

# Fattigdom og andre belastende begivenheder og børns helbred: Studier fra Danmark

Landskonference for sundhedsplejersker,  
2. maj 2022

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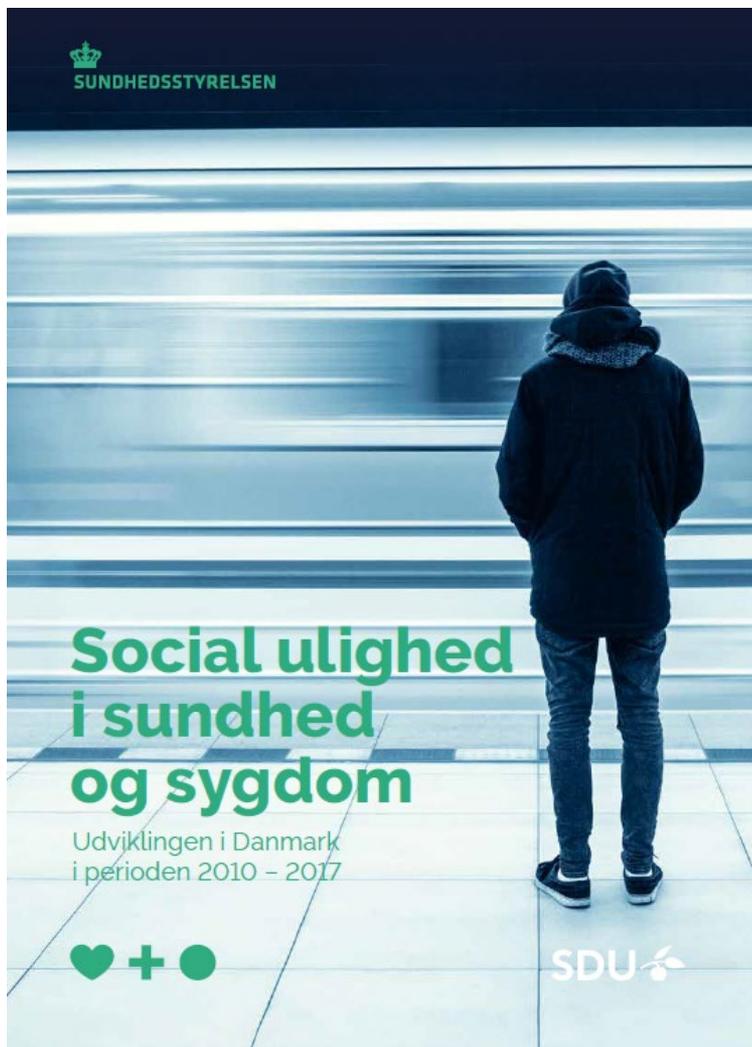
UNIVERSITY OF COPENHAGEN



Tak for invitationen



# Sundhedsstyrelsens rapport fra 2020



## Neonatal død

Der ses en moderat til høj social ulighed i antallet af børn, der dør inden for de første 28 dage i perioden 2010-2017, således at antallet af neonatale dødsfald pr. 1.000 levendefødte er lavere med moderens højere igangværende eller fuldførte uddannelsesniveau. Der ses ikke en ændring i den sociale ulighed i perioden.

## Dødelighed for børn under 5 år

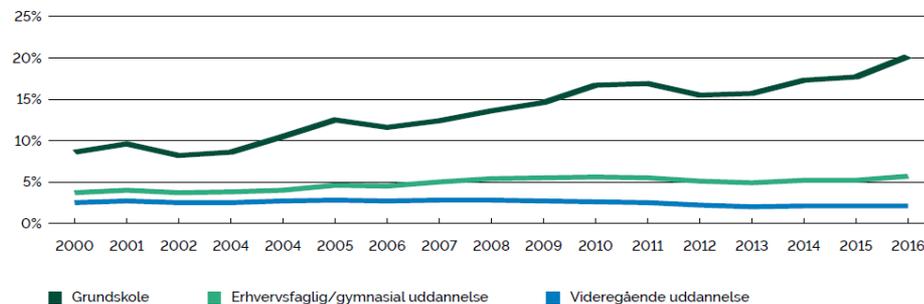
Der ses en moderat til høj grad af social ulighed i antallet af dødsfald blandt børn under 5 år for børn født i perioden 2010-2012, således at antallet af dødsfald blandt børn under 5 år pr. 1.000 levendefødte er lavere med moderens højere igangværende eller fuldførte uddannelsesniveau. Der ses ikke en ændring i den sociale ulighed i perioden.

## Overvægt blandt børn

Der ses en høj grad af social ulighed i andelen, der er overvægtige blandt piger og blandt drenge i perioden 2010-2018. Blandt piger ses der ikke en ændring i den sociale ulighed. Blandt drengene ses der en statistisk signifikant mindskning i den sociale ulighed i perioden.

FIGUR 3.10

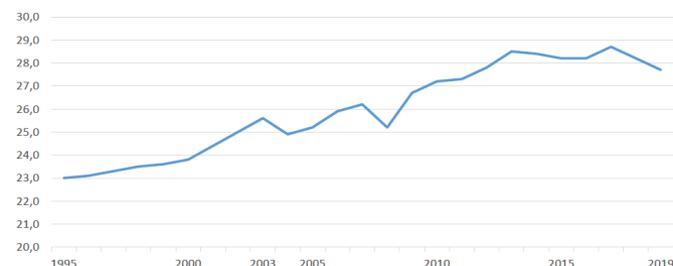
Andelen af børn, der lever under fattigdomsgrænsen, fordelt på forældres igangværende eller højest fuldførte uddannelsesniveau i perioden 2000-2016.



# Det er komplekst

## Gini coefficient, Danmark 1995-2019

Data fra World Bank, 1995, 2000, 2003-2019 (data.worldbank.org)



Review



ADAM APPECC

### Pathways to inequalities in child health

Anna Pearce,<sup>1</sup> Ruth Dundas,<sup>1</sup> Margaret Whitehead,<sup>2</sup> David Taylor-Robinson<sup>2</sup>

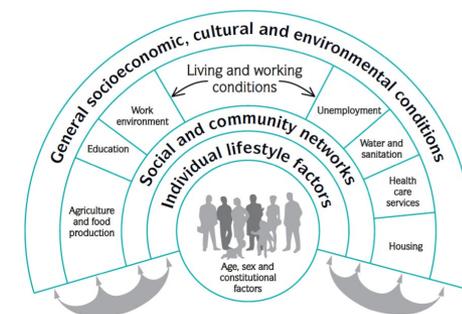
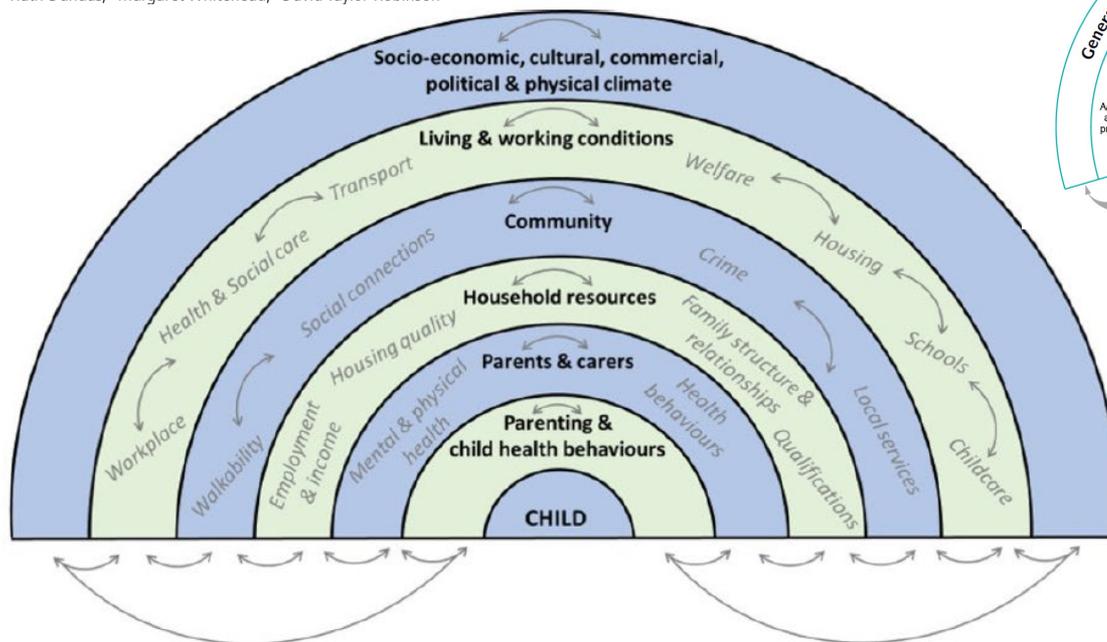


Figure 2 Social determinants of child health. Adapted from Bronfenbrenner<sup>8</sup> and Dahlgren and Whitehead.<sup>9</sup>

# Er der fattigdom i Danmark?

Absolut el. relativ fattigdom

De almindeligste teorier om mekanismer bag sociale gradienter (voksne) :

Psyko-sociale vs. (e.g. Wilkinson, Pickett, Marmot)

Materialistiske

(e.g. Lynch, Kaplan, Davey Smith, Harper) forklaringer

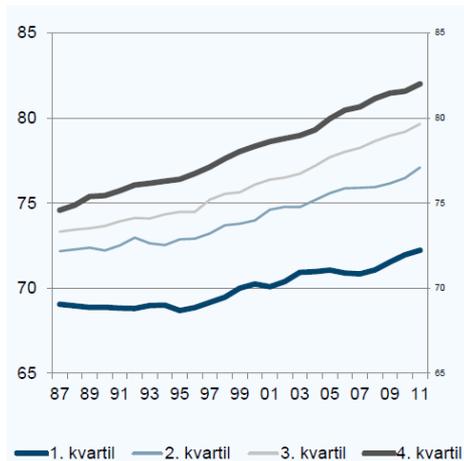


Table I. Summary of the Nordic data.

Denmark (population 5.7 million)	
Applied definitions and measurements of economic poverty ROP 50% = those with income <50% of median equivalized disposable income of the population	Statistics Denmark recommends the use of the OECD's ROP 50%, but often also provides data according to the ROP 60% definition – the latter for use in Eurostat studies such as EU SILC
ROP 60% = income <60% of median equivalized disposable income	A definition which was seen as an official poverty line was applied 2013–2015
Proportion of children living in economic poverty in 2014 according to the ROP 60% definition	11.1% of children aged 0–15 years

Table II. Households with dependent children where it was felt to be difficult or very difficult to make money last.

	Denmark	Finland	Iceland	Norway	Sweden	European Union (28 countries)
2004	9.2	11.2	20.1	9.5	13.3	–
2010	10.8	7.8	20.2	6.5	7.9	29.8
2014	13.8	9.1	24.0	5.2	7.8	31.3

Data presented as a percentage of the total population.

Source: EU SILC, [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc\\_mdcs09&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdcs09&lang=en) (accessed 9 February 2016).

*Scandinavian Journal of Public Health*, 2018; 46(Suppl 20): 30–37

## Economic poverty among children and adolescents in the Nordic countries

LENE POVLSEN<sup>1</sup>, SUSANN REGBER<sup>2</sup>, ELISABETH FOSSE<sup>3</sup>, LEENA EKLUND KARLSSON<sup>1</sup> & HRAFNHILDUR GUNNARSDOTTIR<sup>4</sup>

Kort uddannelse  
Arbejdsløshed  
Enlige forældre  
Immigranter

# Social ulighed tidligst i livet

## Prædiktorer for sundhed

- Spædbarnsdødelighed
- Gestationsalder ved fødsel
- Intrauterin vækst



### Article 1

All human beings are born free and equal in dignity and rights.

Og hvis de ikke er det...

Ja, så kan det have konsekvenser for lighed i Sundhed

- resten af livet



**PREAMBLE** recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.

**PREAMBLE** disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people.

**PREAMBLE** it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law.

**PREAMBLE** it is essential to promote the development of friendly relations among nations.

**PREAMBLE** the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have

determined to promote social progress and better standards of life in larger freedom.

**PREAMBLE** Member States have pledged themselves to achieve, in co-operation with the United Nations, the promotion of universal respect for and observance of human rights and fundamental freedoms.

**PREAMBLE** a common understanding of these rights and freedoms is of the greatest importance for the full realization of this pledge.

**NOW THEREFORE** THE GENERAL ASSEMBLY PROCLAIMS this Universal Declaration of Human Rights as a common standard of achievement for all peoples and all nations, to end that every individual and every organ of society, keeping this Declaration constantly in mind, shall strive to secure by progressive measures, respect for these rights and freedoms and by teaching, to promote national and international, to secure their universal and effective recognition and observance, both among the peoples of Member States themselves and among the peoples of territories under their jurisdiction.

**ARTICLE 1** — All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

**ARTICLE 2** — Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

**ARTICLE 3** — Everyone has the right to life, liberty and the security of person.

**ARTICLE 4** — No one shall be subjected to torture or to equal, inhuman or degrading treatment or punishment.

**ARTICLE 5** — Everyone has the right to recognition everywhere as a person before the law.

**ARTICLE 6** — All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of the Declaration and against any incitement to such discrimination.

**ARTICLE 7** — Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.

**ARTICLE 8** — No one shall be subjected to arbitrary arrest, detention or exile.

**ARTICLE 9** — Everyone is entitled to full equality to a fair and public hearing in an independent and impartial tribunal, for the determination of his rights and obligations and of any criminal charge against him.

**ARTICLE 10** — Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had the opportunity necessary for his defence.

**ARTICLE 11** — No one shall be held guilty of any penal offence on account of any act or omission which did not constitute a penal offence under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offence was committed.

**ARTICLE 12** — No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

**ARTICLE 13** — Everyone has the right to freedom of movement and residence within the borders of each state.

**ARTICLE 14** — Everyone has the right to leave any country, including his own, and to return to his country.

**ARTICLE 15** — Everyone has the right to seek and to enjoy in other countries asylum from persecution.

**ARTICLE 16** — Everyone has the right to marry and to found a family. They are entitled to equal rights in marriage, during marriage and at its dissolution.

**ARTICLE 17** — The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.

**ARTICLE 18** — Everyone has the right to own property alone as well as in association with others.

**ARTICLE 19** — Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.

**ARTICLE 20** — Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

**ARTICLE 21** — Everyone has the right to freedom of peaceful assembly and association.

**ARTICLE 22** — No one may be deprived of his citizenship.

**ARTICLE 23** — Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.

**ARTICLE 24** — Everyone has the right of equal access to public service in his country.

**ARTICLE 25** — The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

**ARTICLE 26** — Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

**ARTICLE 27** — Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.

**ARTICLE 28** — Everyone, without any discrimination, has the right to equal pay for equal work.

**ARTICLE 29** — Everyone has duties to the community in which alone the free and full development of his personality is possible.

**ARTICLE 30** — Nothing in this Declaration may be interpreted as implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.

# Educational disparities in perinatal health in Denmark in the first decade of the 21st century: a register-based cohort study

To cite: Bilsteen JF, Andresen JB, Mortensen LH, *et al.* Educational disparities in perinatal health in Denmark in the first decade of the 21st century: a register-based cohort study. *BMJ Open* 2018;8:e023531. doi:10.1136/bmjopen-2018-023531

Josephine Funck Bilsteen, Josefine Bernhard Andresen, Laust Hvas Mortensen, Anne Vinkel Hansen, Anne-Marie Nybo Andersen

**Table 2** Prevalence of adverse perinatal outcome by educational level, Denmark, 2000–2009

	Stillbirth n=3076 Per 1000	Neonatal mortality n=1688 Per 1000	Postneonatal mortality n=648 Per 1000	Congenital anomalies n=19449 Per 1000	SGA n=59979 Per 1000	Moderate preterm birth 32+0–36+6 n=36610 Per 1000	Very preterm birth 28+0–31+6 n=4670 Per 1000	Extreme preterm birth <28+0 n=1843 Per 1000
Primary education	6.7	3.6	1.9	34.9	125.9	64.5	8.3	4.1
Vocational education	4.8	2.7	1.0	30.7	95.1	60.0	7.8	3.0
Secondary education	4.0	2.5	1.0	28.2	94.2	52.7	7.0	2.4
Short-cycle and medium-cycle higher education	4.3	2.2	0.7	28.7	77.9	53.7	6.6	2.3
Long-cycle higher education	3.1	2.1	0.5	27.1	77.9	48.8	6.3	2.4

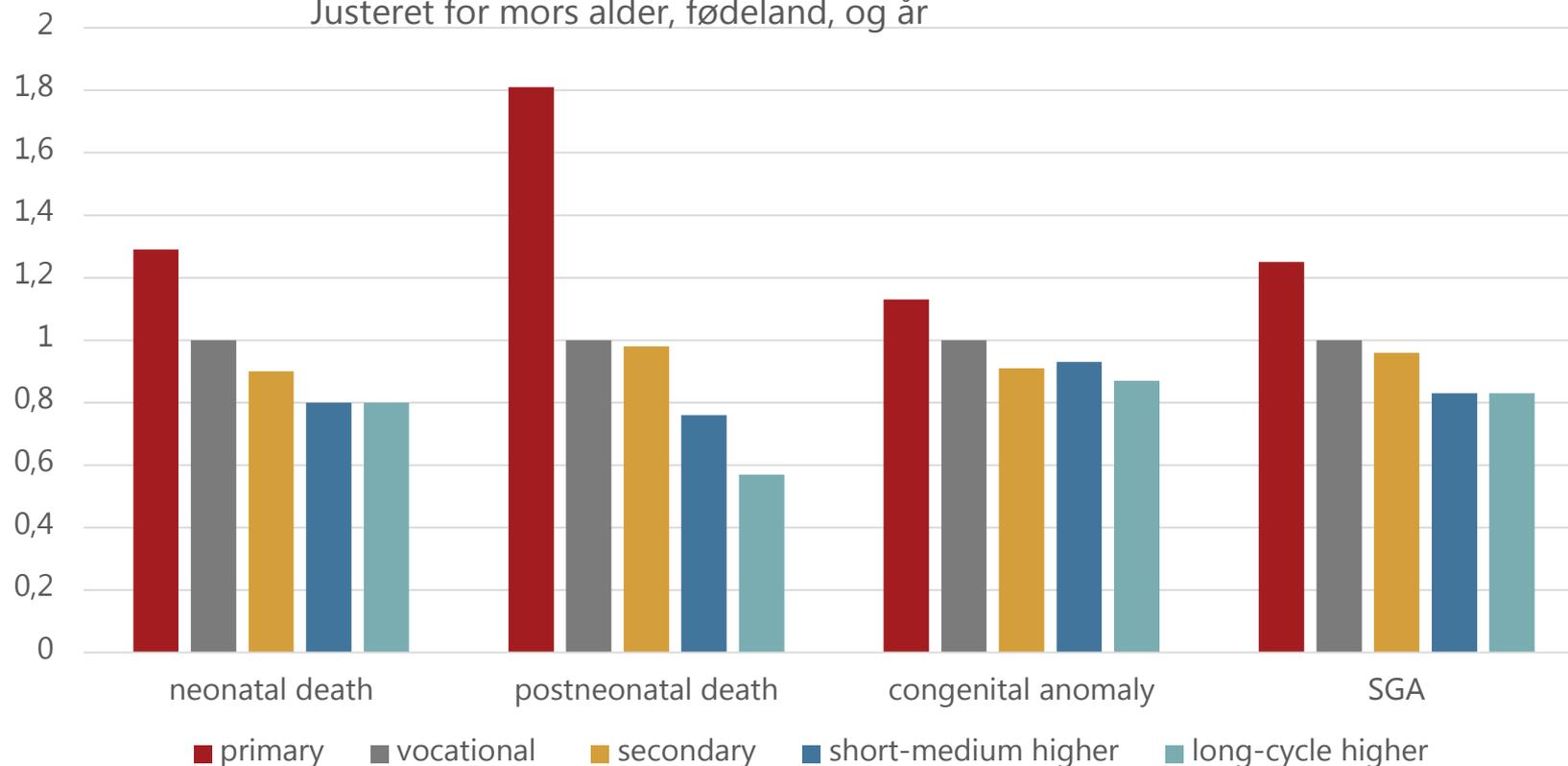


# Social ulighed i spædbarnsdødelighed, medfødte misdannelser og SGA

Alle fødsler, Danmark, 2000-2009

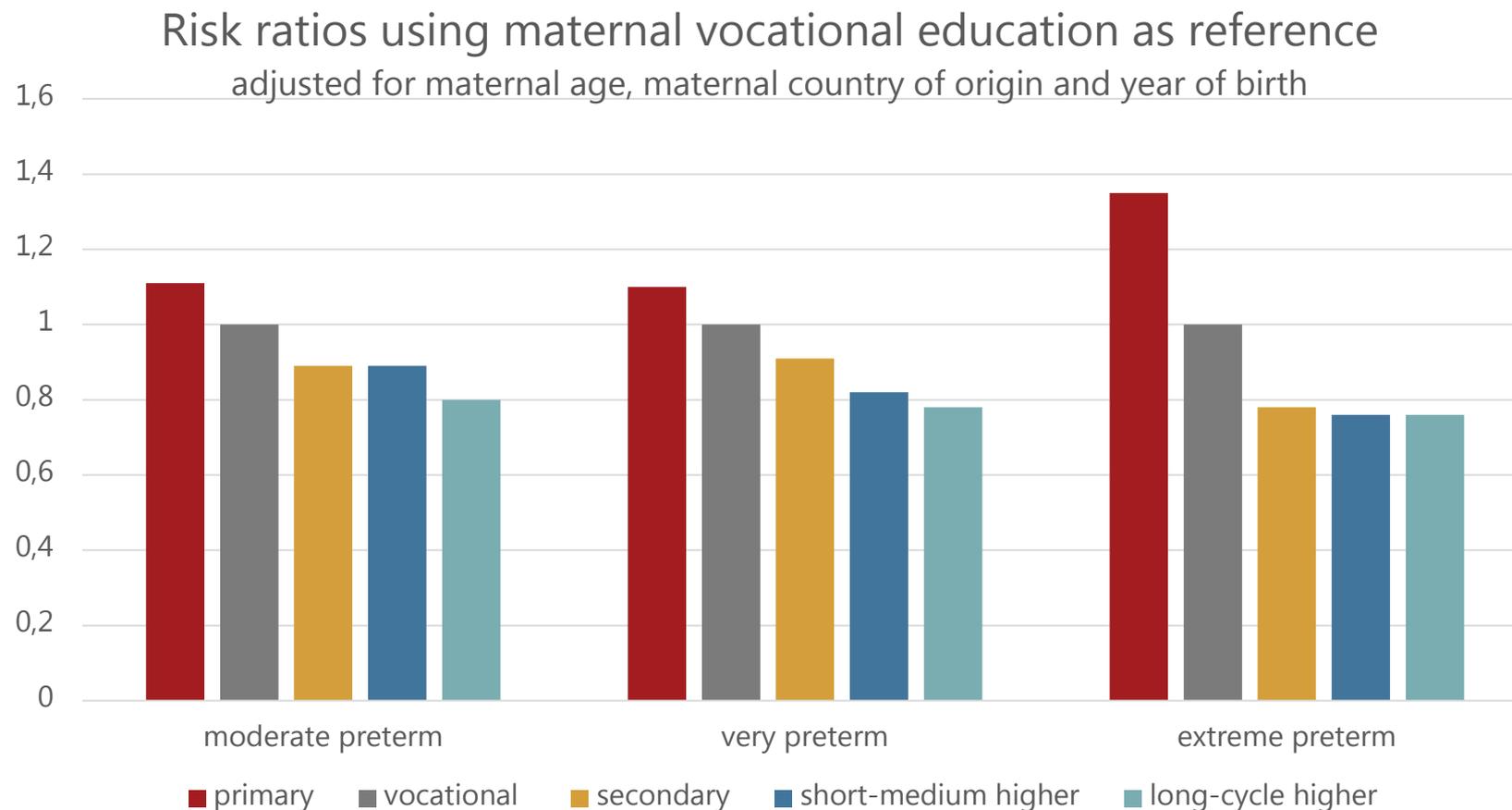
Risikoratioer, faglærte mødre er referencen

Justeret for mors alder, fødeland, og år



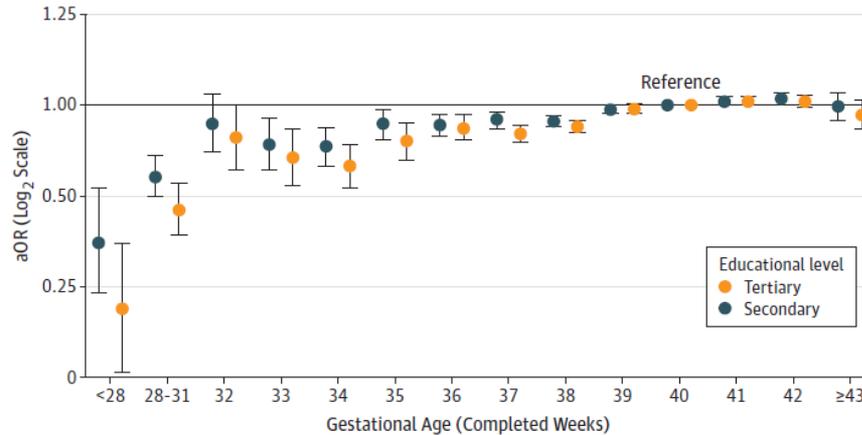
# Ulighed i for tidlig fødsel

Alle fødsler i Danmark, 2000-2009



# Betyder det noget?

Figure 1. Adjusted Odds Ratios (aORs) With 95% CIs for Tertiary and Secondary Education by Gestational Age



Bilsteen JF et al. 2018

The aORs were adjusted for sex, birth year, parity, maternal education, and maternal country of origin.

JAMA Network Open. 2018;1(8):e186085. doi:10.1001/jamanetworkopen.2018.6085

DEVELOPMENTAL MEDICINE & CHILD NEUROLOGY

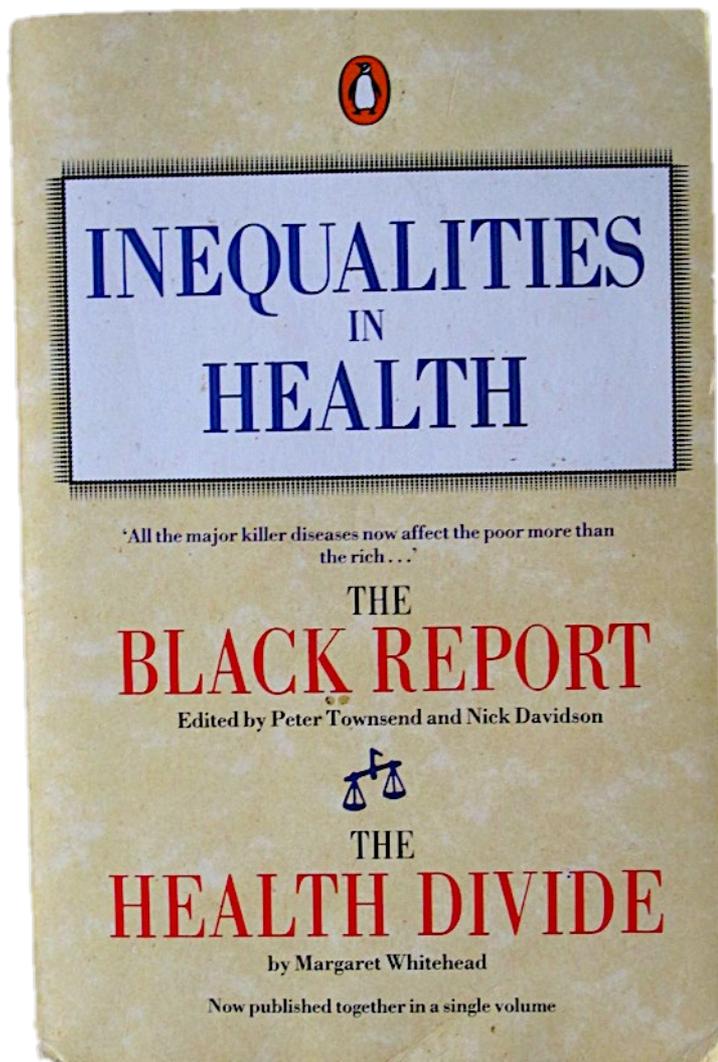
ORIGINAL ARTICLE

## Determinants of developmental coordination disorder in 7-year-old children: a study of children in the Danish National Birth Cohort

RIKKE FAEBØ LARSEN<sup>1</sup> | LAUST HVAS MORTENSEN<sup>2</sup> | TORBEN MARTINUSSEN<sup>2</sup> | ANNE-MARIE NYBØ ANDERSEN<sup>2</sup>

	Unadjusted, OR (95% CI)	Adjusted <sup>a</sup> , OR (95% CI)
<b>Sex</b>		
Male	Reference	Reference
Female	0.36 (0.31–0.41)	0.36 (0.31–0.41)
<b>Gestational age at birth (wk)</b>		
23 <sup>+0</sup> –31 <sup>+6</sup>	7.60 (4.90–11.79)	6.28 (3.99–9.89)
32 <sup>+0</sup> –36 <sup>+6</sup>	2.33 (1.84–2.96)	2.10 (1.65–2.67)
37 <sup>+0</sup> –41 <sup>+6</sup>	Reference	Reference
≥42 <sup>+0</sup>	1.26 (1.02–1.56)	1.23 (0.99–1.52)
<b>Intrauterine growth restriction</b>		
Small for gestational age	1.96 (1.65–2.33)	1.74 (1.46–2.08)
Not small for gestational age	Reference	Reference

# Evidence from the UK



Statistical bulletin:

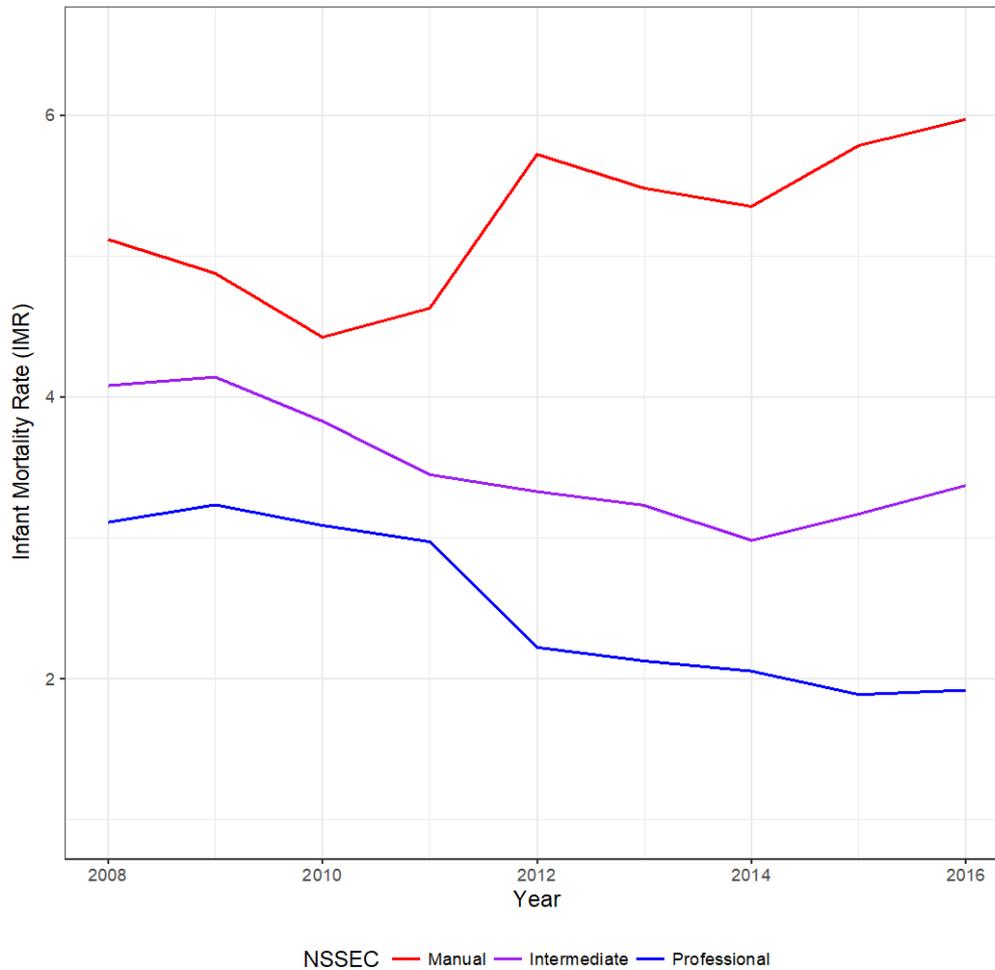
## Childhood mortality in England and Wales: 2015

Stillbirths, infant and childhood deaths occurring annually in England and Wales, and associated risk factors.

### Statistician's comment

"2015 saw the first increase in the infant mortality rate in England and Wales since 2006. The rate rose to 3.7 deaths per 1,000 births from the record low of 3.6 in 2014, but it remains low in historical terms. There are many risk factors contributing to infant mortality such as birthweight, mother's age at birth of child, and the parents' socio-economic status."

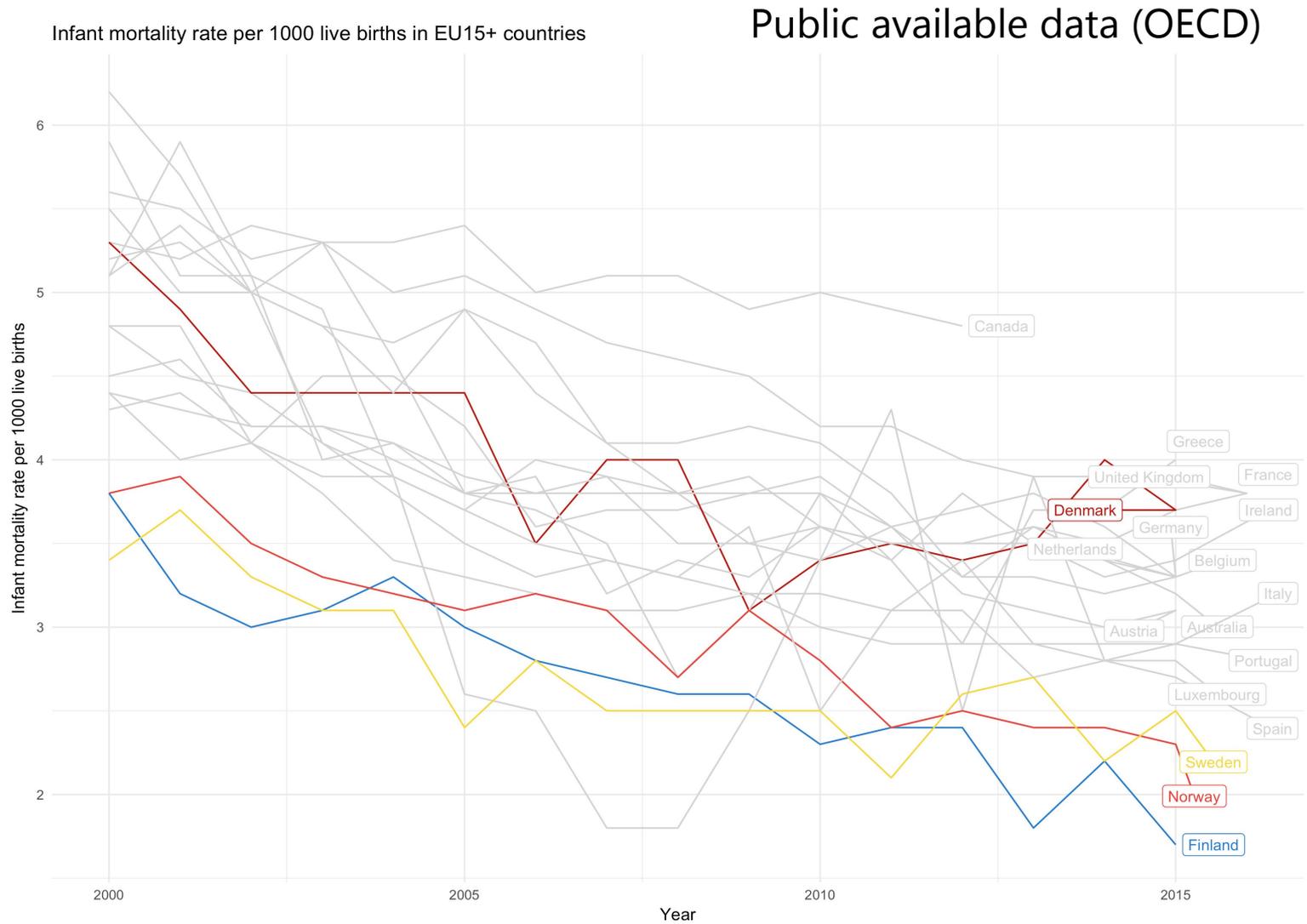
Vasita Patel, Vital Statistics Outputs Branch, Office for National Statistics



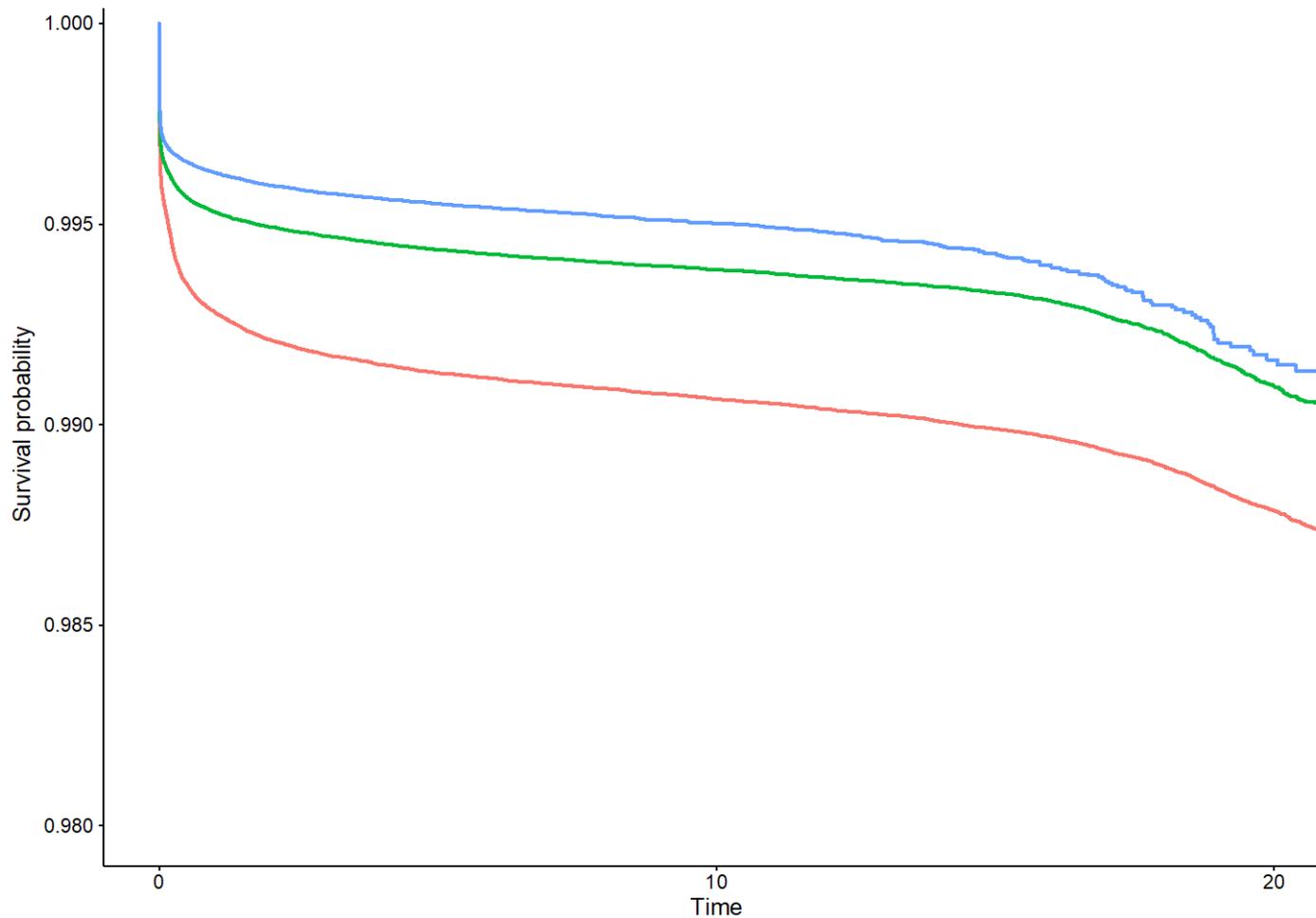
The increase driven by the most disadvantaged parental occupational class

*Taylor-Robinson et al*  
*BMJ* 2018; 360 doi: <https://doi.org/10.1136/bmj.k1090> (Published 14 March 2018)

# Hvordan ser det ud i Danmark?

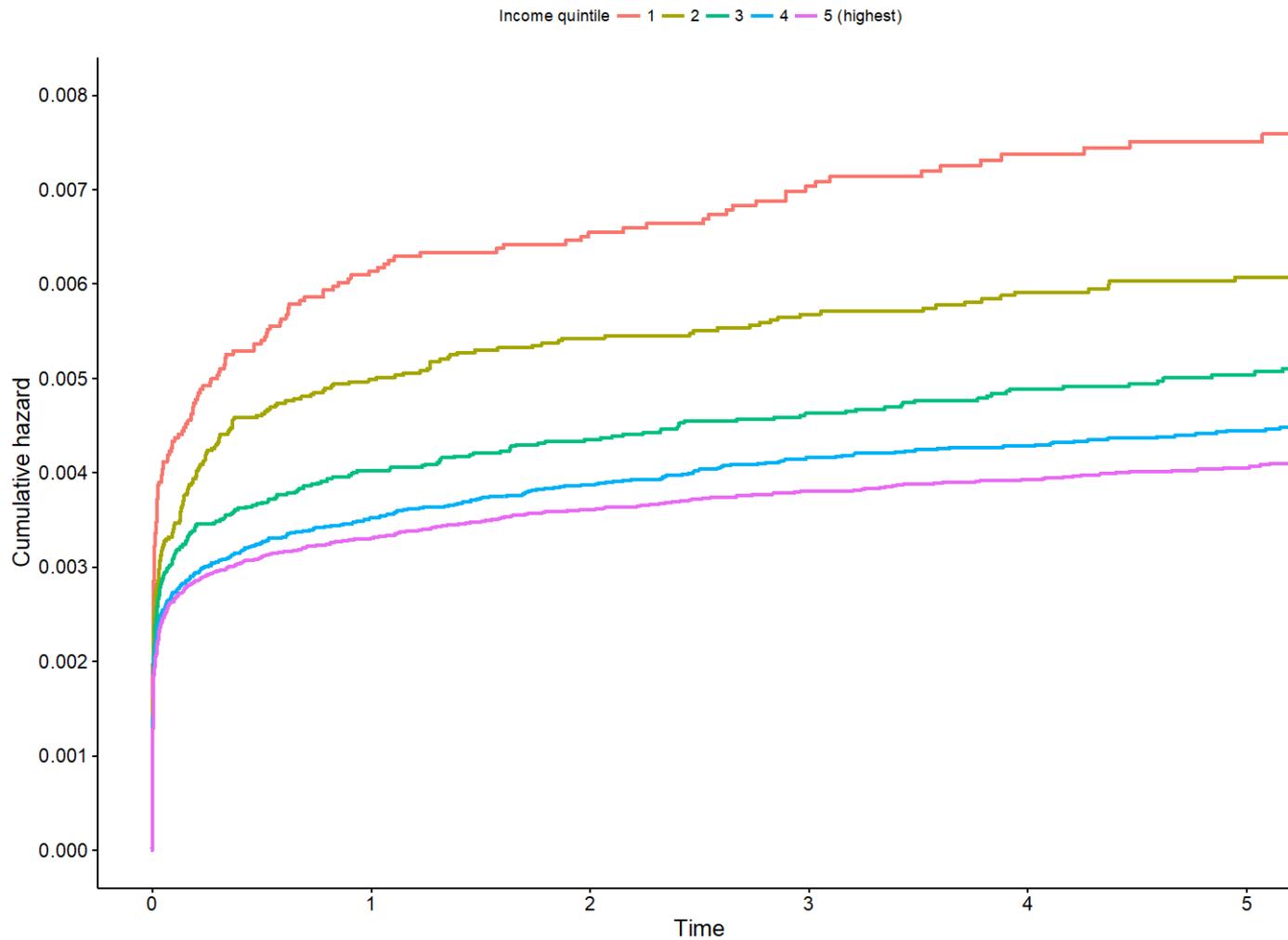


Survival probability - all cause mortality in Denmark, 1980 – current by income tertile



Urhøj S, Taylor-Robinson D, Nybo Andersen A-M  
(work in progress)

Mortality in Denmark by income quintile 2003–2010



Urhøj S, Taylor-Robinson D, Nybo Andersen A-M  
(work in progress)

# Uligheder udvides (måske) med alderen...

## Deltagelse i forebyggende børneundersøgelser

Even though preventive child health examinations might be important to the health of the child, not all children do participate in them.

- Pronounced social inequality in the use of child health examinations exists in Denmark despite the fact that they are offered free of charge.
- Important risk factors for non-participation include household income, the parent's occupational and educational level as well as the number of older biological siblings.

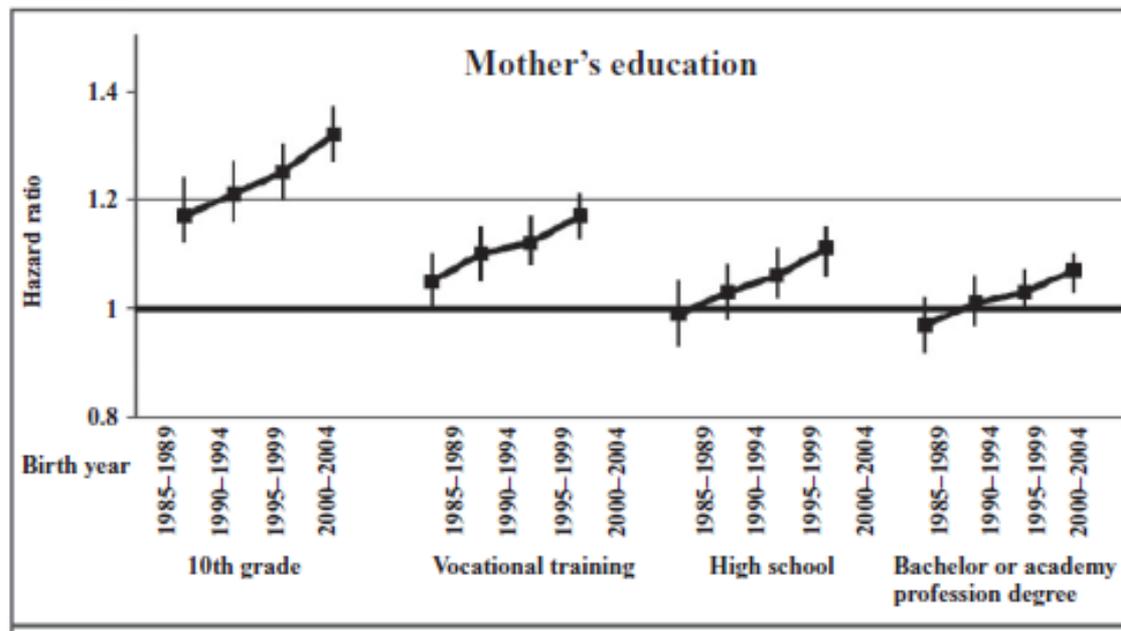
## Paediatric and Perinatal Epidemiology

Affiliated to the Society for Pediatric and Perinatal Epidemiologic Research

doi: 10.1111/j.1365-3016.2011.01255.x

1

### Time trends in socio-economic factors and risk of hospitalisation with infectious diseases in pre-school children 1985–2004: a Danish register-based study

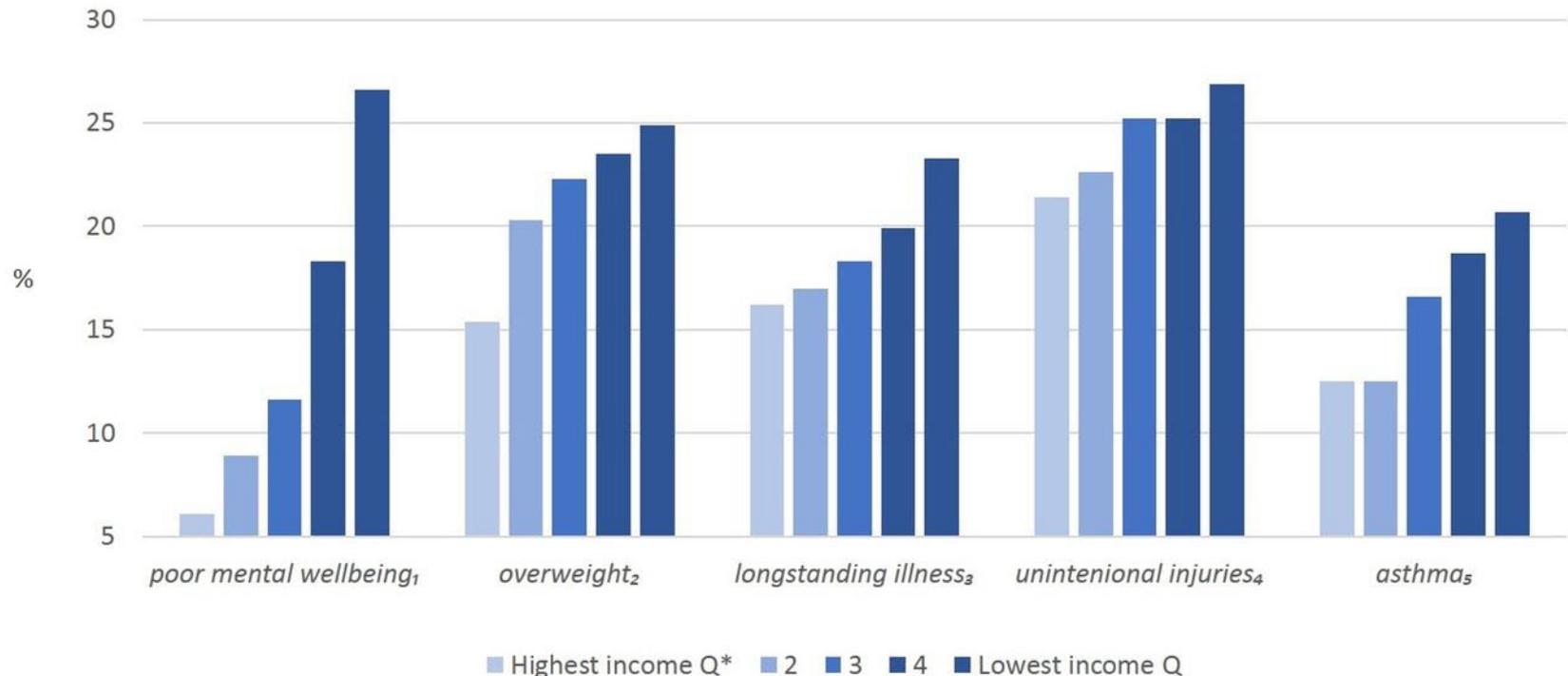


**Figure 1.** The time trend in hazard ratios for pre-school children (0–5 years) hospitalised for infectious diseases according to parental education. The reference group is parents with a master's degree or higher. Hazard ratios are estimated for the four 5-year intervals from 1985 to 2004. All children were born in Denmark 1985–2004. The black horizontal line represents the reference group (master's degree or higher). The vertical line (I) is the 95% confidence interval. Education is defined according to type of education: 10th grade (completion of no more than 10th grade), vocational training (e.g. craftsmen, hairdressers and waiters).

Hvad tænker I om det?



**Child health inequalities, UK Millennium Cohort Study (<http://doi.org/10.5255/UKDA-SN-6411-7>) (age 7 years, 2008). 1Borderline—abnormal total difficulties score, using the parent-reported Strengths and Difficulties Questionnaire. 2Including obese, applying International Obesity Task Force cut-offs to measured body mass index. 3Parent report of conditions that have troubled or are likely to trouble the child for a period of time. 4Medical opinion sought for one or more unintentional injuries occurring since the last survey (~5 years). 5Parent report of the child**



Anna Pearce et al. Arch Dis Child 2019;104:998-1003



# Trajectories of family poverty and children's mental health: Results from the Danish National Birth Cohort

Laura Pryor<sup>a,b,\*</sup>, Katrine Strandberg-Larsen<sup>c</sup>, Anne-Marie Nybo Andersen<sup>c</sup>, Naja Hulvej Rod<sup>c</sup>, Maria Melchior<sup>a</sup>

<sup>a</sup> Sorbonne Universités, UPMC Univ Paris 06, INSERM, Institut Pierre Louis D'Epidémiologie et de Santé Publique (IPLESP UMRS 1136), Paris, France

<sup>b</sup> Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

<sup>c</sup> Section of Epidemiology, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

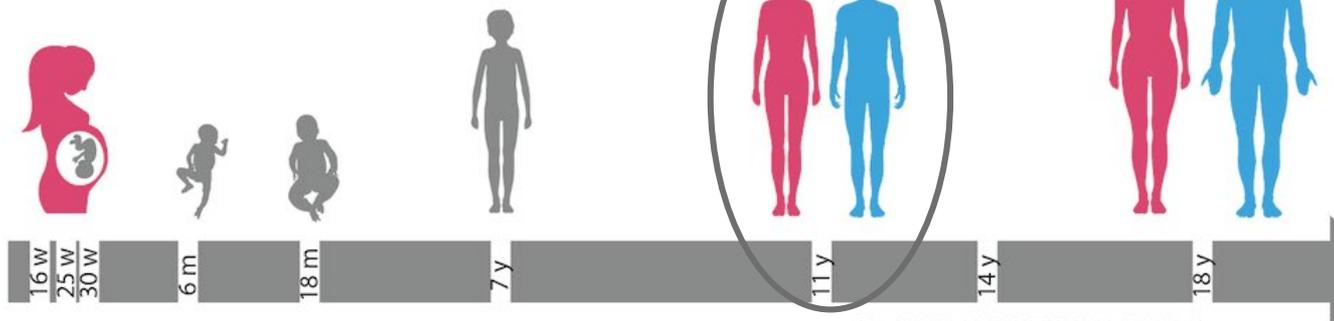


## 11-års follow-up in Bedre Sundhed i Generationer Strengths and difficulties questionnaire (SDQ) Stress in Children Scale (SiC)

90.979 children invited to participate  
49.960 children participated (55%)



### The Danish National Birth Cohort (Born: 1996-2003)



The Cohort of Denmark

Approx. 100.000 pregnant women were enrolled from 1996-2002  
 → 96.834 liveborn children (born 1996-2003)

# Baseret på husstandsindkomst og OECD definitionen på fattigdom

4 distinkte grupper blev identificeret

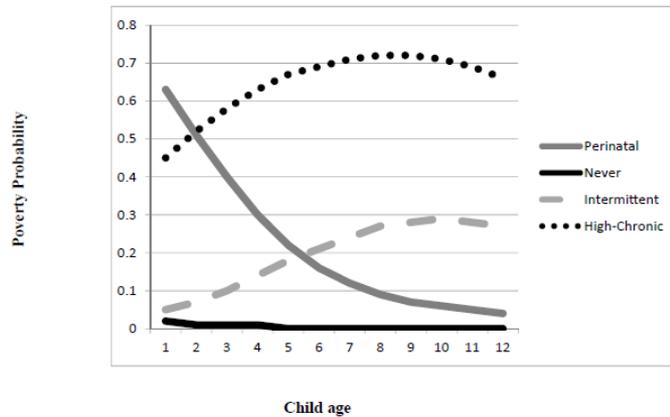


Fig. 1. Group-based Trajectories of the Probability of Family Poverty from one year prior to birth until 10 years of age (n = 96 834, Danish National Birth Cohort).

SDQ (Goodman, 1997)

- Conduct problems
- Emotional problems
- Hyperactivity problems

Stress in childhood (Osika, 2007)

Resultater:

RR (CI)	Any problem	Stress n = 43 841
<b>Poverty Experience</b>		
Never poor (reference)		
Perinatal	1.14 (.91; 1.44)	1.02 (.96; 1.09)
Intermittent	1.38 (1.16; 1.64)	1.07 (1.02; 1.12)
High/chronic	1.20 (.89; 1.62)	1.08 (1.00; 1.16)

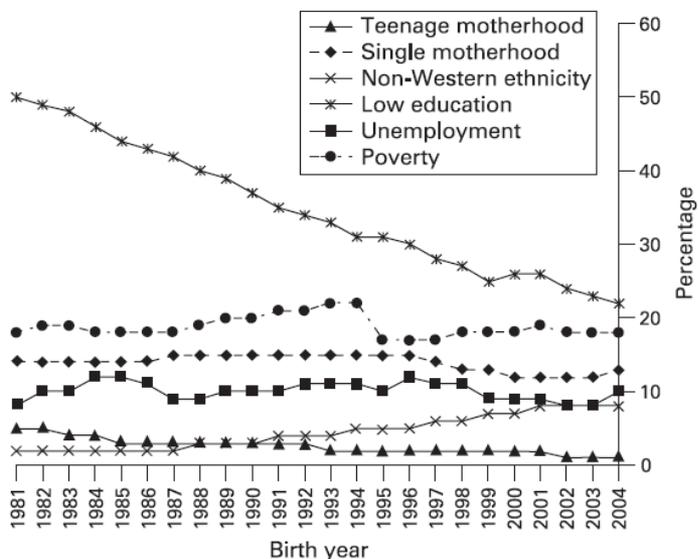
<sup>a</sup> Adjusted for child sex and birthweight, mothers' age and marital/cohabitation status at birth of child, mothers' past mental health problem and smoking during pregnancy.

# Social belastingen øgher sig over tid

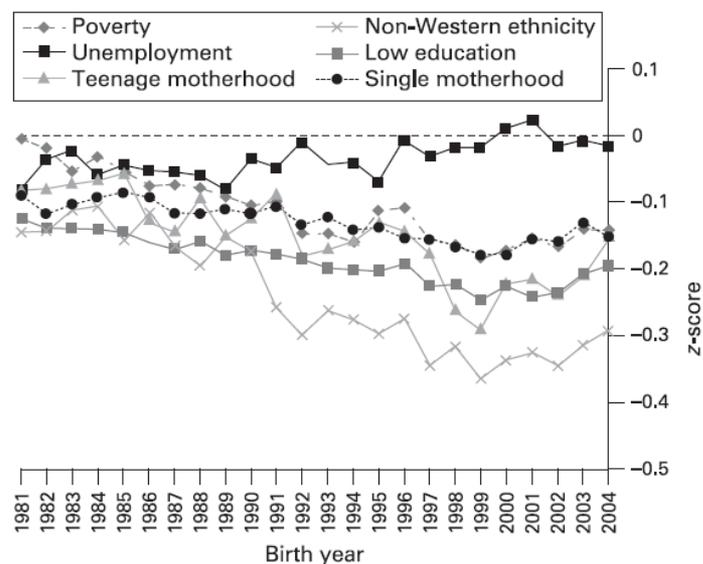
**Time is on whose side? Time trends in the association between maternal social disadvantage and offspring fetal growth. A study of 1 409 339 births in Denmark, 1981-2004**

L H Mortensen, F Diderichsen, G Davey Smith and A M Nybo Andersen

*J Epidemiol Community Health* 2009;63:281-285; originally published online 15 Jan 2009;



**Figure 1** Prevalence of maternal social disadvantage (teenage motherhood, single motherhood, non-Western ethnicity, low education, unemployment and poverty) in 1 409 339 births in Denmark, 1981-2004.



# Social belastning koncentrerer over tid

**Table 1** Intercorrelation (tetrachoric correlation coefficients) between maternal social disadvantage (teenage motherhood, single motherhood, non-Western ethnicity, low education, unemployment and poverty) in 1 409 339 births in Denmark, 1981–2004

	Teenage motherhood	Single motherhood	Non-Western ethnicity	Low education	Unemployment	Poverty
Teenage motherhood	1					
Single motherhood	1981–2004: 0.40 1981–1982: 0.43 2003–2004: 0.46	1				
Non-Western ethnicity	1981–2004: 0.10 1981–1982: 0.00 2003–2004: 0.17	1981–2004: –0.05 1981–1982: –0.17 2003–2004: 0.08	1			
Low education	1981–2004: 0.73 1981–1982: 0.70 2003–2004: 0.81	1981–2004: 0.28 1981–1982: 0.22 2003–2004: 0.35	1981–2004: 0.33 1981–1982: 0.19 2003–2004: 0.56	1		
Unemployment	1981–2004: 0.04 1981–1982: –0.12 2003–2004: 0.42	1981–2004: 0.08 1981–1982: 0.01 2003–2004: 0.16	1981–2004: –0.07 1981–1982: 0.02 2003–2004: –0.02	1981–2004: 0.19 1981–1982: 0.27 2003–2004: 0.13	1	
Poverty	1981–2004: 0.53 1981–1982: 0.43 2003–2004: 0.60	1981–2004: 0.57 1981–1982: 0.48 2003–2004: 0.63	1981–2004: 0.51 1981–1982: 0.32 2003–2004: 0.54	1981–2004: 0.44 1981–1982: 0.29 2003–2004: 0.55	1981–2004: 0.10 1981–1982: –0.10 2003–2004: 0.36	1

# Negative livsbegivenheder klumper sig, interagerer og ophober sig over tid

Open access

Cohort profile

## BMJ Open Cohort profile: the DANish LIFE course (DANLIFE) cohort, a prospective register-based cohort of all children born in Denmark since 1980

Jessica Bengtsson,<sup>1,2</sup> Nadya Dich,<sup>1</sup> Andreas Rieckmann,<sup>1,3</sup> Naja Hulvej Rod<sup>1</sup>

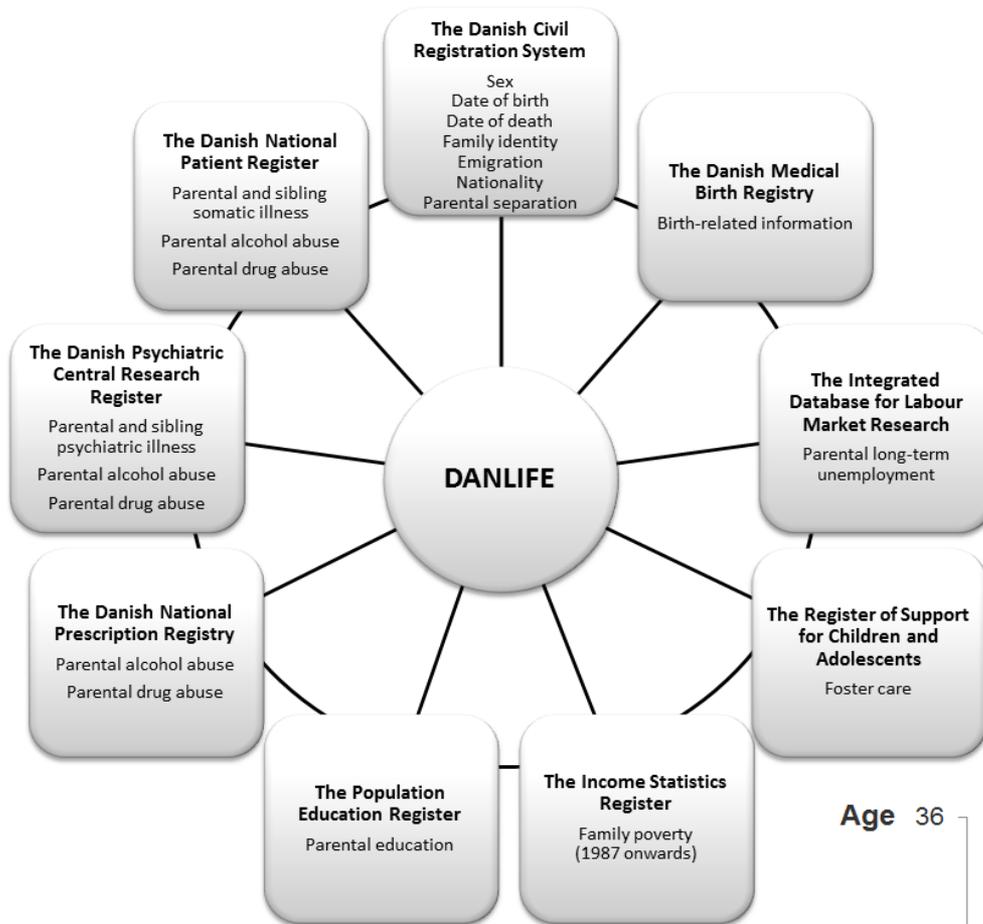
**To cite:** Bengtsson J, Dich N, Rieckmann A, *et al.* Cohort profile: the DANish LIFE course (DANLIFE) cohort, a prospective register-based cohort of all children born in Denmark since 1980. *BMJ Open* 2019;**9**:e027217. doi:10.1136/bmjopen-2018-027217

### ABSTRACT

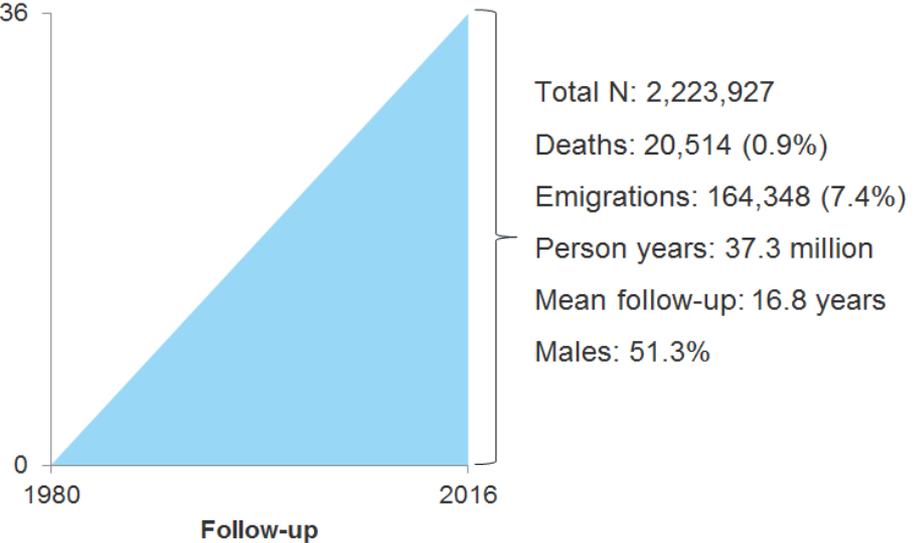
**Purpose** The DANish LIFE course (DANLIFE) cohort is a prospective register-based study set up to investigate the complex life course mechanisms linking childhood adversities to health and well-being in childhood, adolescence and young adulthood including cumulative and synergistic actions and potentially sensitive periods in relation to health outcomes.

### Strengths and limitations of this study

- ▶ The DANish LIFE course (DANLIFE) cohort provides an unselected data source for investigation of the effects of a wide range of objectively measured childhood adversities on health outcomes in childhood, adolescence and young adulthood.
- ▶ DANLIFE includes all children born in Denmark in



Age 36



# 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

# 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

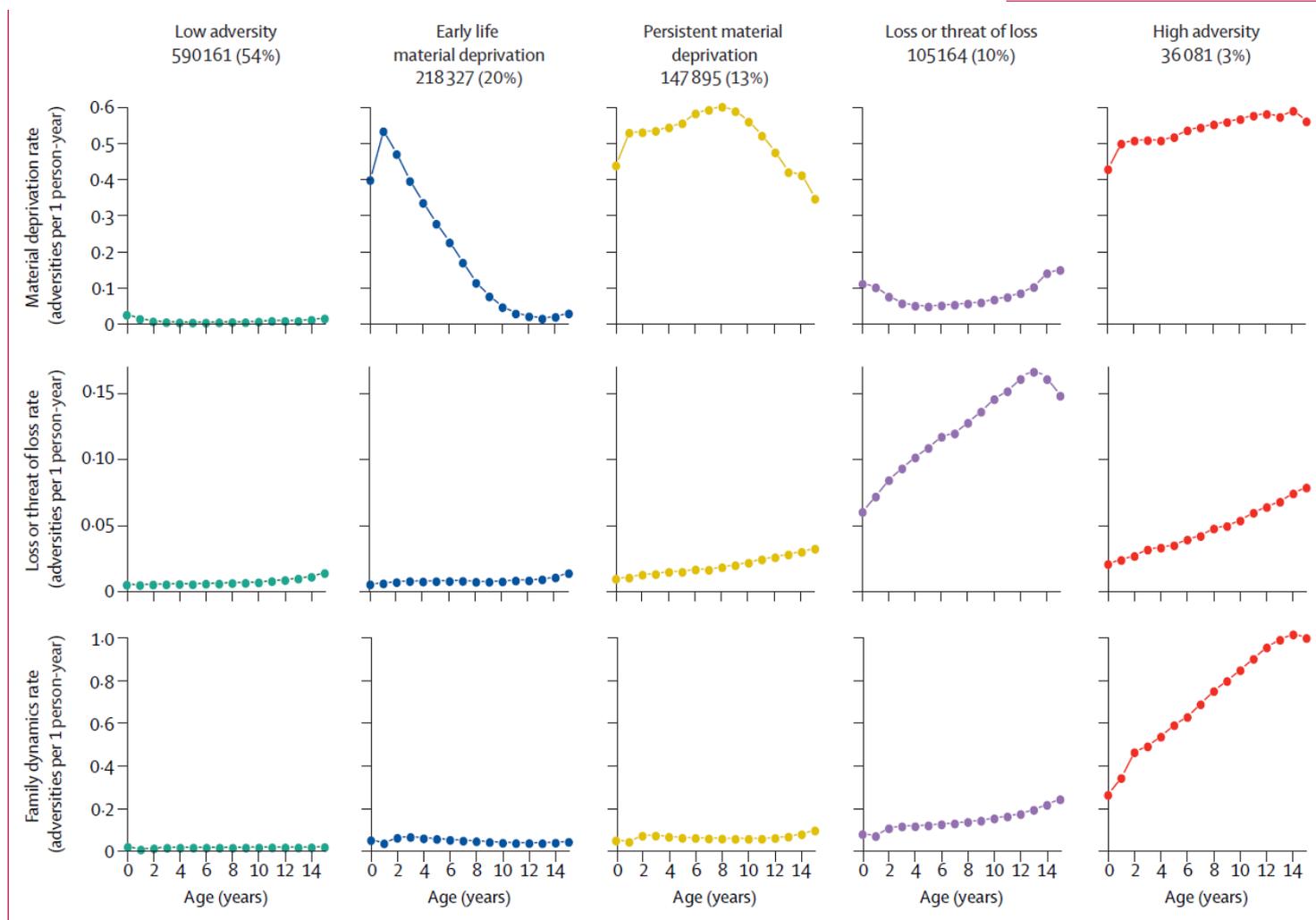


Figure 2: Estimated trajectory groups of childhood adversities among Danish children  
1097 628 Danish children were divided into the five estimated trajectory groups of childhood adversities.

# Dødelighed i ungdomsårene

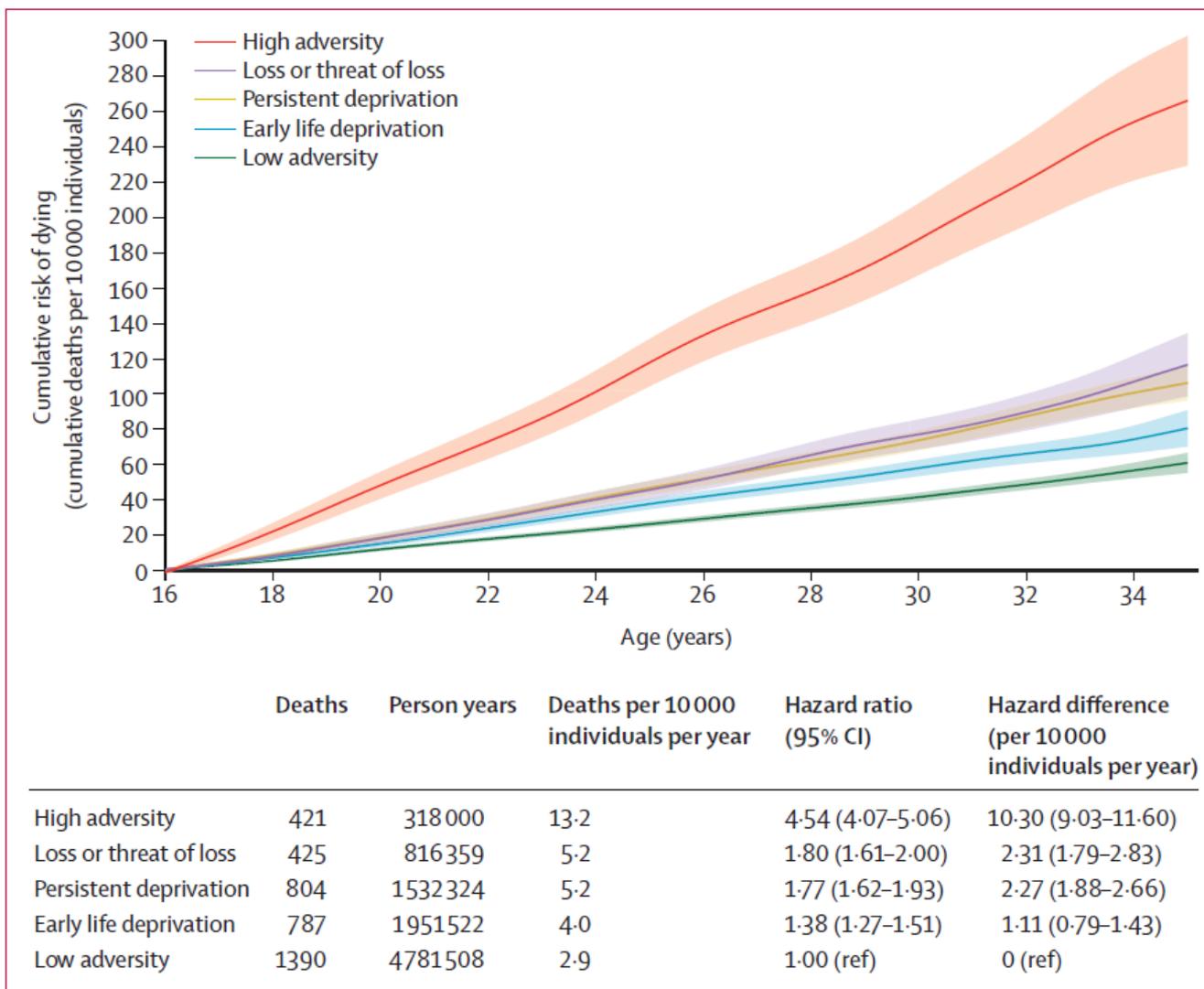
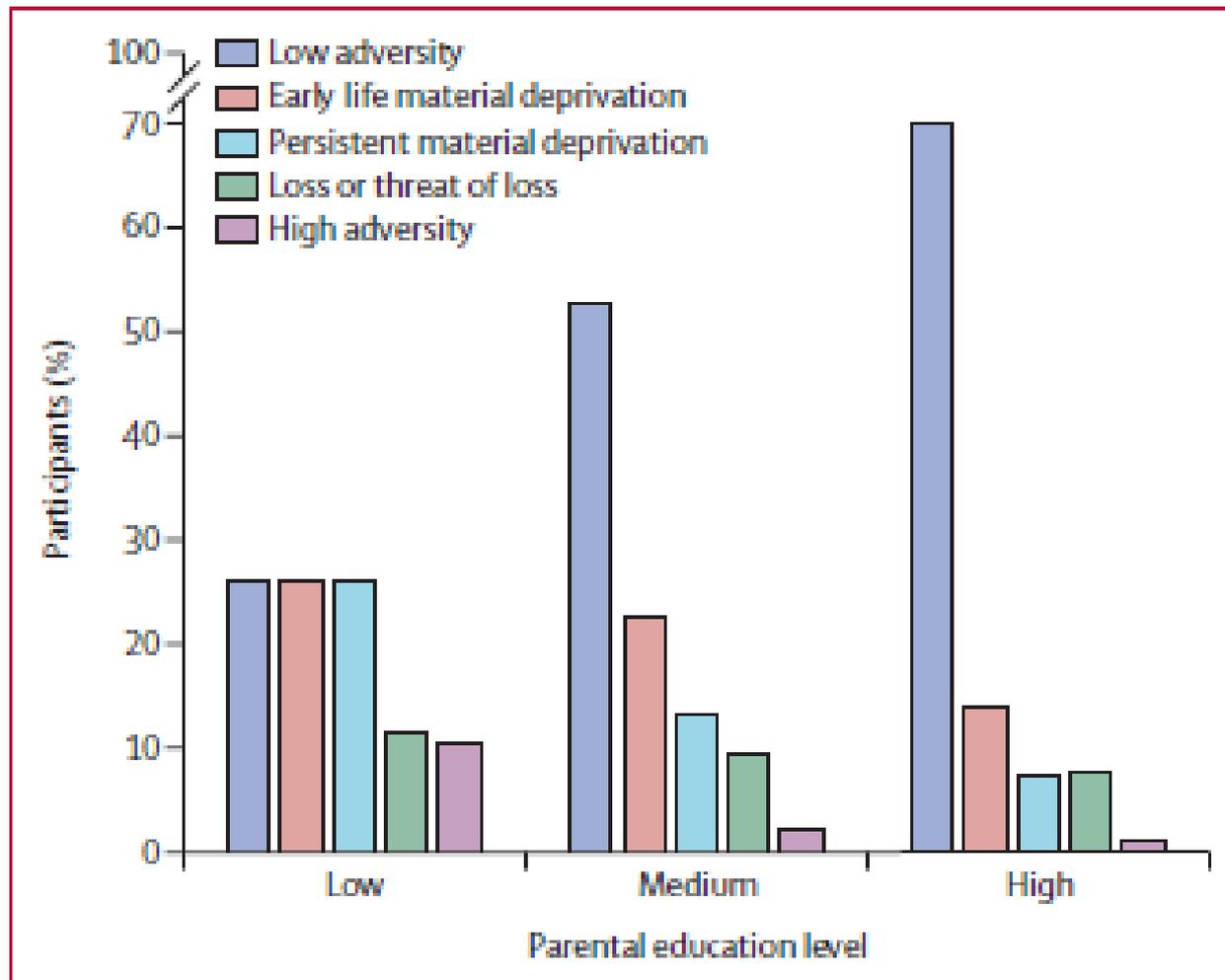


Figure 3: Cumulative all-cause mortality among Danish children

1 097 628 Danish children were divided into the five estimated trajectory groups of childhood adversities.



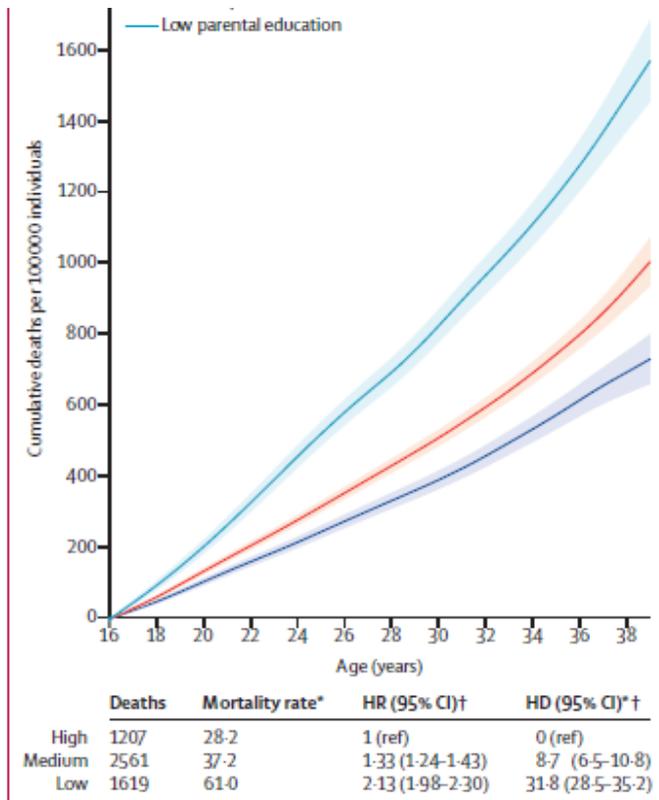
**Figure 2: Distribution of individuals at each parental education level over the five childhood adversity trajectory groups (n=1 278 156)**

Parental education level is divided according to number of years the parent received education: low ( $\leq 9$  years), medium (10–12 years), and high ( $> 12$  years).

# Mediation of the parental education gradient in early adult mortality by childhood adversity: a population-based cohort study of more than 1 million children

Lancet Public Health 2022;  
7: e146–55

Leonie K Elsenburg, Andreas Rieckmann, Tri-Long Nguyen, Jessica Bengtsson, Anne-Marie Nybo Andersen, David Taylor-Robinson, Theis Lange, Naja Hulvej Rod



Mere end dobbelt så stor dødelighed  
i gruppen med lavtuddannede forældre  
(31,9 ekstra dødsfald/100.000 personår)

33% højere dødelighed  
i gruppen med mellemuddannede forældre  
(8,7 ekstra dødsfald/100.000 personår)

**Findings** Our sample consisted of 1278156 individuals followed up from birth until age 16–38 years. The sample comprised 655 633 (51.3%) men and 622 523 (48.7%) women, and 1 243 981 (97.3%) participants were of European descent. During follow-up, 5387 deaths were registered. Compared with the high parental education group, we calculated a total effect equal to 8.7 additional deaths (95% CI 6.6–10.9) per 100 000 person-years in the medium parental education group and 31.9 (28.5 to 35.2) per 100 000 person-years in the low parental education group. Mediation through childhood adversity trajectories accounted for 41.5% (95% CI 8.0–67.5) of the additional deaths in the medium parental education group and 46.4% (32.9–58.8) of the additional deaths in the low parental education group. The results were similar when adjusting the analyses for sociodemographic factors.

**Figure 3: Cumulative risk of dying in early adulthood by parental education level (n=1278 156)**

Parental education level is divided according to number of years the parent received education: low ( $\leq 9$  years), medium (10–12 years), and high ( $> 12$  years). HRs and HDs are from the unadjusted Cox proportional hazards model and Aalen additive hazards model. HR=hazard ratio. HD=hazard difference.

\*Per 100 000 person-years. †Effect estimates and 95% CIs generated with bag of little bootstraps.

# Lille summe eller spørge pause

# Migration til Danmark, dødfødsel og spædbarnsdødelighed

- Nordic Child Health And Social Equity (NorCHASE) projektet (2005-2008) viste at:
- Alle de nordiske lande havde social ulighed i hyppighed af væksthæmning, præterm fødsel, dødfødsel, neonatal dødelighed og børnedødelighed
- Den sociale ulighed var størst i Danmark, som i øvrigt også havde større dødelighed.
- I diskussionerne af disse fund blev foreslået som forklaring, men de immigranter ekskluderet
- Nye undersøgelser viste at der fx dette studie af Villadsen et al

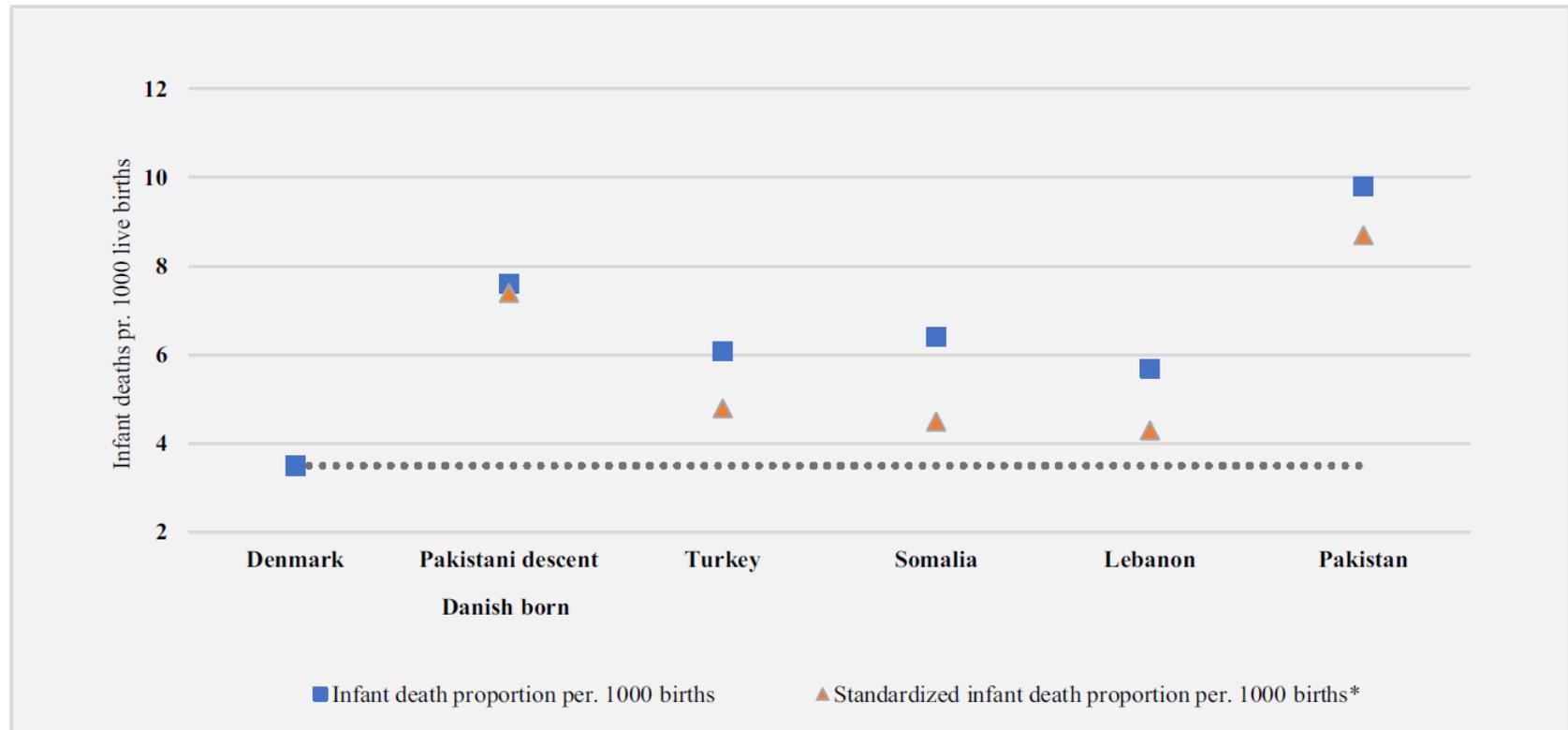
**Table 3** Relative risks (RR) and 95% confidence intervals (95% CI) for stillbirth and infant mortality in ethnic minority groups compared with the ethnic majority, Denmark 1981–2003

	Stillbirth	Infant mortality
	RR* (95% CI)	RR* (95% CI)
Danish	1	1
Turkish	1.28 (1.07 to 1.53)	1.41 (1.22 to 1.63)
Lebanese	1.04 (0.76 to 1.43)	1.05 (0.80 to 1.38)
Pakistani	1.62 (1.25 to 2.09)	1.88 (1.53 to 2.30)
Former Yugoslavian	1.18 (0.86 to 1.62)	0.95 (0.69 to 1.29)
Somali	2.11 (1.60 to 2.77)	1.39 (1.03 to 1.89)

\*Adjusted for calendar year.

# Social and ethnic disparities in stillbirth and infant death in Denmark, 2005–2016

Trine Damsted Rasmussen<sup>1</sup>✉, Sarah Fredsted Villadsen<sup>2</sup>, Per Kragh Andersen<sup>3</sup>, Signe Smith Jervelund<sup>4</sup> & Anne-Marie Nybo Andersen<sup>1</sup>



\* Standardized to the income and educational distribution among women of Danish origin

**Figure 2.** Infant death proportions by maternal country of origin in Denmark 2005–2016 and proportions of infant death standardized by maternal educational level and household income\*.

# MAMA ACT

- Setting: Jordemødre i Svangreomsorgen
- Cluster-randomiseret trial
- 5-timer kursus
- App og folder på 5 sprog
- 5 min. Mere ...
- 3 dialog møder
- Universelt tiltag!



# Social ulighed i sundhed

## – en trans-generational ond cirkel

Dårlige sociale forhold → Dårligere fødselsudfald →

Dårlige helbred og dårlige sociale forhold o.s.v. → o.s.v.

Dårlige sociale forhold og negative livsbegivenheder har en tendens til at ophobes, med negative helbredsfølger (Rod, 2020, Mortensen, 2018)

Hvad kan man gøre?



# Har været på dagsorden længe ....

**James Heckman,**  
**Nobelpris 2000 i økonomi**

## The Heckman Equation:

A solution for better education and health outcomes, less crime and poverty and greater economic prosperity.



Anyone looking for upstream solutions to the biggest problems facing America should look to **Nobel Prize winning University of Chicago Economics Professor James Heckman's work.** Great gains are to be had by investing in early childhood development — from birth to age five.

### The Heckman Equation

**Invest**

in educational and developmental resources for disadvantaged families to provide equal access to successful early human development.

**+ Develop**

cognitive skills and social skills in children early — from birth to age five when it matters most.

**+ Sustain**

early development with effective education through adulthood.

**= Gain**

more capable, productive and valuable citizens that pay dividends to America for generations to come.

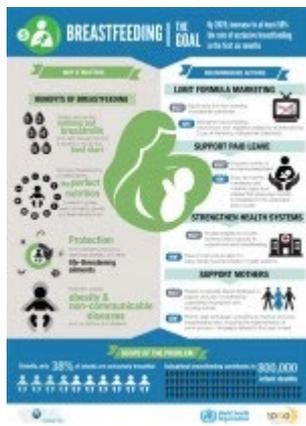
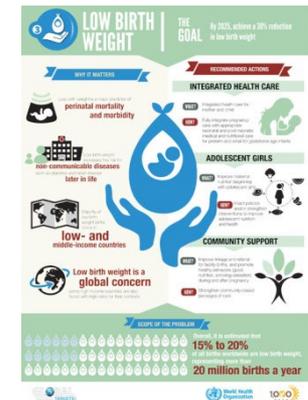


# De første 1000 dage fokuserer (for?) meget på ernæring

- The **1000 Days Initiative** og **WHO** har udviklet seks **policybriefs** og **infographics**

→ Et for hvert **NUTRITIONAL TARGET** i sygdomsforebyggelse

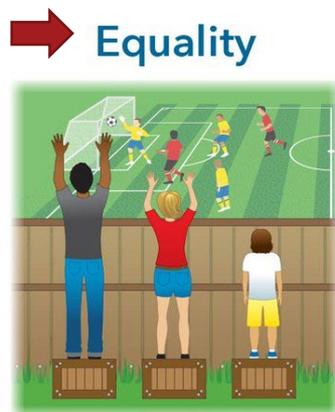
- To **distribute** and increase **attention** and **awareness**



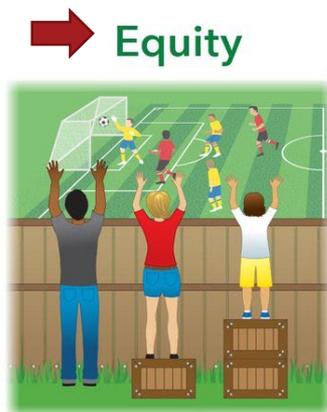
Vi – de sundhedsprofessionelle – må prøve at bryde den transgenerationelle onde cirkel:

Dårlige sociale forhold → Dårligere fødselsudfald →

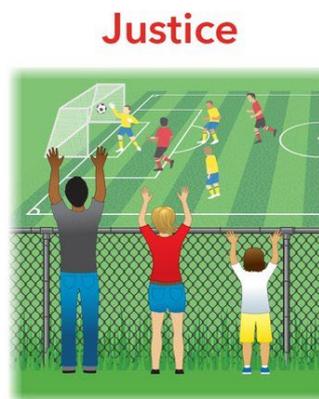
Dårlige helbred og dårlige sociale forhold → o.s.v. → o.s.v.



The assumption is that **everyone benefits from the same supports**. This is equal treatment.



**Everyone gets the supports they need** (this is the concept of "affirmative action"), thus producing equity.



All 3 can see the game without supports or accommodations because **the cause(s) of the inequity was addressed**. The systemic barrier has been removed.

Det kan og bør vi gøre ved at intervenserer ved pilene

# Universalisme vs. målrettet omsorg

- Politikere elsker 'svage grupper'
- Nationalt og internationalt mange indsatser for kvinder med belastede forhold
- Universal forebyggelse og omsorg skrumper

Her er meget at diskutere ...



# Konklusion

- Vores vidensgrundlag er snævert
- Men, der er indkomst gradienter i de fleste alvorlige helbredsudfald
- Vi har gode data – og vi skal også have flere interventionserfaringer
- Tak for at sætte ulighed på dagsordenen