

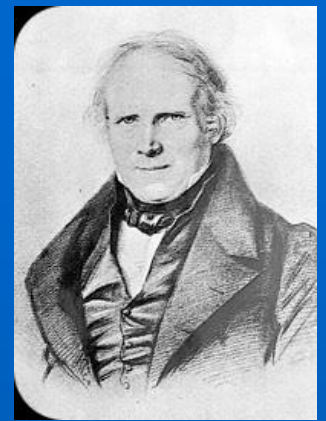
Social inequalities in children's and adolescents' mental health: from observation to prevention.

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Socioeconomic factors and health: a long history of research



(1782-1863)

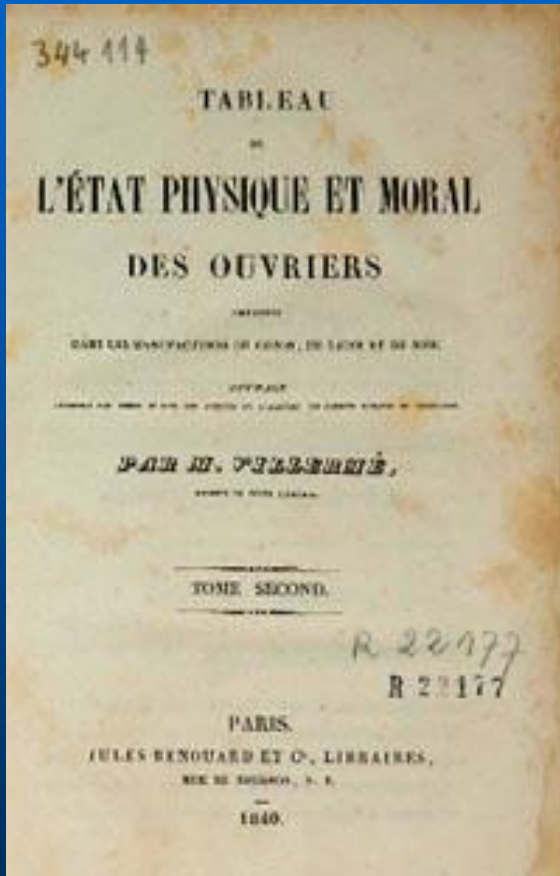
Louis-René Villermé

**La mortalité dans
les divers quartiers
de Paris**

présentation de Maurizio Gribaudo
et postface d'Eric Hazan

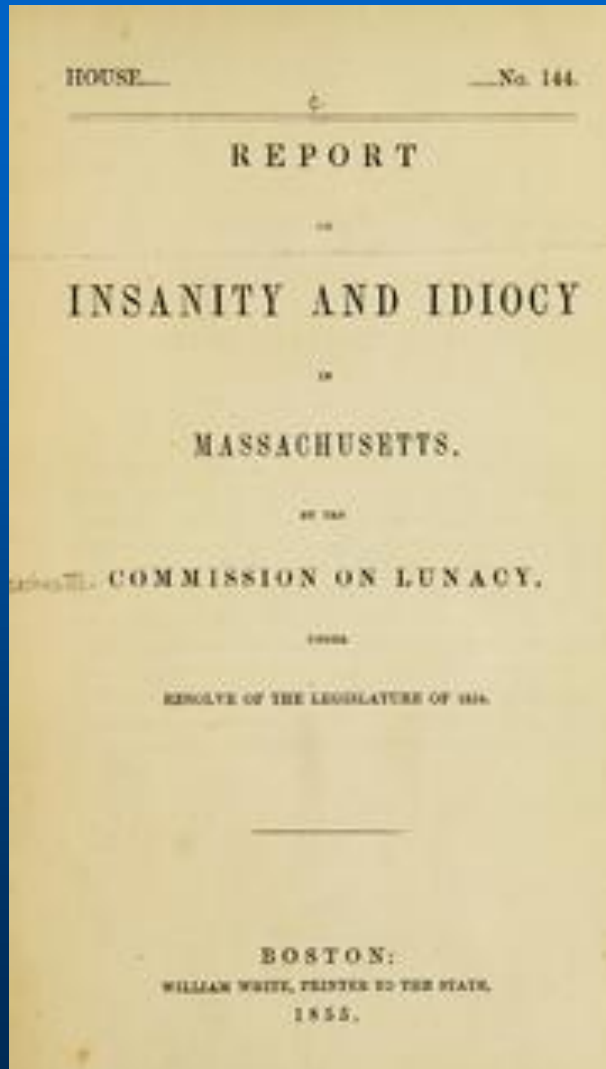
La fabrique
éditions

1830

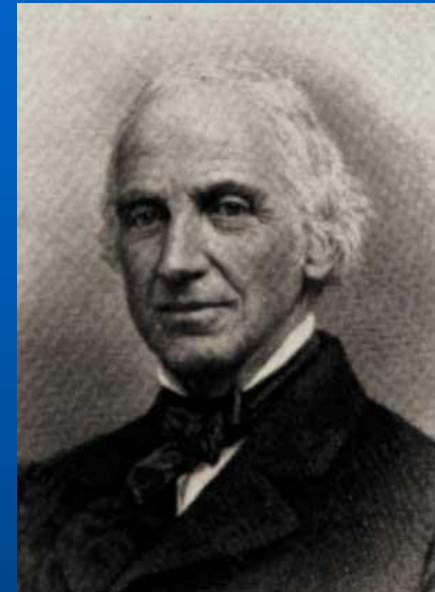


1840

Social inequalities in mental health



1855



Edward Jarvis
(1803-1884)

... 'the pauper class furnishes, in ratio of its numbers, sixty-four times as many cases of insanity as the independent class'

Socioeconomic position and mental health in children and adolescents

Child wellbeing and income inequality in rich societies: ecological cross sectional study

Kate E Pickett, senior lecturer in epidemiology,¹ Richard G Wilkinson, professor of social epidemiology²

Unicef index of child wellbeing:

40 items (health and safety, educational wellbeing, family and peer relations, behaviors and risks, subjective wellbeing)



Correlation between income inequality and the Unicef index of child wellbeing in 23 rich countries

Socioeconomic context and adolescent mental health

TABLE 3—Probit Regression Results for Job Loss and Adolescent Suicide-Related Behaviors With the Inclusion of Additional State Economic Covariates: Youth Risk Behavior Survey, United States, 1997–2009

Group and Variable	Suicidal Ideation, b (95% CI)	Suicide Plan, b (95% CI)	Suicide Attempt, b (95% CI)
Girls			
Job loss ^a	0.046 (-0.002, 0.094)	0.051* (0.003, 0.099)	0.032 (-0.028, 0.093)
Unemployment rate	-0.011 (-0.038, 0.015)	-0.029* (-0.056, -0.001)	-0.052*** (-0.081, -0.024)
Percentage of state population living in poverty	0.010* (0.000, 0.019)	0.013* (0.002, 0.025)	0.016* (0.003, 0.029)
Gross domestic product	-0.065 (-0.261, 0.130)	-0.120 (-0.318, 0.077)	-0.239 (-0.528, 0.050)
Mortgage delinquency rate	0.001 (-0.005, 0.006)	0.005 (-0.000, 0.010)	0.010* (0.003, 0.017)
Non-Hispanic Blacks			
Job loss ^a	0.138** (0.039, 0.236)	0.137* (0.033, 0.241)	0.153* (0.021, 0.285)
Unemployment rate	-0.047* (-0.093, -0.000)	-0.001 (-0.048, 0.046)	-0.058* (-0.112, -0.004)
Percentage of state population living in poverty	-0.009 (-0.029, 0.011)	0.010 (-0.010, 0.030)	0.007 (-0.021, 0.034)
Gross domestic product	-0.115 (-0.549, 0.319)	0.166 (-0.336, 0.669)	0.142 (-0.441, 0.725)
Mortgage delinquency rate	0.005 (-0.005, 0.015)	0.000 (-0.010, 0.010)	0.016** (0.004, 0.028)

Note. CI = confidence interval. All models adjusted for age, state of residence, and year. The models for girls also adjusted for race/ethnicity. The models for non-Hispanic Blacks also adjusted for gender.

^aAmong 1% of the working-age population.

* $P < .05$; ** $P < .01$; *** $P < .001$.



SHARE POLICY FORUM | ECONOMICS AND PSYCHOLOGY



Linking job loss, inequality, mental health, and education

Elizabeth O. Ananat¹, Anna Gassman-Pines¹, Dania V. Francis², Christina M. Gibson-Davis¹
+ See all authors and affiliations

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State-level job loss → Poor youth mental health → Low academic attainment





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Review

Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review



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[Child Psychiatry & Human Development](#)

June 2016, Volume 47, [Issue 3](#), pp 440–458

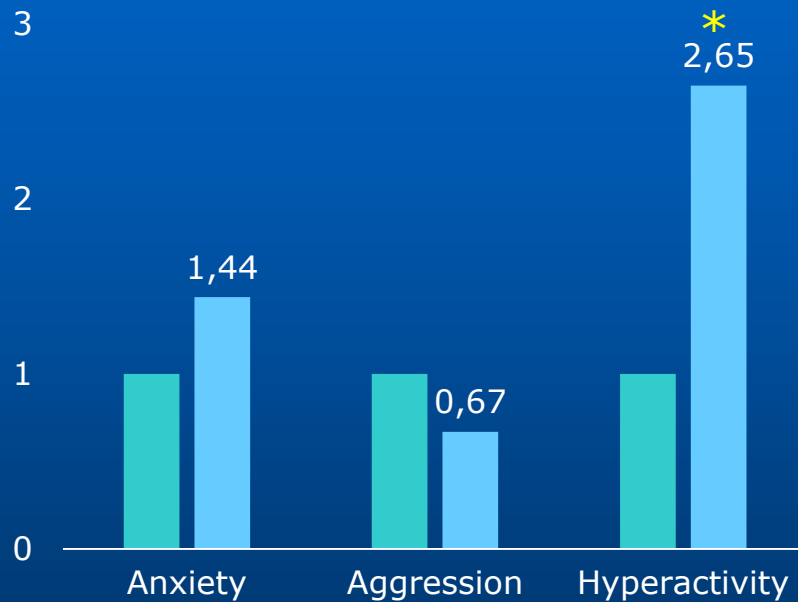
The Association Between Socioeconomic Disadvantage and Attention Deficit/Hyperactivity Disorder (ADHD): A Systematic Review

What have we learnt since the 1800s?

- Reiss et al. 2013:
 - 55 studies: 52 report socioeconomic differences in mental health
 - household income, poverty, parental education, parental occupation status, or family affluence
 - SDQ, CBCL, YSR
 - Effect size: 2-3 times more mental health problems
 - Household income, low parental education
 - Children < 12yrs
 - Persistence of low SES or decrease in SES
 - Externalizing symptoms in some studies

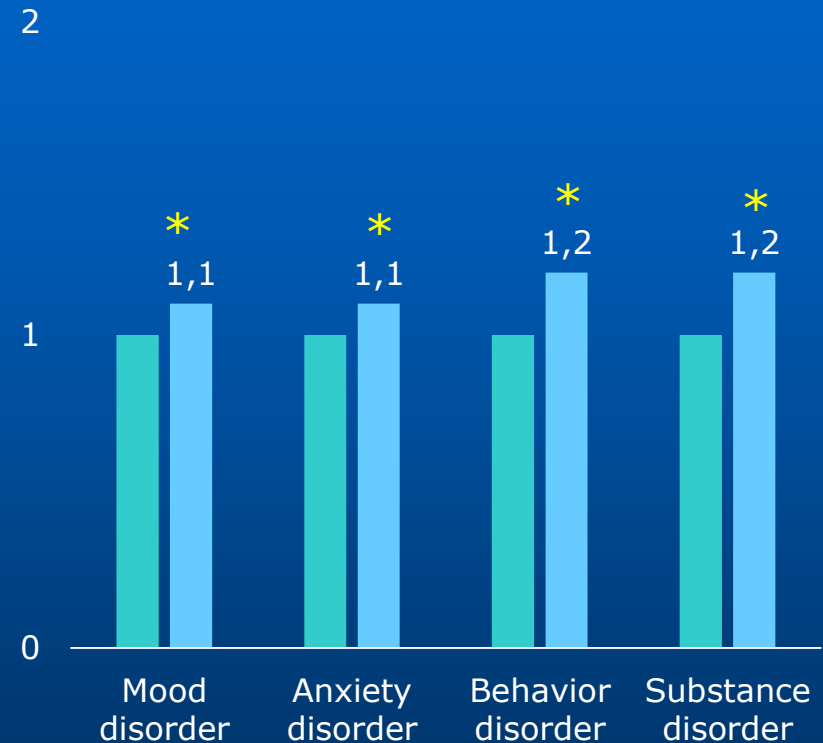
Food insecurity and behavior

QLSCD 4-8 years
(n=1682, ORa)



■ Food secure ■ Food insecure

NCS-A 13-17 years
(n=6,483, ORa)



■ Food secure ■ Food insecure

Subjective socioeconomic position and adolescents' mental health

TABLE 3—Associations of Absolute and Relative SES Indicators With 12-Month *DSM-IV* Mental Disorders: National Comorbidity Survey Adolescent Supplement, February 2001–January 2004

Indicator	Model 1: Bivariate Associations, ^a OR (95% CI)	Model 2: Absolute SES, OR (95% CI)	Model 3: Relative Deprivation, OR (95% CI)	Model 4: Tract-Level Inequality, OR (95% CI)	Model 5: Subjective Social Status, OR (95% CI)	Model 6: Fully Adjusted Model, OR 95% CI
Parent education						
< high school	1.5* (1.1, 2.0)	1.4* (1.0, 2.0)	1.5* (1.0, 2.0)	1.5* (1.0, 2.0)	1.3 (0.9, 1.9)	1.3 (0.9, 1.9)
High school	1.2* (1.0, 1.5)	1.2 (1.0, 1.5)	1.2 (1.0, 1.5)	1.2 (1.0, 1.5)	1.1 (0.9, 1.4)	1.2 (1.0, 1.4)
Some college	1.4* (1.2, 1.7)	1.4* (1.1, 1.8)	1.4* (1.1, 1.8)	1.4 (1.1, 1.8)	1.4* (1.1, 1.7)	1.4* (1.1, 1.7)
χ^2_3 (2-sided <i>P</i>)	17.3* (<.001)	11.1* (.011)	11.3* (.01)	8.8* (.033)	11.2* (.011)	9.0* (.029)
Family income						
< 1.5 × poverty	1.1 (0.8, 1.6)	1.0 (0.8, 1.5)	0.9 (0.7, 1.3)	1.1 (0.8, 1.5)	1.0 (0.7, 1.4)	0.9 (0.7, 1.3)
> 1.5 and < 3 × poverty	1.2 (1.0, 1.5)	1.1 (0.9, 1.5)	1.0 (0.8, 1.3)	1.1 (0.9, 1.5)	1.1 (0.8, 1.4)	1.0 (0.8, 1.3)
> 3 and < 6 × poverty	1.1 (0.9, 1.3)	1.0 (0.8, 1.3)	1.0 (0.8, 1.2)	1.0 (0.9, 1.3)	1.0 (0.9, 1.2)	1.0 (0.8, 1.2)
χ^2_3 (2-sided <i>P</i>)	2.8 (.42)	1.3 (.723)	0.9 (.823)	1.0 (.813)	1.4 (.713)	0.7 (.873)
Relative SES indicators						
Relative deprivation	1.0 (0.9, 1.0)		1.0 (1.0, 1.1)			1.0 (1.0, 1.1)
Tract-level Gini coefficient	1.0 (0.9, 1.0)			1.0 (0.9, 1.0)		1.0 (0.9, 1.0)
Subjective social status	0.8* (0.7, 0.8)				0.8* (0.7, 0.8)	0.8* (0.7, 0.8)

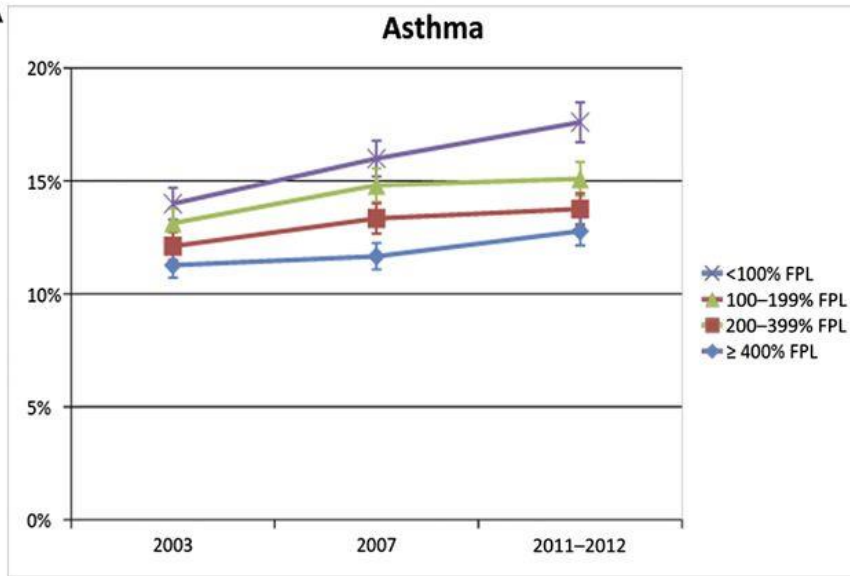
Note. CI = confidence interval; *DSM-IV* = *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*; OR = odds ratio; SES = socioeconomic status. The sample size was *n* = 6483. Models were estimated in a logistic regression framework and controlled for age, gender, and race/ethnicity. The outcome variable in all models is presence of a past-year mental disorder.

^aBivariate models present the association between each of the SES variables, considered alone, and past-year mental disorder, controlling for the demographic factors listed above.

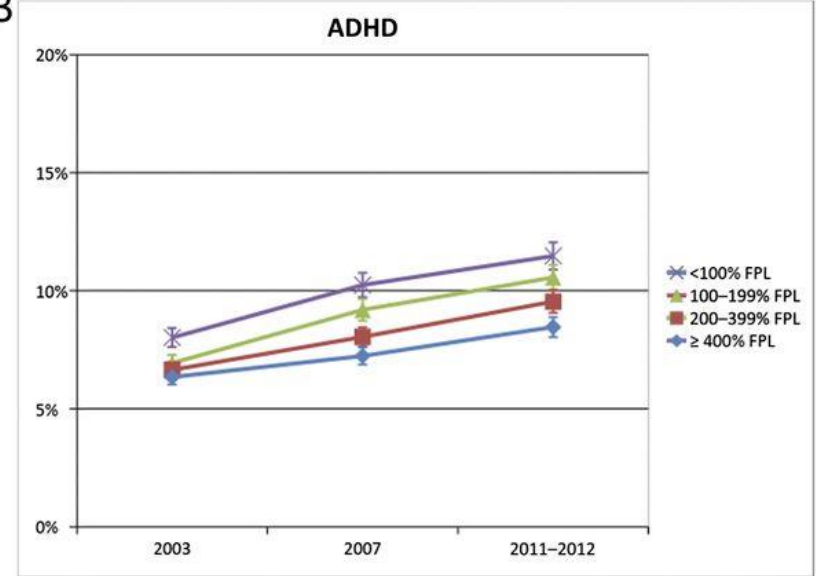
**P* < .05, 2-sided test.

National Survey of Children's Health (2003-2011/12; n>91,000)

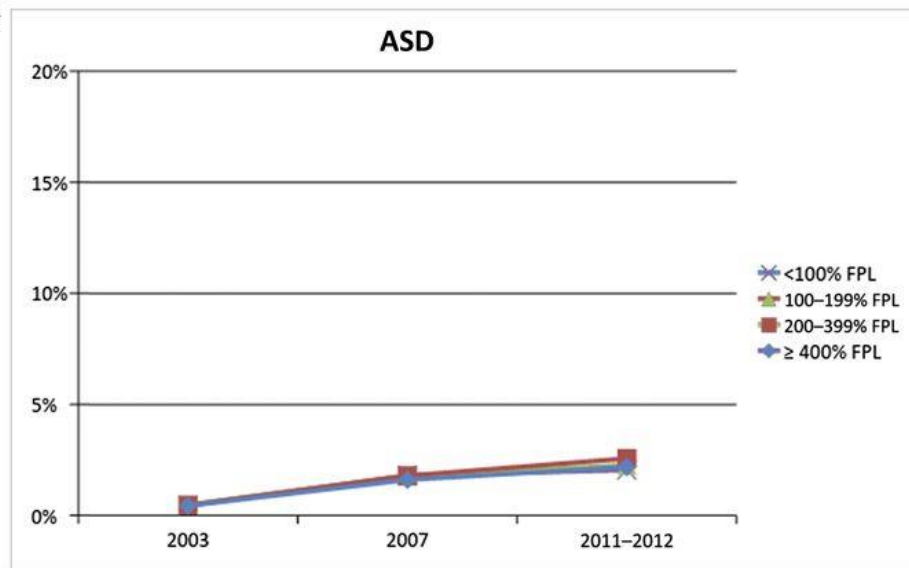
A



B

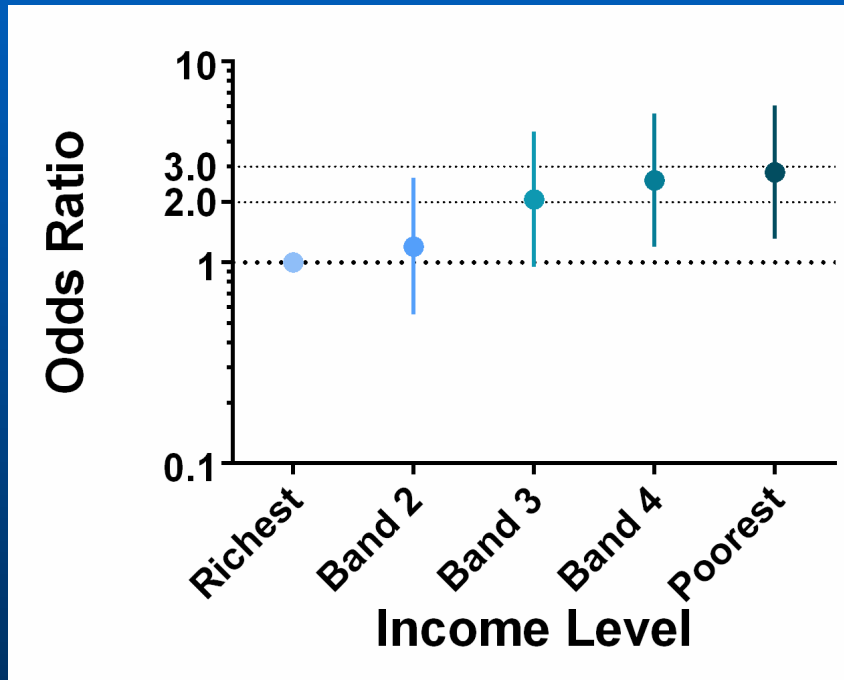


C

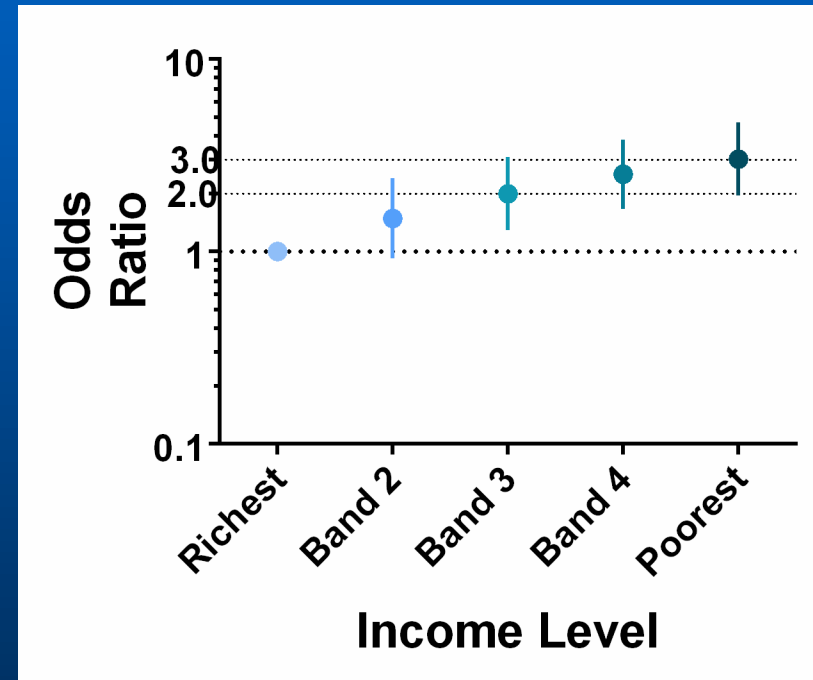


Social gradient in children's emotional difficulties : UK Millenium cohort study, n~15 000, since 2000-2002

3 years



5 years



Socioeconomic position and mental health service use

- Parental educational level predicts **identification** of behavioral/emotional difficulties in offspring.
- The relationship between family socioeconomic position and **health care seeking varies across settings** (i.e. United States/Australia vs. Europe/Canada).

Does socioeconomic position cause
mental health problems?

Socioeconomic status and psychiatric disorders: the causation-selection issue.

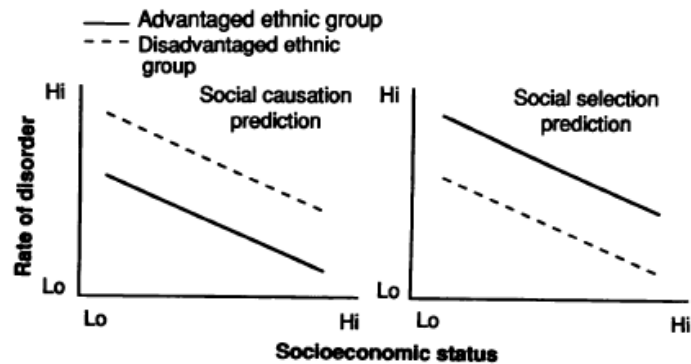


Fig. 1. Summary of social causation versus social selection predictions for any type of psychiatric disorder that is inversely related to socioeconomic status in the general population.

Table 2. Diagnostic results of second-phase clinical interviews. "Current" prevalence (1 year before interview) rates per hundred of RDC definite diagnoses by education, gender, and ethnic background.

Education	European (n = 1197)		North African (n = 1544)	
	Male (602)	Female (595)	Male (852)	Female (692)
<i>Schizophrenia</i>				
Not high school graduate	4.18	0.84	1.91	0.00
High school graduate	0.29	0.39	0.17	0.00
College graduate	0.00	0.39	0.00	0.00
<i>Major depression</i>				
Not high school graduate	3.01	4.81	3.47	6.60
High school graduate	2.06	2.93	4.61	12.11
College graduate	0.66	1.68	2.94	10.70
<i>Antisocial personality (lifetime)</i>				
Not high school graduate	0.73	0.82	6.97	0.73
High school graduate	0.15	0.00	0.79	0.30
College graduate	0.00	0.00	0.00	0.00
<i>Substance use disorders</i>				
Not high school graduate	2.28	0.84	8.29	0.72
High school graduate	0.44	0.13	0.75	0.28
College graduate	0.49	0.00	0.00	0.00

Children and adolescents' mental health and parents' socioeconomic position

US-based multiemployer database, 2001-2007, n=650,000

	No ADHD in family	ADHD	Child with ADHD
Annual health expenses (\$)	4,042	6,885	5,681
Annual absence days (n)	6.53	8.86	7.91
Termination rate (%)	4.22	8.99	5.20

What can be done to decrease socioeconomic inequalities in mental health in children and adolescents?

Promoting equity in the mental wellbeing of children and young people: a scoping review

Jennifer Welsh^{1,*}, Lyndall Strazdins¹, Laura Ford¹, Sharon Friel²,
Kerryn O'Rourke³, Stephen Carbone³, and Leanne Carlon³

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*Corresponding author. E-mail: jennifer.welsh@anu.edu.au

Improving mental health and decreasing inequalities with regard to mental health are not equivalent!

Interventions focused on youths from disadvantaged families

■ Early schooling/education

- *HighScope Perry Preschool, Sure Start, Head Start*



■ Community interventions

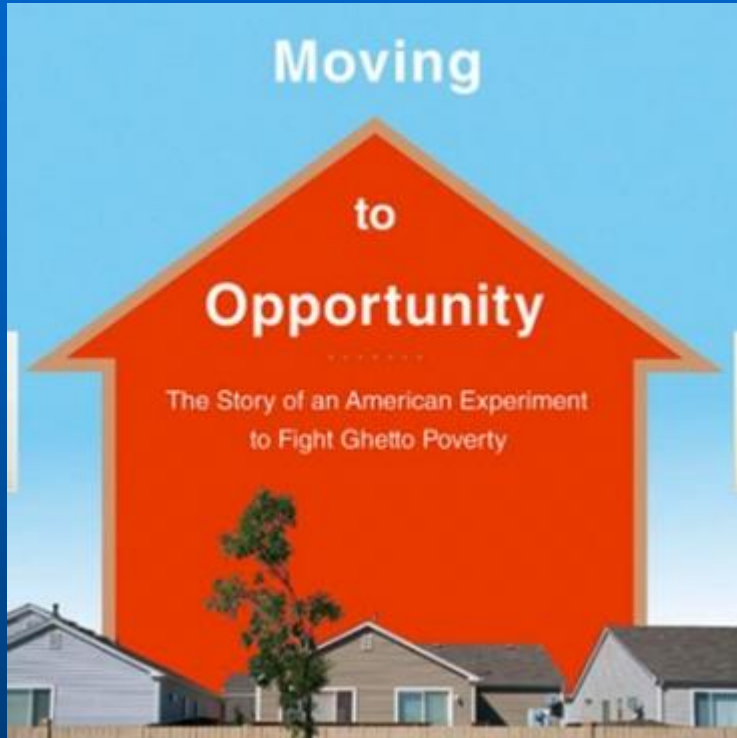
- *Communities that Care*

■ Physical environment

- *Neighborhood Renewal Strategy; Moving to Opportunity*

Moving To Opportunity, n=4610 families, 1994-2010

Boston, Baltimore, Chicago, Los Angeles, New York



- Families living in low income neighborhoods
- Rent vouchers (non-poor, traditional)
- Control group

Moving To Opportunity: 10-15 years later (n=2,872, median age 16 years)

Absolute risk (%)

	Low poverty neighborhood		Any neighborhood		Control	
	Girls	Boys	Girls	Boys	Girls	Boys
Major depression	6.5	7.1	6.5	5.7	10.9	3.5
PTSD	8.2	6.2	4.5	4.9	6.7	1.9
Conduct disorder	1.5	6.4	0.3	4.2	2.9	2.1

Universal interventions

■ School settings

- *Mind matters, FRIENDS*

■ Online settings

- *Reach out*

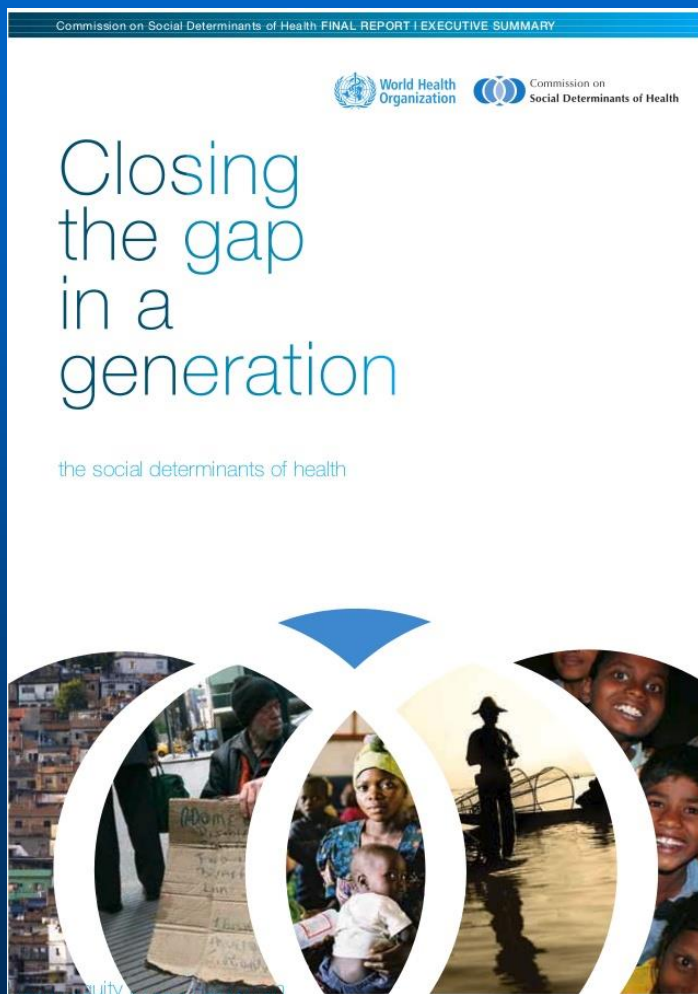


■ Family interventions

- *Triple P-Positive Parenting Program*

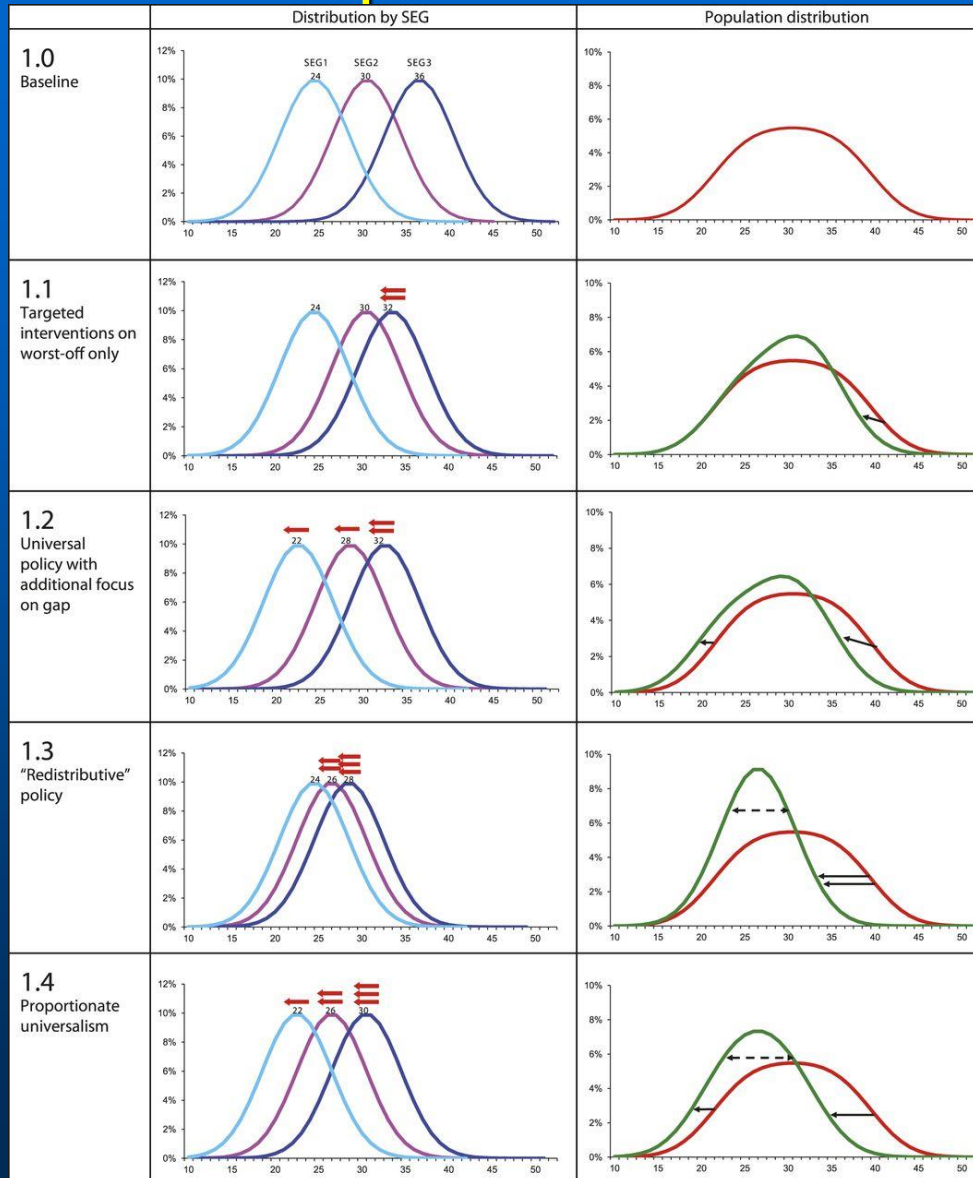


WHO Commission on the Social Determinants of health (2005-2008)



Michael Marmot

Population impact of strategies targeting social inequalities in health



e.g. Sure Start, Head Start, home-visiting programs

e.g. targeted childcare places

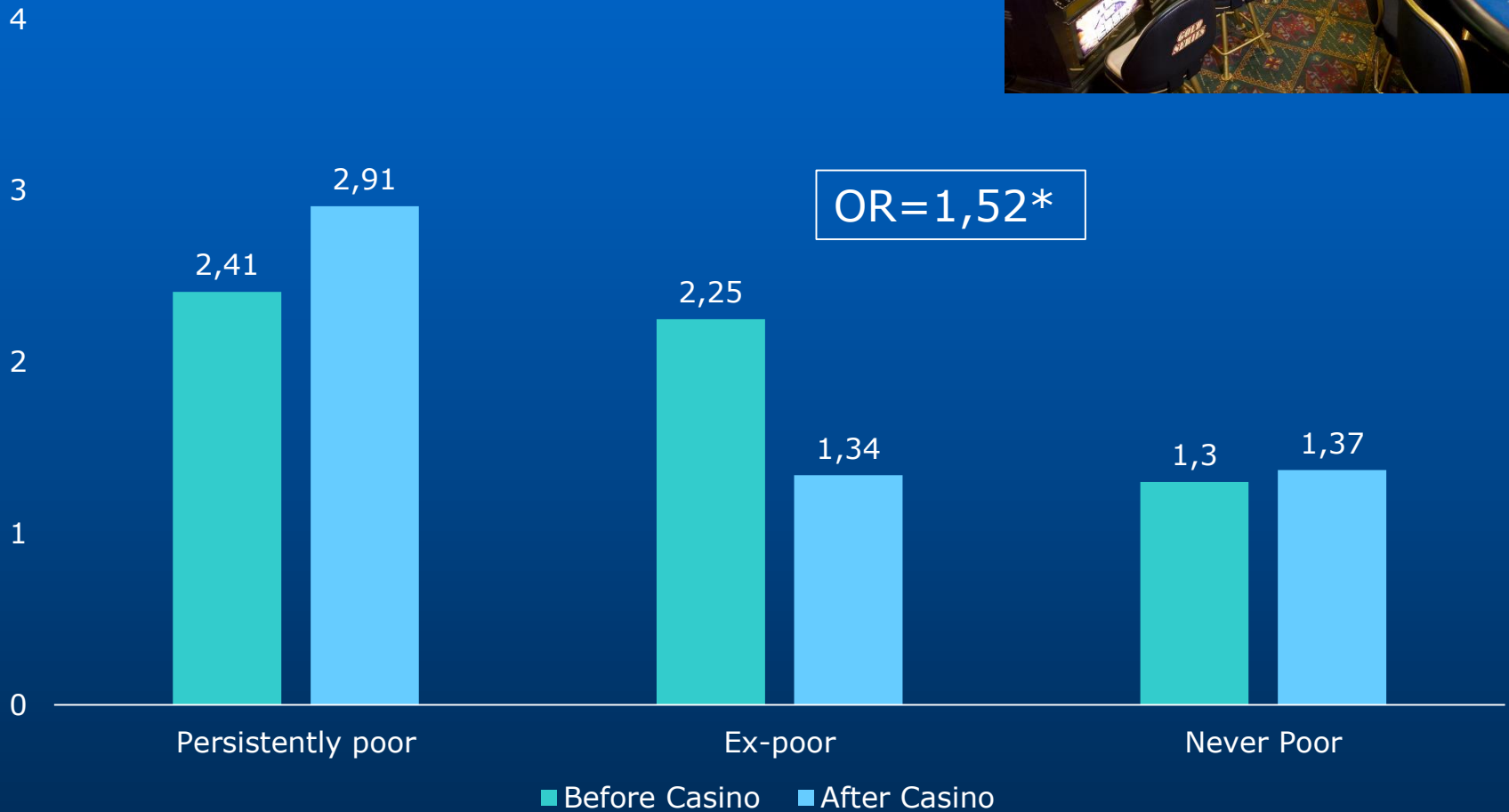
e.g. social housing, cash transfer programs, tax policy

e.g. folic acid fortification, early schooling

Benach et al,
JECH, 2013; 67(3):
286-91.

A natural experiment

(Great Smoky Mountain study, n=1420, 9-13 years)



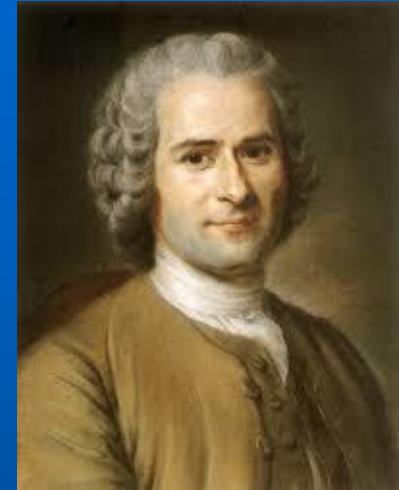
Costello et al, *JAMA*, 2003; 290: 2023-29.

Summary

- **Prevailing socioeconomic inequalities** in child and adolescent mental health
 - **Parental education and income**
 - Adolescents' **perceptions** of socioeconomic status
- **Gradient** across the socioeconomic hierarchy
 - Material as well as **psychosocial factors**
- Role of **social policies** that influence families' employment and income
- Need to evaluate universal interventions/policies with regard to **equity in mental health**

Natural vs. Moral/political inequality

“ The **extreme inequality of our ways of life**, the **excess of idleness among some** and the **excess of toil among others**, the ease of stimulating and gratifying our appetites and our senses, the **over-elaborate foods of the rich**, which inflame and overwhelm them with indigestion, the **bad food of the poor**, which they **often go without altogether**, so that they over-eat greedily when they have the opportunity; those late nights, excesses of all kinds, immoderate transports of every passion, **fatigue, exhaustion of mind**, the **innumerable sorrows and anxieties** that people in all classes suffer, and by which the human soul is constantly tormented: these are the fatal proofs that most of our ills are of our own making.”



(1712-1778)

Rousseau, Discourse on the Origins of Inequality, 1755