

# Will the recession be bad for our health?

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*“It should not come as a surprise if we continue to see more stresses, suicides and mental disorders”*

[...]

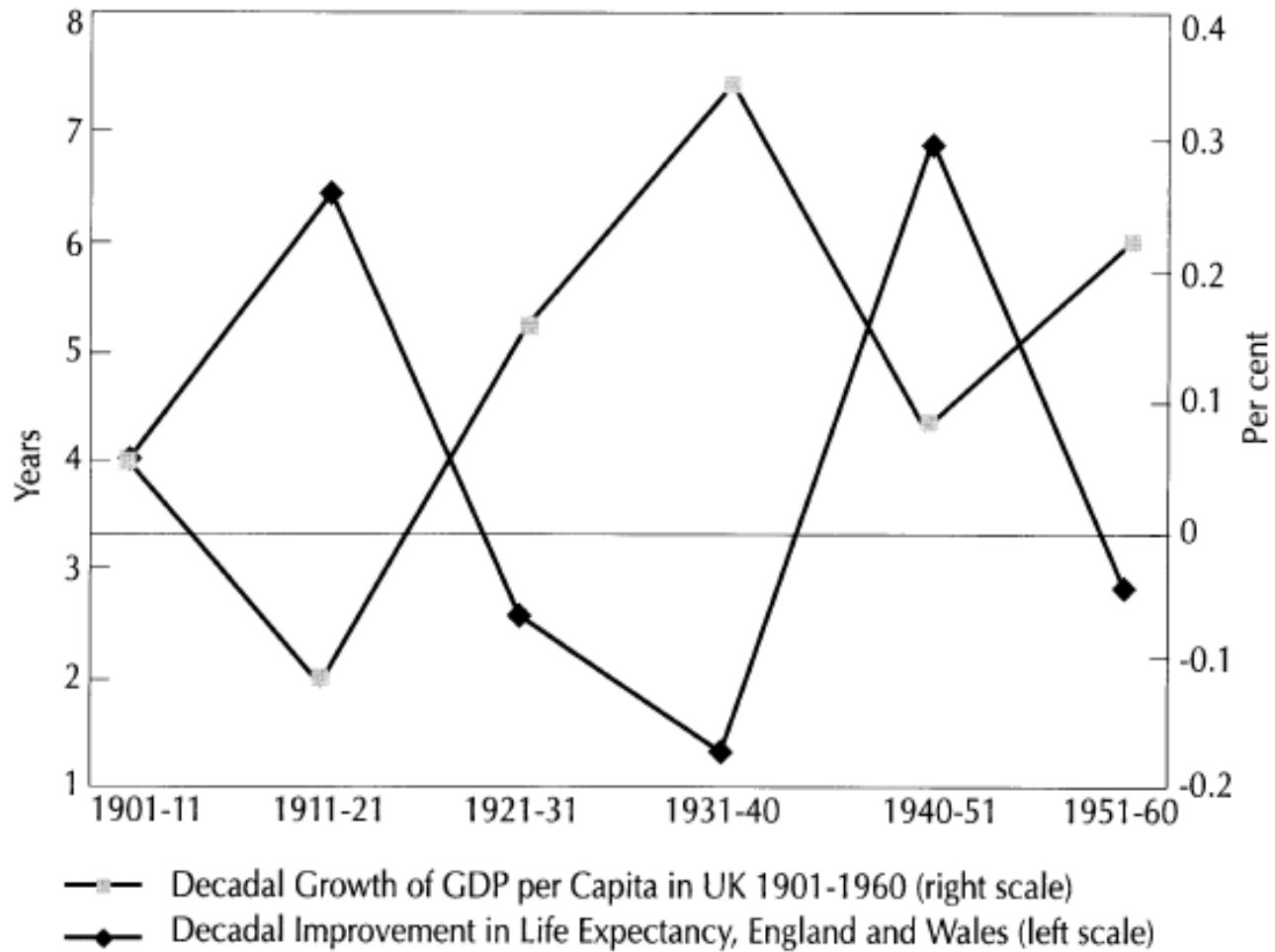
*“The poor would be hardest hit”*

M. Chan, WHO DG, on the financial crisis

*“Recession may be a lifestyle blessing in disguise”*

T. Cohen NYT, on the same topic

# Decadal growth of real p.c. GDP (UK) and decadal increases in life expectancy at birth (England & Wales), 1901-1960



# No simple answer

- Individual vs. aggregate relationships
- Poor vs. rich countries
- Average health vs. health “equity” effects
- “Normal” fluctuations vs. “severe” crisis
- Physical vs mental health
- Crisis with and without the “welfare state”

# Individual vs aggregate relationships

- Individual level:
  - Unemployment, low income is bad for a wide range of health outcomes (Creed 1998, etc.), most of the time anyway... (Bökerman et al. (2009))

# Individual vs aggregate relationships

- Aggregate level:
  - Early studies: “Recessions” are bad for health (Brenner 1971, 1973, 1977, 1979)
  - Recent studies: “Recessions” are good for health (while booms are bad!) (Ruhm 2000, 2003, etc.)
  - “Brenner critique” (Gravelle et al 1981)

# Individual vs aggregate relationships

- Typical Ruhm regression:

$$M_{jt} = \alpha_j + X_{jt}\beta + E_{jt}\gamma + \lambda_t + \varepsilon_{jt}$$

- M: mortality (or another health outcome) for location j at time t,
- E proxies macroeconomic conditions,
- X is a vector of covariates,
- $\alpha$  is location-specific fixed-effect,
- $\lambda$  a general time effect,
- $\varepsilon$  is the regression error term

# Individual vs aggregate relationships

- Ruhm (2000): Predicted effect of a 1% point increase in state unemployment rate on mortality, US

<b>Cause of death effect</b>	<b>(%)</b>
All deaths	-0.5 (0.1)
Heart disease	-0.5 (0.1)
Cancer	0.0 (0.1)
Flu/pneumonia	-0.7 (0.2)
Liver disease	-0.4 (0.2)
Infant deaths	-0.6 (0.2)
Neonatal mortality	-0.6 (0.2)
Vehicle accidents	-3.0 (0.2)
Other accidents	-1.7 (0.2)
Suicide	+1.3 (0.2)
Homicide	-1.9 (0.4)



- Ruhm (2005): Predicted effect of a 1% point increase in state unemployment rate on health behaviours, US:

<b>Health behaviour effect</b>	<b>(%)</b>
Current alcohol use	-0.4 (0.3)
Heavy drinker	-7.8 (1.5)
Very heavy drinker	-9.7 (2.2)
Current smoker	-0.6 (0.2)
Heavy smoker	-1.0 (0.3)
Very heavy smoker	-1.1 (0.5)
Overweight	+0.1 (0.1)
Obese	-0.3 (0.2)
Severely obese	-1.4 (0.5)
Irregular or no leisure-time p.a.	+0.7 (0.1)
No leisure-time physical activity	-1.5 (0.3)
Multiple health risks	-1.8 (0.4)

# Trends in Recession, 26 EU Countries, 1971-2006

Factor	Avg. Yearly Percentage Change	
	Recession	No Recession
<i>Death Rates</i>		
Suicide	1.78%	-0.22%
Cardiovascular Disease	-3.30%	-2.86%
External Causes	-2.16%	-1.40%
Life Expectancy at 15 (level)	0.21	0.19
<i>Stress</i>		
Unemployment Rate	0.84%	0.10%
Gross Domestic Product	-1.08%	1.28%
<i>Protection</i>		
Total Health Expenditure	7.35%	7.51%
General Gov. Spending/GDP	-0.36%	0.04%
Public Health/GDP	0.11%	0.25%
Out of Pocket (% of total health spend)	0.19%	-0.10%

# Poor vs. Rich countries

- Relevant differences between poor and rich countries
  - Ability to smooth consumption (wealth, safety nets)
  - Health patterns
- Recessions (very) harmful to poor countries' populations

# Poor vs. Rich countries

- Baird et al 2008
  - 59 countries, DHS
  - pc GDP change and IMR (elasticity  $-0.56$ )
  - 1 million excess child deaths due to strong contractions
- Friedman/Duncan 2007
  - Indonesia financial crisis 1997
  - Psychological distress, esp. among low SES
  - Lasting effects
- But: Hopkins 2006
  - East Asian crisis (Indonesia, Thailand, Malaysia)
  - Harmful in I. and T., no effect in M. → role of policy?

# Poor vs. Rich countries

- Differential economic effects of a global recession across poor and rich countries?

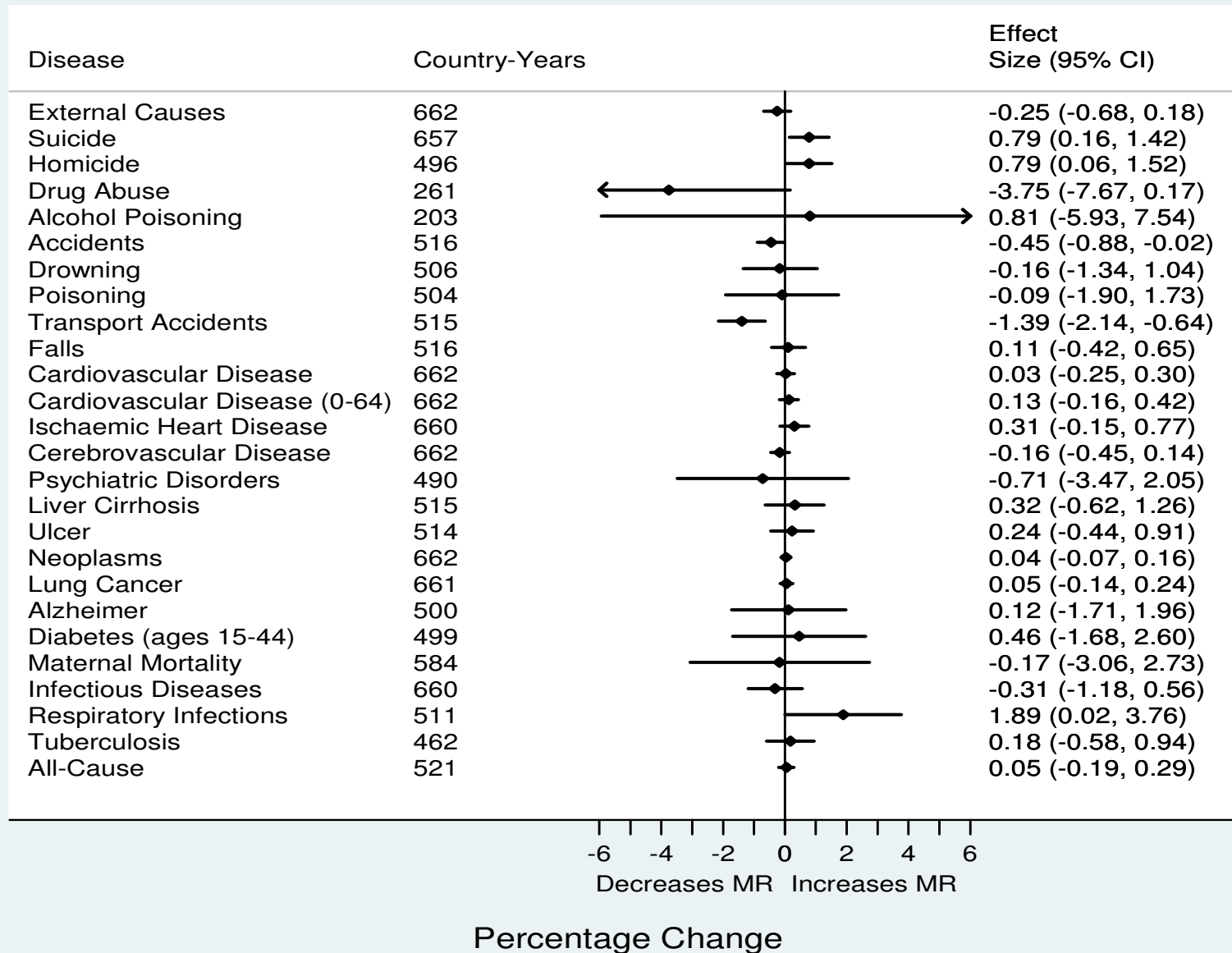
# Average health vs. *health equity* effects

- Hypothesis: widening health inequalities
- Hardly tested, exceptions:
  - Kondo et al. (2008): Japan (confirm)
  - Edwards (2008): US (tentative confirm)
  - Valkonen et al (2000): Finland
    - Health inequalities increased in recession, but less than in previous boom!

Normal fluctuations vs. severe crisis

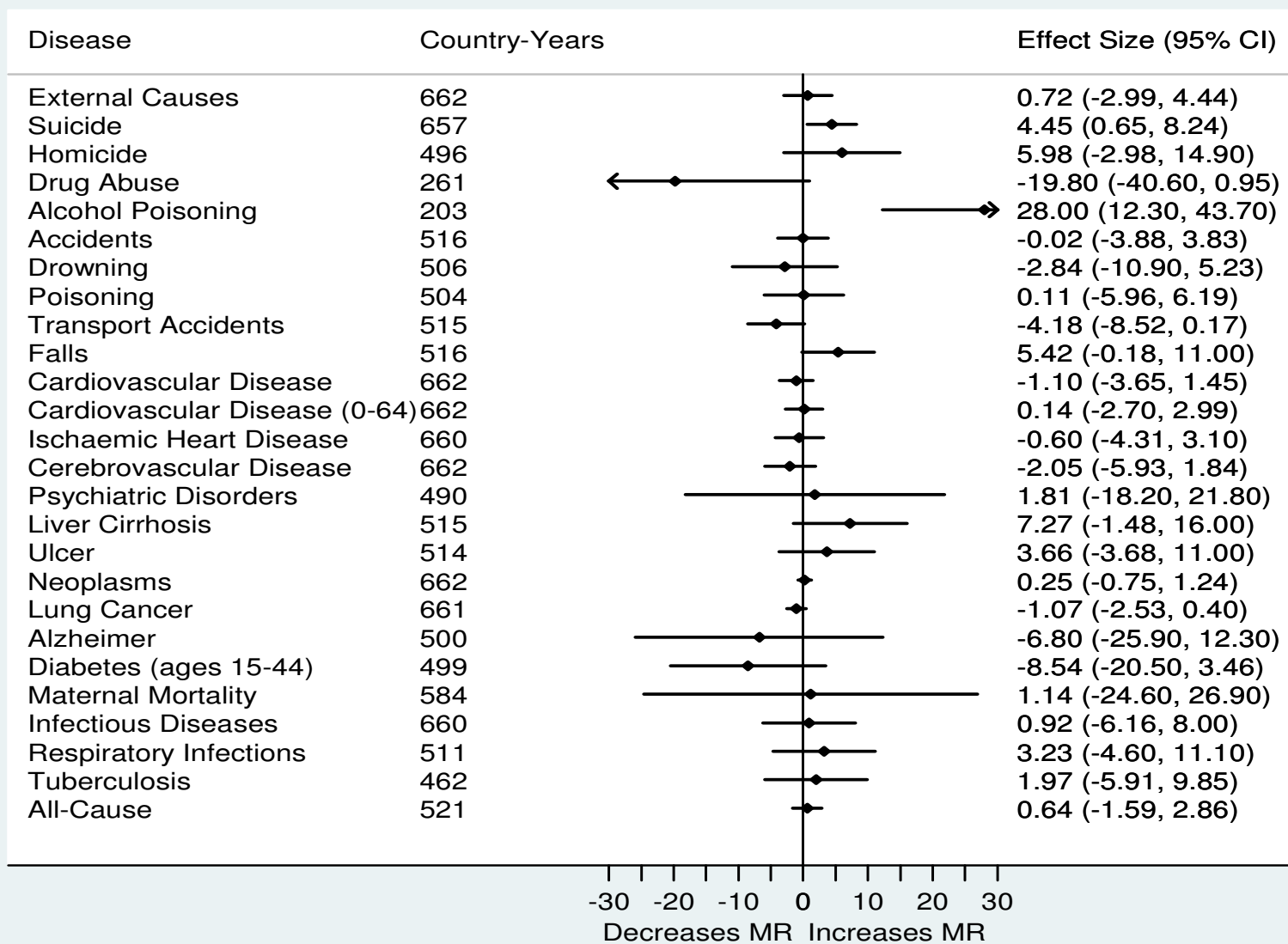
Physical vs. mental health effects

# Associations of a 1% rise in unemployment with mort. rates, EU countries 1971-2006





# Associations of a mass Rise (>3%) in unemployment with mort. rates, EU countries 1971-2006



Percentage Change

- Short vs long term effects?
- Crisis with and without the “welfare state”

# Conclusions

- Answer: “It depends”!
- Probably not so harmful health effects in rich countries, but surely in the poor, and for some groups and conditions
- Any rationale for policy intervention?
- Transferability of findings from the past?  
How similar is the current crisis?