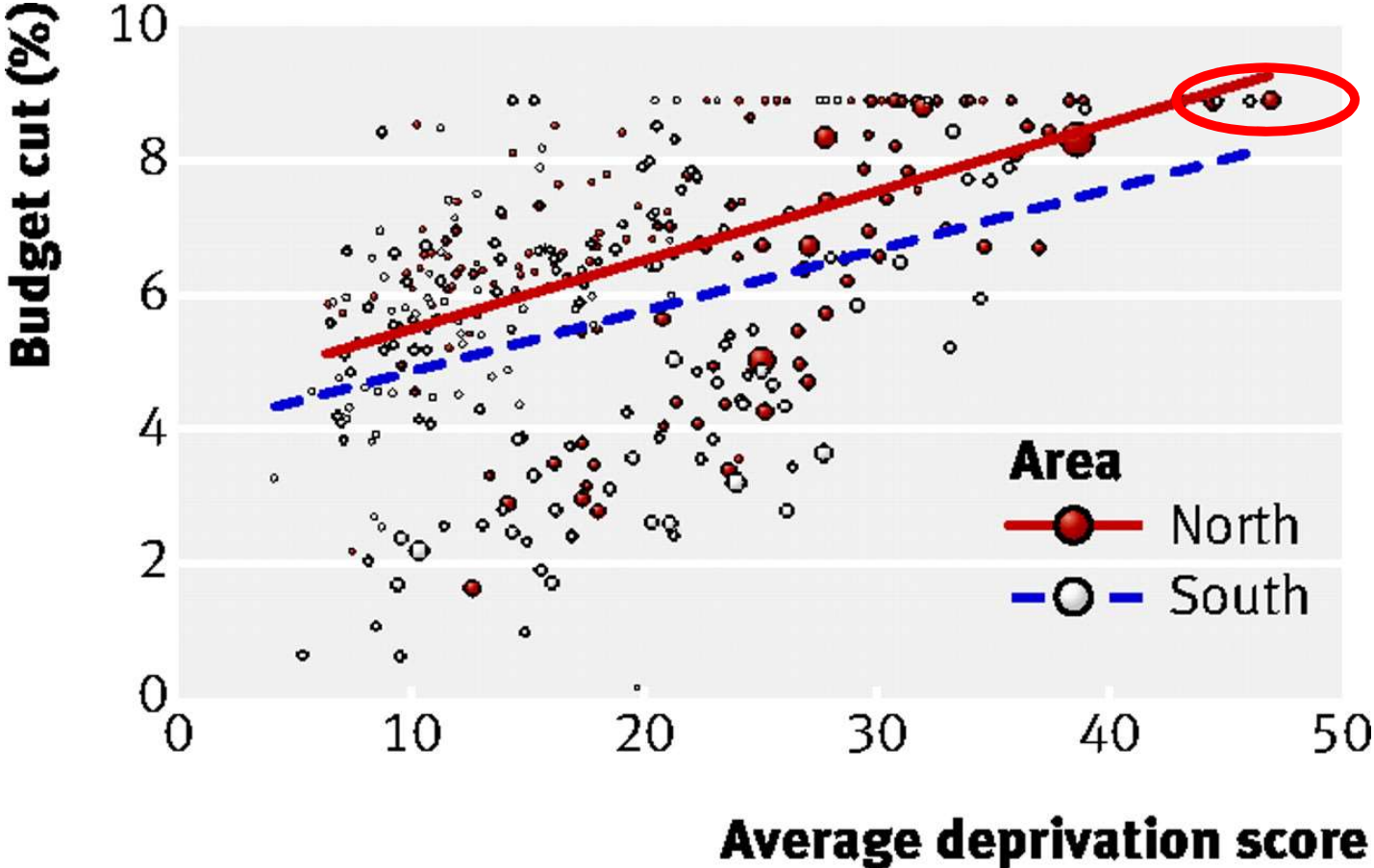
350,000 more children slipped into poverty last year

MODELLED IMAGE BY SOLSTOCK/GETTY IMAGES

Almost a third of children in the UK were living in poverty last year, figures have shown. A total of 4.2 million children, or 29 per cent of under-18s, were classed as being in relative poverty for the year ending April 2022, according to the Department for Work and Pensions (DWP).

Relative poverty is defined as any household living on less than 60 per cent of the national figure for median income after housing costs are taken into account

Cut in local authority budget by deprivation score in north and south of England

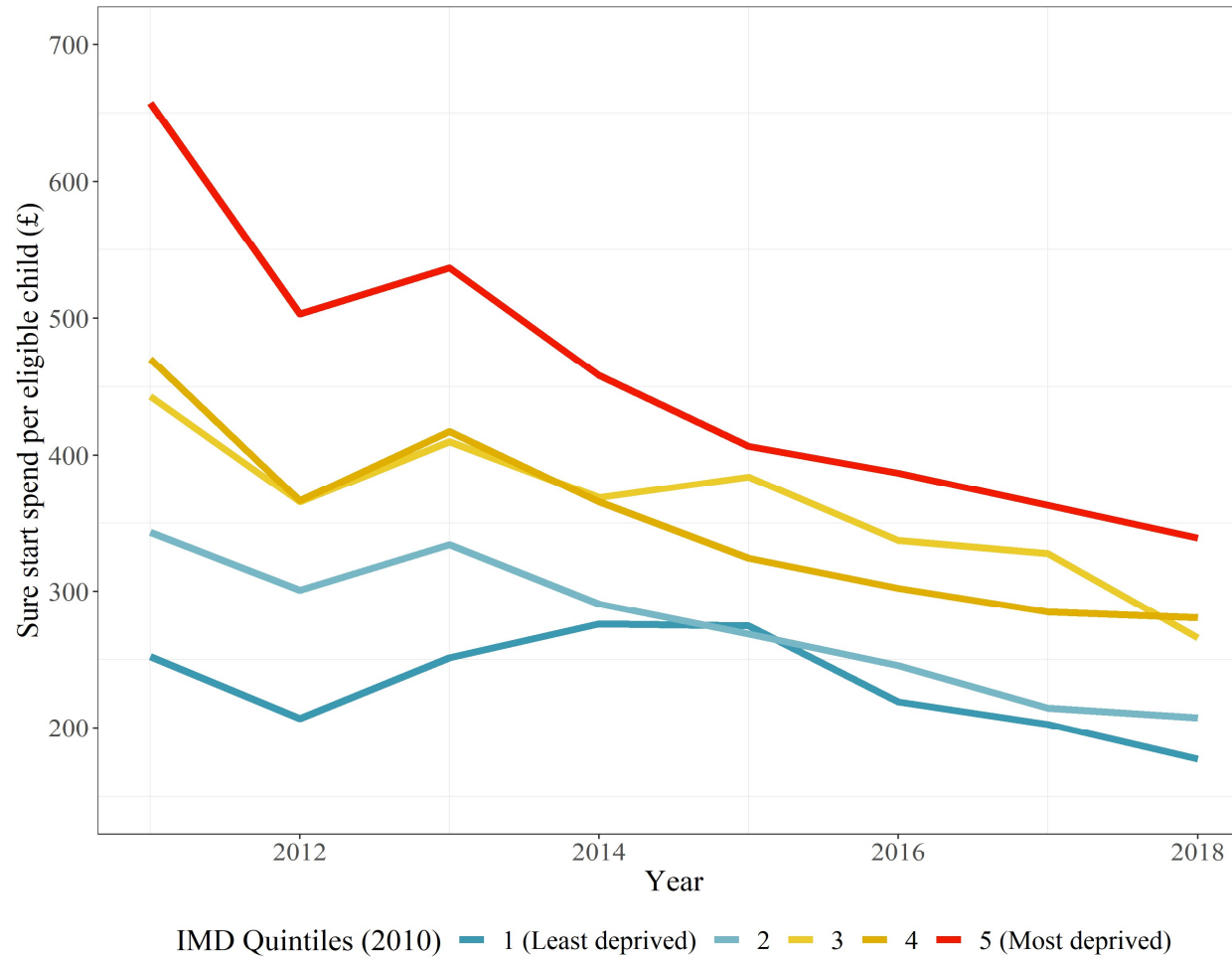


Taylor-Robinson D , Gosling R BMJ 2011;342:bmj.d1487



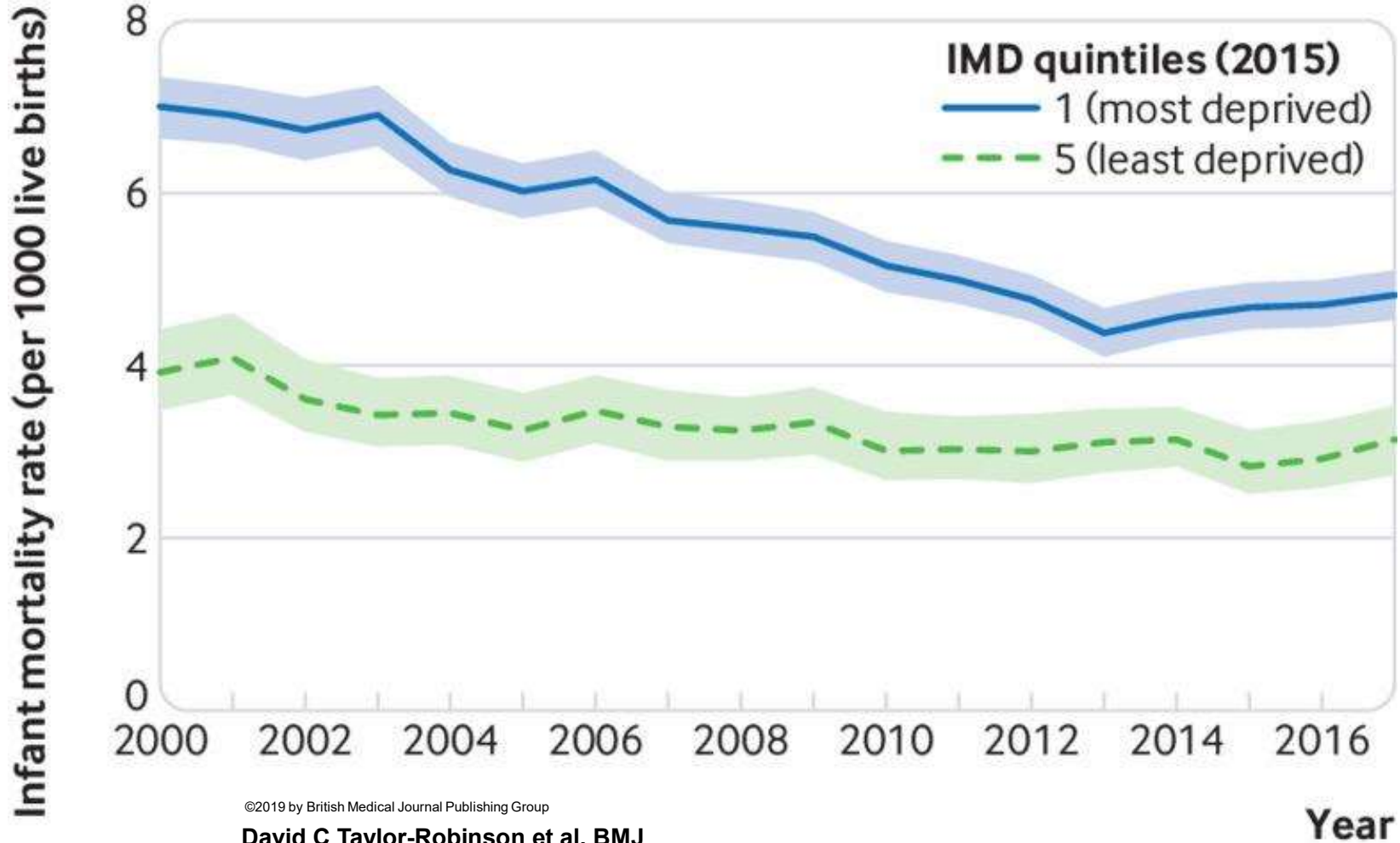
A decade of cuts to children's services

Biggest cuts to prevention in poorest areas



Taylor-Robinson and Bennett 2020
<https://cpag.org.uk/shop/cpag-titles/2020-vision-ending-child-poverty-good>

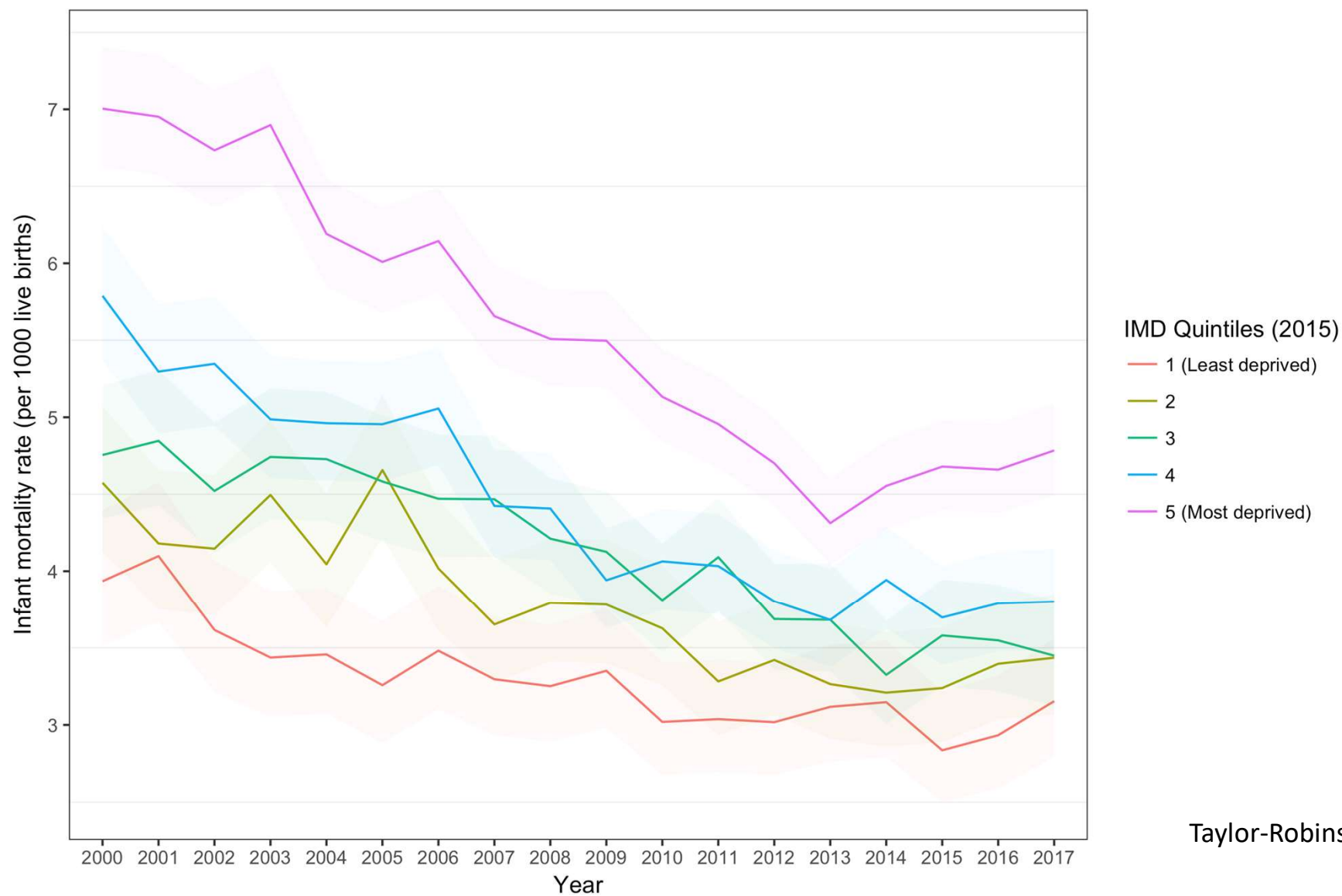
Child health unravelling in UK



©2019 by British Medical Journal Publishing Group

David C Taylor-Robinson et al. *BMJ*
2019;364:bmj.l963

Trends in infant mortality rate by area deprivation in England, 2000-17



Taylor-Robinson D et al 2019

Open access

Research

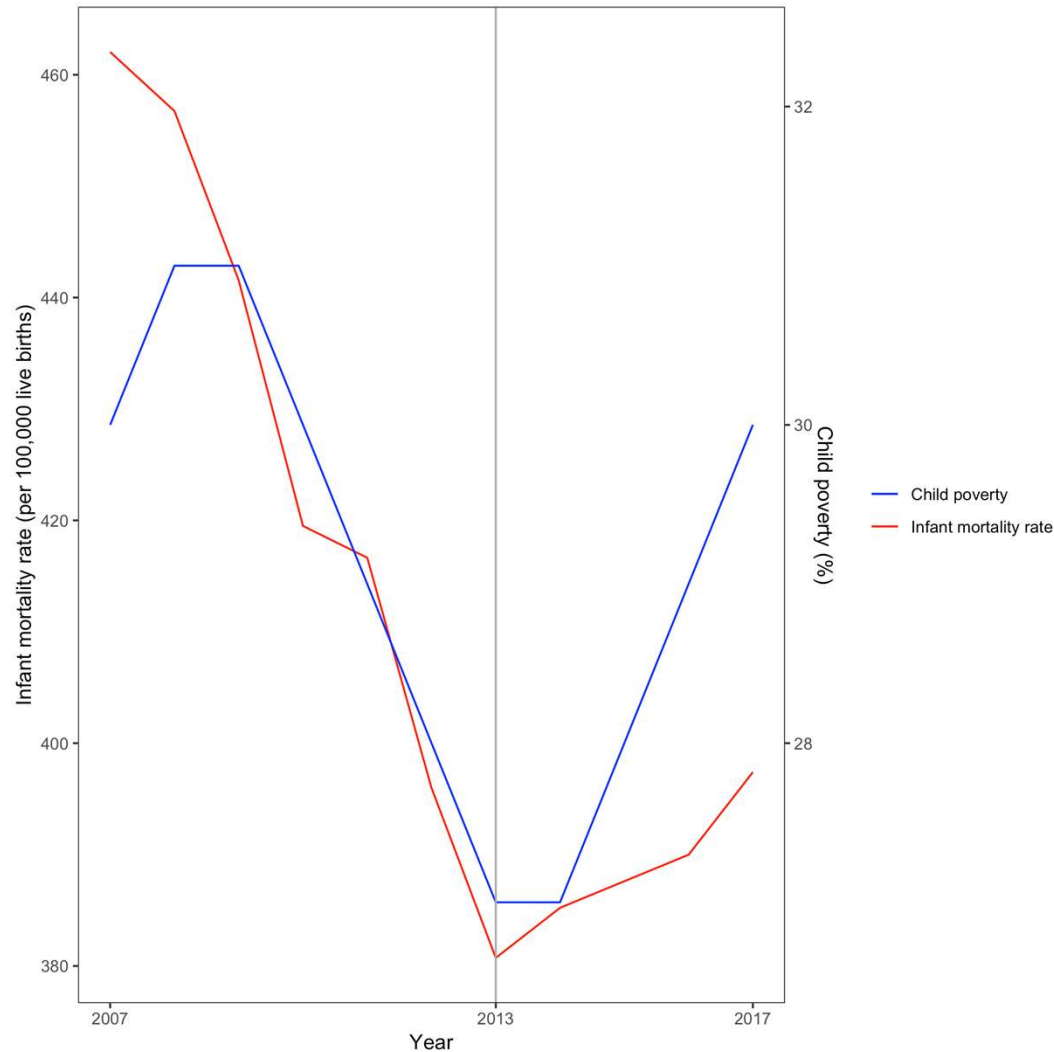
BMJ Open Assessing the impact of rising child poverty on the unprecedented rise in infant mortality in England, 2000–2017: time trend analysis

David Taylor-Robinson,^{1,2} Eric T C Lai,¹ Sophie Wickham,¹ Tanith Rose,¹ Paul Norman,³ Clare Bamba,⁴ Margaret Whitehead,¹ Ben Barr¹



An 'unprecedented' rise in infant mortality linked to poverty in England

Rising infant mortality, rising child poverty 2007-2017

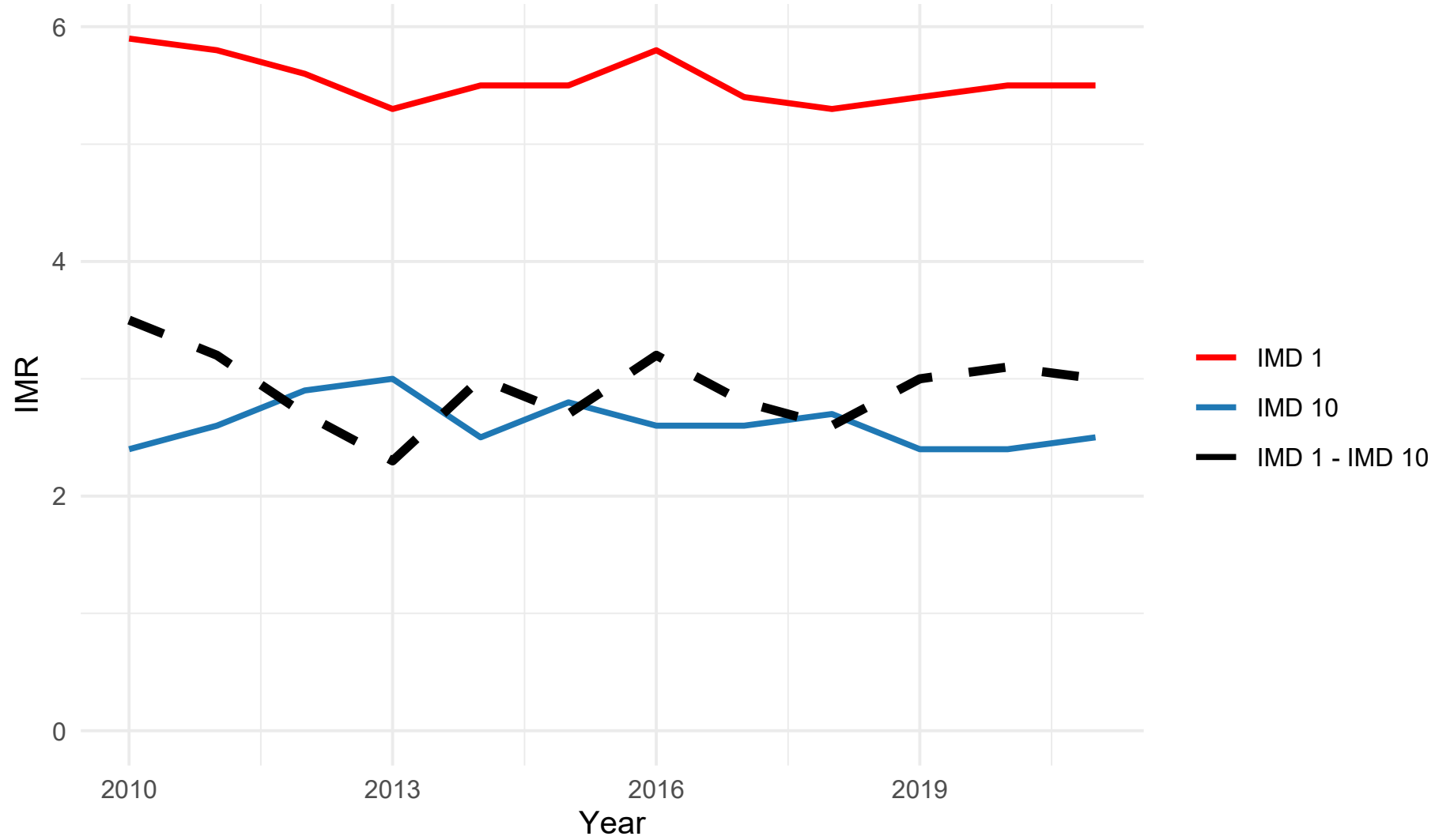


Each 1% increase in child poverty was significantly associated with an extra 5.8 infant deaths per 100 000 live births (95% CI 2.4 to 9.2).

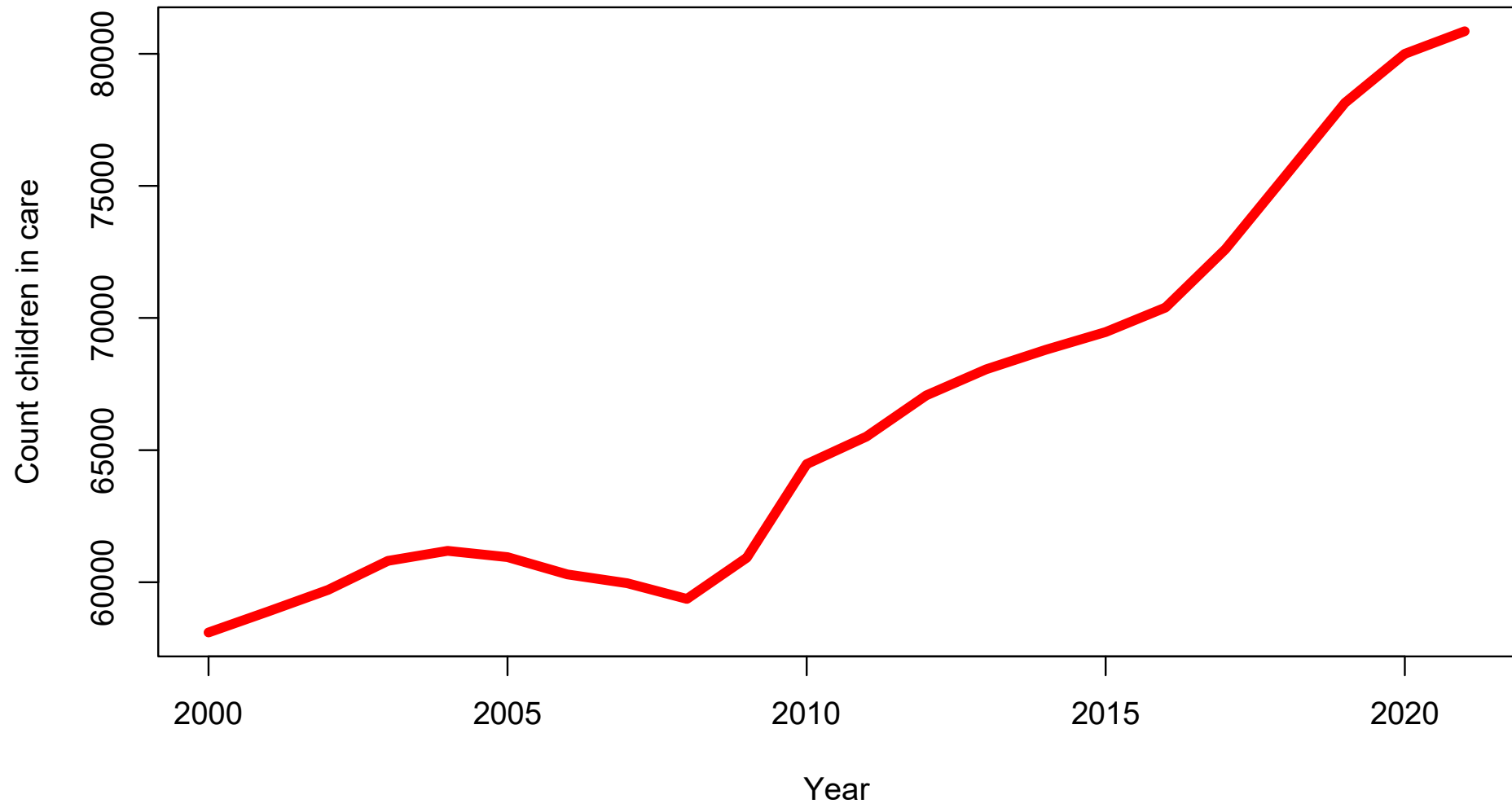
About a third of the increases in infant mortality between 2014 and 2017 can be attributed to rising child poverty

Taylor-Robinson D et al 2019 BMJ Open

IMR in least and most deprived deciles 2010-21



Children in care 2000-2021



NEWS

Home | Cost of Living | War in Ukraine | Coronavirus | Climate | UK | World | Business | Politics | Tech | Science

Politics | Parliaments | Brexit

Children in care in England could hit almost 100,000 by 2025

22 November 2021

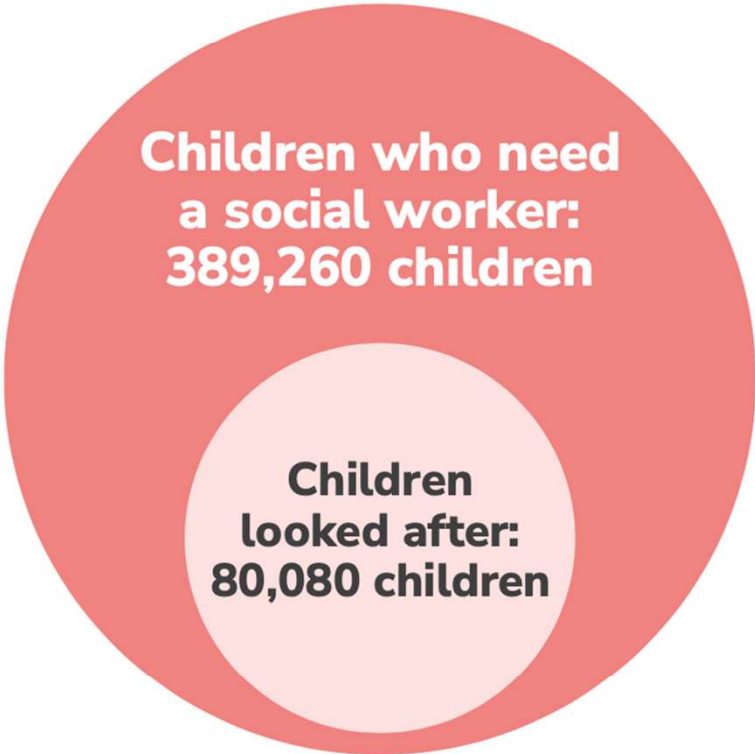


GETTY IMAGES

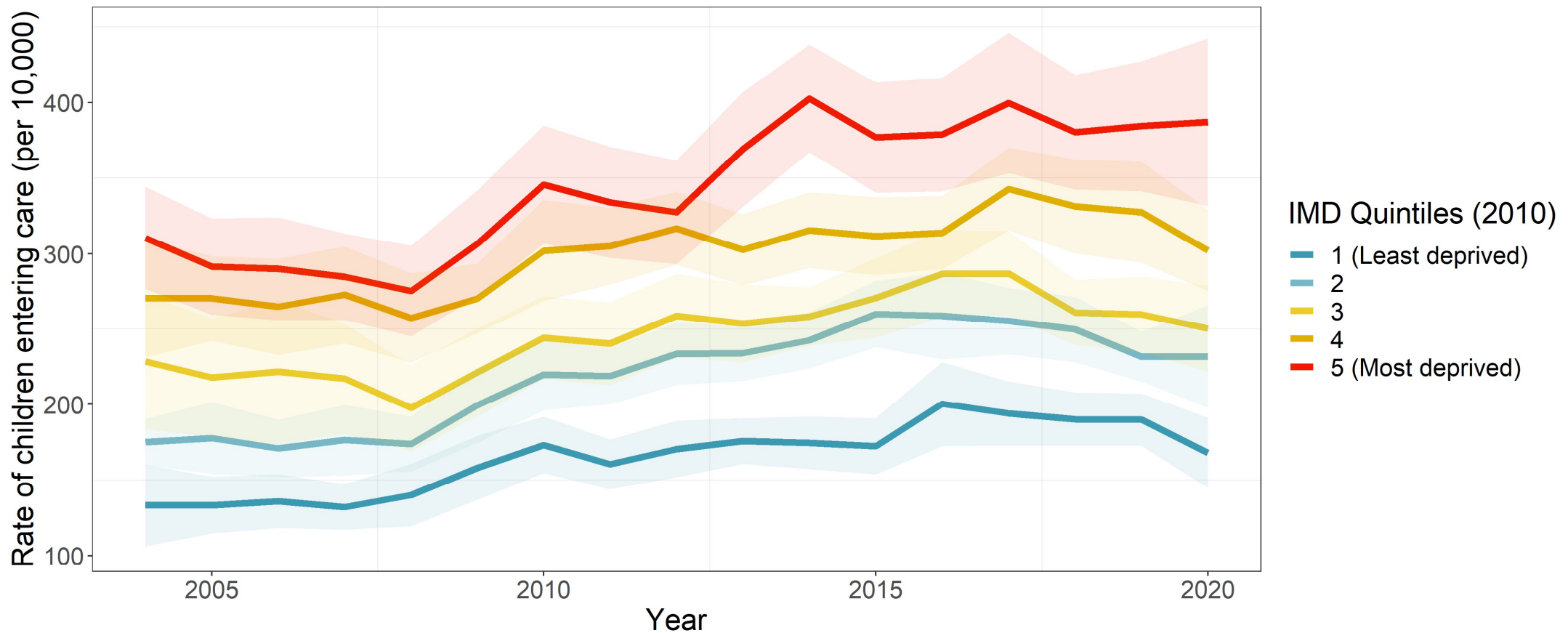
By Chris Mason & Hannah Capella

BBC Politics

The number of children in care in England could reach almost 100,000 by 2025, according to new analysis.



The dramatic rise in children looked after (CLA) has been greater in poorer areas of the country, and in areas more deeply affected by the recession – huge expense and cost over life course

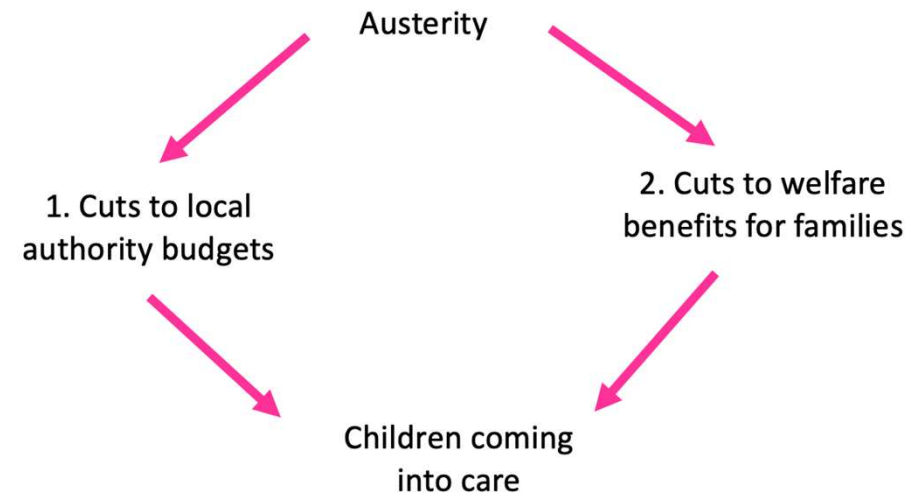


Bennett et al 2020



Funding for preventative Children's Services and rates of children becoming looked after: A natural experiment using longitudinal area-level data in England

Davara L. Bennett ^a ✉, Calum J.R. Webb ^b, Kate E. Mason ^a, Daniela K. Schlüter ^a, Katie Fahy ^a, Alexandros Alexiou ^a, Sophie Wickham ^a, Ben Barr ^a, David Taylor-Robinson ^a



Child poverty and children entering care in England, 2015–20: a longitudinal ecological study at the local area level



Davara L. Bennett, Daniela K Schlüter, Gabriella Melis, Paul Bywaters, Alex Alexiou, Ben Barr, Sophie Wickham, David Taylor-Robinson



Summary

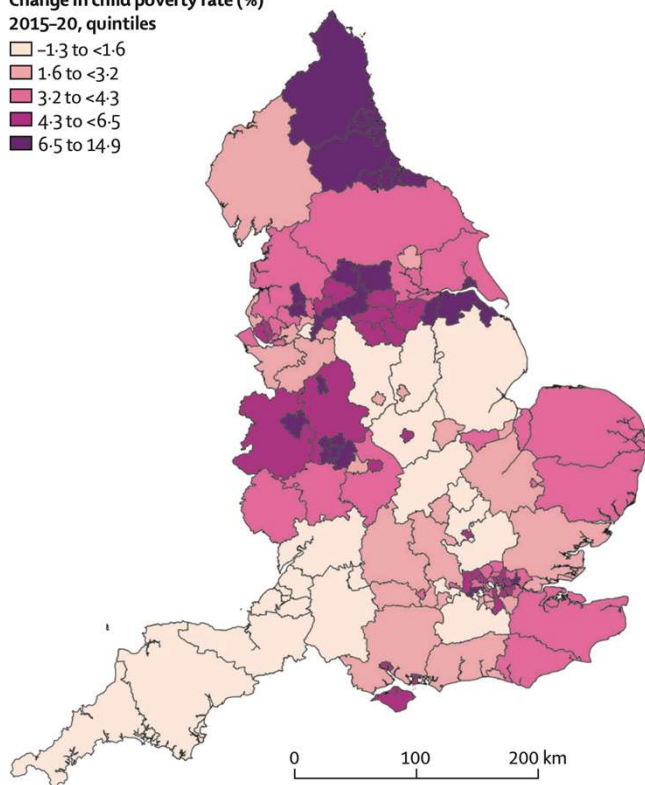
Background Children in care face adverse health outcomes throughout their life course compared with their peers. In England, over the past decade, the stark rise in the number of cared-for children has coincided with rising child poverty, a key risk factor for children entering care. We aimed to assess the contribution of recent trends in child poverty to trends in care entry.

Lancet Public Health 2022

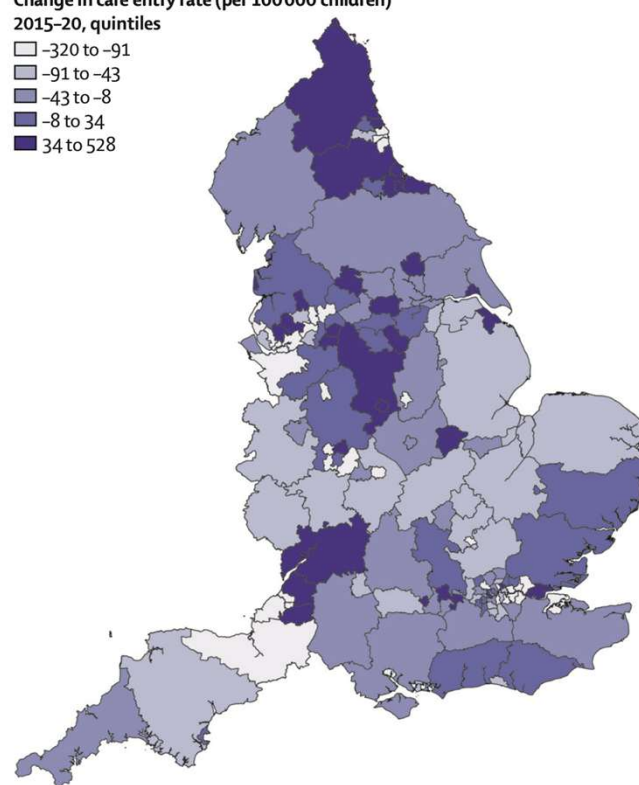
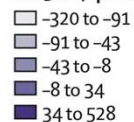
Published Online
Month date, 2022
[https://doi.org/10.1016/S2468-2667\(22\)00065-2](https://doi.org/10.1016/S2468-2667(22)00065-2)

Change in the relative child poverty rate before housing costs, and the change in care entry rates, between 2015 and 2020

Change in child poverty rate (%)
2015–20, quintiles



Change in care entry rate (per 100000 children)
2015–20, quintiles



8.1% (95% CI 5.0%–11.3%)
of care entries were linked
to rising child poverty

**Equivalent to 10,356 (95%
CI 6,443–14,579)
additional children.**

**Estimated cost of £1.4
billion [95% CI £0.8– £2.0].**

News > UK > Home News

Thousands of children will be taken into care due to budget cuts, council bosses warn

Exclusive: Local authorities have been forced to reduce spending on preventative services by more than £400m since 2015

Jane Dalton • Thursday 27 October 2022 20:33 • [5](#) Comments



Mieka Smiles: Looking after children in care is driving councils to the brink of bankruptcy

🕒 January 12, 2023 | Mieka Smiles | Local Government

Cllr Mieka Smiles is the Deputy Mayor and Executive Member for Children's Services on Middlesbrough Council.

EDITORIAL | [VOLUME 393, ISSUE 10170, P377, FEBRUARY 02, 2019](#)

Britain is broken: poor child health proves it

[The Lancet](#)

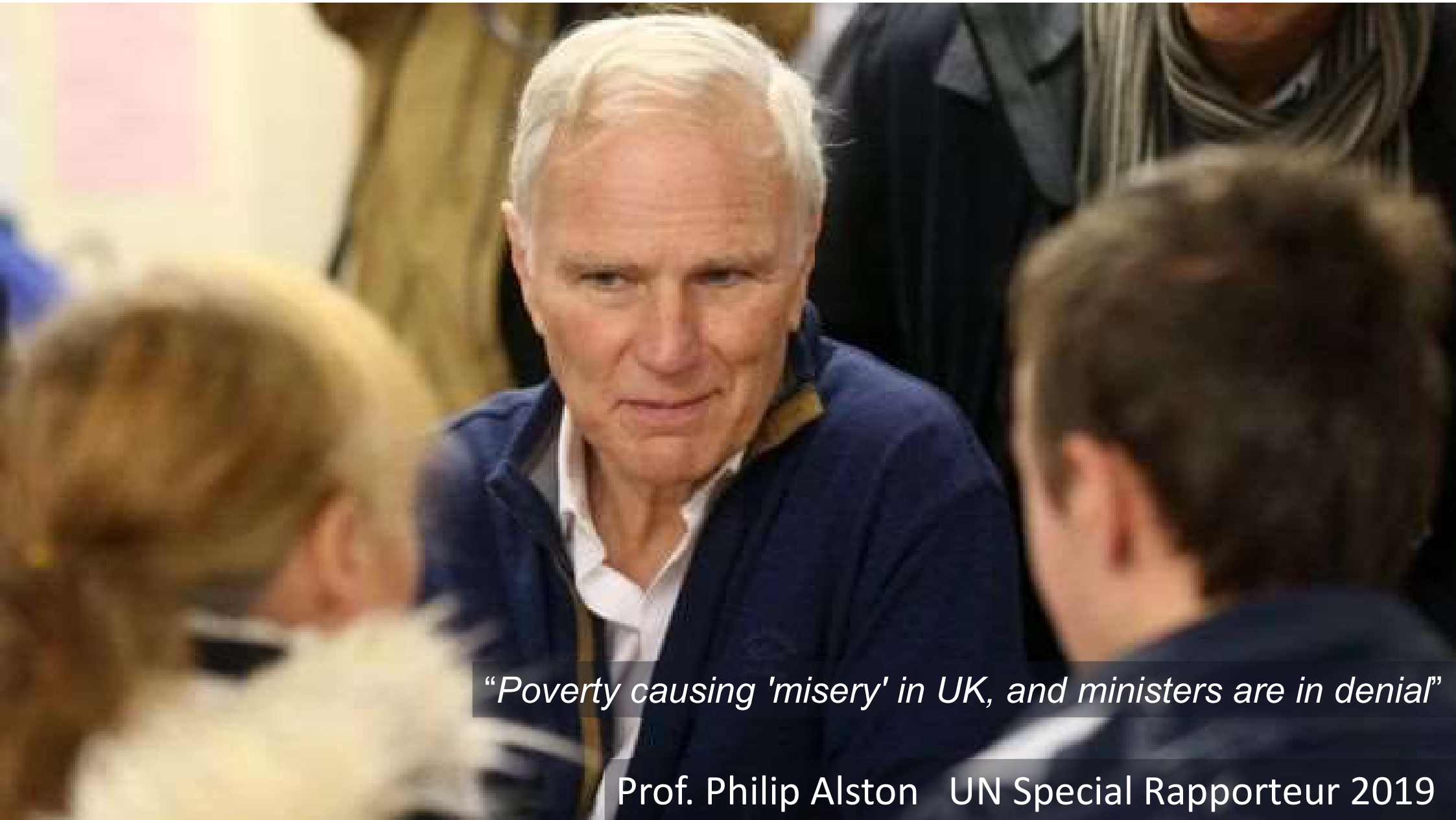
Published: February 02, 2019 • DOI: [https://doi.org/10.1016/S0140-6736\(19\)30162-X](https://doi.org/10.1016/S0140-6736(19)30162-X) •



Article Info

Figures

Two years on from the publication of its [landmark report](#)—*State of Child Health*—on the health of children in the UK, the Royal College of Paediatrics and Child Health (RCPCH) released an update on progress towards its recommendations on Jan 23. The report reveals a bleak picture of child health in each of the four UK nations.



“Poverty causing 'misery' in UK, and ministers are in denial”

Prof. Philip Alston UN Special Rapporteur 2019

CORRESPONDENCE | [VOLUME 394, ISSUE 10216, P2238-2239, DECEMBER 21, 2019](#)

Stalling life expectancy and rising inequalities in England

[David Taylor-Robinson](#)  • [Ben Barr](#) • [Margaret Whitehead](#)

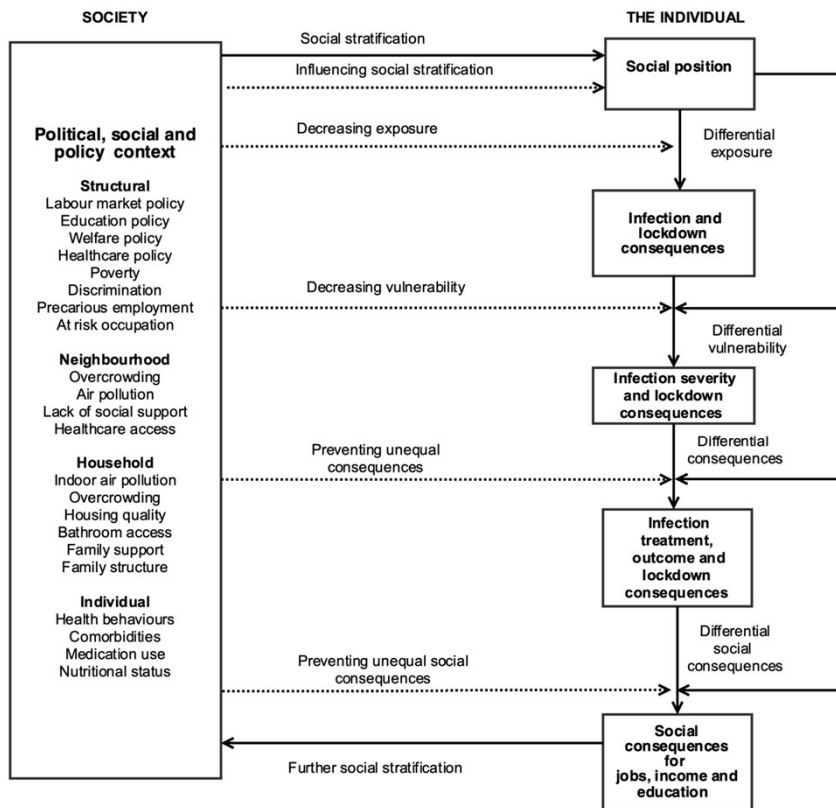
Published: December 21, 2019 • DOI: [https://doi.org/10.1016/S0140-6736\(19\)32610-8](https://doi.org/10.1016/S0140-6736(19)32610-8)

“Rises in child poverty, homelessness, food poverty, and a deterioration in mental health have been observed. These have occurred at the same time as a reversal of investment in public services, with the biggest cuts in the most deprived areas.

It is time to acknowledge the elephant in the room—the underlying causes of the disturbing health trends in England—and to design appropriate policies to reverse them.”


PANDEMIC

Although the pandemic is caused by a virus, the inequalities it generates have social causes




Covid-19: We are not "all in it together"—less privileged in society ar...
 Just because the the UK's prime minister Boris Johnson and the Prince of Wales have had covid-19 doesn't mean the disease strikes all ...

blogs.bmj.com




Child of the North

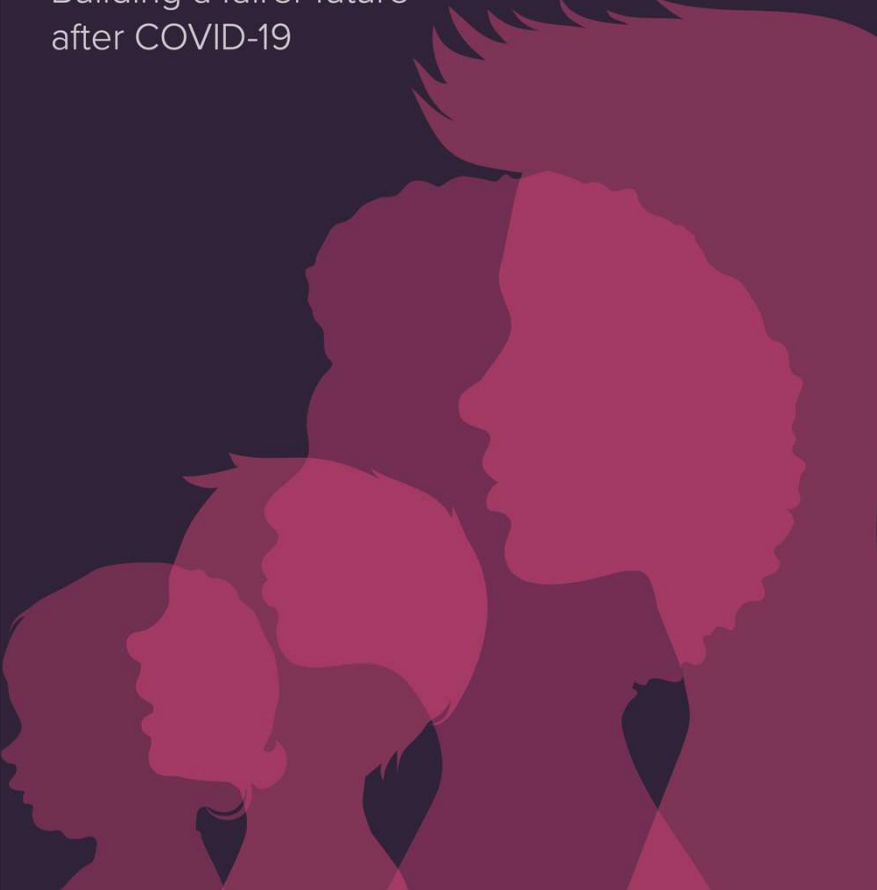
Building a fairer future after COVID-19



nhsa
Northern Health Science Alliance
A Health Partnership for Northern England

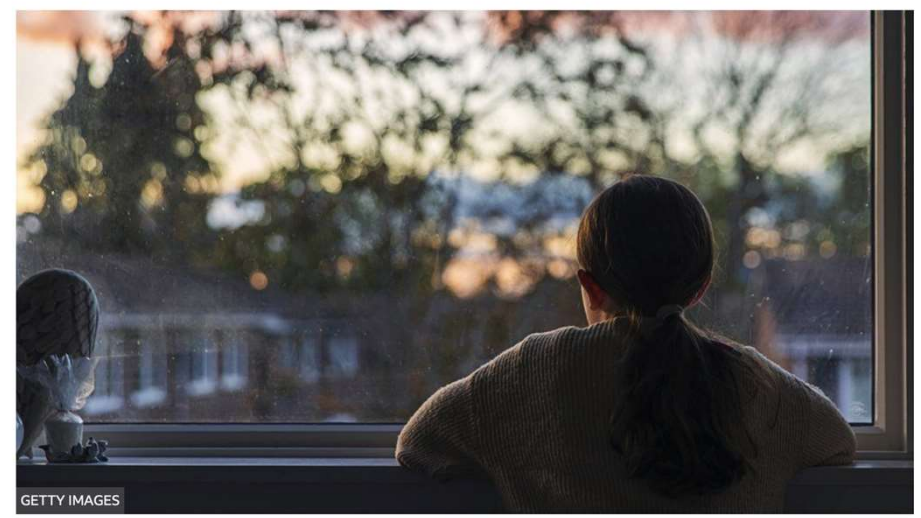


N8 RESEARCH PARTNERSHIP



Child inequalities widen as a result of pandemic

5 days ago



GETTY IMAGES

Children in the north of England have poorer health and educational outcomes

Inequalities between children in the north of England and those in the rest of the country have worsened during the pandemic, a report says.

Nearly all children have suffered, but researchers said those in the North East, North West and Yorkshire and the Humber had poorer educational outcomes.

The Child of the North report warned the inequalities would cost billions and increase poverty in the future.

Children and adolescents deserve a better future

The Lancet

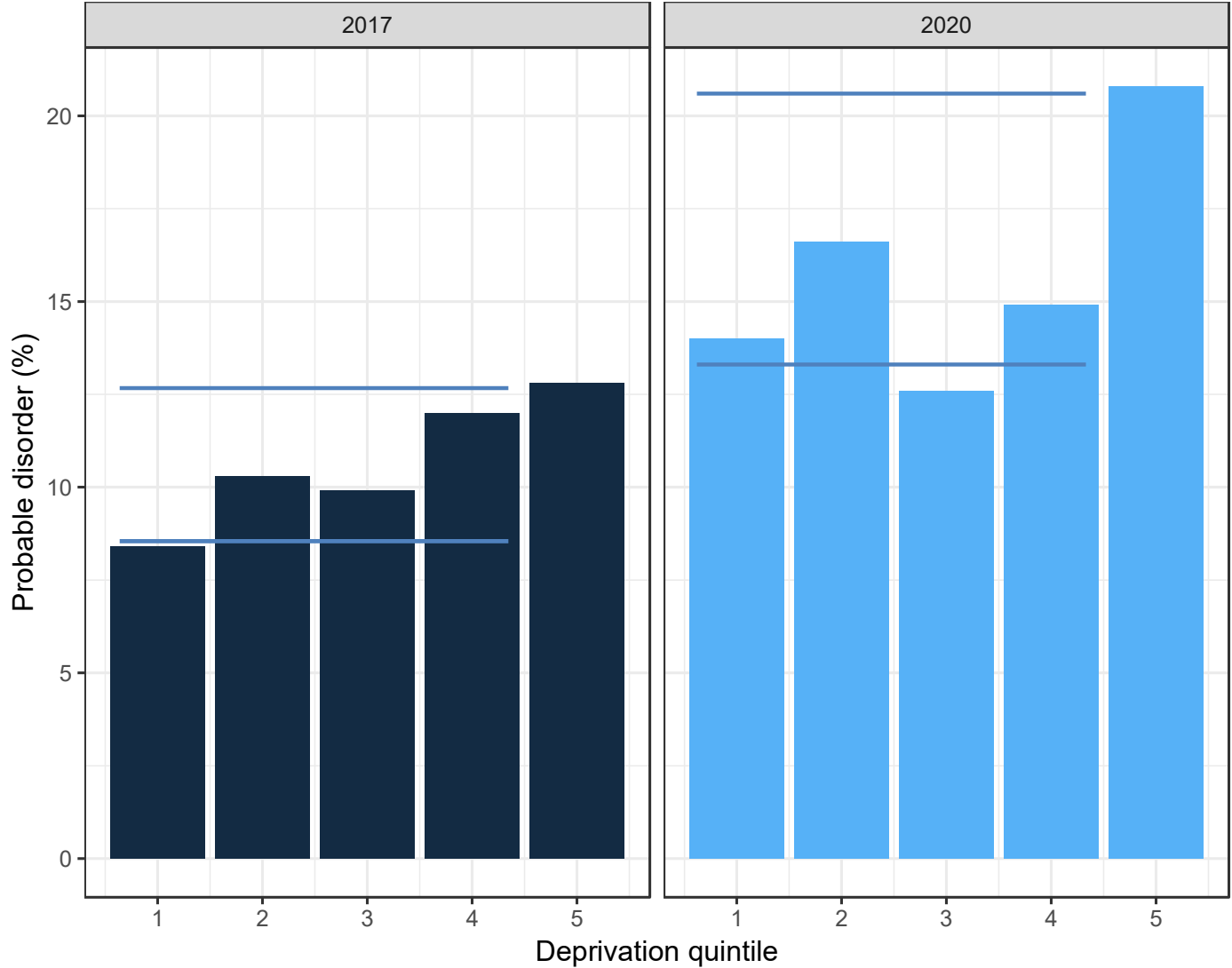
Published: January 08, 2022 • DOI: [https://doi.org/10.1016/S0140-6736\(22\)00006-X](https://doi.org/10.1016/S0140-6736(22)00006-X) • 

COVID-19 has been—and still is—a catastrophe for children and young people. In a December report, UNICEF called the pandemic “the biggest threat to children in our 75-year history”.

National policy makers and the international community have dismally failed to protect children and adolescents during the COVID-19 pandemic.

Children and young people are our best assets for a better future. Older adults not only need to listen to young people, they need to let go of established power structures and make space for new ideas and leadership by young people.

Probable child mental health problems by deprivation quintile pre and during pandemic



WHAT TO DO?

Thérèse Coffey scraps promised paper on health inequality

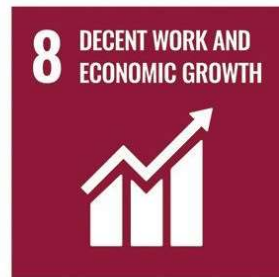
Exclusive: health secretary has decided not to publish white paper, which was originally intended for publication by last spring

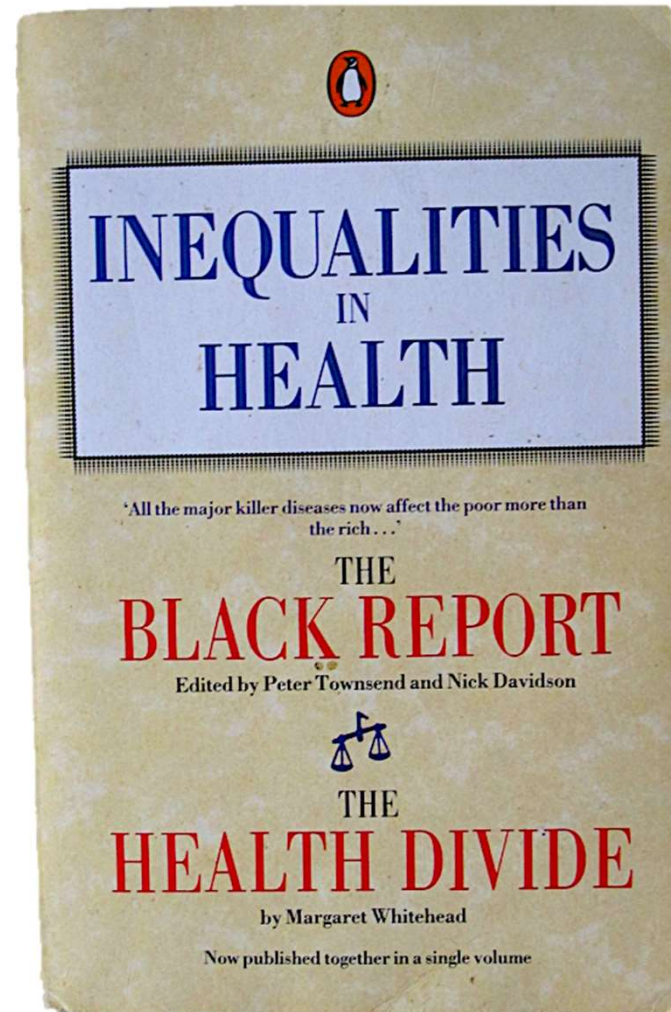
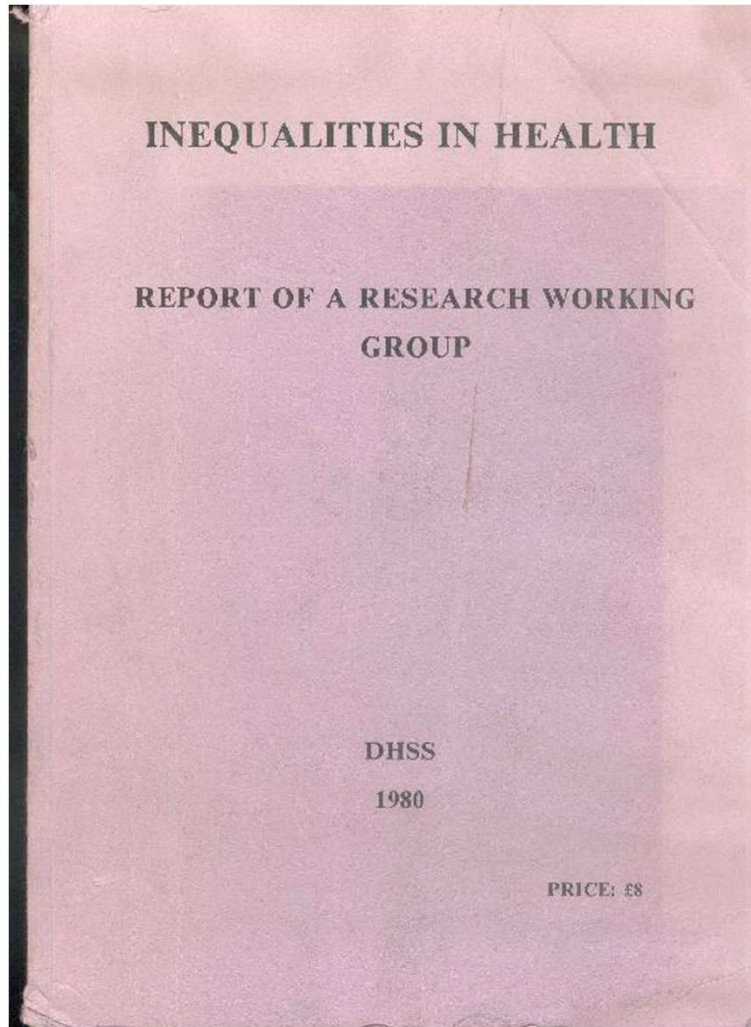


“The disparities paper is toast. My understanding of why they’ve pulled it is [that it’s] ideological — the white paper is an affront to this government’s view of what makes for health.”



SUSTAINABLE DEVELOPMENT GOALS





1980

DUE NORTH

**Report of the Inquiry on
Health Equity for the North**

2014

Child of the North key recommendations

This set of recommendations should form the basis of an action plan to build a fairer future for children of the North after COVID-19. Detailed recommendations are given at the end of each chapter.

1

Increase Government investment in welfare, health and social care systems that support children's health, particularly in deprived areas and areas most affected by the COVID-19 pandemic.

2

Tackle the negative impacts of the pandemic in the North through rapid, focussed investment in early years services, such as the Health Improvement Fund. This should include health visiting, family hubs and children's centres - as supported in the Leadsom review - but with investment proportional to need and area-level deprivation adequately accounted for.

3

Commissioners of maternity and early years services must consider the impact of pandemic-related service changes on inequalities in families and children's experiences and outcomes. This must shape service delivery during the recovery.

4

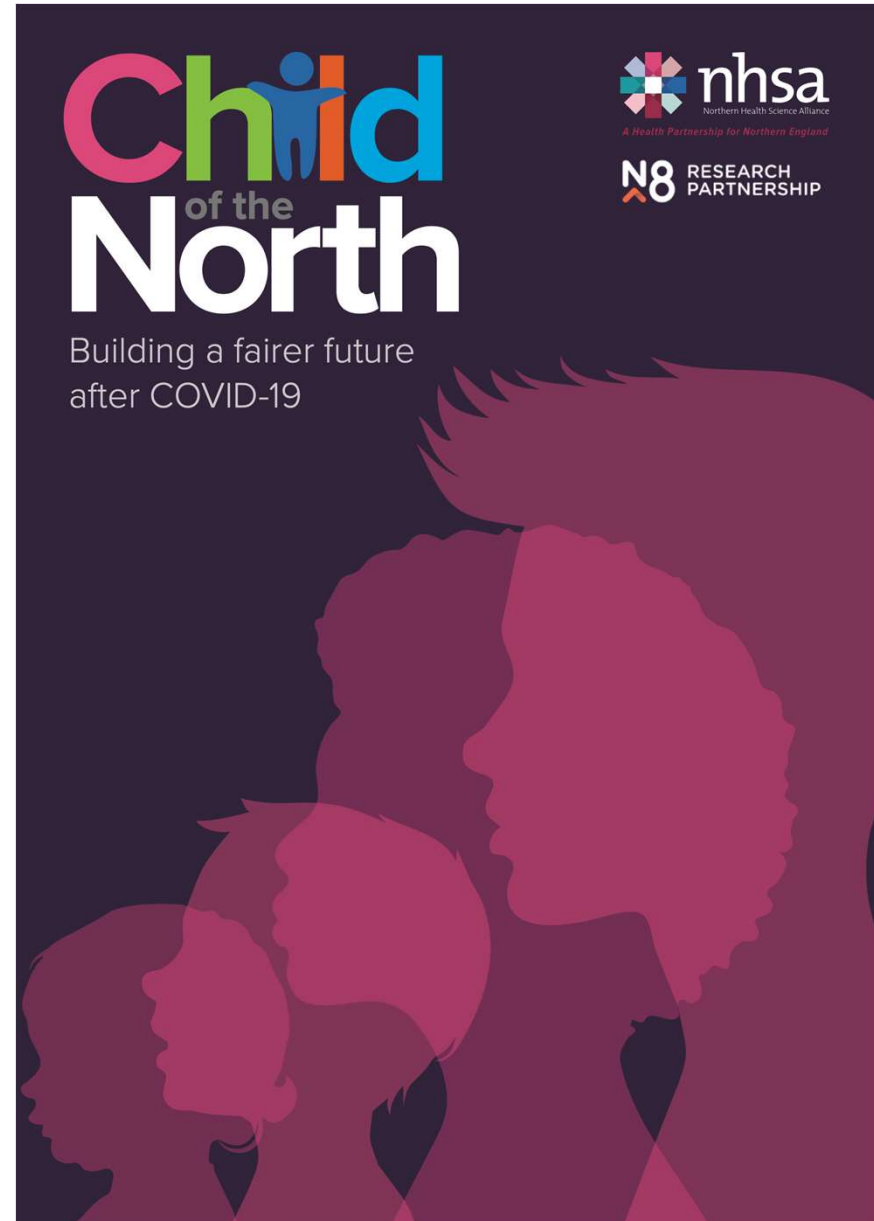
Take immediate measures to tackle child poverty. Increase child benefit by £10 per child per week. Increase the child element in Universal Credit and increase child tax credits.

5

We must feed our children. Introduce universal free school meals, make the Holiday Activities and Food Programme scheme permanent, and extend to support all low-income families. Promote the provision of Healthy Start vouchers to all children under five and make current government food standards mandatory in all early years settings.

6

Government should prioritise support to deprived localities by increasing the spending available to schools serving the most disadvantaged pupils in England. This requires a reversal of the current approach to resource allocation: the new national funding formula will deliver 3–4 percentage points less funding to schools in poorer areas relative to those in more affluent areas.



2021



Early years: 0–16

Reducing inequities in health across the life-course

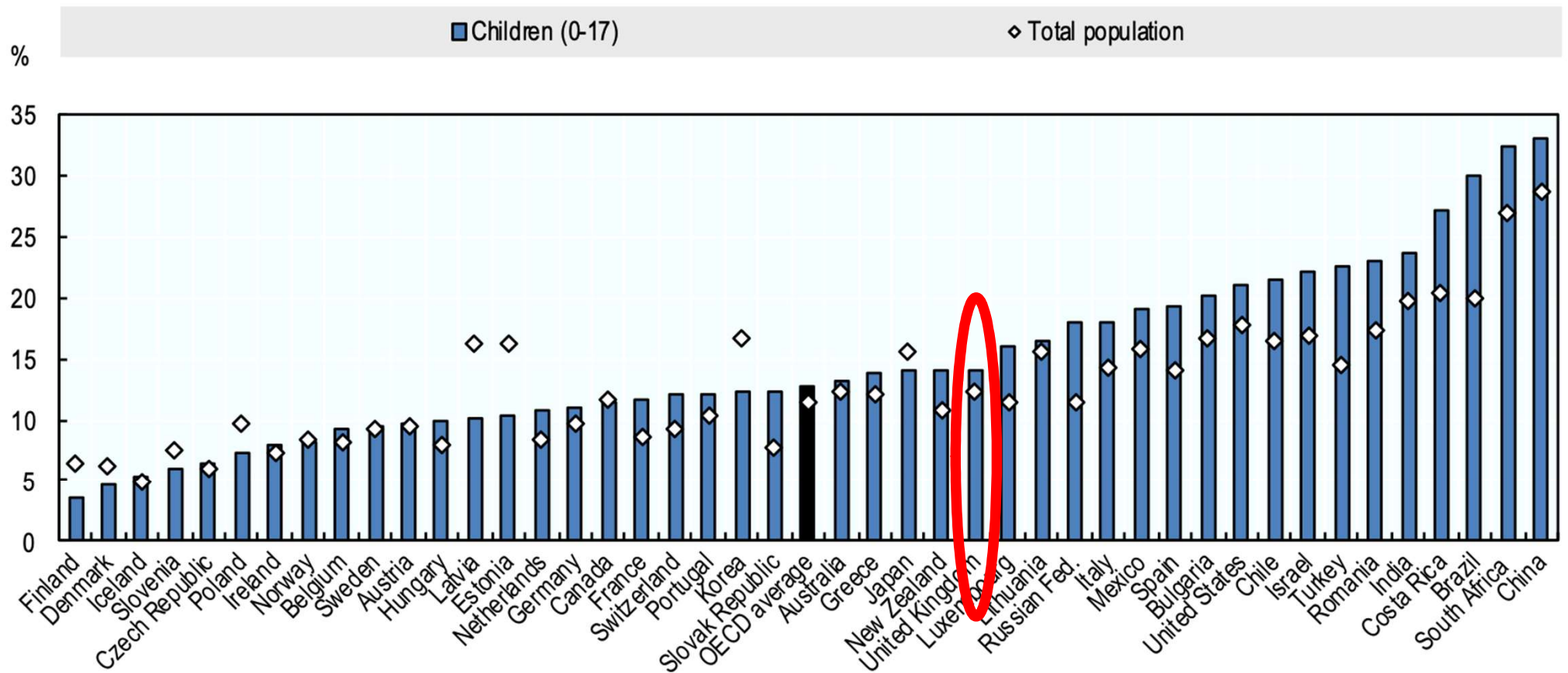
Early years, childhood and adolescence

Act early
Act on time
Act together

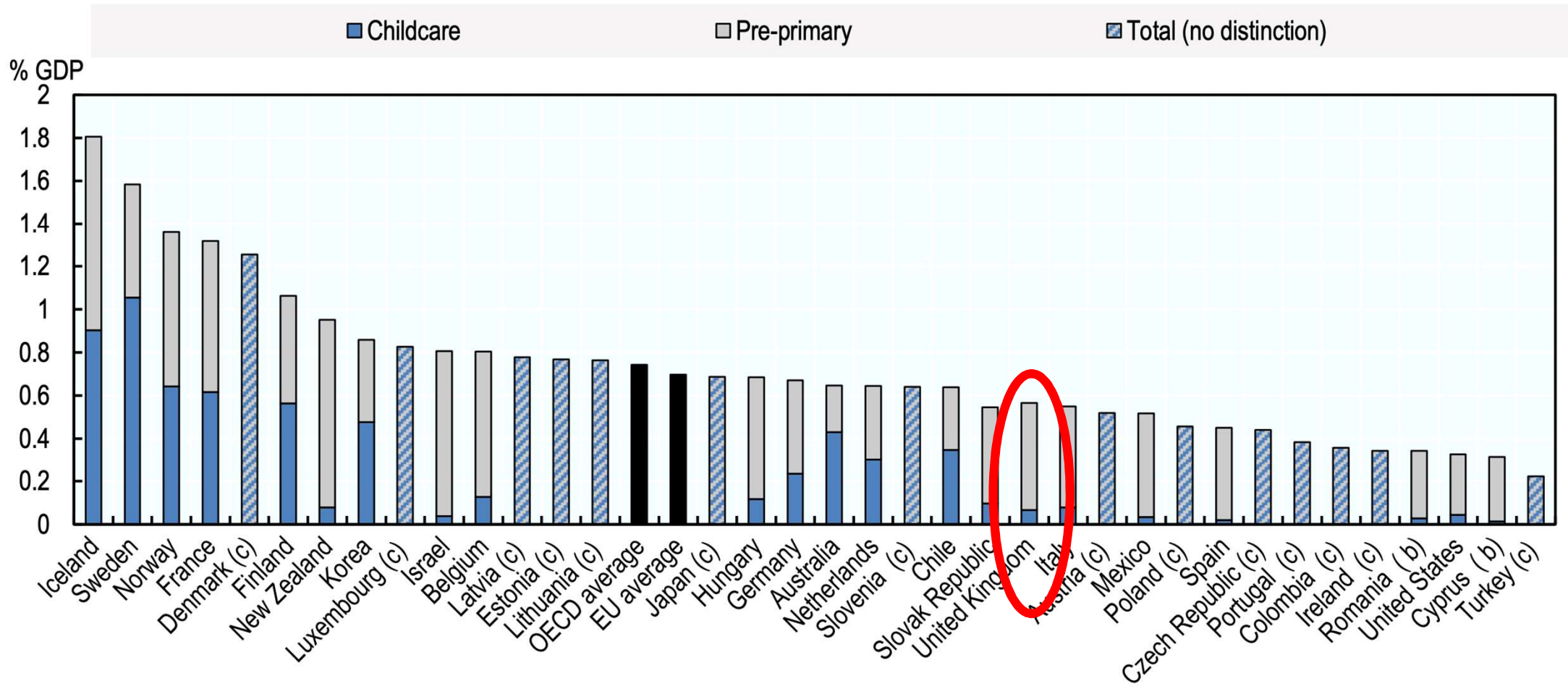
Reduce poverty
Invest proportionate to need
Better data
Children's rights based approach

REDUCE POVERTY

Chart CO2.2.A. **Child relative income poverty rate, 2018 or latest available year**
 Relative income poverty rate (%), for the total population and for children (0-17 year-olds)



Public spending on early childhood education and care

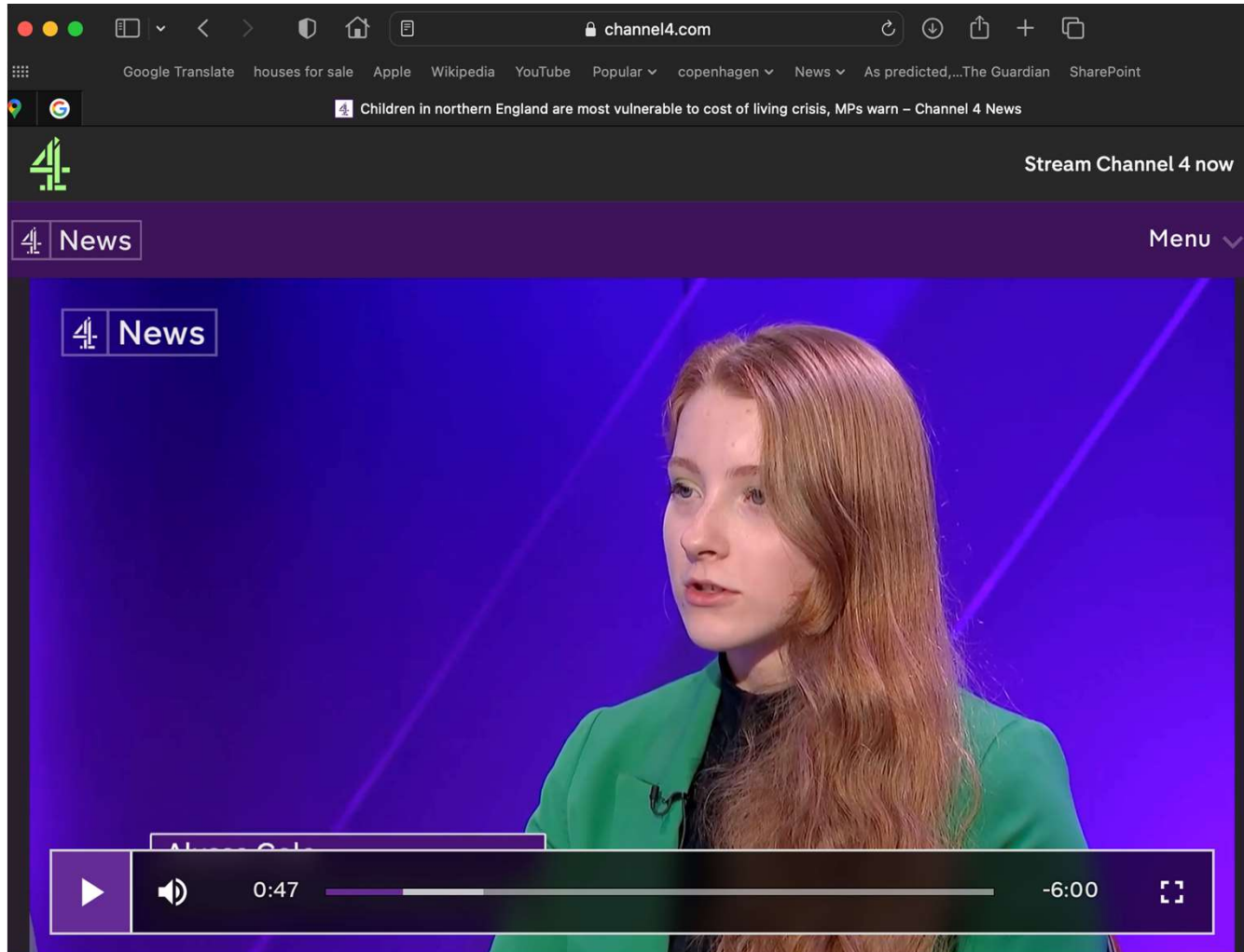


RIGHTS BASED APPROACH

The United Nations Convention on the Rights of the Child

*“The child will enjoy **special protection** and will have at its disposal opportunities and services, dispensed under the law and through other means, allowing physical, mental, moral, spiritual, and social development in a healthy and normal way, with liberty and dignity”*





24 Jan 2023

Children in northern England are most vulnerable to cost of living crisis, MPs warn

