

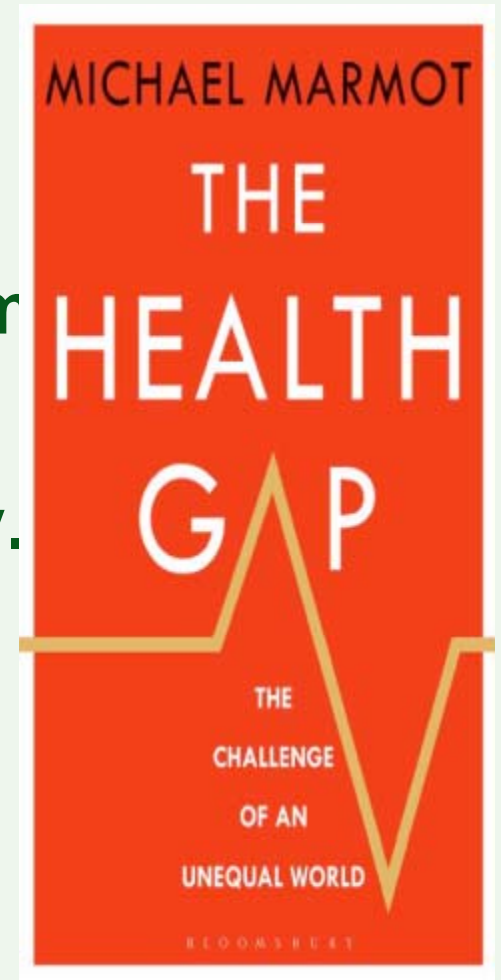


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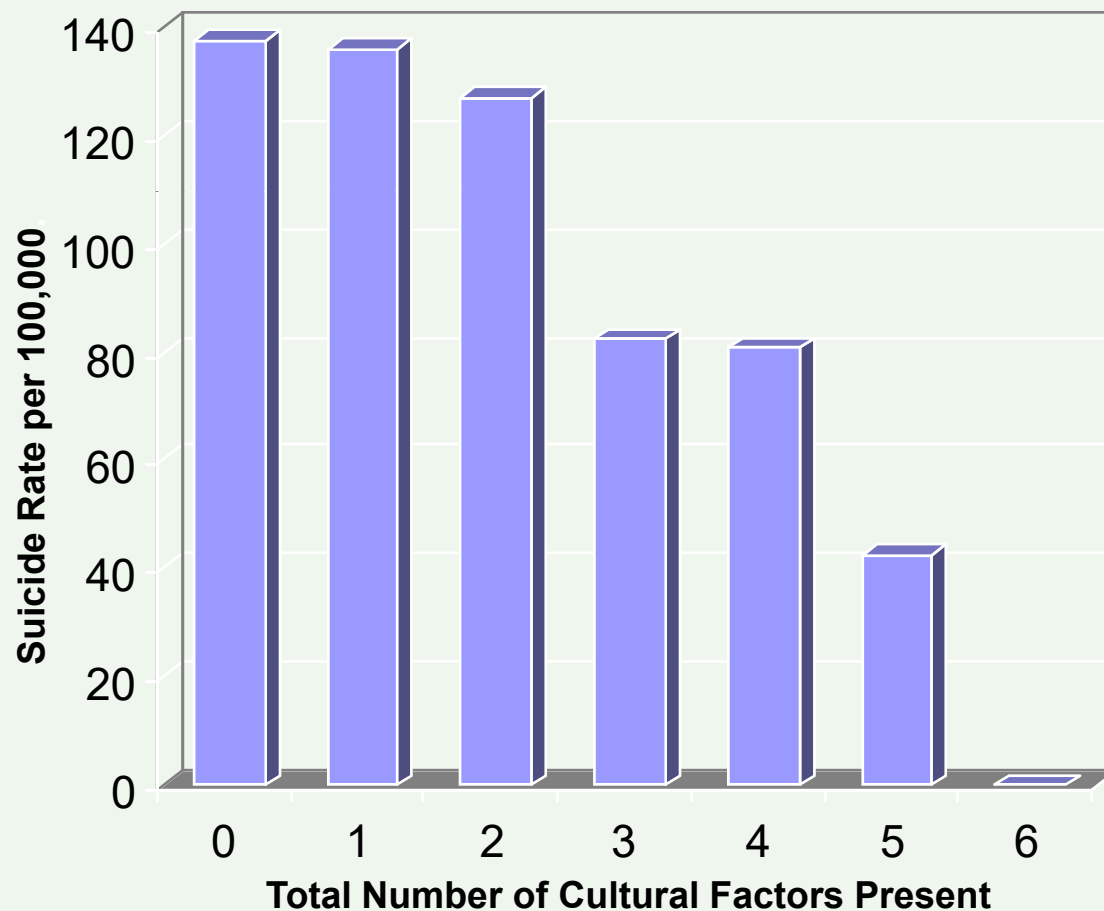
## The Health Gap

**Professor Sir Michael Marmot**  
**@MichaelMarmot**  
**[www.instituteofhealthequity.org](http://www.instituteofhealthequity.org)**





# Aboriginal Youth Suicide by Factors Present



## Cultural Factors:

- Self-government
- Land claim participation

## Community Control:

- Health services
- Education
- Cultural facilities
- Police/fire services



## Growing up in Baltimore: worlds apart

- City of Baltimore in the US state of Maryland is marked by stark inequalities.
- LeShawn, has grown up in the Upton/Druid Heights neighbourhood in Baltimore's inner city.
- Bobby has grown up in Greater Roland Park/Poplar.
- Life expectancy in Upton/Druid is sixty-three; in Roland Park, eighty-three.



## **LeShawn Baltimore Upton/Druid**

- Half are single parent families.
- Median household income in 2010 was \$17,000
- Four out of ten under 'proficient' reading third grade
- >50% missed at least 20 days of high school a year.
- 90% did not go on to college.
- Each year, a third aged 10-17 arrested for 'juvenile disorder'. A third each year: criminal record by 17.
- In 2005 to 2009, 100 non-fatal shootings for every 10,000 residents, and nearly forty



## **Bobby Baltimore: Roland Park**

- 93% two-parent families
- Median income \$90,000
- 97% achieve 'proficient or advanced' in third grade reading
- Only 8% missed twenty days a year of high school
- 75% complete college
- Juvenile arrests one in fifty each year
- No non-fatal shootings in 2005–2009; four homicides per 10,000



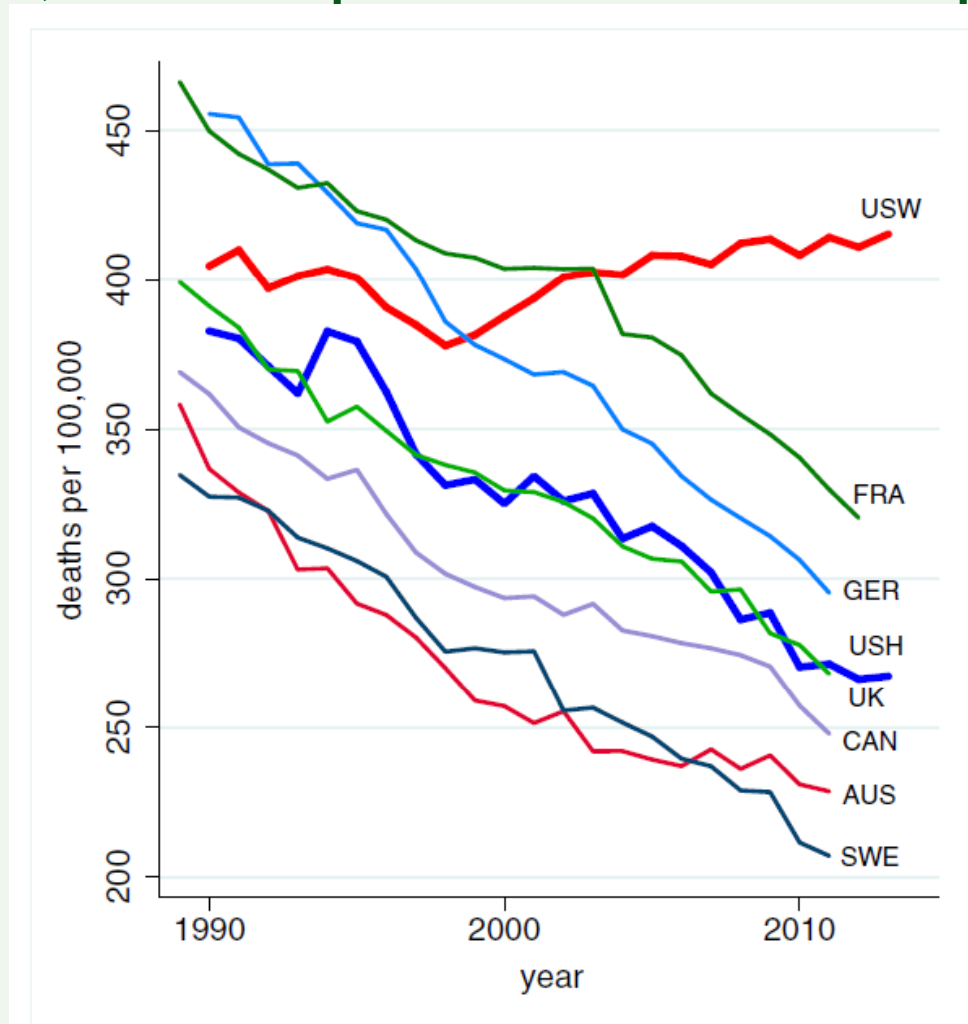
## Life expectancy at birth for men and women in the US, 2008

Years of education	White women	Black women	White men	Black men
<12	73	73	67	66
12	78	74	72	68
13-15	82	80	79	74
16+	83	81	81	75

Source: Olshansky et al, Health Aff. 2012



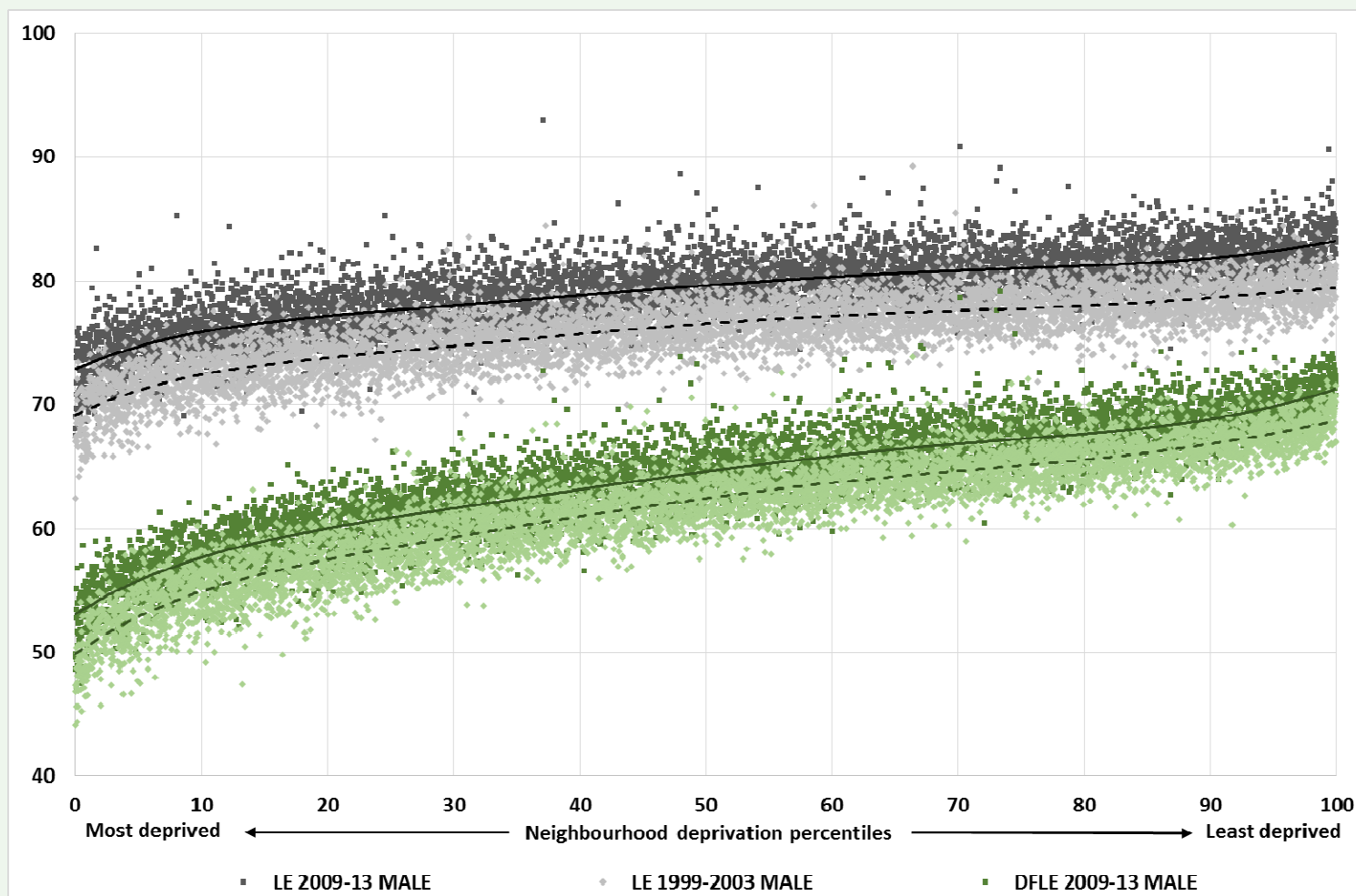
## All-cause mortality, ages 45–54 for US White non-Hispanics, US Hispanics and 6 comparison countries



US White non-Hispanics (USW),  
US Hispanics (USH),  
France (FRA),  
Germany (GER),  
United Kingdom (UK),  
Canada (CAN),  
Australia (AUS),  
Sweden (SWE).



## Life expectancy and disability-free life expectancy (DFLE) at birth, males by neighborhood deprivation, England, 1999–2003 and 2009–2013



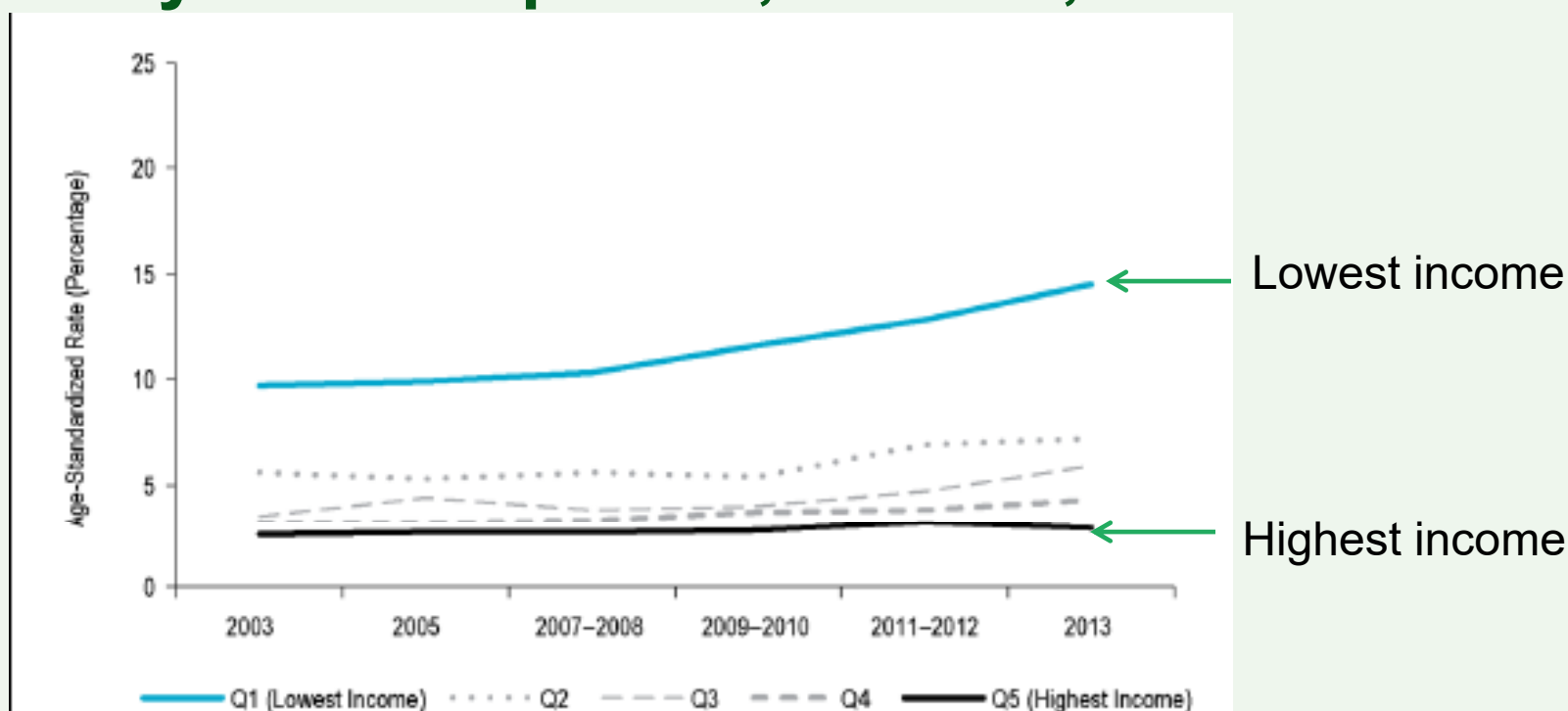




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## Fair/Poor Self-rated mental health prevalence rates by income quintile, Canada, 2003-2013



	2003	2013	Change Over Time		
			Direction	Percentage	Difference
All Quintiles (95% CI)	4.7 (4.5 to 4.9)	6.4 (6.0 to 6.8)	↑	36.3* (25.8 to 46.7)	1.7* (1.3 to 2.2)
Q1 (95% CI)	9.7 (9.0 to 10.3)	14.5 (12.9 to 16.0)	↑	49.9* (30.9 to 68.8)	4.8* (3.1 to 6.5)
Q5 (95% CI)	2.5 (2.1 to 2.8)	2.8 (2.2 to 3.3)	—	—	—

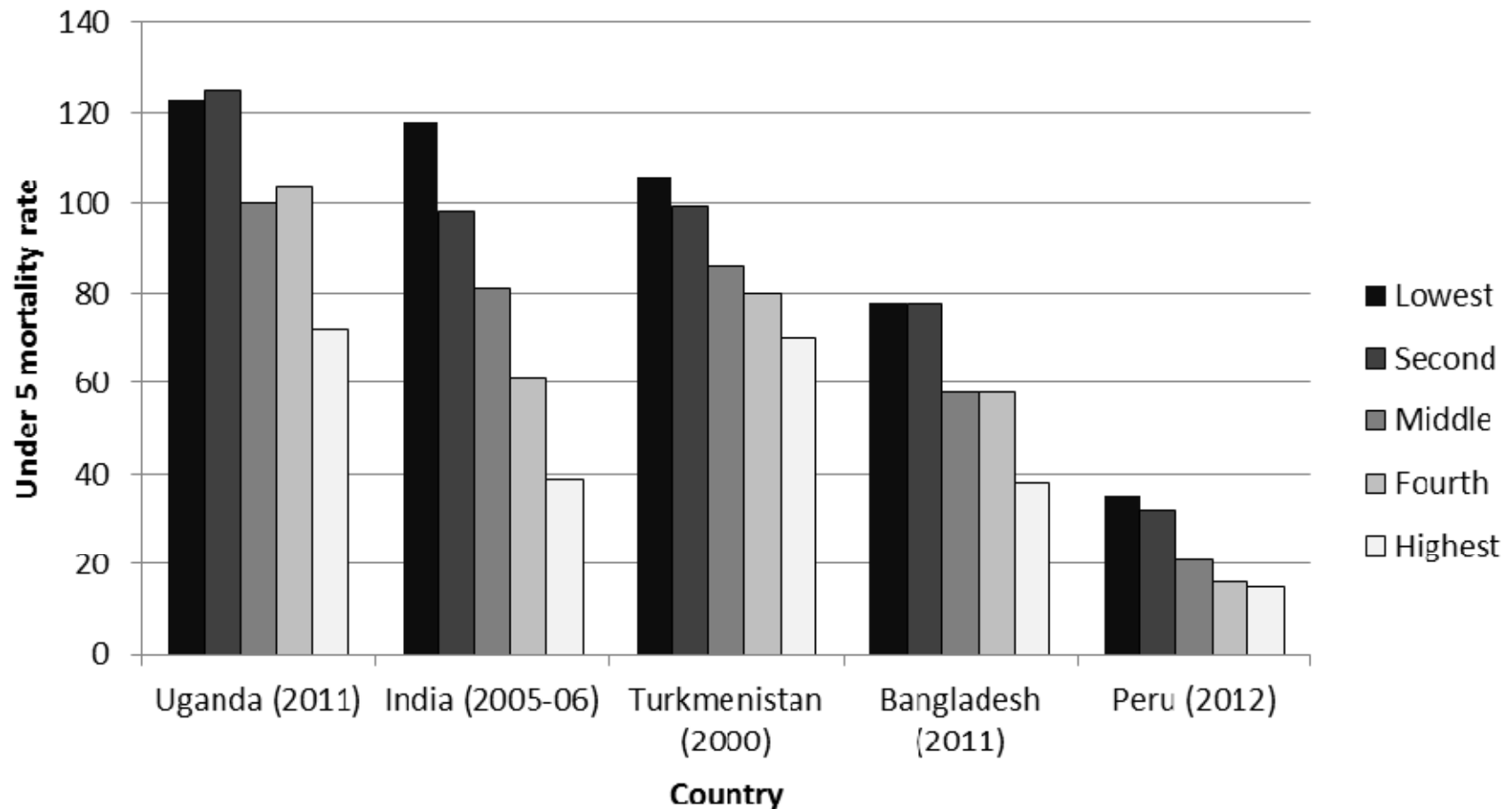
Trends in Income-Related Health Inequalities in Canada (Nov. 2015)



- “Go into a typical American school and count one hundred boys aged fifteen. Thirteen of you will fail to reach your sixtieth birthday.”
- “Is thirteen out of a hundred a lot?”
- “The US risk is *double* the Swedish risk, which is less than seven.”



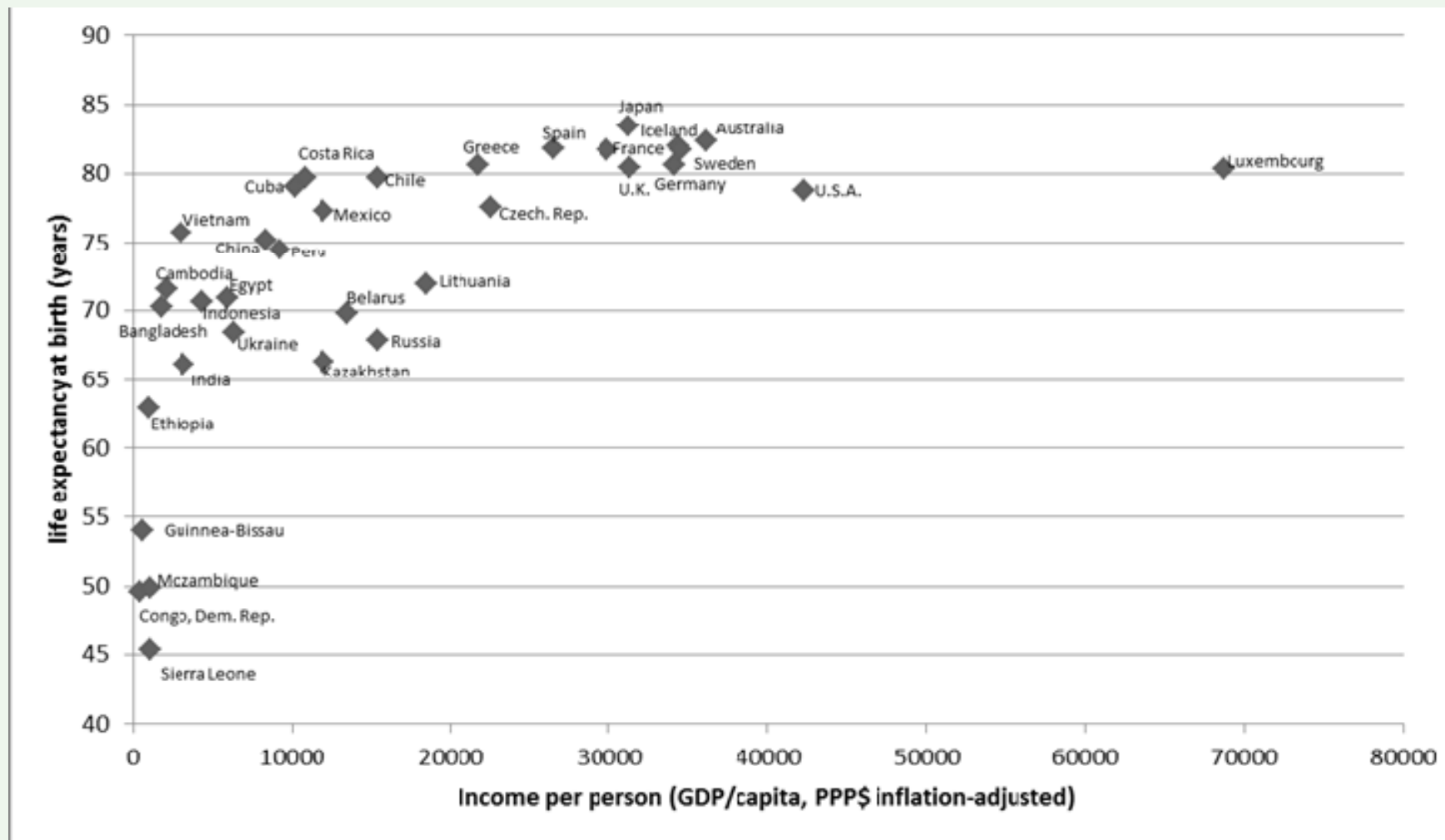
## Under 5 mortality rate (per 1000 live births) by wealth quintile



Source: Data from DHS



# The relationship between wealth and health, 2012



Source: Data from Gapminder



# Lifecourse

*So we beat on, boats against the current, borne  
back ceaselessly into the past.*

-F. Scott Fitzgerald, *The Great Gatsby*





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# Give Every Child the Best Start



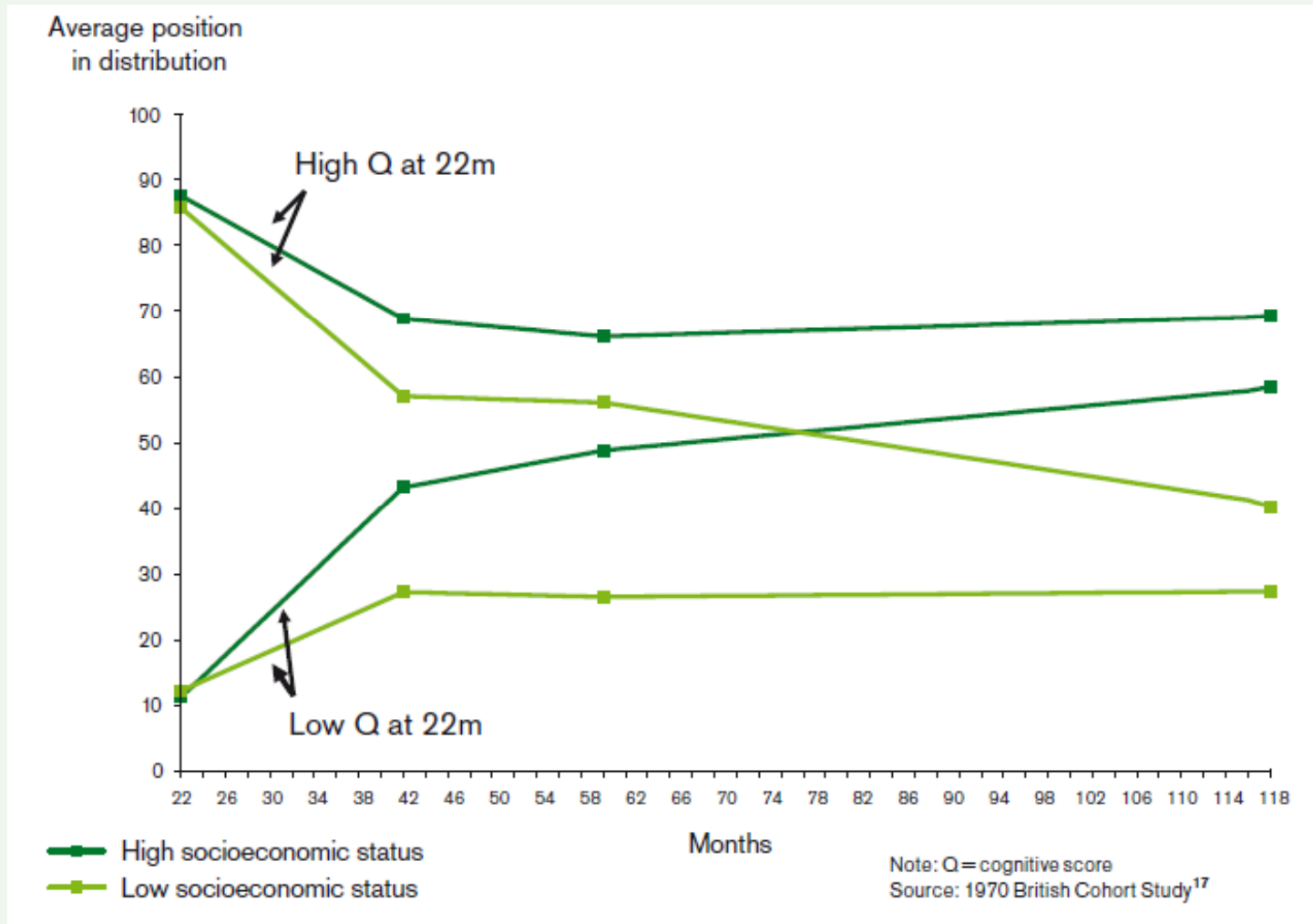


## Jimmy, Calton, Glasgow

- Single mother with succession of partners; physical and ? sexual abuse
- Behaviour problems at school entry
- Delinquency; known to police: gangs and violence
- never had a 'proper' job – temporary manual work
- any money Jimmy gets goes into drink and drugs;
- Diet of pub food, fast food and alcohol.
- a series of short-term girlfriends, alcohol-fuelled violent behaviour.
- Jimmy's life expectancy less than Indian average.

# Inequality in early cognitive development of children in the 1970 British Cohort Study, ages 22 months to 10 years

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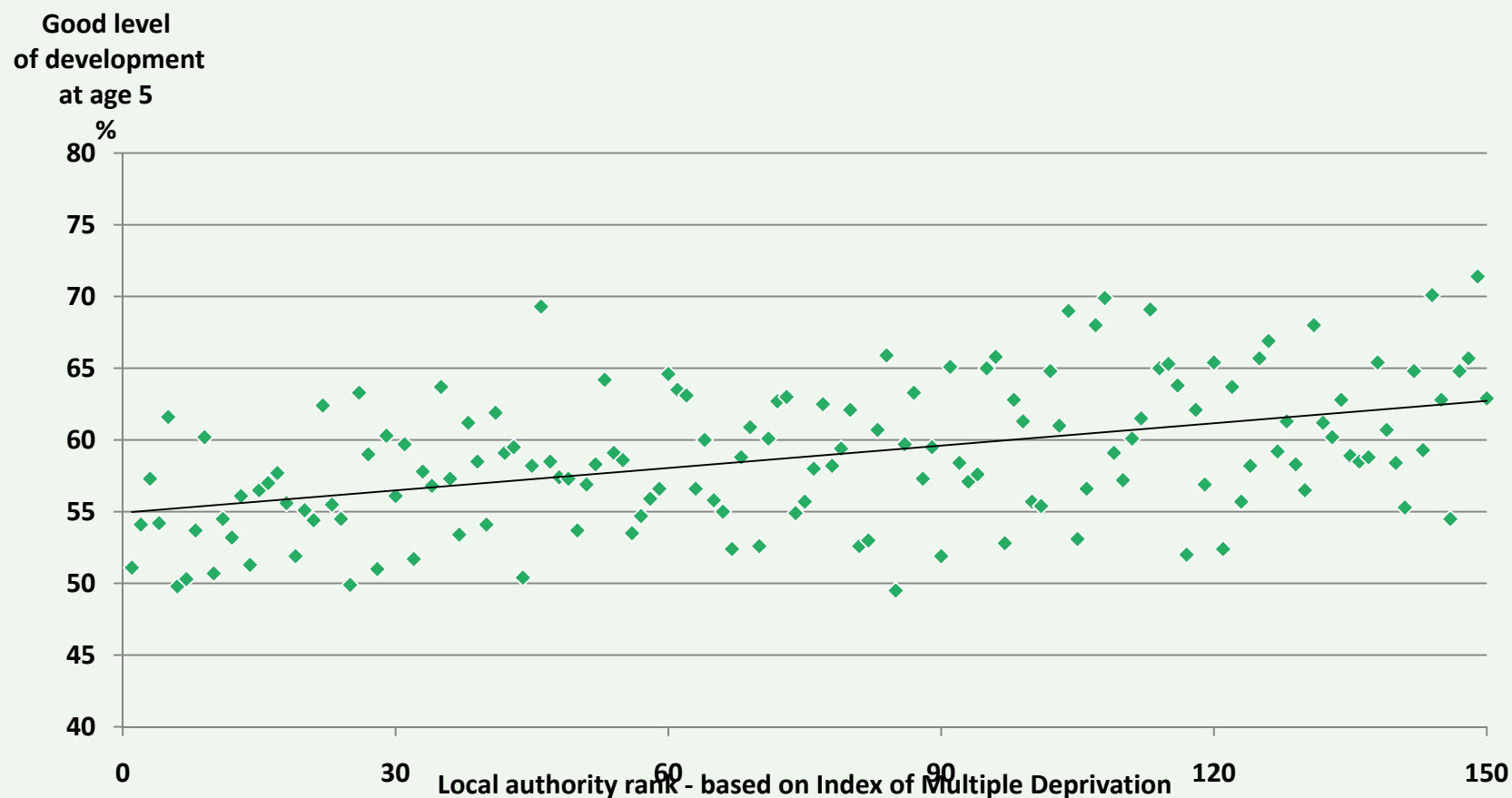


Feinstein 2003





## Children achieving a good level of development at age five, local authorities 2011: England



Source: LHO (2012)

# Country comparison on average rank in four dimensions of child wellbeing – material, health, education, behaviours & risks. in early 2000s and late 2000s

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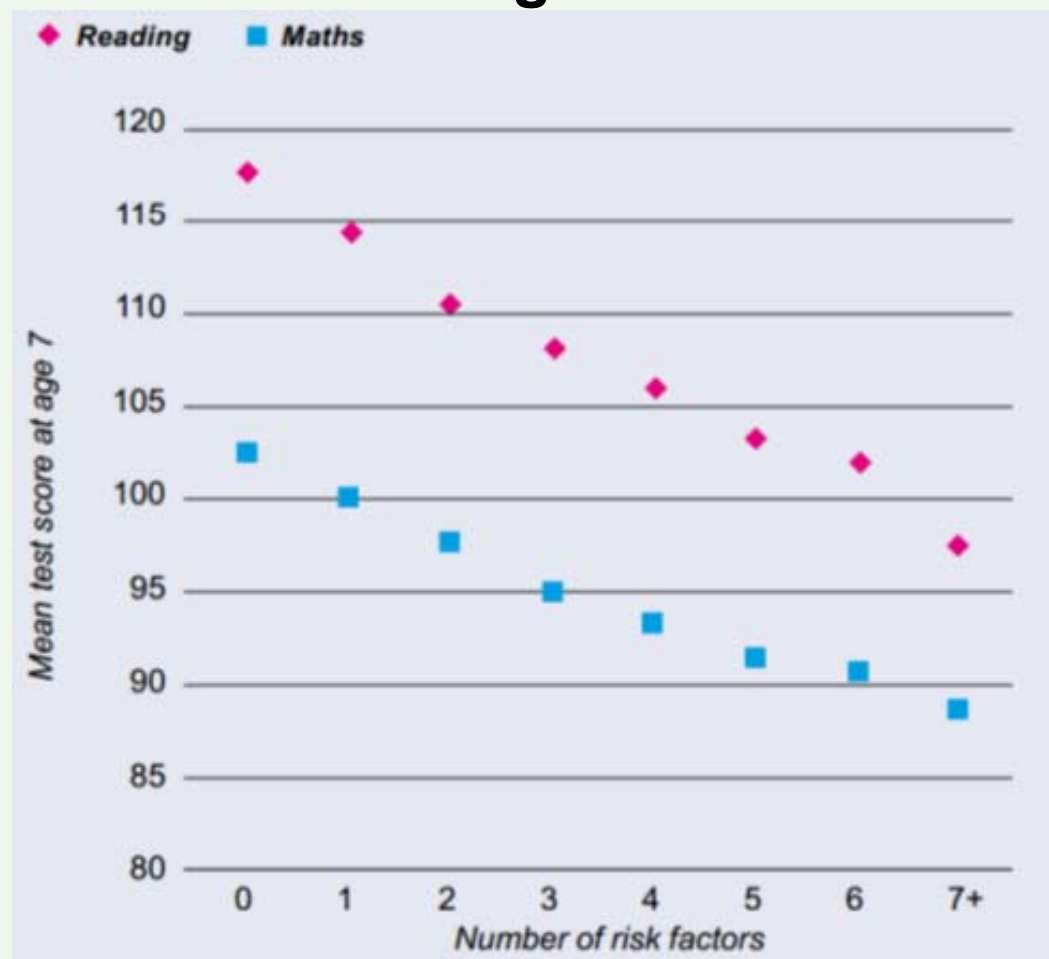
Rank	Early 2000s	Rank	Late 2000s	Change in rank
1	Sweden	1	Netherlands	+2
2	Finland	2	Norway	+2
3	Netherlands	3	Finland	-1
4=	Denmark	4	Sweden	-3
4=	Norway	5	Germany	+2
6	France	6	Denmark	-2
7	Germany	7	Belgium	+1
8	Belgium	8=	France	-2
9=	Czech Republic	8=	Ireland	+4
9=	Poland	8=	Switzerland	+3
11	Switzerland	11	Portugal	+5
12	Ireland	12	Poland	-3
13	Spain	13	Czech Republic	-4
14=	Canada	14=	Canada	no change
14=	Italy	14=	Italy	no change
16=	Greece	16	United Kingdom	+4
16=	Portugal	17	Austria	+1
18	Austria	18=	Greece	-2
19	Hungary	18=	Hungary	+1
20=	United Kingdom	18=	Spain	-5
20=	United States	21	United States	-1

UNICEF 2013



# Inequalities in cognitive development by multiple factors, UK

## Cognitive test scores at age 7

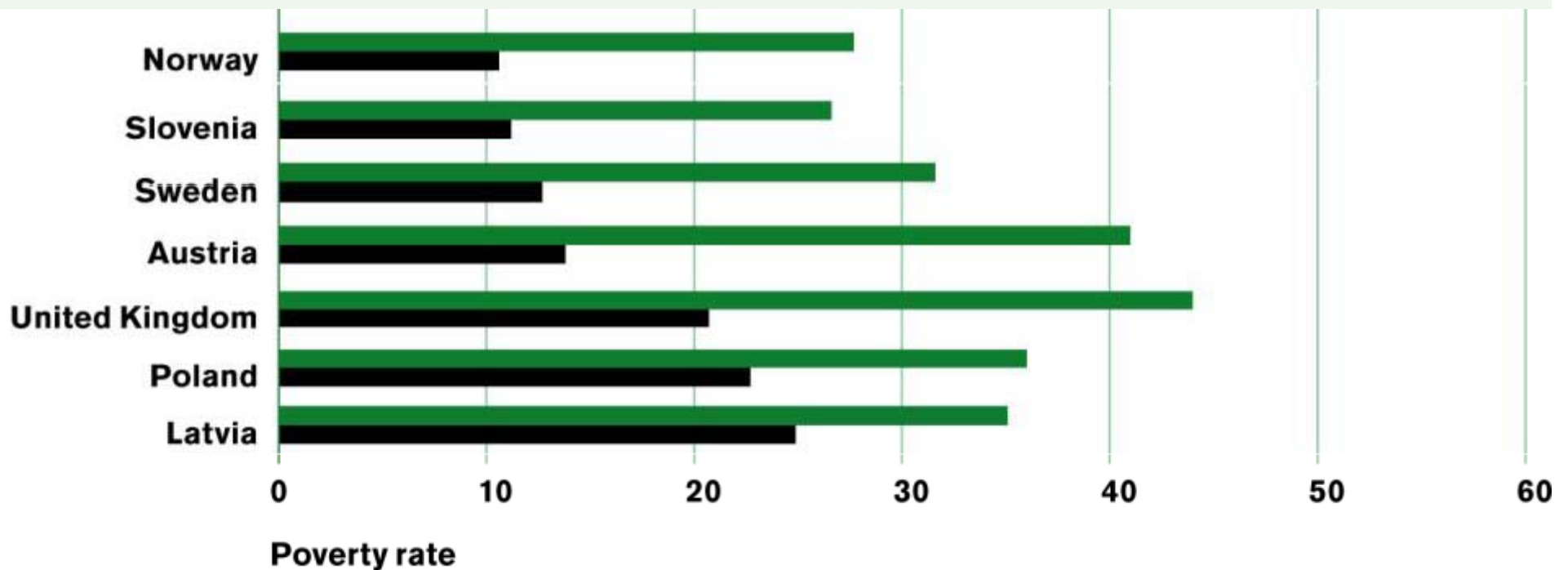


(ICLS, 2012)

- Low birth weight
- Not being breastfed
- Maternal depression
- Having a lone parent
- Median family income <60%
- Parental unemployment
- Maternal qualifications
- Damp housing
- Social housing
- Area deprivation (IMD)



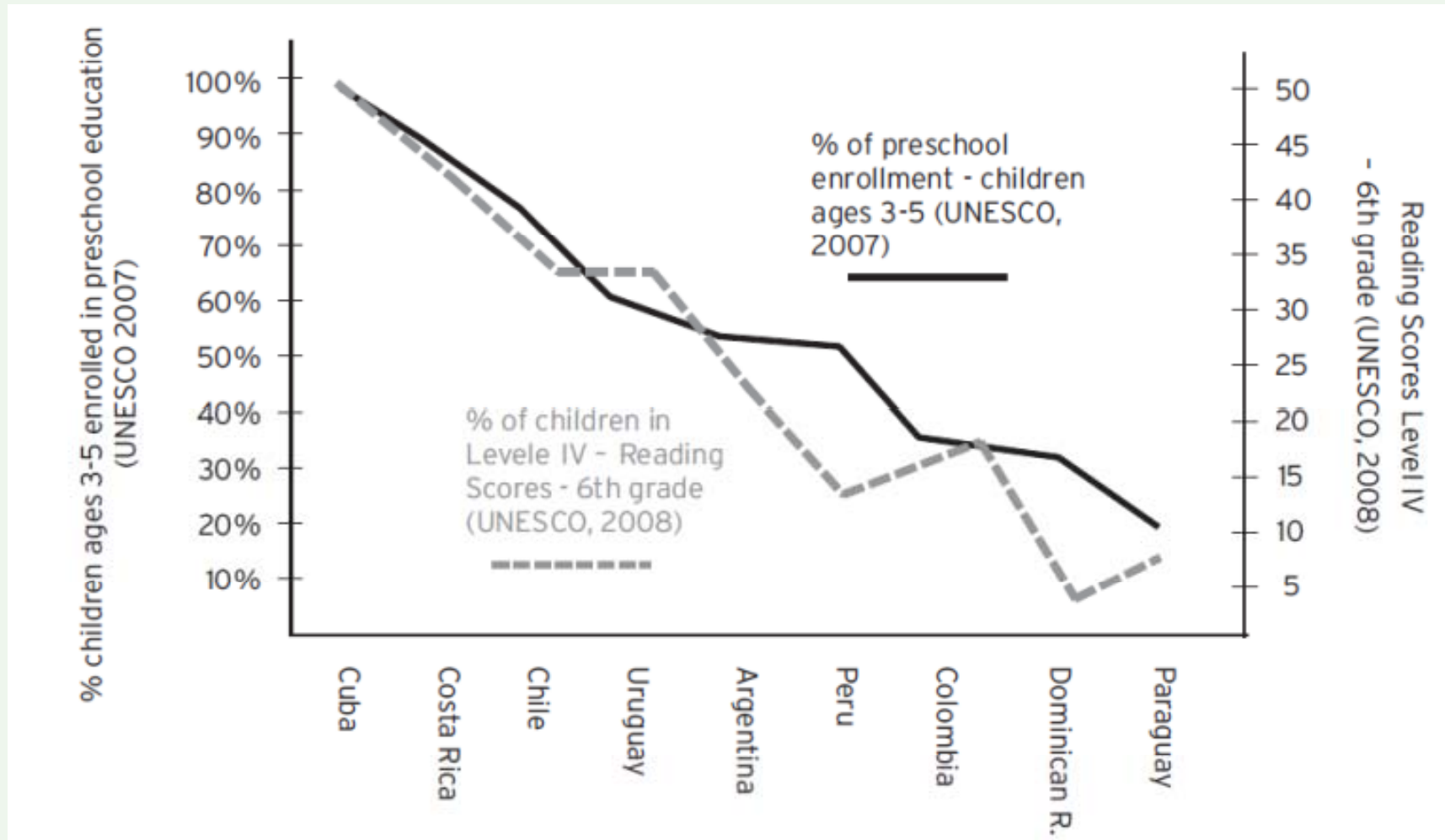
## Child poverty rates before and after transfers, ranked by after-transfer rate, EU-SILC 2009



■ Before social transfers  
■ After social transfers



## Enrolment in preschool (ages 3-5) and reading in 6<sup>th</sup> grade: selected countries in Latin America

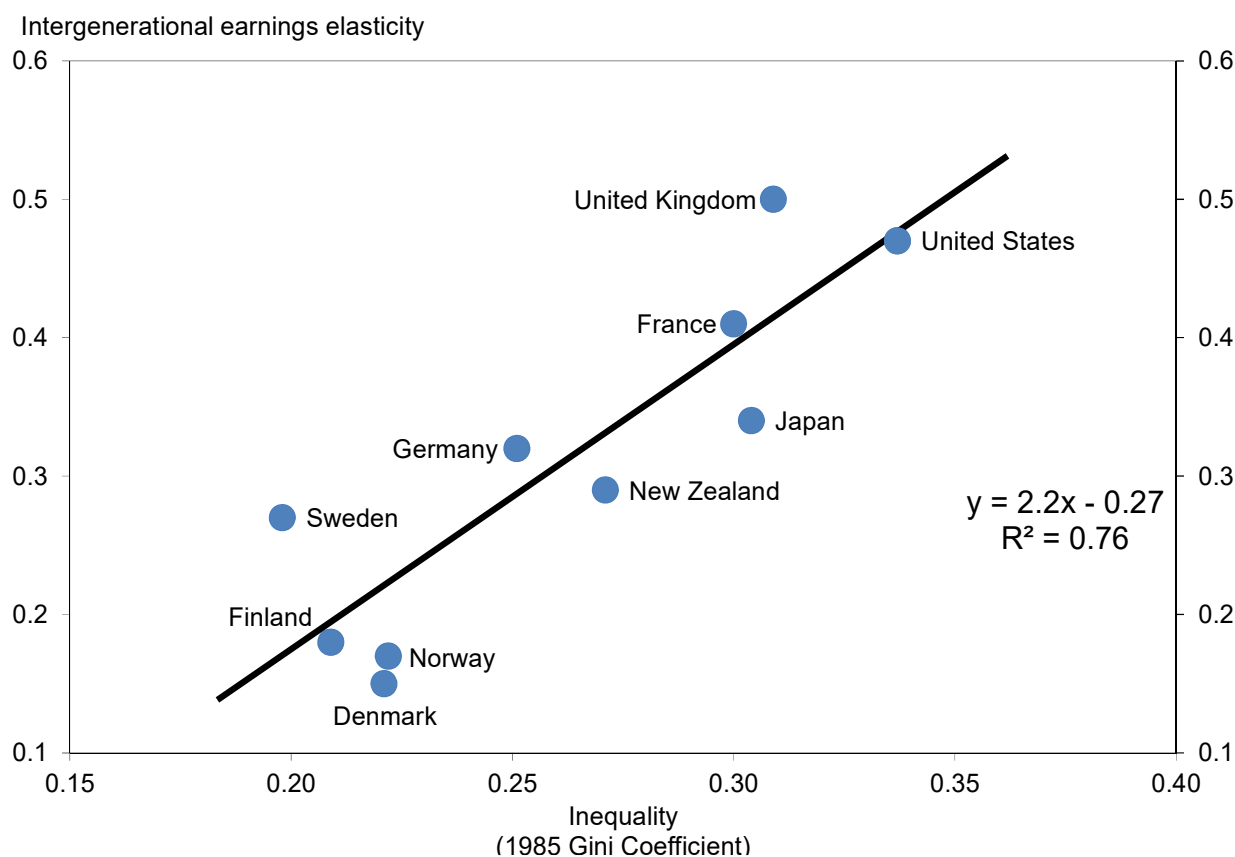




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# Higher income inequality associated with lower intergenerational mobility



Source: Corak (2011), OECD, CEA estimates



# Maximising Capabilities and Control

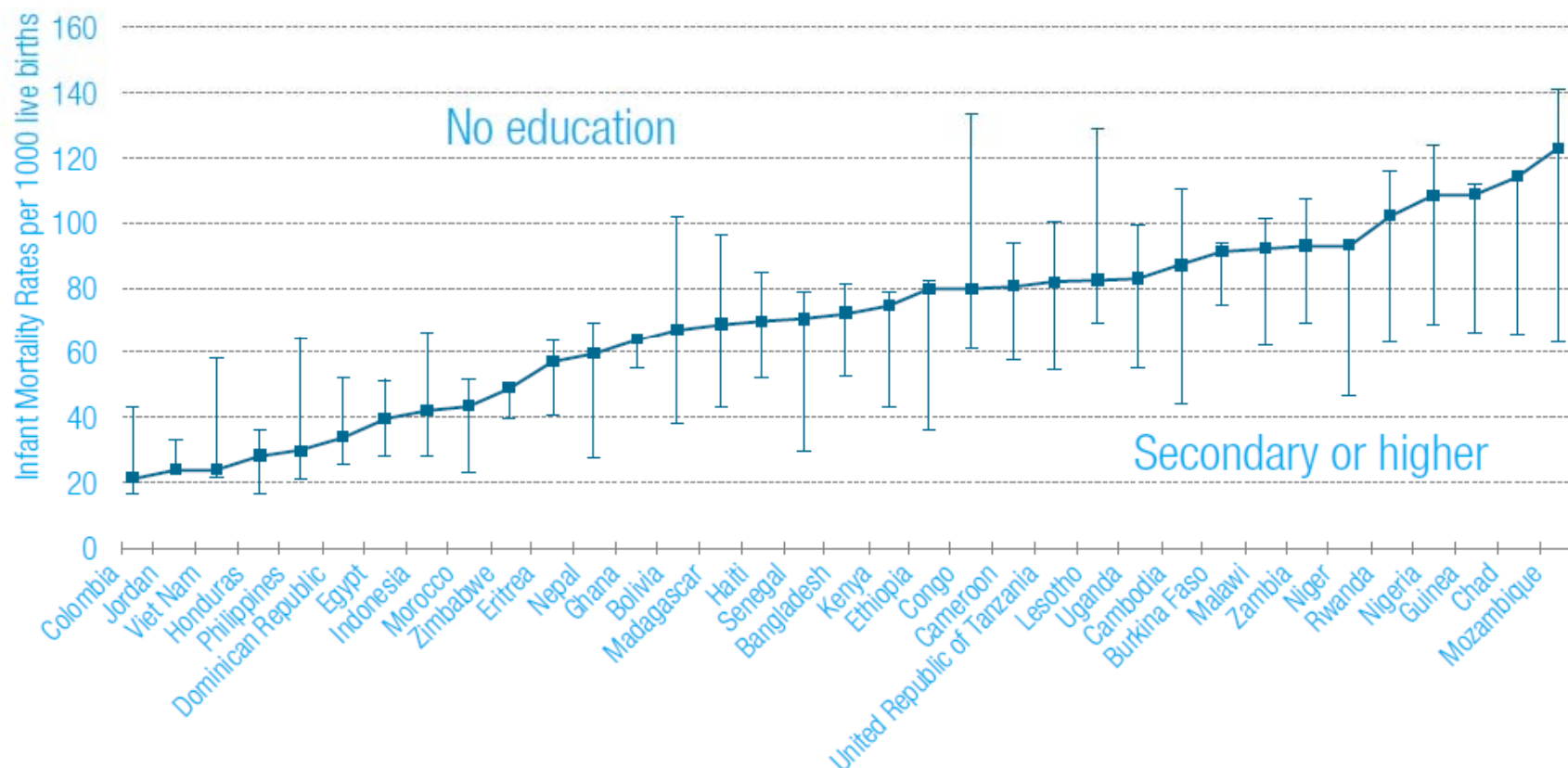


The Problem we all live with (1964) Norman Rockwell





# Inequity in infant mortality rates between countries and within countries by mother's education







## Total Fertility rate (births per woman) according to mother's education

Country	No education	Primary	Secondary or higher	Overall
Bangladesh	3.0	2.9	2.5	2.7
India	3.6	2.6	2.1	2.7
Ethiopia	6.1	5.1	2.0	5.4
Nigeria	7.3	6.5	4.2	5.7



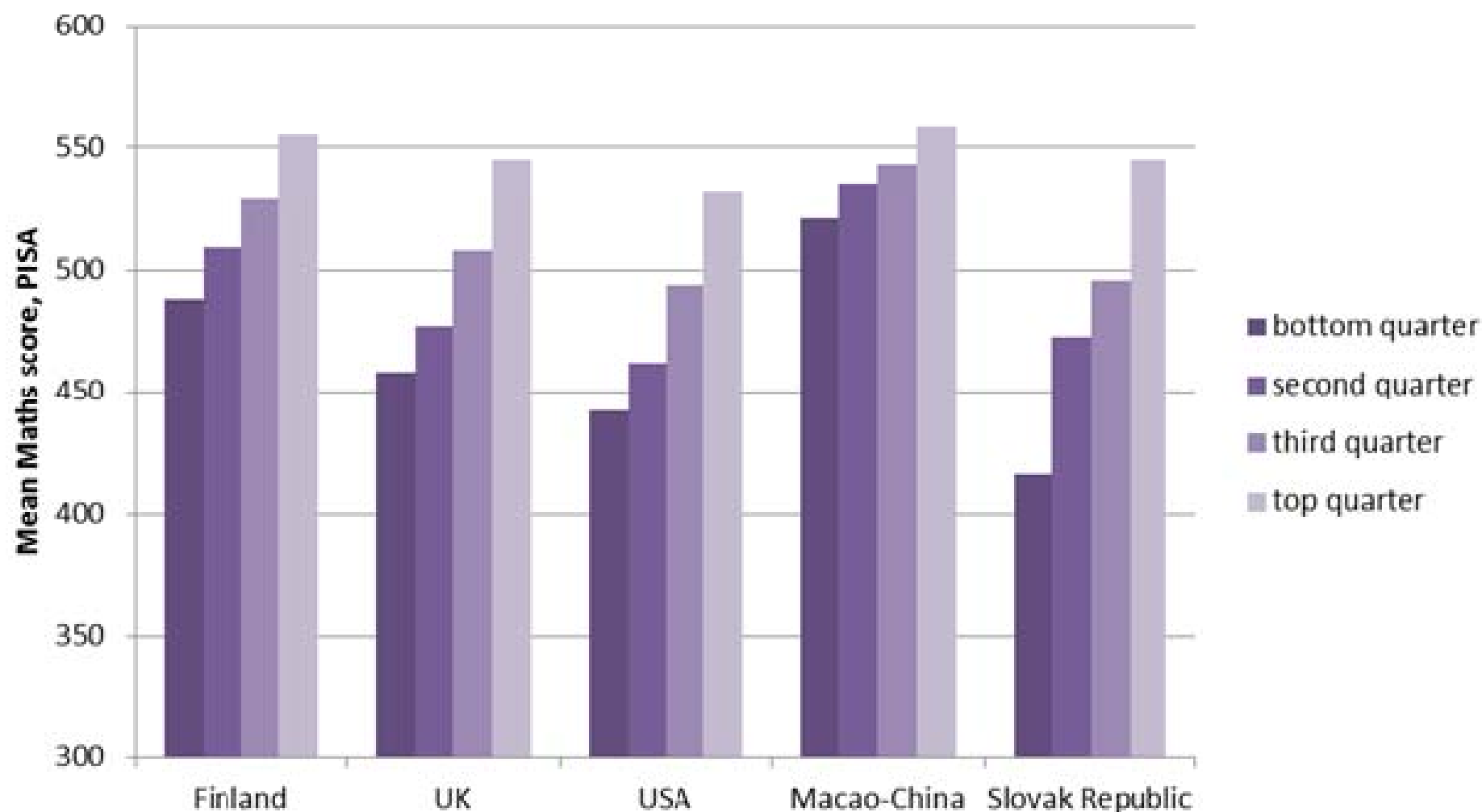
## Proportion of women agreeing that it is acceptable for a husband to beat his wife if she refused to have sex with him

Country	Year	Total Per cent	No education Per cent	Primary Per cent	Secondary or higher Per cent
Mali	2001	73.5	75.8	74.5	51.6
	2006	56.8	59.9	53	37.5
Ethiopia	2000	50.9	56.2	44.8	17.1
	2005	44.3	51	40.4	14.5
	2011	38.6	48.9	32.8	11

Source: Data from DHS



## Within country maths results by quarters of ESCS (economic social and cultural status), PISA, 2013



Source: PISA, 2013



# Upward trend in secondary Gross Enrolment Ratios seen in all regions and for both sexes

Regional gross enrolment ratio in secondary education by region and worldwide, 1970–2009

○ 1970    △ 2009    ■ Male    ■ Female



Note: (\*) 1970 data for Central and Eastern Europe refer to 1971. Data for Central Asia goes back to 1993



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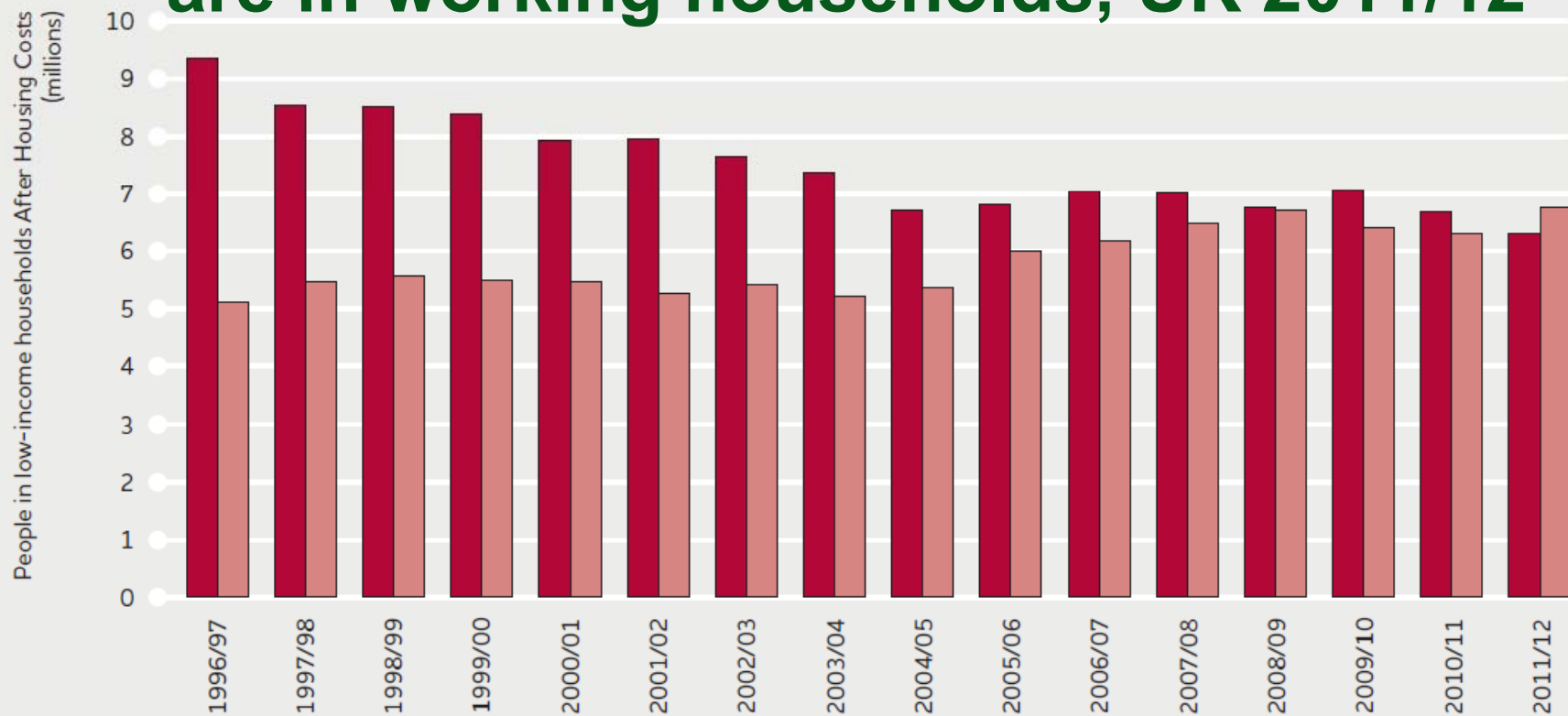
# Create Fair Employment and Good work



The  
Laundresses  
(1901) by  
Abram



## 6.7 million of the 13 million people in poverty are in working households, UK 2011/12



Source: Households Below Average Income, DWP; the data is for the UK

■ Workless working-age or retired  
■ Working

(JRF 2013 using DWP data)



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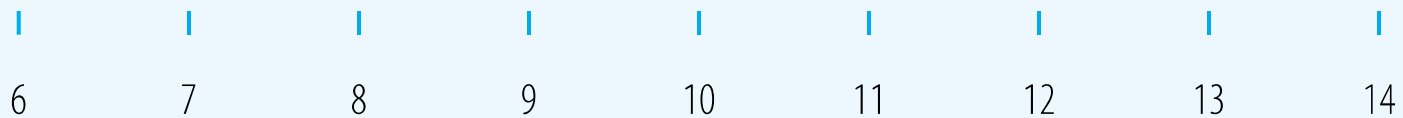
# Ensure a healthy Standard of Living



Photo: Anthony Stock/Getty Images



# Human development index values and previous public expenditures



*Log of public expenditure on health and education per capita, 2000*

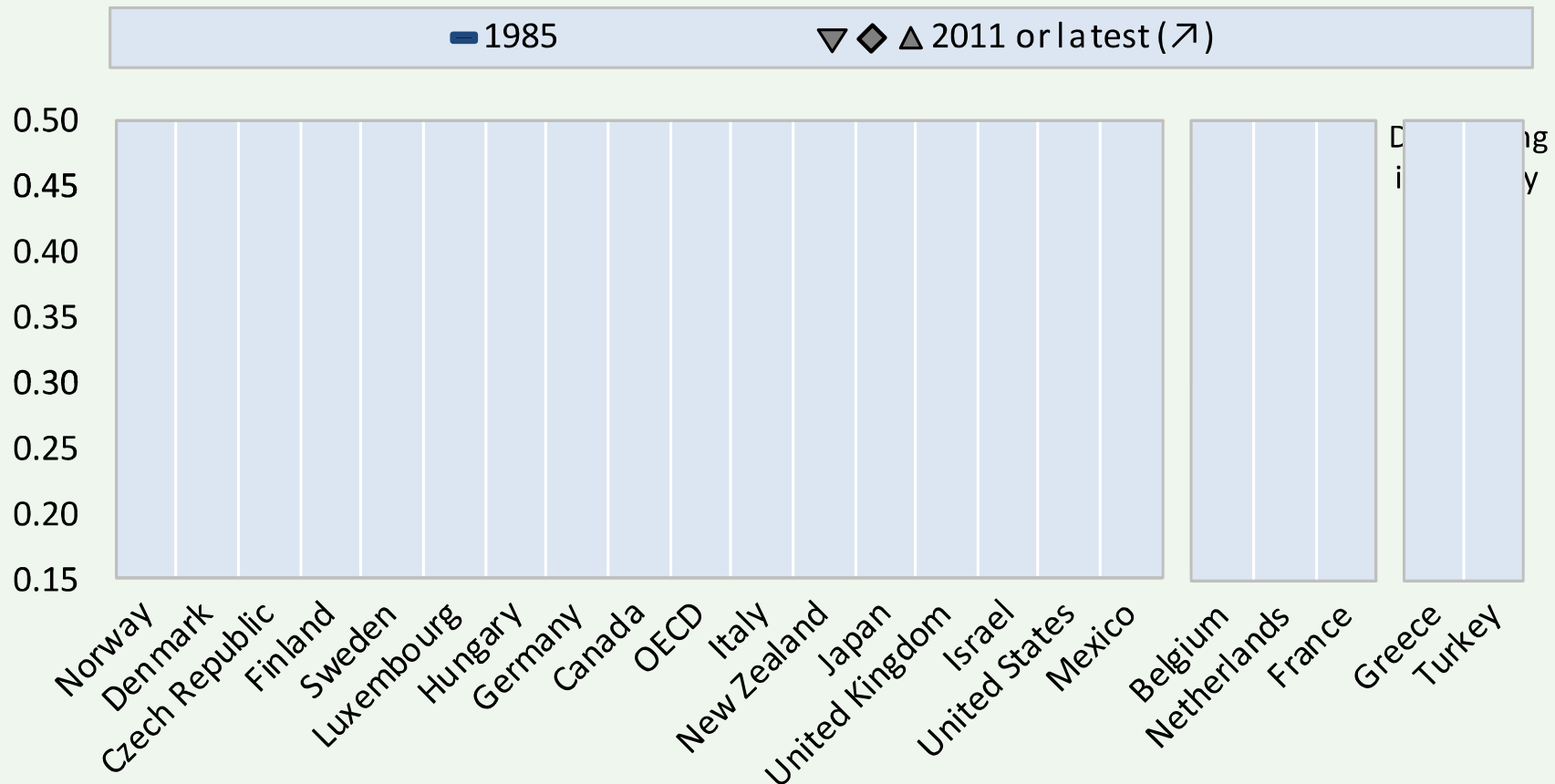
Source: UNDP 2013





# Income inequality increased in most OECD countries

Gini coefficients of income inequality, mid-1980s and 2011/12

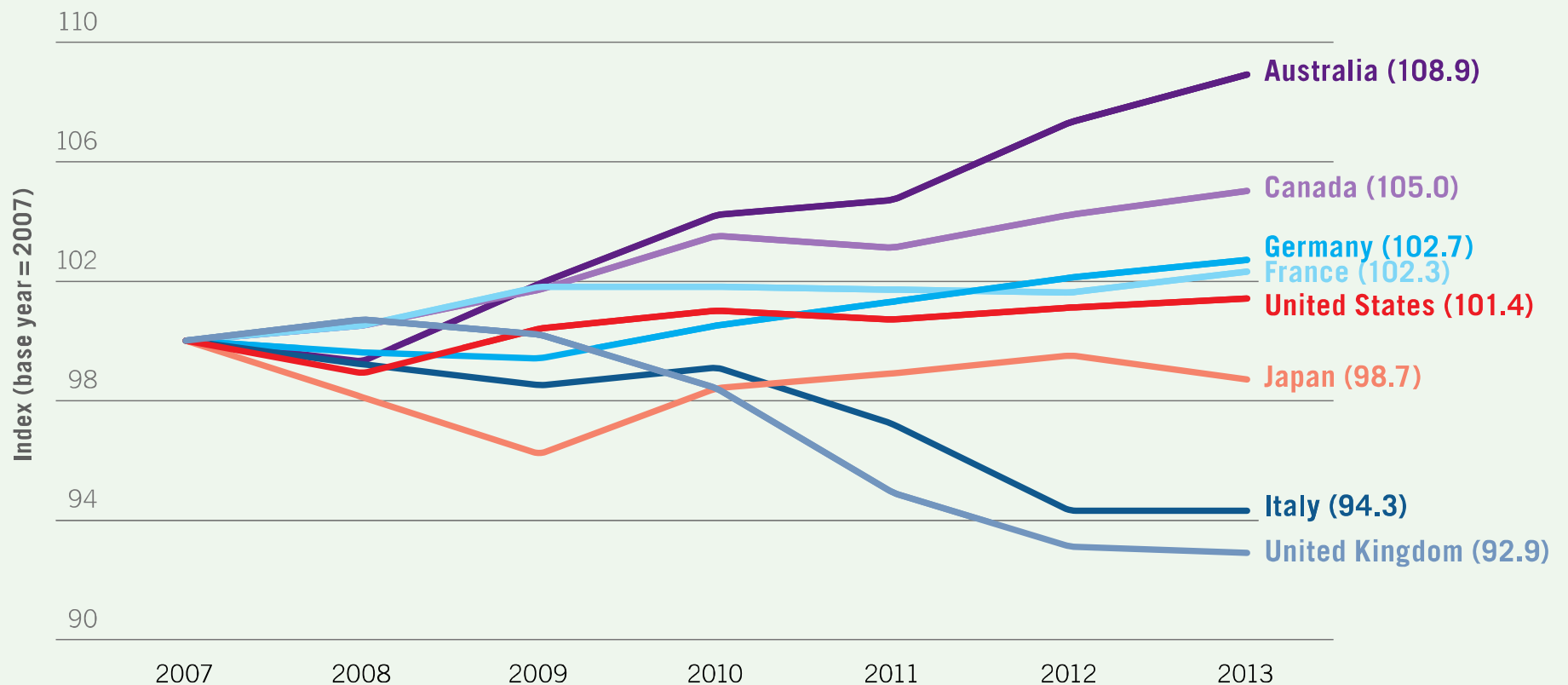


Note: Incomes refer to household disposable income, adjusted for household size.

Source: OECD Income Distribution Database (<http://oe.cd/idd>).



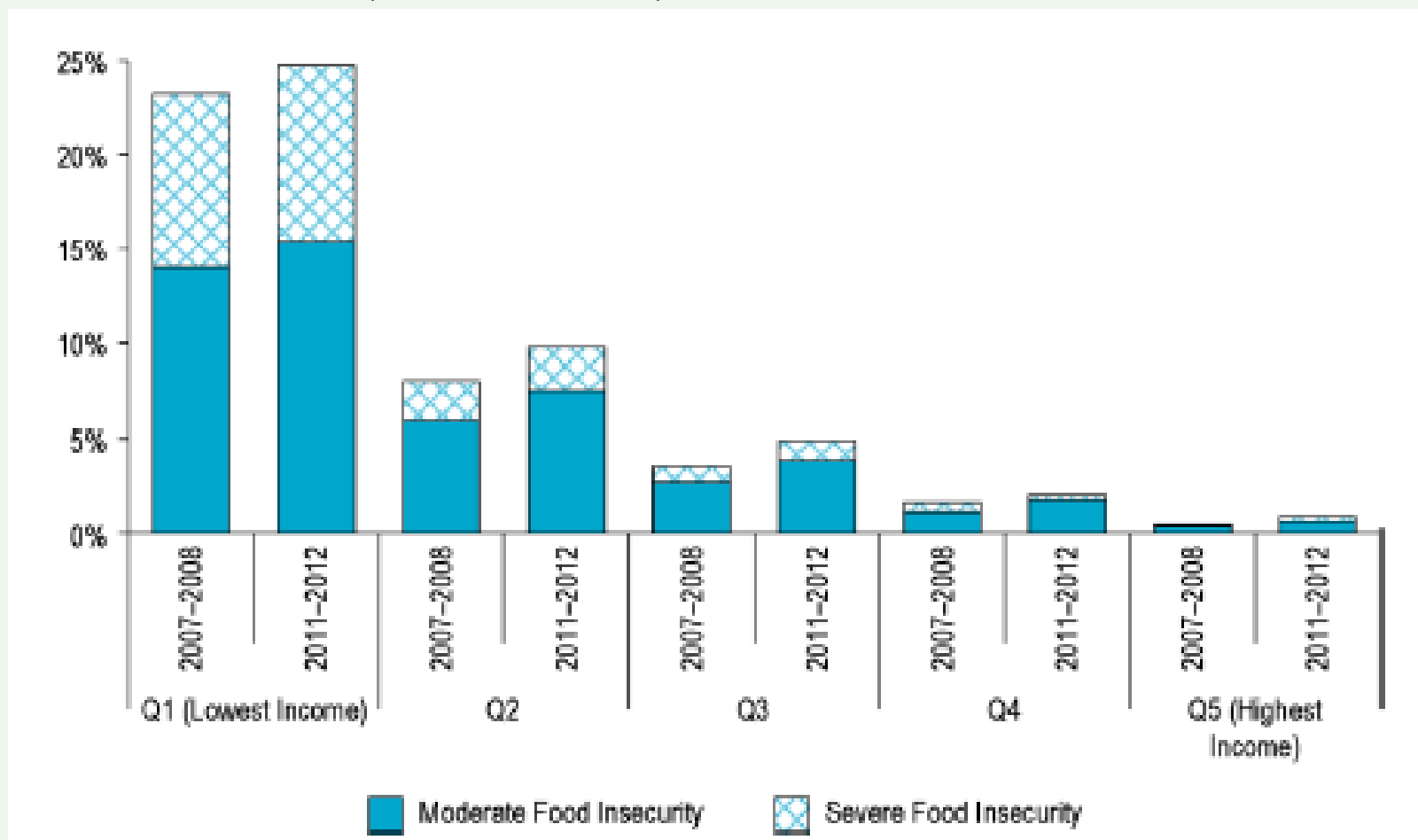
## Average real wage index for developed G20 countries, 2007-13



Source: ILO Global Wage Database. Data accessible at: [www.ilo.org/gwr-figures](http://www.ilo.org/gwr-figures)



## Household Food Insecurity Prevalence Rate, by Income Quintile, Canada, 2007–2008 to 2011–2012





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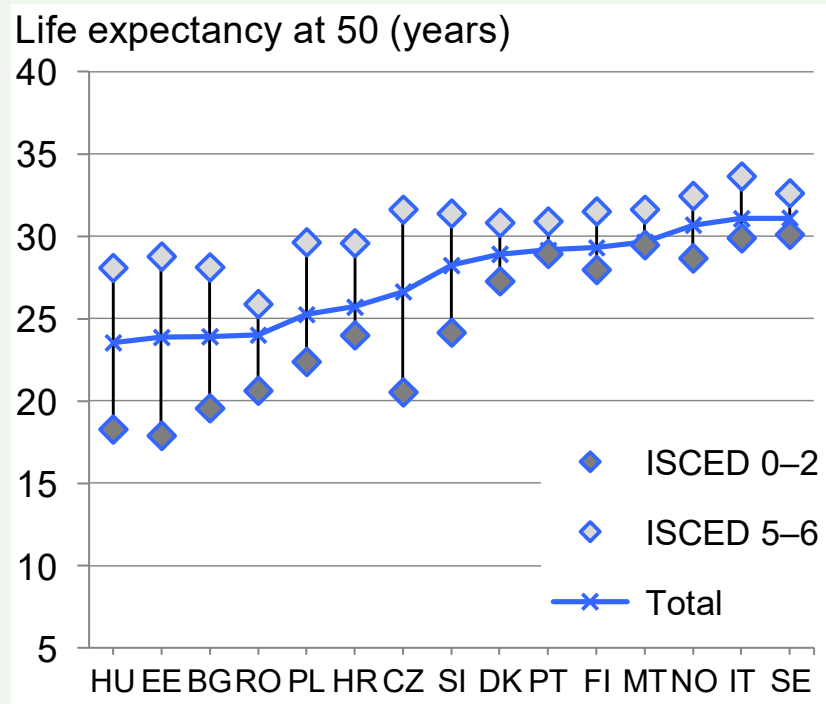


# Growing old healthily

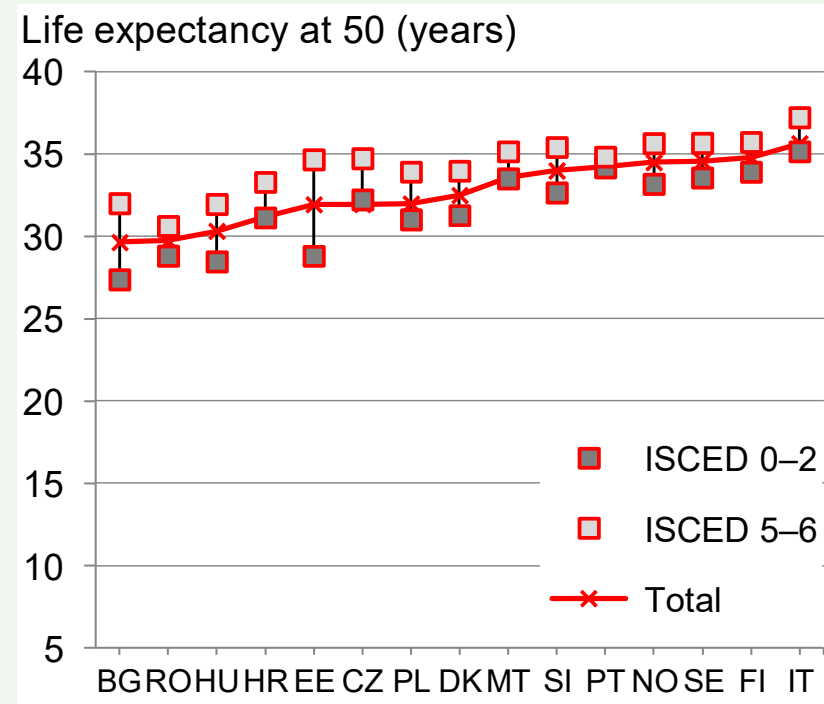


## (b) Life expectancy at age 50

### Men



### Women



Countries are ranked by life expectancy at the specified age of the sex-specific total population.  
ISCED 0-2: pre-primary, primary and lower secondary education.  
ISCED 4-6: tertiary education.

Source: data from Eurostat 2012



## Suicide among Indian Farmers

- Every half an hour an Indian farmer commits suicide, in excess of 16,000 per year.
- Among cotton farmers: 270,000 suicides since 1995. Three times the rate for all India
- US cotton farmers received \$3 billion in subsidies in 2008-9
- Removing US subsidies would allow world price of cotton to rise 6-14%



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# III health prevention



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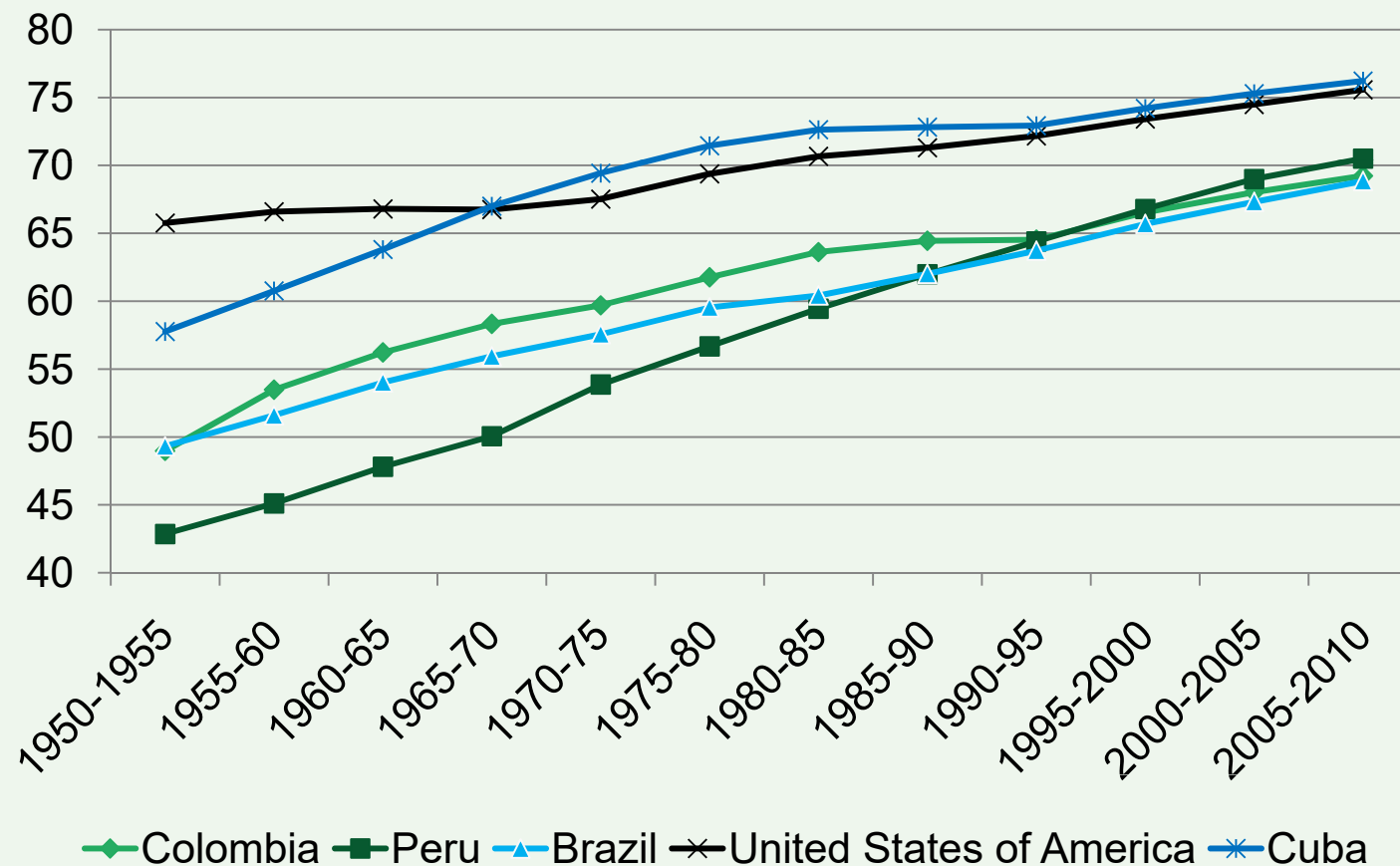


# Organisation of hope



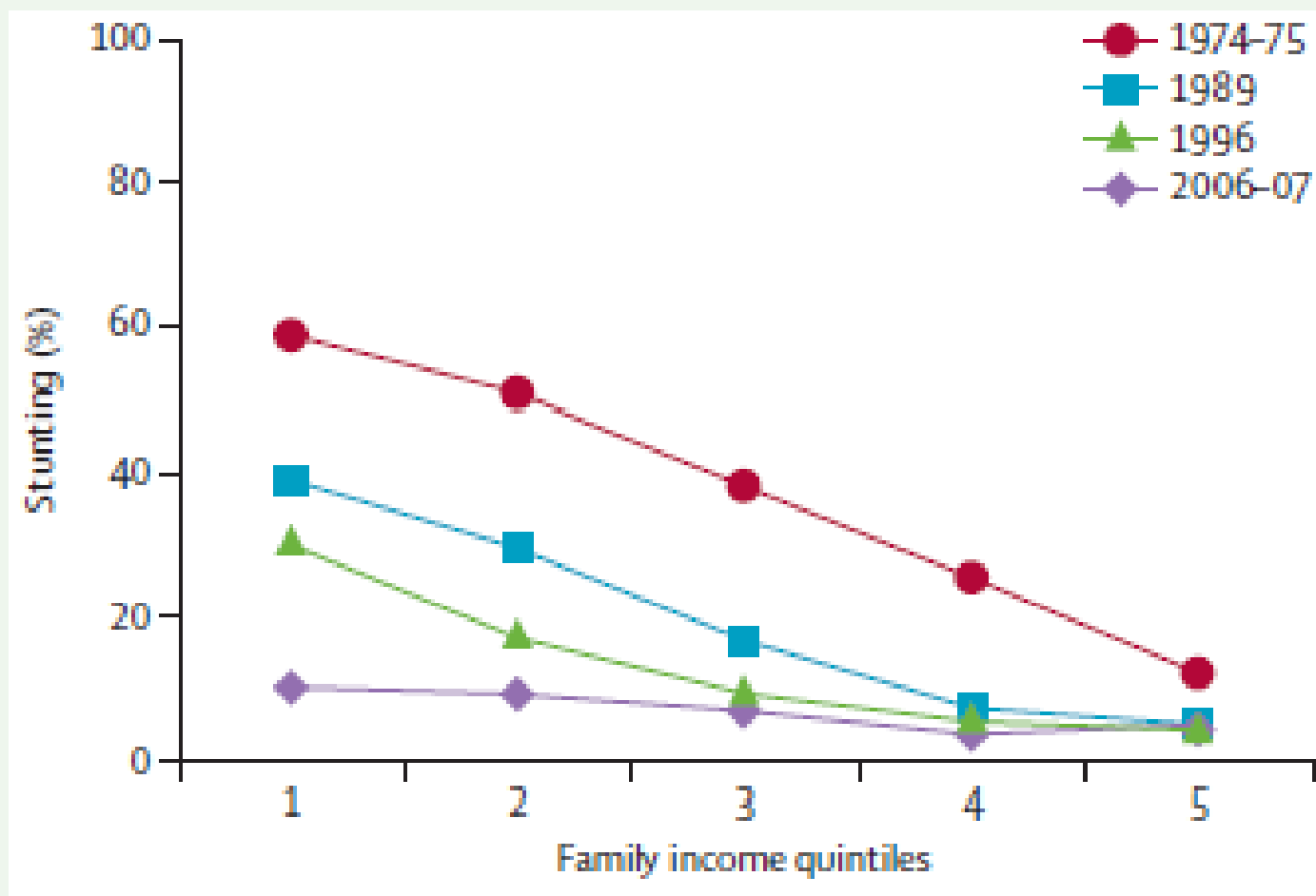


## Male life expectancy at birth: Colombia, Peru, Brazil, USA, Cuba





## Prevalence of stunting by family income and year of survey: Brazil



Source: Victora et al 2011 citing Monteiro et al 2010



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# **UCL Health and Society**

## **Summer School: Social Determinants of Health**

### **4th July – 8<sup>th</sup> July 2016**



For further information please email: [e.poole@ucl.ac.uk](mailto:e.poole@ucl.ac.uk)  
<http://www.ucl.ac.uk/summer-school-social-determinants-health>  
Twitter: #UCLSDoH



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# The Health Gap

**Professor Sir Michael Marmot**

**@MichaelMarmot**

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