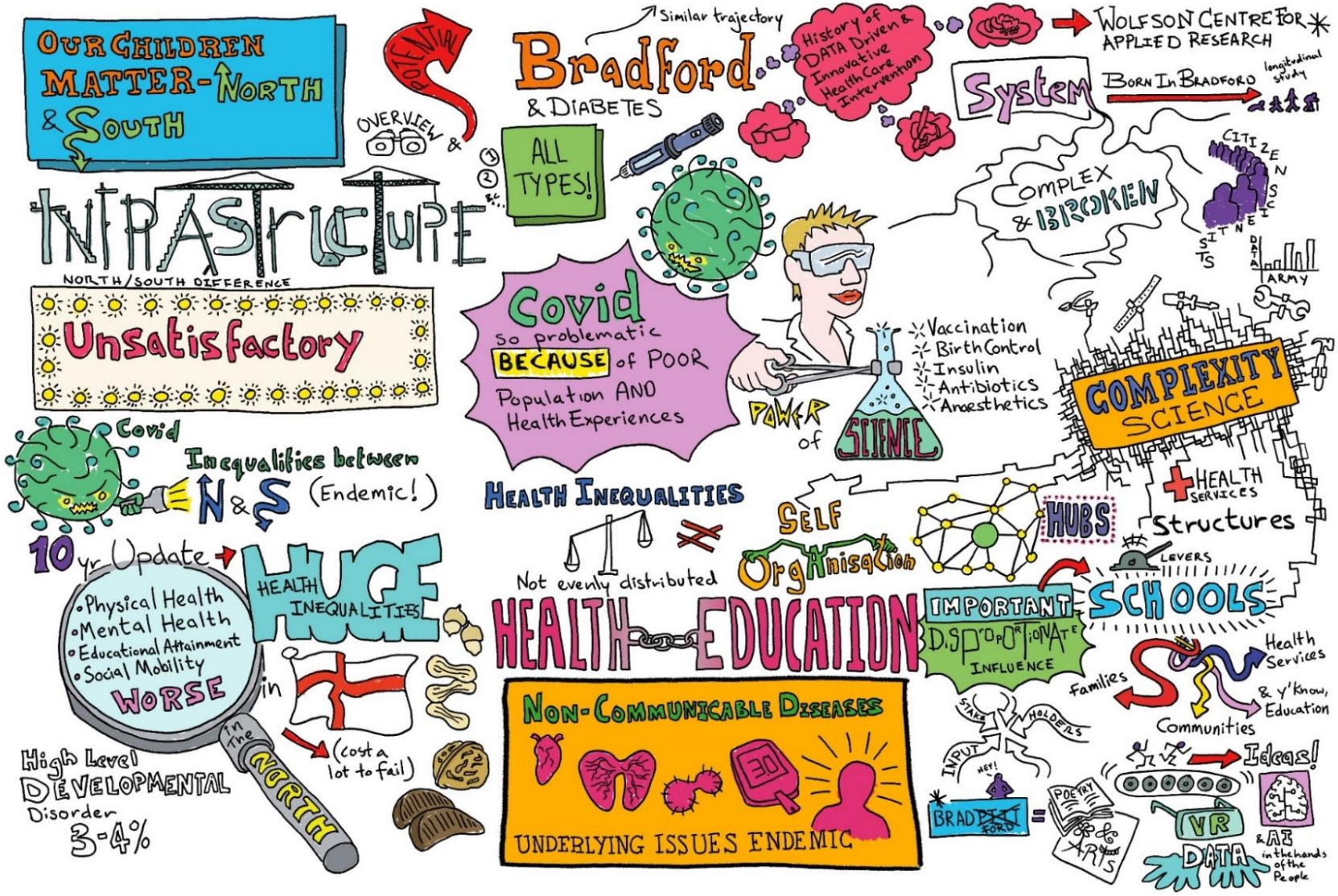
How connected data can help to address the SEND crisis



Born in Bradford

Centre for Applied Education Research

Everyone's life is a jump in the air;

Ten short years and these children grow

Like the springtime flowers in a Bradford park.

Everyone's life defies gravity;

Morning sunrise to evening's glow

A bounce in the light not a trip in the dark.

It's a decade reaching for the sky

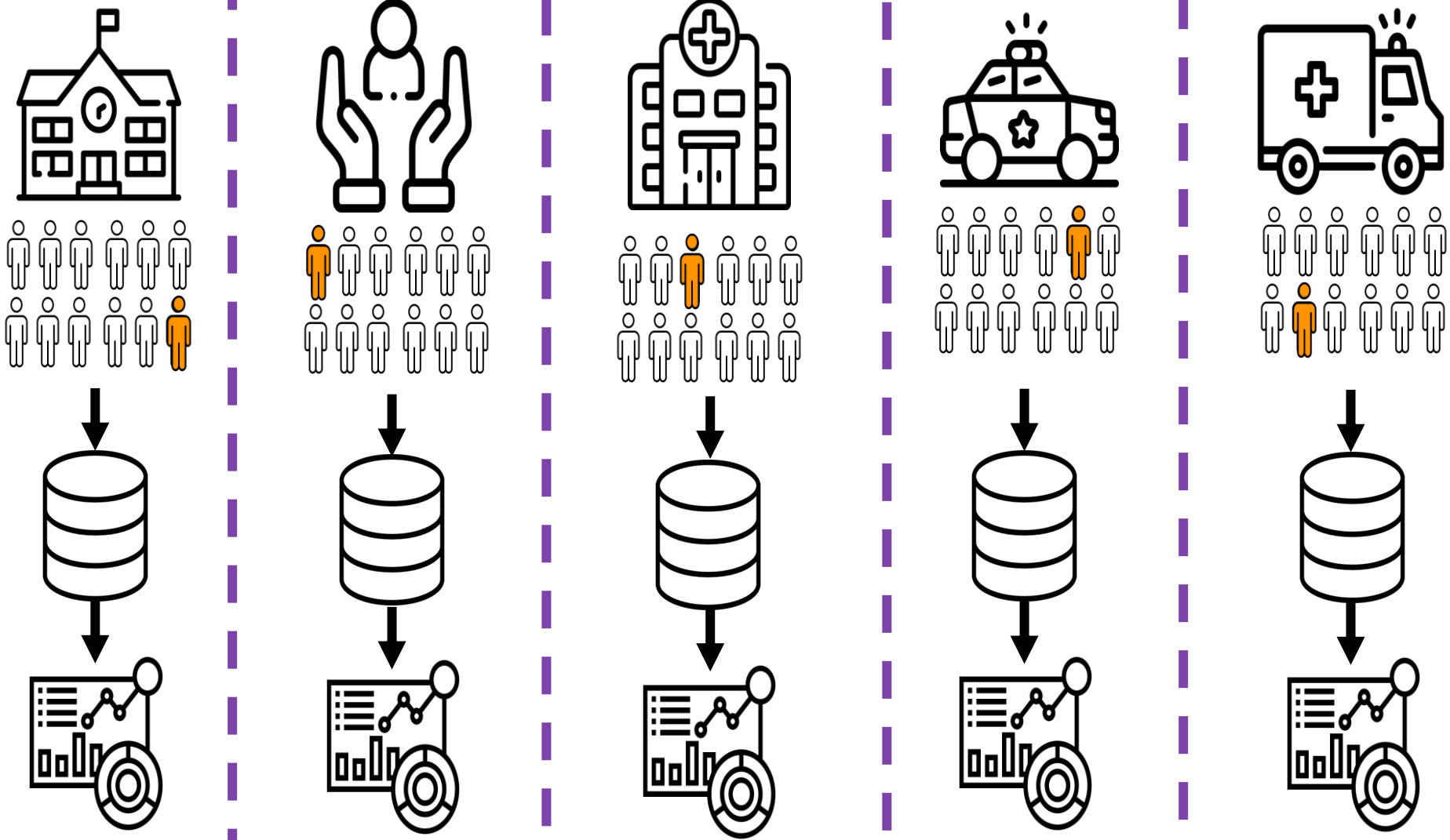
With each year a leap year: watch them fly!

Ian McMillan (poet in residence)



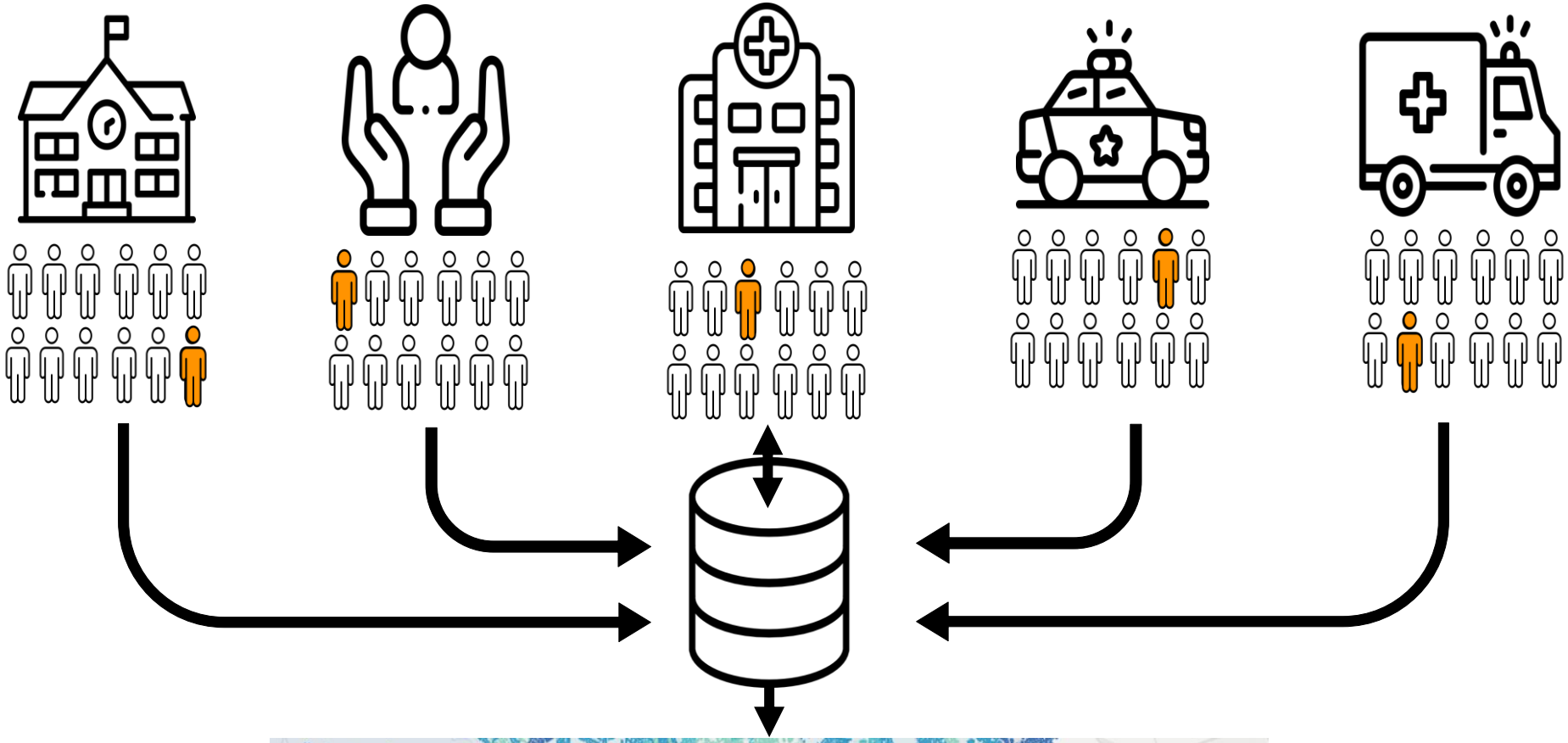
Fragmented data

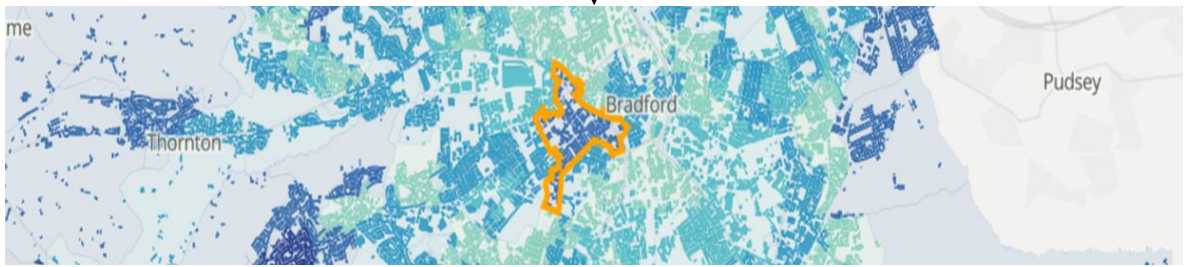
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Connected services

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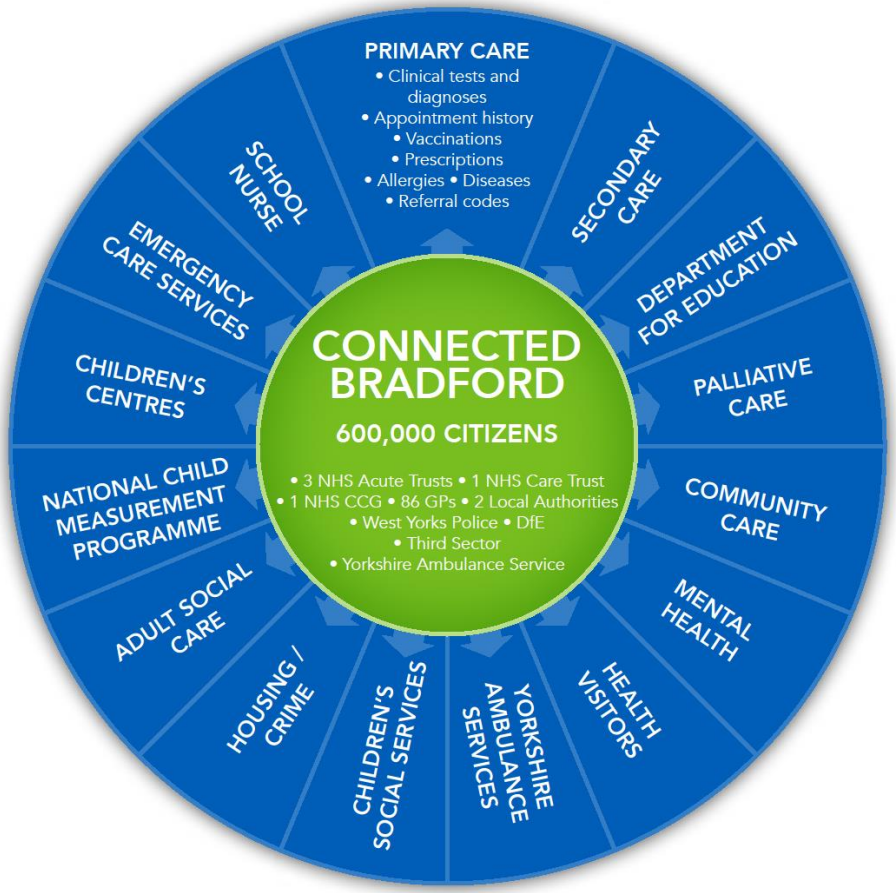


Connected Bradford

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Our connected datasets allow scientists to explore patterns in the data, and understand how services intersect and interact

We are family
BORNINBRADFORD





Tracey

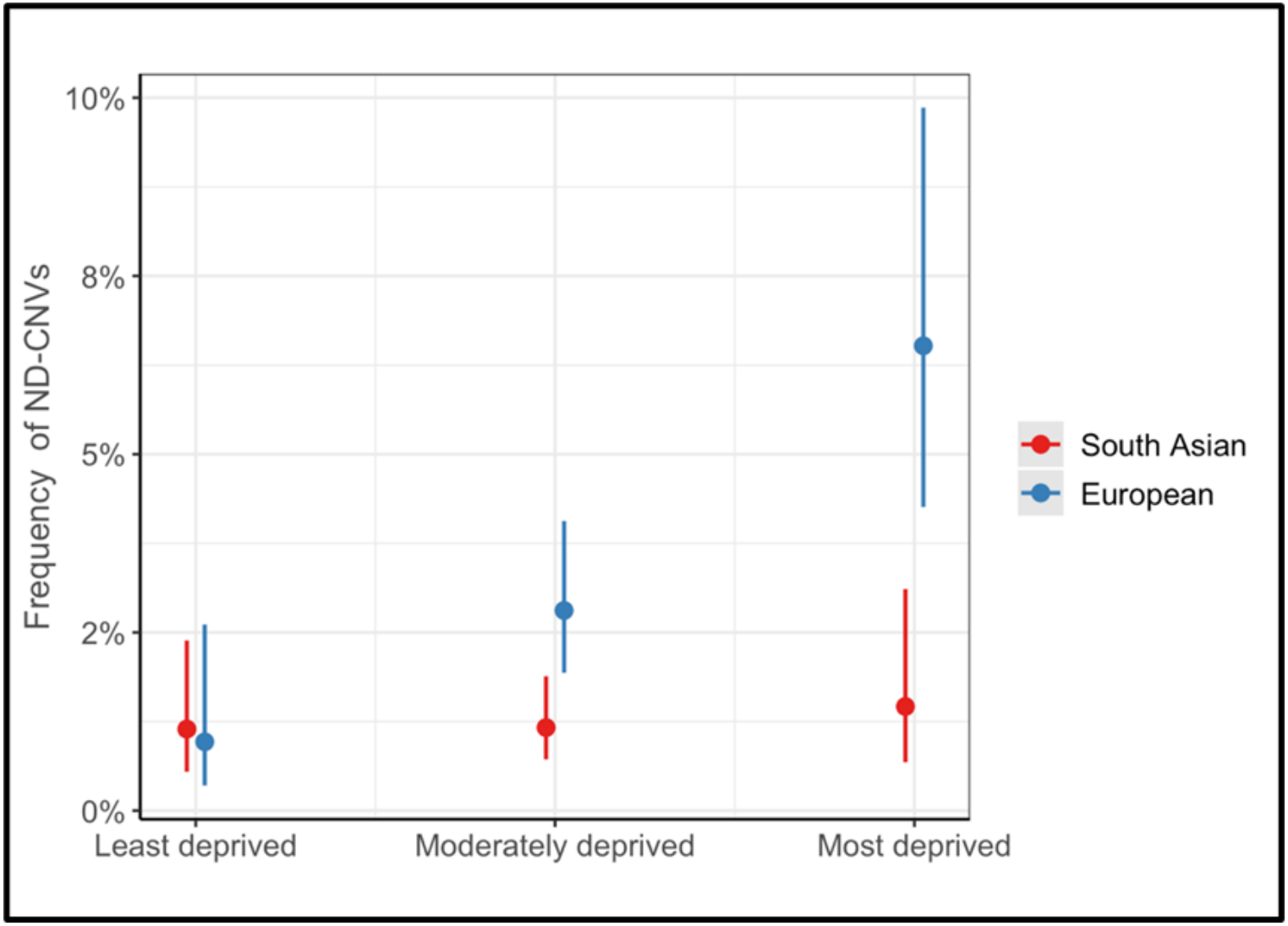
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- Has a CNV (22q11.2 deletion)
- Born prematurely with congenital anomaly
- Mother living in poverty
- Lacked rich childhood experiences
- Autistic symptoms on ASQ
- 999 calls associated with her house
- Not school ready
- Poor motor skills
- Identified with special educational needs at 10 years of age
- On autism waiting list at 10 years old
- Doesn't feel like she belongs at school
- Persistently absent from school
- Mental ill health in adolescence
- Becomes NEET at 16 years of age
- Enters justice system at 20 years of age
- Long Term Multiple Conditions in midlife



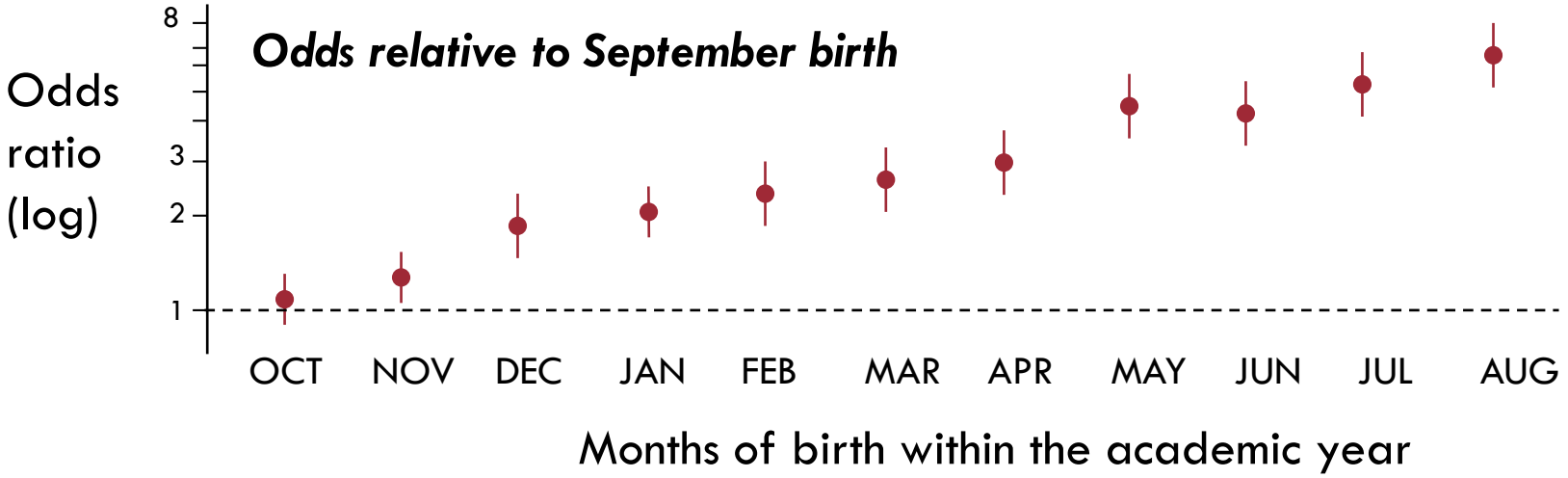
CNV prevalence

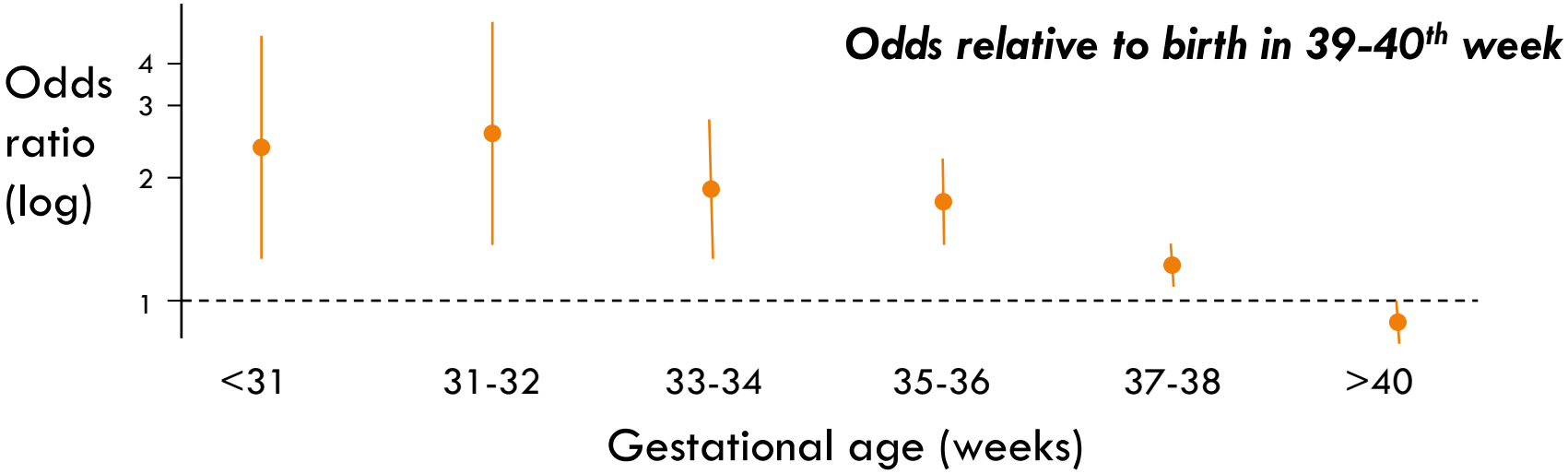
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Double disadvantage

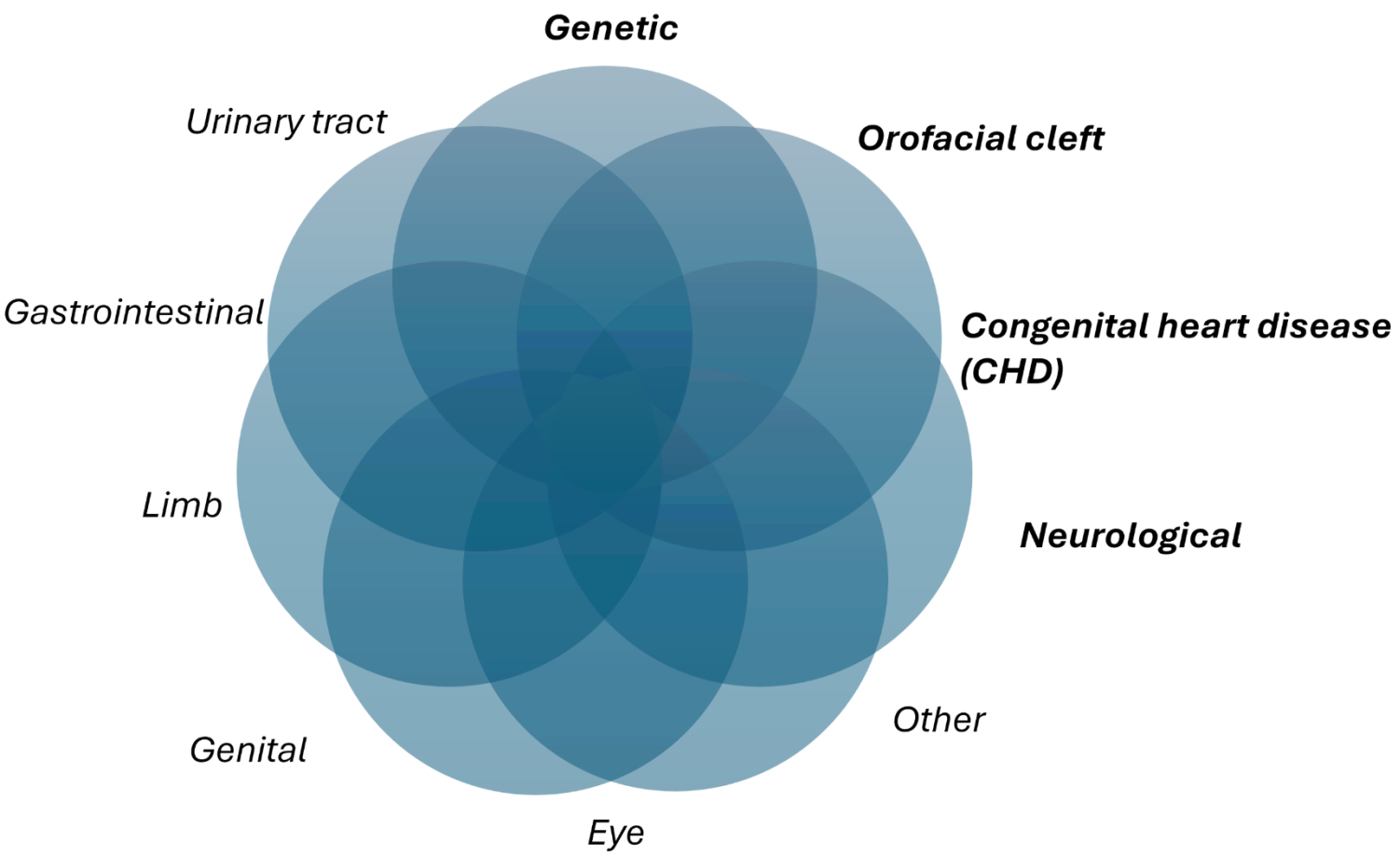
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Congenital anomalies

CHORAL
Child Health Outcomes Research at Leeds



Impact on education

CHORAL
Child Health Outcomes Research at Leeds

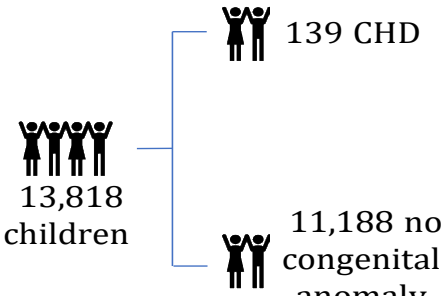
Prospective population linkage study

Non-genetic congenital heart disease

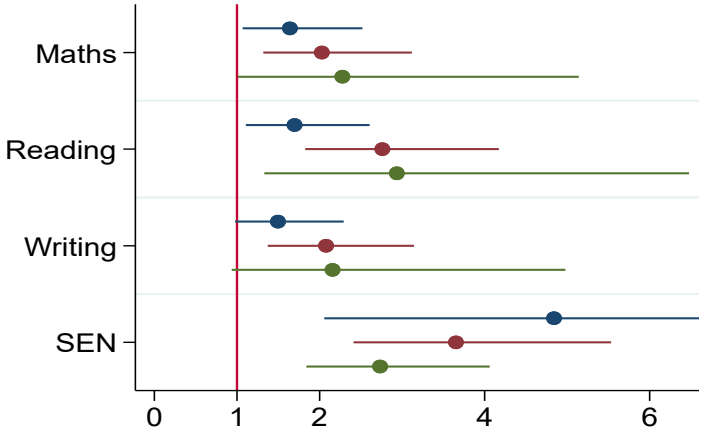
Multivariable logistic regression

Congenital heart disease (CHD) Educational attainment age 4-11 years





CHD vs. No Major Congenital Anomaly



Adjusted Odds Ratio (95% CI) for 'below expected' attainment

Age 4-5 years
Age 6-7 years
Age 10-11 years

↑ Educational difficulties and ↓ support as age increases

Pre-school hospital admissions result in lower educational attainment

No additional disadvantage with cardiopulmonary bypass

Structural poverty

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THE LANCET
Public Health

Clustering of adverse health and educational outcomes in adolescence following early childhood disadvantage: population-based retrospective UK cohort study

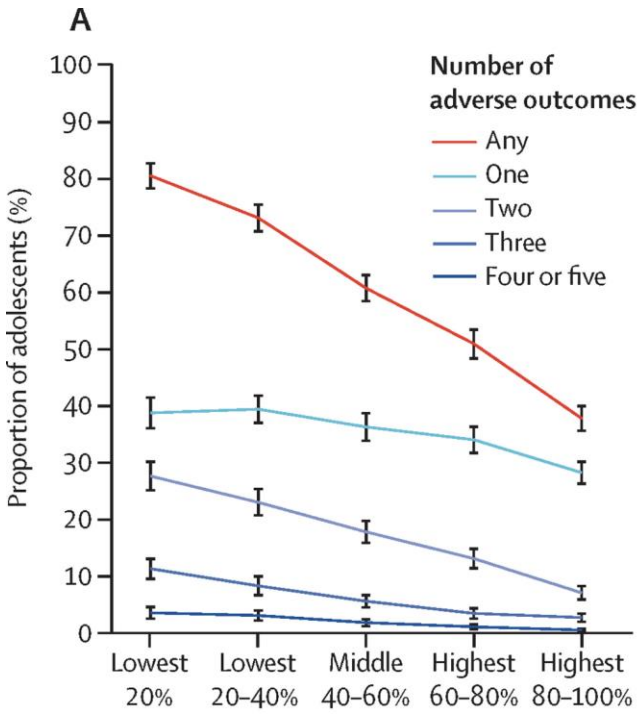
Aase Villadsen, DPhil [a] · Miqdad Asaria, PhD [c,d] · Ieva Skarda, PhD [e] · George B Ploubidis, PhD [a] · Mark Mon Williams, PhD [f] · Eric John Brunner, PhD [b] · et al. Show more

Summary

Background

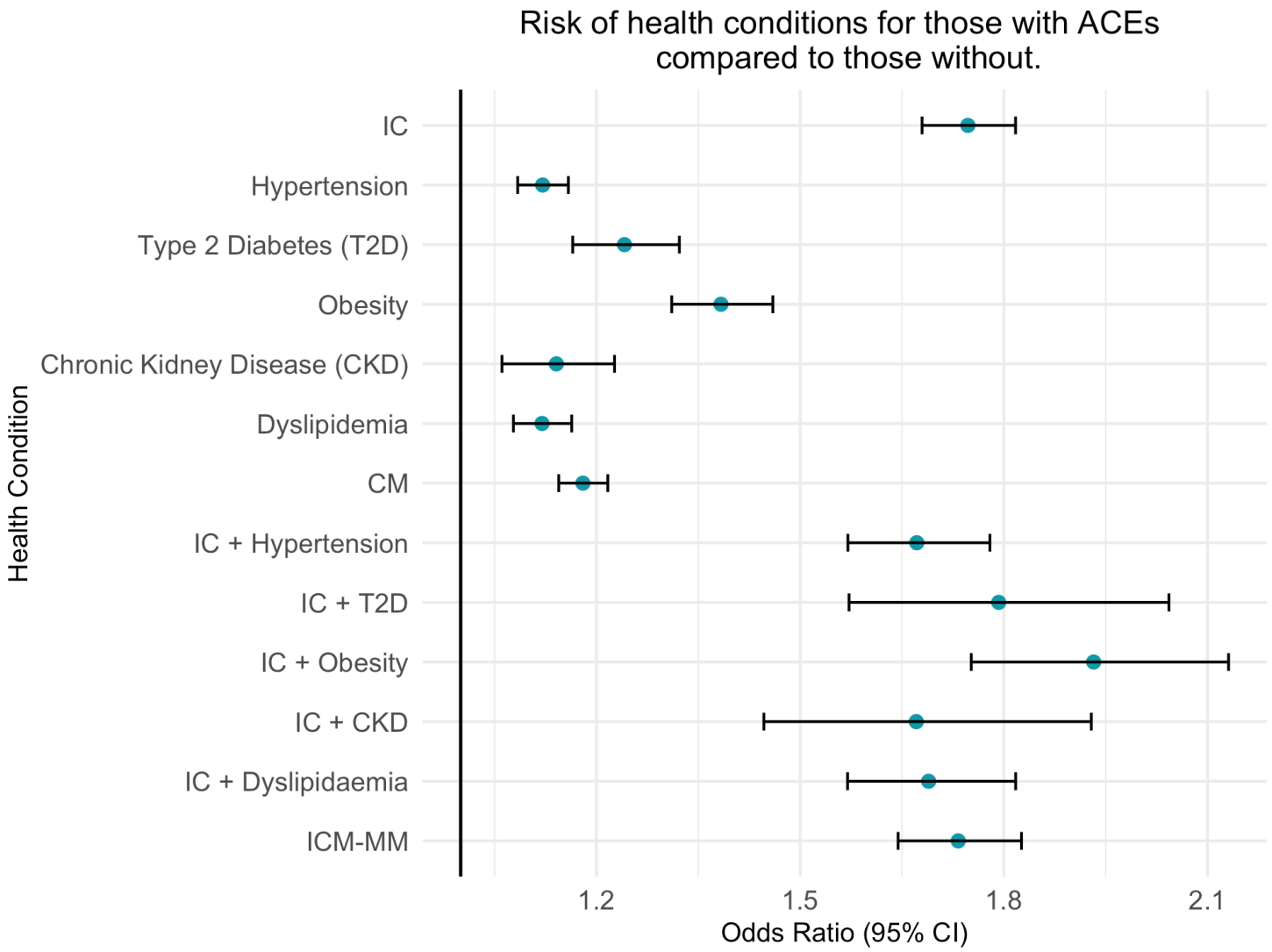
Disadvantage in early childhood (ages 0–5 years) is associated with worse health and educational outcomes in adolescence. Evidence on the clustering of these adverse outcomes by household income is scarce in the generation of adolescents born since the turn of the millennium. We aimed to describe the association between household income in early childhood and physical health, psychological distress, smoking behaviour, obesity, and educational outcomes at age 17 years, including the patterning and clustering of these five outcomes by income quintiles.

Methods



ACEs as risk factors

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Readiness and autism

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The Early Years Foundation Stage Profile can identify children at risk of **autism**

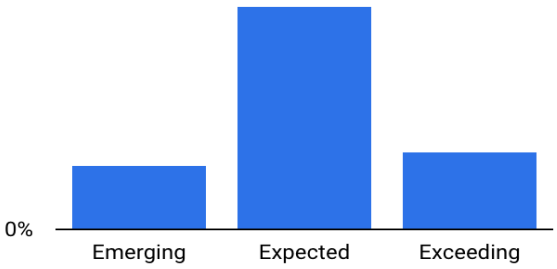
Open access Original research

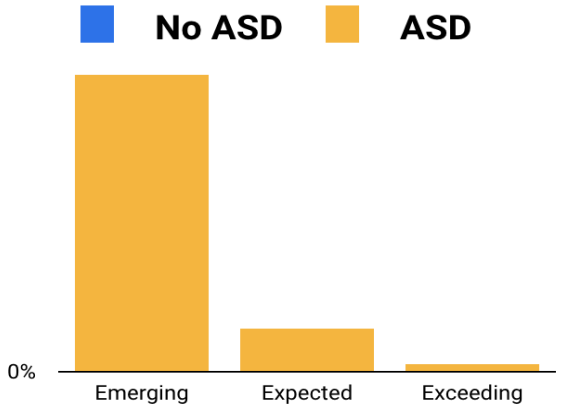
BMJ Paediatrics Open

Investigating the association between early years foundation stage profile scores and subsequent diagnosis of an autism spectrum disorder: a retrospective study of linked healthcare and education data



Listening and Attention:





Readiness and SEN

Centre for Applied Education Research

The Early Years Foundation Stage Profile can identify children at risk of **SEN**

Contents lists available at ScienceDirect

Learning and Instruction

journal homepage: www.elsevier.com/locate/learninstruc

Can holistic school readiness evaluations predict academic achievement and special educational needs status? Evidence from the Early Years Foundation Stage Profile

A.L. Atkinson [a,b,*], L.J.B. Hill [c], K.J. Pettinger [a], J. Wright [a], A.R. Hart [d], J. Dickerson [a], M. Mon-Williams [a,c,e]

[a] Bradford Institute for Health Research, Bradford, West Yorkshire, UK
[b] School of Languages, Cultures and Societies, University of Leeds, Leeds, UK
[c] School of Psychology, University of Leeds, Leeds, UK
[d] Department of Paediatric Neurology, Sheffield Children's Hospital NHS Foundation Trust, Ryegate Children's Centre, Tapton Crescent Road, Sheffield, UK
[e] National Centre for Optics, Vision and Eye Care, University of South-Eastern Norway, Kongsberg, Hasbergs Vei 36, 3616, Norway

ARTICLE INFO

Keywords:
Educational attainment
Special educational needs
School readiness
Primary education

ABSTRACT

This study examined the predictive validity of holistic school readiness evaluations using the 'good level of development' outcome from the Early Years Foundation Stage Profile (EYFSP). The EYFSP assesses a range of abilities at school entry including academic, language, socio-emotional, and motor skills. In particular, we examined whether the assessment predicted reading, writing, maths, and science ability two years later and future special educational needs (SEN) status (N = 3739–5768). Children who reached a good level of development had higher odds of performing at expected (vs. below expected) levels on later academic assessments. This was particularly true for children with SEN. Reaching a good level of development also increased the odds of performing at above expected (vs. expected) levels on the academic assessments and lowered the odds of requiring SEN support. This demonstrates that holistic school readiness evaluations are powerful tools that can identify 'at risk' children.

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Readiness and NEET

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RESEARCH Open Access

Risk of not being in employment, education or training (NEET) in late adolescence is signalled by school readiness measures at 4–5 years

Matthew Warburton[1*], Megan L. Wood[1], Kuldeep Sohal[2], John Wright[2], Mark Mon-Williams[1,2,3] and Amy L. Atkinson[4]

Abstract

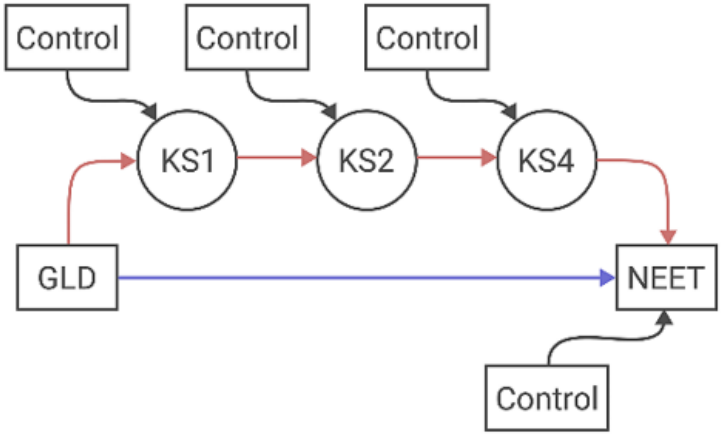
Background Not being in employment, education, or training (NEET) is associated with poor health (physical and mental) and social exclusion. We investigated whether England's statutory school readiness measure conducted at 4–5 years provides a risk signal for NEET in late adolescence.

Methods We identified 8,118 individuals with school readiness measures at 4–5 years and NEET records at 16–17 years using Connected Bradford, a bank of linked routinely collected datasets. Children were categorised as 'school ready' if they reached a 'Good Level of Development' on the Early Years Foundation Stage Profile. We used probit regression and structural equation modelling to investigate the relationship between school readiness and NEET status and whether it primarily relates to academic attainment.

Results School readiness was significantly associated with NEET status. A larger proportion of young people who were not school ready were later NEET (11%) compared to those who were school ready (4%). Most of this effect was attributable to shared relationships with academic attainment, but there was also a direct effect. Measures of deprivation and Special Educational Needs were also strong predictors of NEET status.

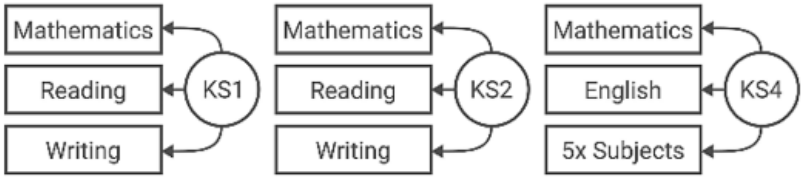
Conclusions NEET risk factors occur early in life. School readiness measures could be used as early indicators of risk, with interventions targeted to prevent the long-term physical and mental health problems associated with NEET, especially in disadvantaged areas. Primary schools are therefore well placed to be public health partners in early intervention strategies.

Keywords School readiness, Not in employment, education, or training, NEET, EYFSP, Academic attainment



Total effect = direct effect + indirect effect

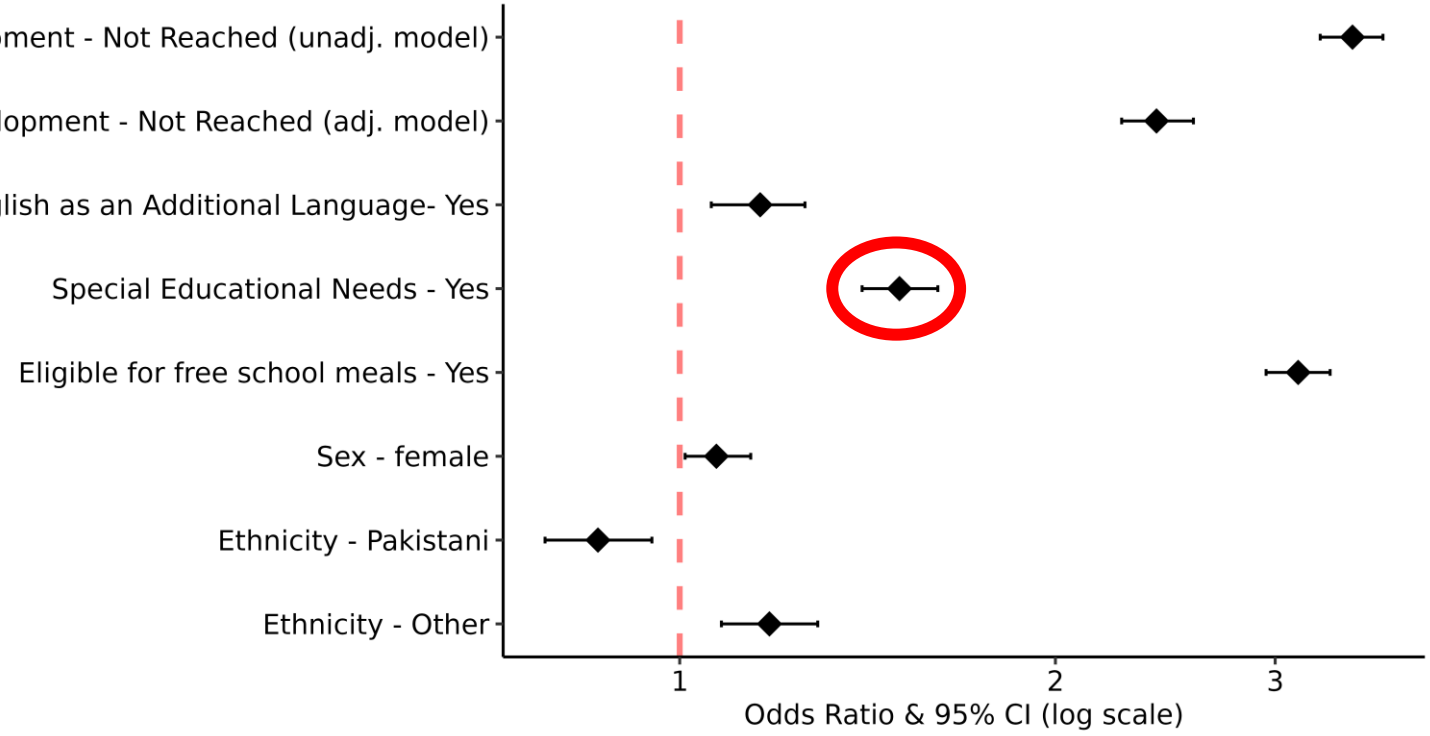
Latent structure:



Drivers of absence

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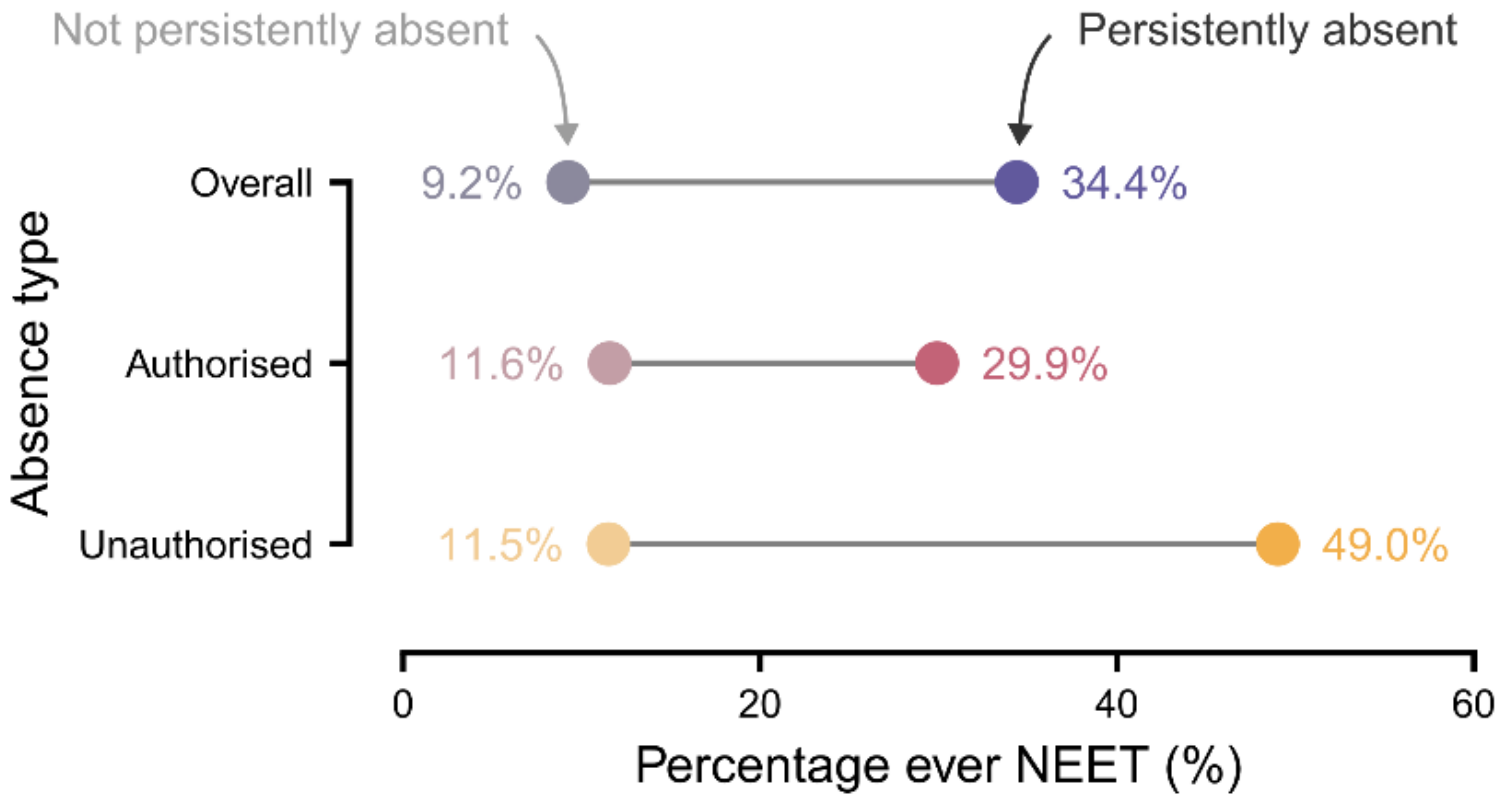
Associations with poverty

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Absence to NEET

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NEET and justice system

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2024, VOL. 29, NO. 1, 2331576
https://doi.org/10.1080/02673843.2024.2331576

Routledge
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REVIEW ARTICLE

OPEN ACCESS Check for updates

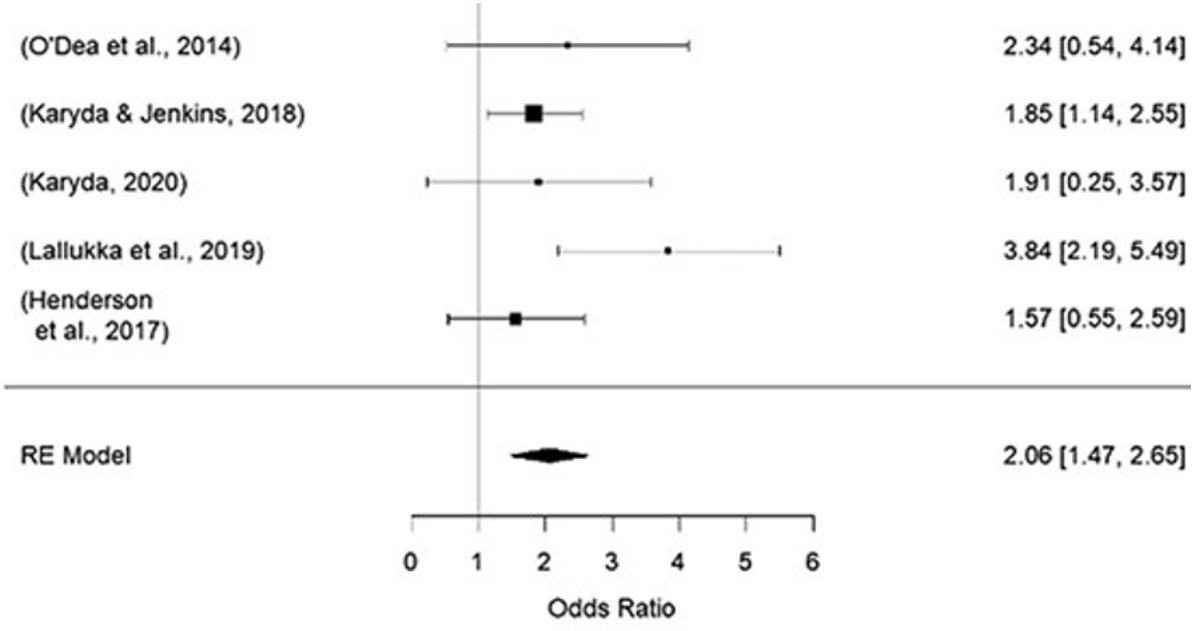
Unravelling the NEET phenomenon: a systematic literature review and meta-analysis of risk factors for youth not in education, employment, or training

Hamed Rahmani, Wim Groot and Amir Mohammad Rahmani

Department is Maastricht Graduate School of Governance, School of Business and Economics of Maastricht University, Maastricht, The Netherlands

ABSTRACT

This systematic review and meta-analysis examines the fac
ing to NEET (Not in Education, Employment, or Training)
youth. We identify 43 studies that meet our inclusion crit
PsycINFO, ERIC, British Education Index, Social Science
Conference Proceedings Index, IEEE Xplore, Sprir
ScienceDirect, covering the period from 2010 to October
significant associations between NEET status and various
familial, educational, socio-economic, and health-related fa
specific disparities and evolving trends within distinct
cohorts are revealed. Our findings highlight that NEET is a
a higher suicide risk (OR = 2.8, 1.8–3.8), criminal behaviour ((
2.65), and unemployment experience (OR = 1.98, 0.72–3.25
education levels (OR = 0.81, 0.67–0.95) act as a protectiv
findings underscore the urgent need for comprehensive
tailored to the challenges faced by NEET youth. Future r
explore these relationships further to inform policy and prac



Criminal behaviour

CNVs and midlife MLTC

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- **Multimorbidity** places particularly high burden on patients and health care services

- **Internalising and cardiometabolic multimorbidity** (ICM-MM) is the most common type of multimorbidity in older people, but the causes remain poorly understood

ELSEVIER

European Neuropsychopharmacology

Volume 87, Supplement 1, October 2024, Page 215



F19. INTERNALISING AND CARDIOMETABOLIC MULTIMORBIDITY IN OLDER-AGED INDIVIDUALS WITH NEURODEVELOPMENTAL COPY NUMBER VARIANTS: ANALYSIS IN A POPULATION-BASED COHORT

Ioanna Katzourou, George Kirov, James Walters, Michael J Owen, Peter Holmans, Marianne van den Bree

Why never a dancer

Centre for Applied Education Research



Tracey Emin recalls her teenage bid to leave the seaside town of Margate, by entering the British Dancing Championship. However, as she danced, she was humiliated by a group of boys chanting 'Slag, Slag, Slag'.

Her final words are **"Shane, Eddy, Tony, Doug, Richard ... This one's for you"** as she dances away from the small-town world.

It didn't matter that I was young, 13, 14
It didn't matter that they were men of 19, 20, 25, 26

...I wasn't a kid. I was thirteen: I had been raped, I had lost my front teeth and I had suffered disillusionment with life. **— Tracey Emin, Strangeland**

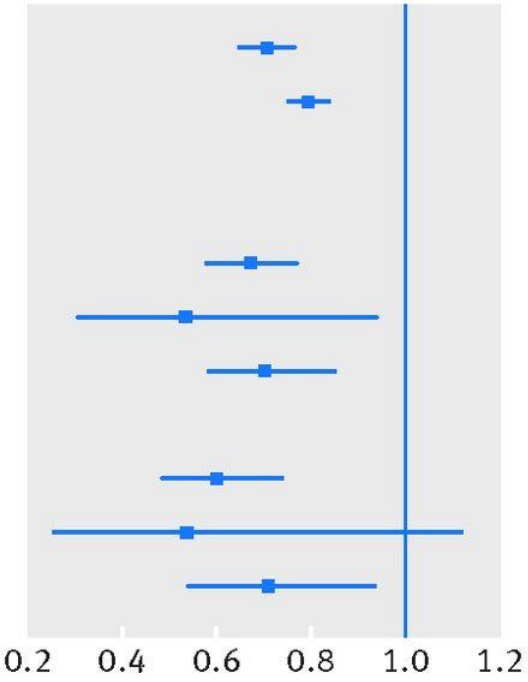
Education saves lives

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OPEN ACCESS

Education and coronary heart disease: mendelian randomisation study

Analysis	Cases	Controls	Risk coefficient (95% CI)
Observational			
Prevalence (NHANES)	1933	41 678	0.73 (0.68 to 0.78)
Incidence (HAPIEE+MORGAM)	7154	113 405	0.80 (0.76 to 0.83)
Causal			
162 SNPs			
Conventional MR (IVW)	63 746	130 681	0.67 (0.59 to 0.77)
MR-Egger	63 746	130 681	0.54 (0.31 to 0.93)
Weighted median MR	63 746	130 681	0.70 (0.58 to 0.85)
72 SNPs			
Conventional MR (IVW)	63 746	130 681	0.60 (0.49 to 0.74)
MR-Egger	63 746	130 681	0.54 (0.26 to 1.11)
Weighted median MR	63 746	130 681	0.71 (0.54 to 0.93)

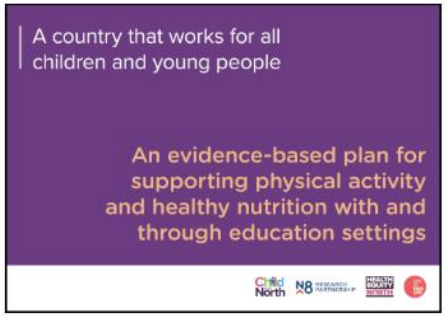


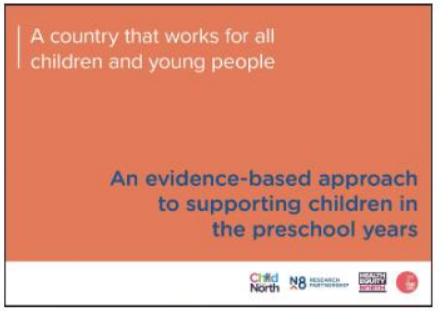
ELECTRONIC DEVELOPMENTAL SUPPORT PASSPORT

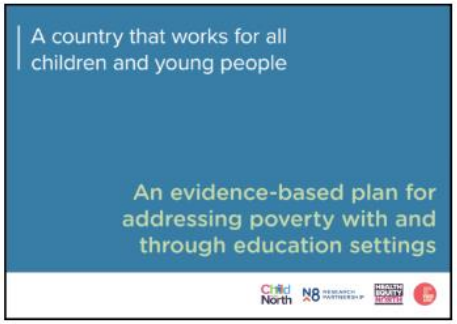
A NEEDS-LED DIGITAL TOOL THAT:

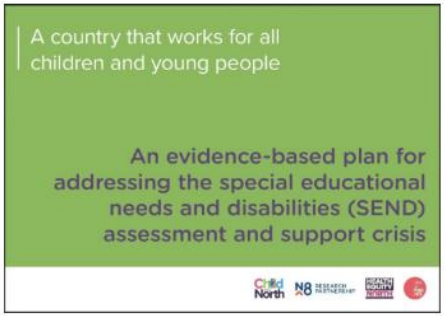
1. Empowers teaches to pinpoint needs, from skill domains to specific task competencies
2. Automatically provides tailored evidence based support recommendations and resources
3. Enables implementation of first line support & reasonable adjustments to promote classroom engagement, learning, and wellbeing
4. Has the potential to enhance diagnostic pathways through secure data sharing between health and education systems

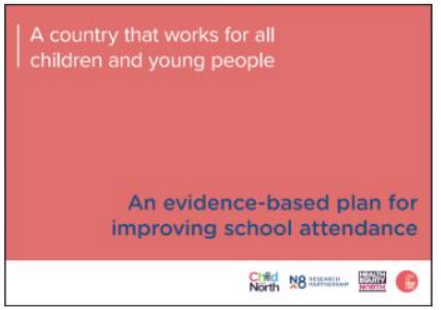

A country that works for all children and young people
An evidence-based plan for addressing the autism assessment and support crisis


A country that works for all children and young people
An evidence-based plan for supporting physical activity and healthy nutrition with and through education settings


A country that works for all children and young people
An evidence-based approach to supporting children in the preschool years

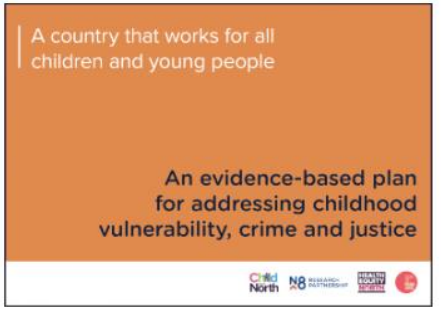

A country that works for all children and young people
An evidence-based plan for addressing poverty with and through education settings


A country that works for all children and young people
An evidence-based plan for addressing the special educational needs and disabilities (SEND) assessment and support crisis

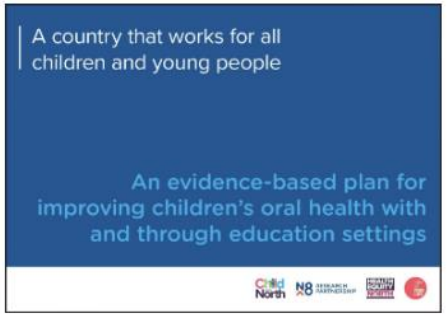

A country that works for all children and young people
An evidence-based plan for improving school attendance

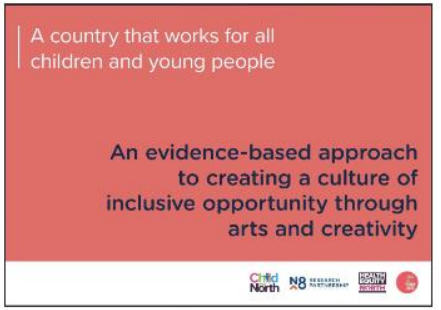

A country that works for all children and young people
Improving mental health and wellbeing with and through education settings


A country that works for all children and young people
An evidence-based plan for upskilling our children and young people for digital futures


A country that works for all children and young people
An evidence-based plan for addressing childhood vulnerability, crime and justice


A country that works for all children and young people
An evidence-based plan to build the foundations of a new "Sure Start" in and around education settings

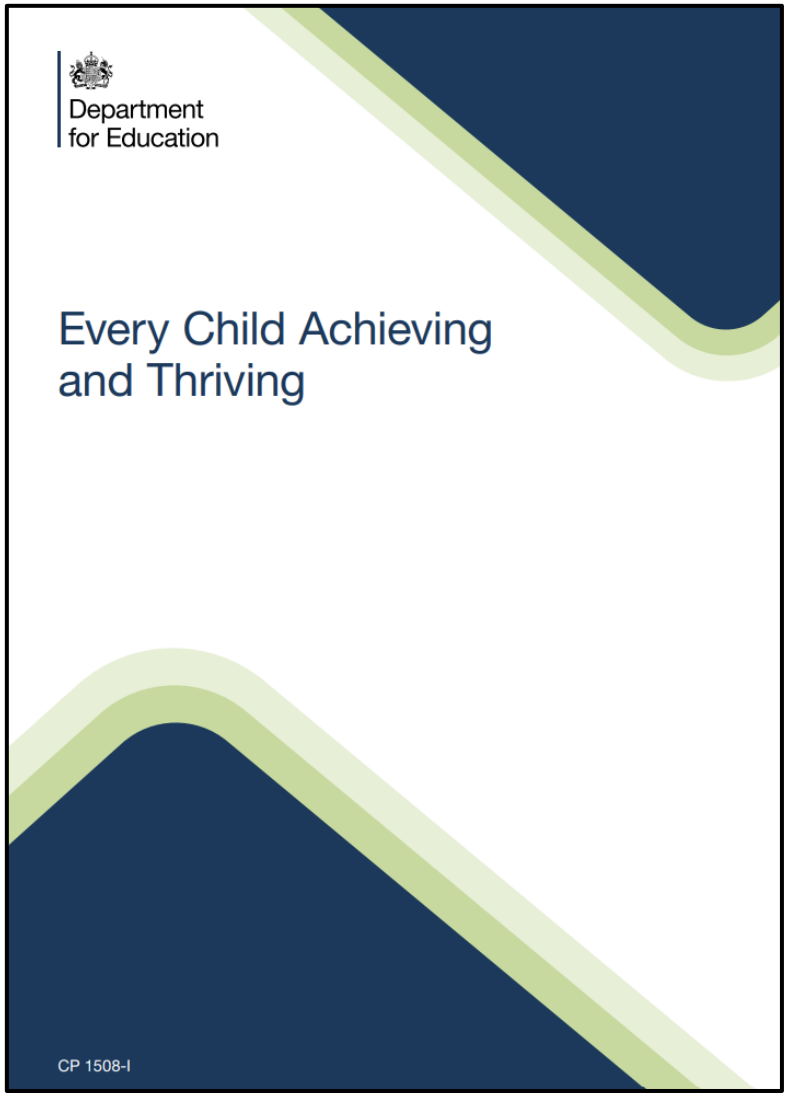

A country that works for all children and young people
An evidence-based plan for improving children's oral health with and through education settings


A country that works for all children and young people
An evidence-based approach to creating a culture of inclusive opportunity through arts and creativity

Legislative change

Centre for Applied Education Research





How connected data can help to address the SEND crisis

