Recovery Research Network Meeting 21 November 2017

Dying from inequality: Suicide and socio-economic disadvantage

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Key Points

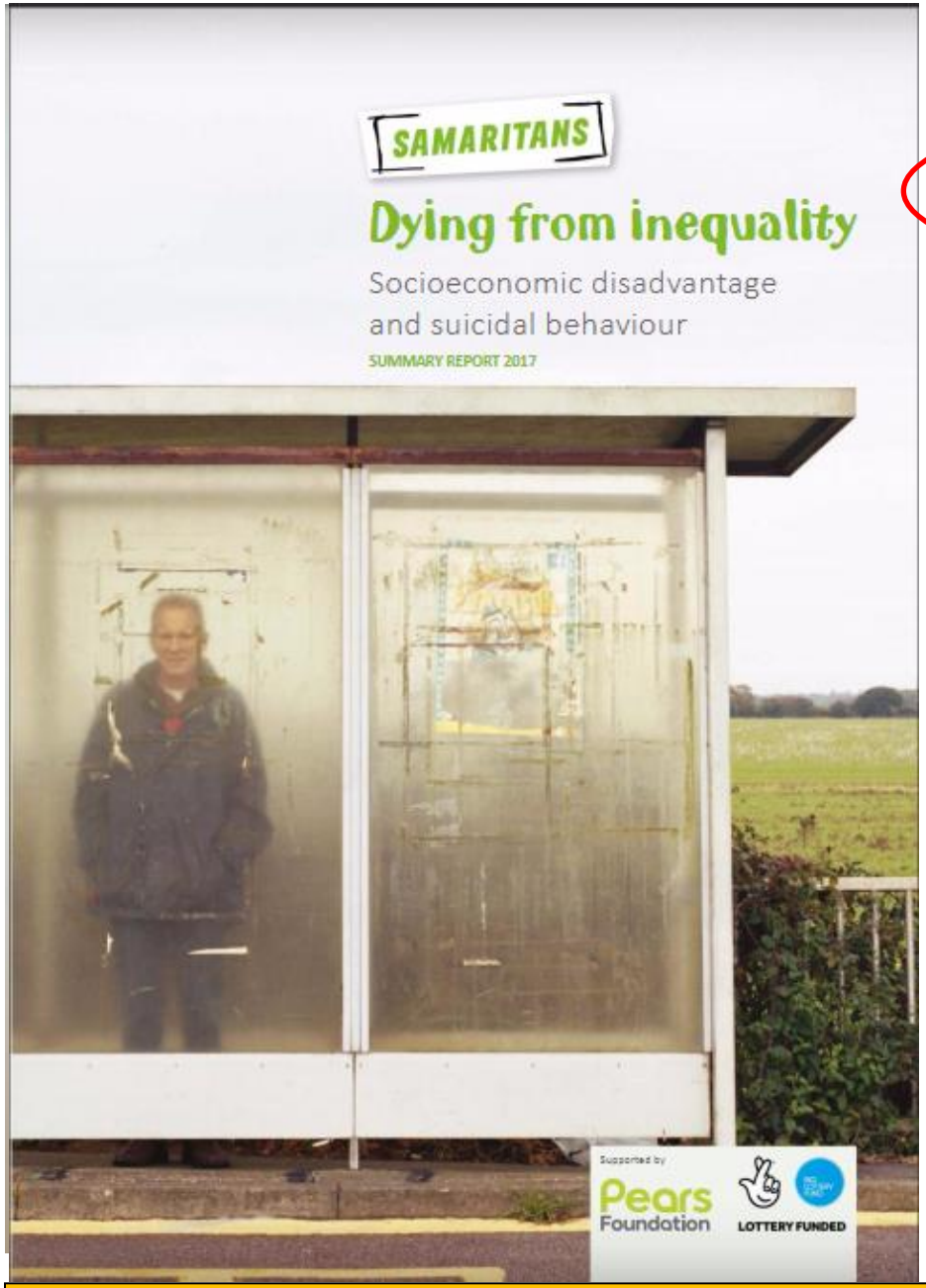
A. Most longitudinal studies support link between economic recession and increased suicidal risk

B. Effects most pronounced for men; but women in higher occupational positions also vulnerable

C. Not just about economic recession; risks with any economic shock including rapid economic growth

D. Risk linked to uncertainty re jobs & ability to pay debts

E. Those economically left behind during economic recovery can be especially vulnerable



https://www.samaritans.org/dying-from-inequality

The impact of place on suicidal behaviour

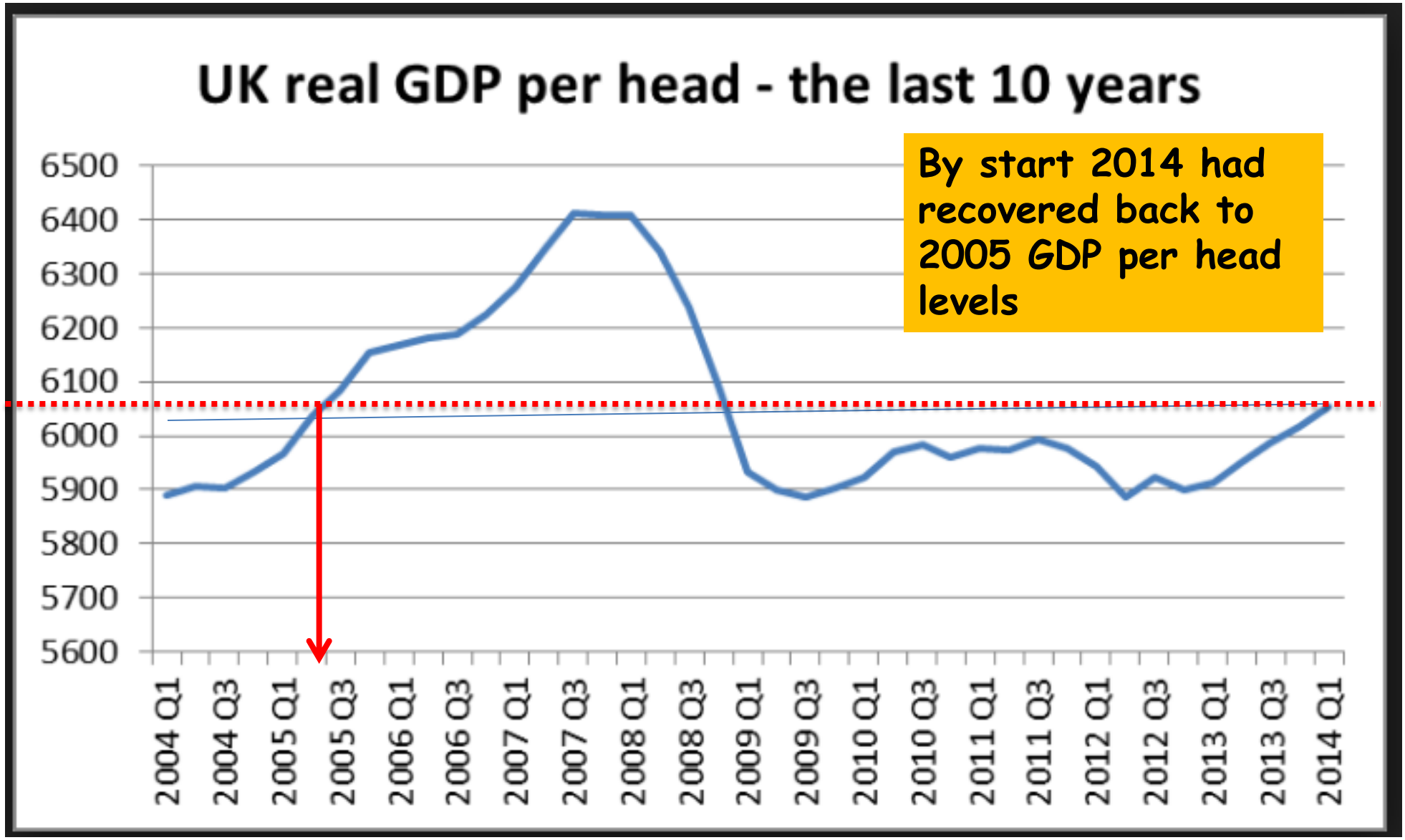
Socioeconomic disadvantage & suicidal behaviour during times of economic recession & recovery

Social & labour market policies & suicidal behaviour

Socioeconomic disadvantage and suicidal behaviour: psychological factors

Explaining the relationship between socioeconomic disadvantage, self-harm and suicide: a qualitative synthesis of the accounts of those who have self-harmed

In their own words: How do people in the UK understand the impacts of socioeconomic disadvantage on their mental health and risk factors for suicide?

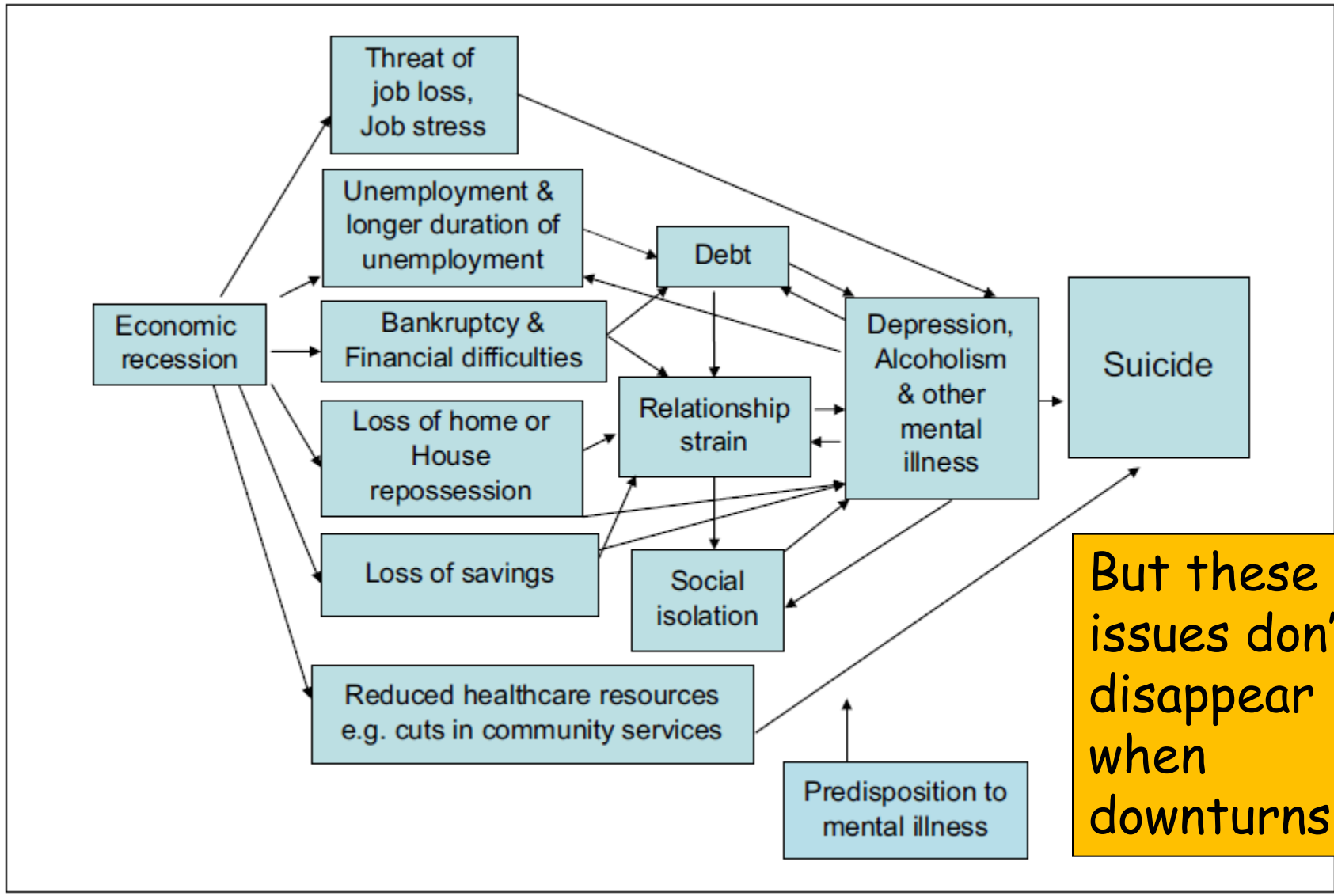


Source: Office for National Statistics 2014

Economic shocks not just during times of downturn.

More visible during downturn – opportunities for action

Possible mechanisms linking recession and suicide



Haw, Hawton, Gunnell & Platt; Int J Social Psychiatry 2015 61(1):73-81

Economic cycles, socio-economic disadvantage and suicidal behaviour

In the main……

- Majority of studies published since 2000 indicate that unemployment is a key risk factor for suicidal behaviour in men

- This higher risk is exacerbated during a downturn or period of economic growth.

- Association between suicidal behaviour and unemployment is much weaker for women, although risk more pronounced as more women occupy high positions in the workforce.

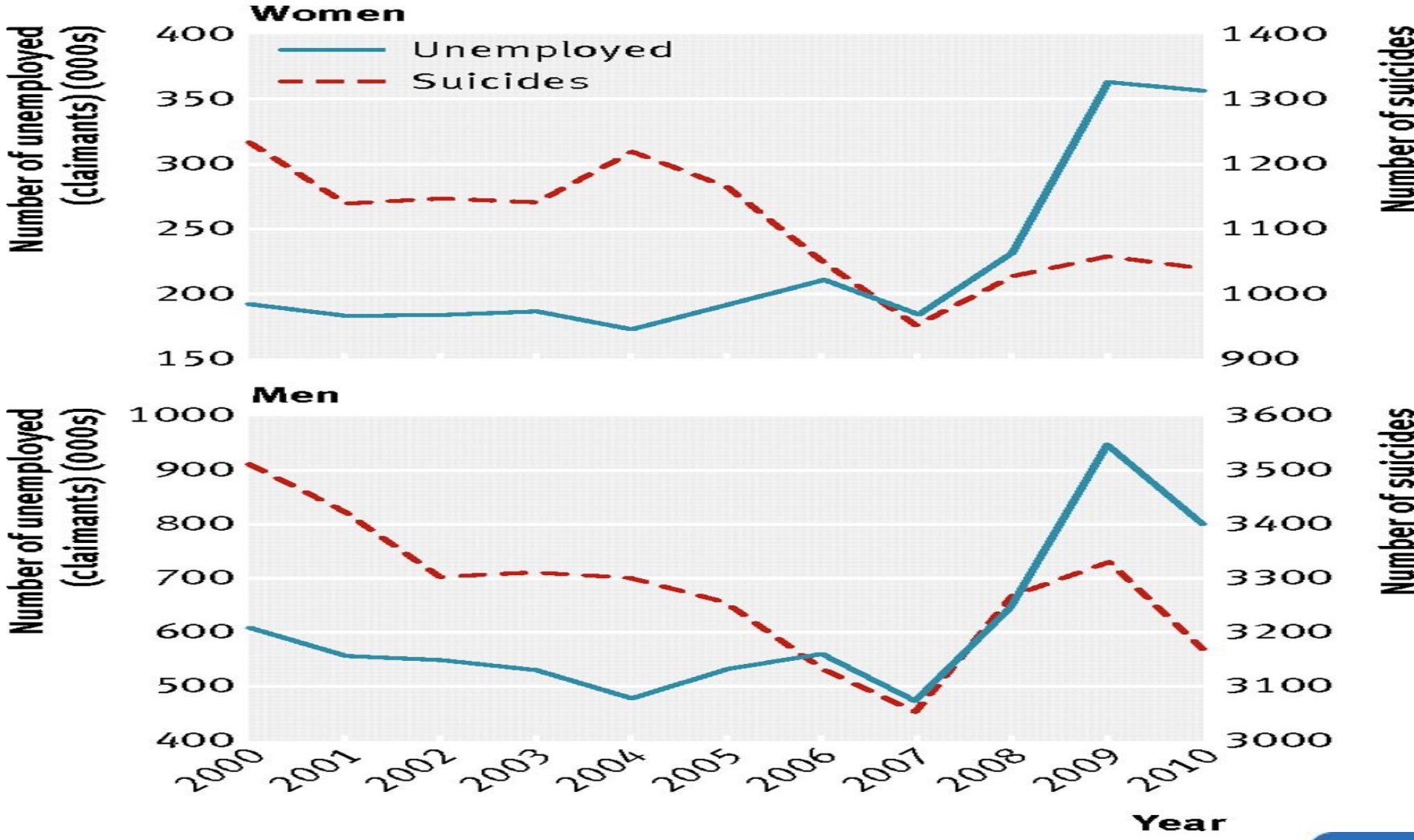
Table 2| **Rate ratios and excess suicides in 2009 in 27 European countries relative to those expected based on trends over 2000-07**

	Men			Women			Population aged ≥15 (2009)*
	Rate ratio (95% CI)	Excess suicide (95% CI)	P value	Rate ratio (95% CI)	Excess suicide (95% CI)	P value	
Old (pre-2004) EU countries (n=11)							
All countries	1.064 (1.056 to 1.071)	1514 (1350 to 1678)	<0.001	1.006 (0.996 to 1.016)	49 (−31 to 130)	0.23	258 401
Austria	1.034 (1.009 to 1.060)	31 (8 to 54)	0.007	1.087 (1.043 to 1.135)	24 (12 to 36)	<0.001	7111
Finland	1.082 (1.051 to 1.114)	57 (37 to 78)	<0.001	1.133 (1.079 to 1.192)	32 (20 to 44)	<0.001	4449
France	1.047 (1.032 to 1.062)	344 (237 to 451)	<0.001	0.989 (0.971 to 1.007)	−30 (−81 to 20)	0.24	50 974
Germany	1.055 (1.042 to 1.069)	376 (291 to 461)	<0.001	1.007 (0.990 to 1.024)	16 (−24 to 56)	0.43	70 797
Greece	1.104 (1.053 to 1.160)	31 (17 to 46)	<0.001	0.886 (0.798 to 0.995)	−7 (−15 to 0)	0.041	9664
Ireland	1.243 (1.199 to 1.289)	82 (70 to 94)	<0.001	1.175 (1.088 to 1.277)	15 (8 to 23)	<0.001	3522
Luxembourg	0.925 (0.834 to 1.038)	−4 (−9 to 2)	0.18	0.741 (0.603 to 0.959)	−5 (−9 to −1)	0.026	409
Netherlands	1.052 (1.026 to 1.079)	52 (27 to 78)	<0.001	1.049 (1.008 to 1.093)			
Spain	1.072 (1.051 to 1.094)	178 (129 to 228)	<0.001	0.974 (0.948 to 1.002)			
Sweden	1.083 (1.053 to 1.115)	68 (44 to 91)	<0.001	0.973 (0.929 to 1.021)			
UK	1.099 (1.078 to 1.121)	298 (240 to 356)	<0.001	1.015 (0.984 to 1.047)			
New (post-2004) EU countries (n=10)							
All countries	1.133 (1.121 to 1.144)	1574 (1454 to 1693)	<0.001	1.077 (1.060 to 1.096)			
Bulgaria	1.125 (1.090 to 1.162)	73 (55 to 92)	<0.001	1.123 (1.068 to 1.185)			
Czech Republic	1.063 (1.033 to 1.095)	73 (39 to 106)	<0.001	1.027 (0.979 to 1.079)			
Estonia	1.262 (1.198 to 1.334)	46 (36 to 55)	<0.001	1.261 (1.150 to 1.394)			
Hungary	1.122 (1.096 to 1.148)	206 (167 to 245)	<0.001	1.099 (1.057 to 1.145)			
Latvia	1.297 (1.247 to 1.351)	95 (82 to 108)	<0.001	1.314 (1.238 to 1.400)			
Lithuania	1.209 (1.169 to 1.252)	164 (137 to 191)	<0.001	1.135 (1.076 to 1.201)			
Malta	1.431 (1.202 to 1.768)	10 (5 to 14)	<0.001	1.245 (0.894 to 2.053)	1 (0 to 2)	0.22	349
Poland	1.161 (1.140 to 1.182)	763 (677 to 849)	<0.001	1.161 (1.123 to 1.201)	129 (102 to 156)	<0.001	32 338
Romania	1.067 (1.041 to 1.095)	137 (86 to 189)	<0.001	0.848 (0.816 to 0.883)	−68 (−85 to −50)	<0.001	18 224
Slovenia	1.020 (0.977 to 1.066)	7 (−8 to 22)	0.37	1.005 (0.942 to 1.077)	0 (−6 to 7)	0.89	1757

UK: 298 (240 – 356) additional suicides in men in 2009
P<0.001

Chang, Stuckler, Yip & Gunnell BMJ 17 September 2013

Trends in the numbers of suicides and unemployment claimants in England, 2000-10, by sex.



Ben Barr et al. BMJ 2012;345:bmj.e5142

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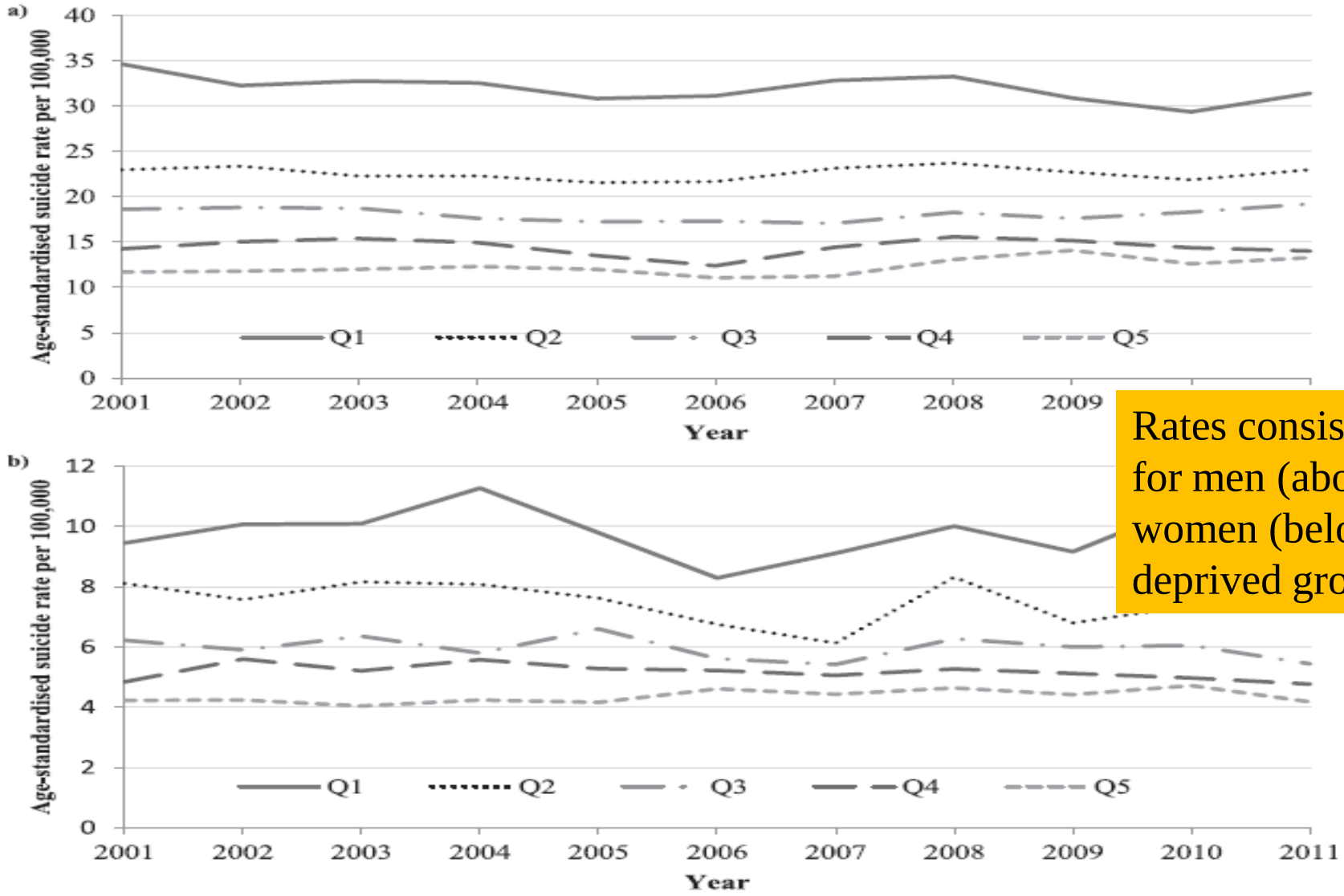
England & Wales: deprivation & suicide rates

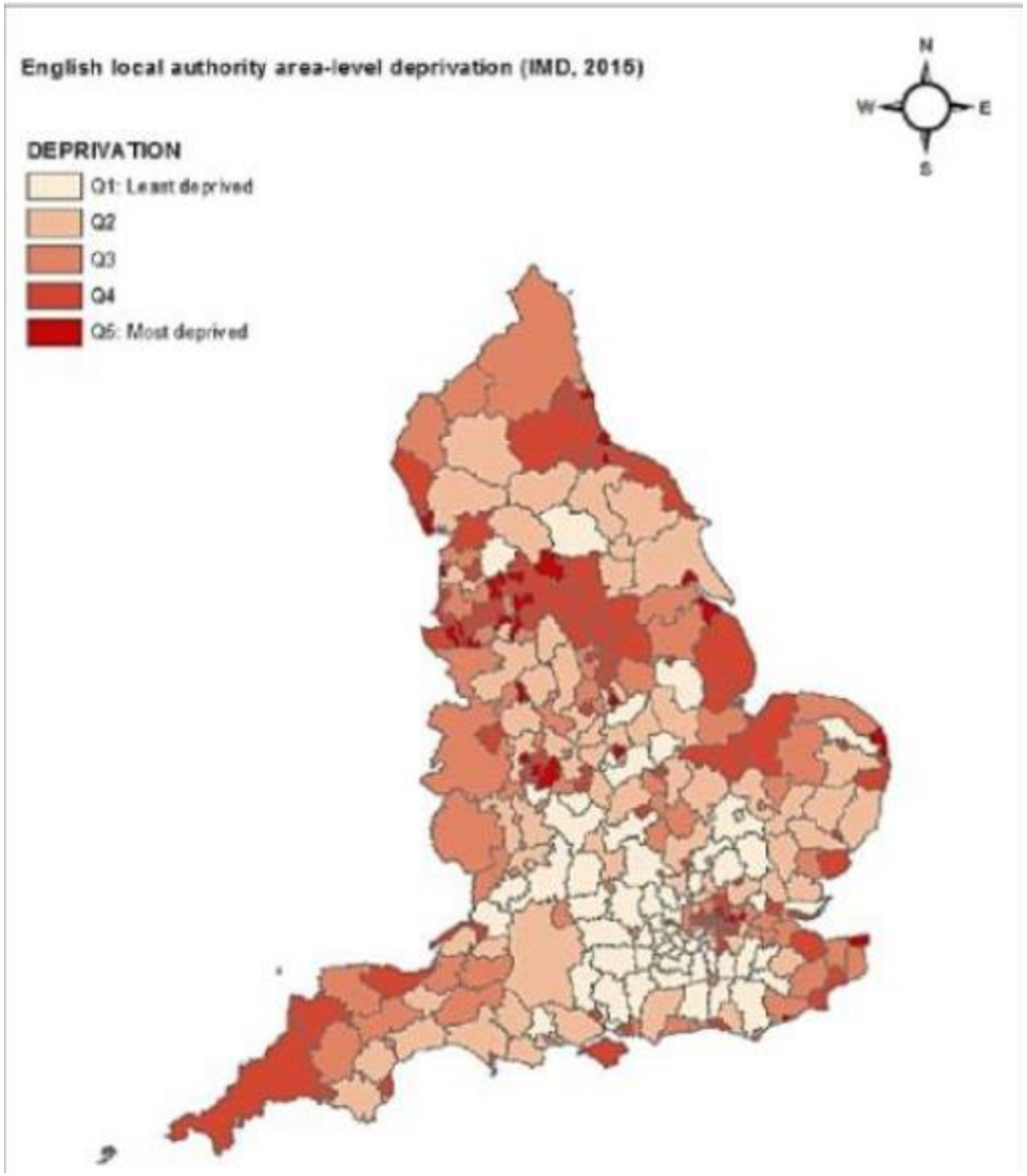
C. Coope et al. / Social Science & Medicine 117 (2014) 76–85

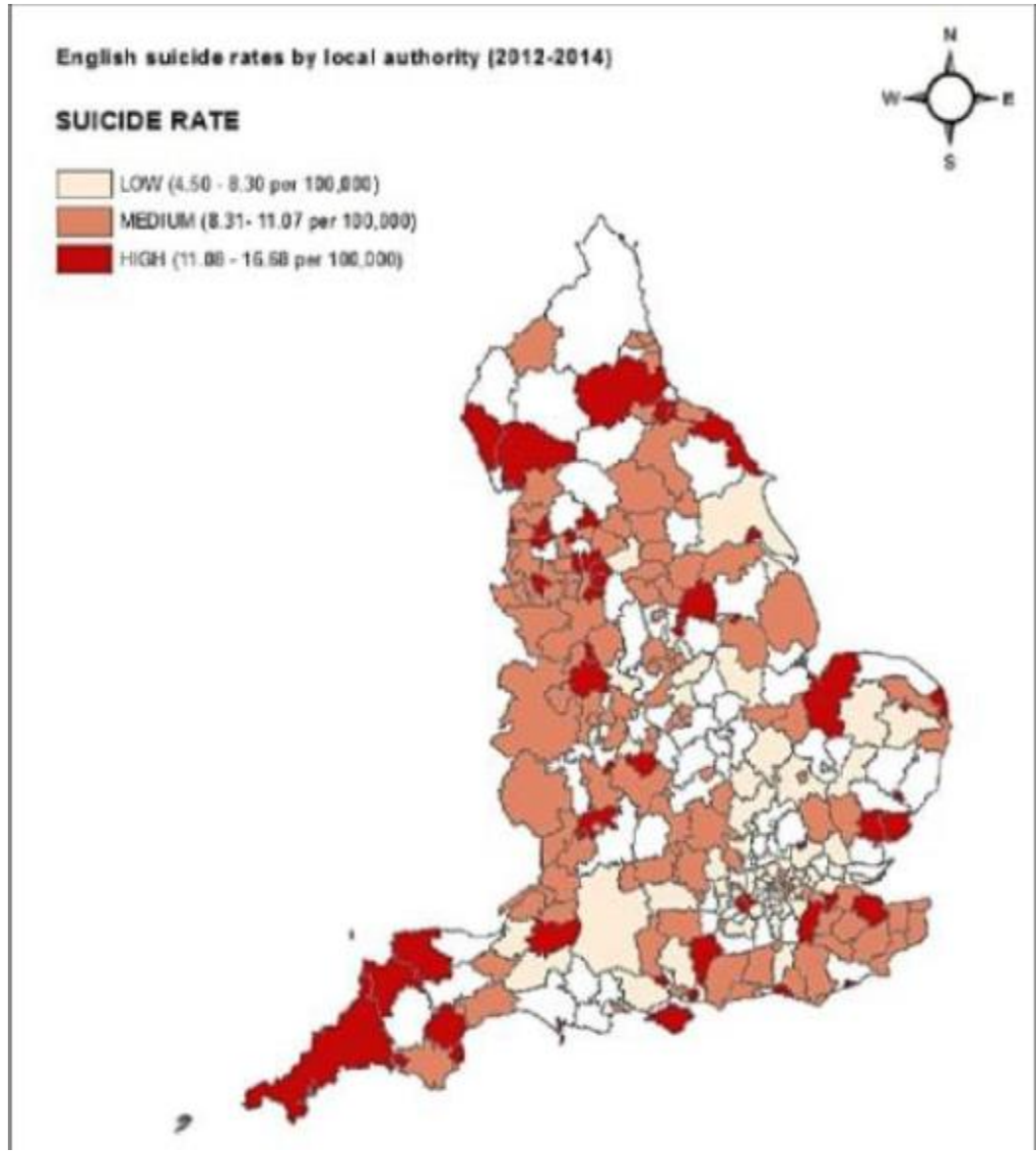


Rates consistently higher for men (above) and women (below) in more deprived groups

Coope et al 2014 Social Science & Medicine

Suicide rates and area deprivation





Source: Cairns & Bambra in Dying from Inequality 2017

Journal of Affective Disorders 191 (2016) 132–138

Contents lists available at ScienceDirect

Journal of Affective Disorders

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

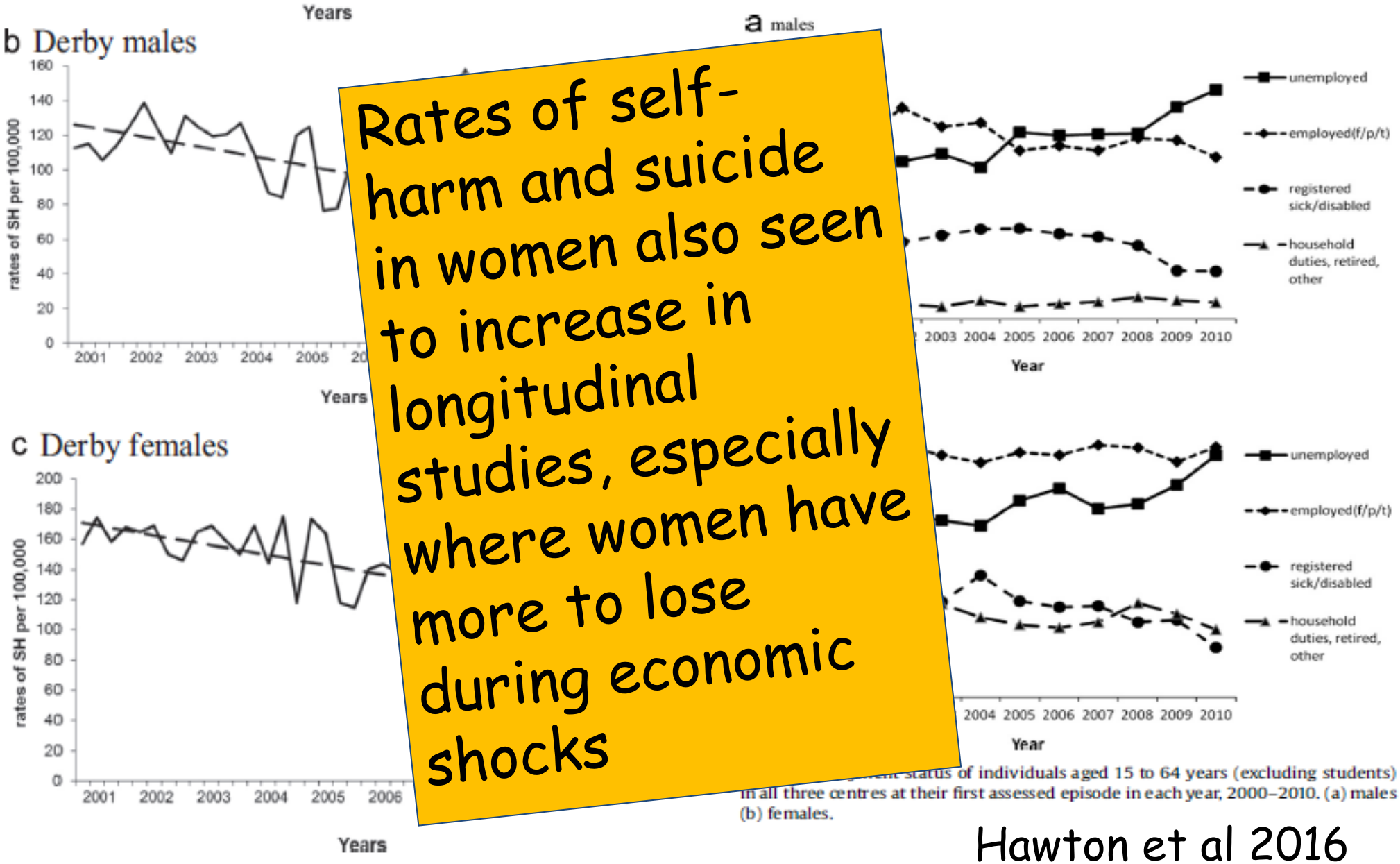
Research paper

Impact of the recent recession on self-harm: Longitudinal ecological and patient-level investigation from the Multicentre Study of Self-harm in England

Keith Hawton [a,*], Helen Bergen [a], Galit Geulayov [a], Keith Waters [b], Jennifer Ness [b], Jayne Cooper [c], Navneet Kapur [c]

[a] Centre for Suicide Research, University Department of Psychiatry, Warneford Hospital, Oxford, UK
[b] Derbyshire Healthcare NHS Foundation Trust, Royal Derby Hospital, Derby, UK
[c] Centre for Suicide Prevention, Centre for Mental Health and Risk, University of Manchester, Oxford Road, Manchester, UK

Rates of self-harm, economic change, and employment status



Hawton et al 2016

Suicide rates in Ireland in the Celtic Tiger years

Marginalisation may be greater during booms due to widening inequalities?

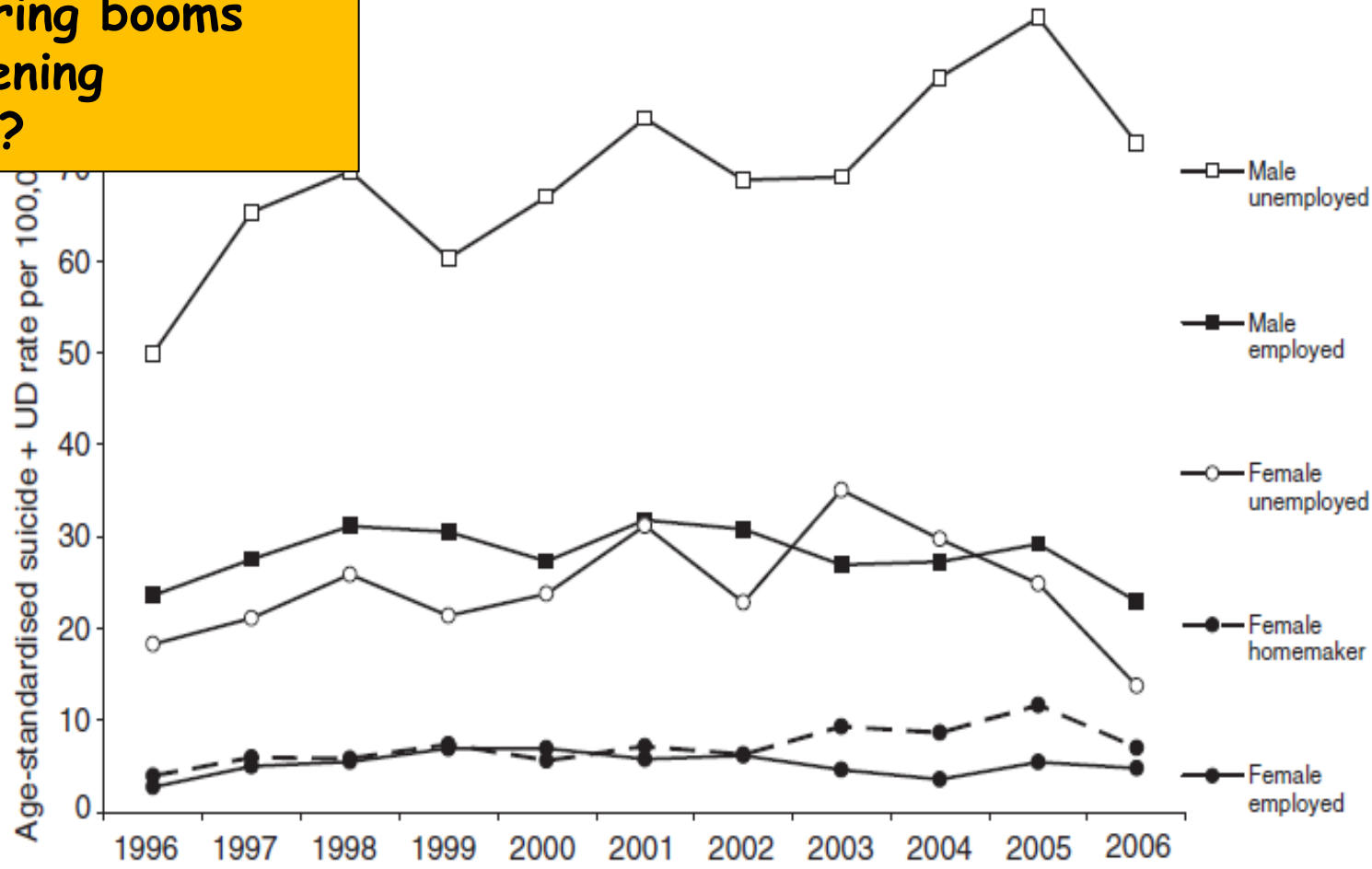
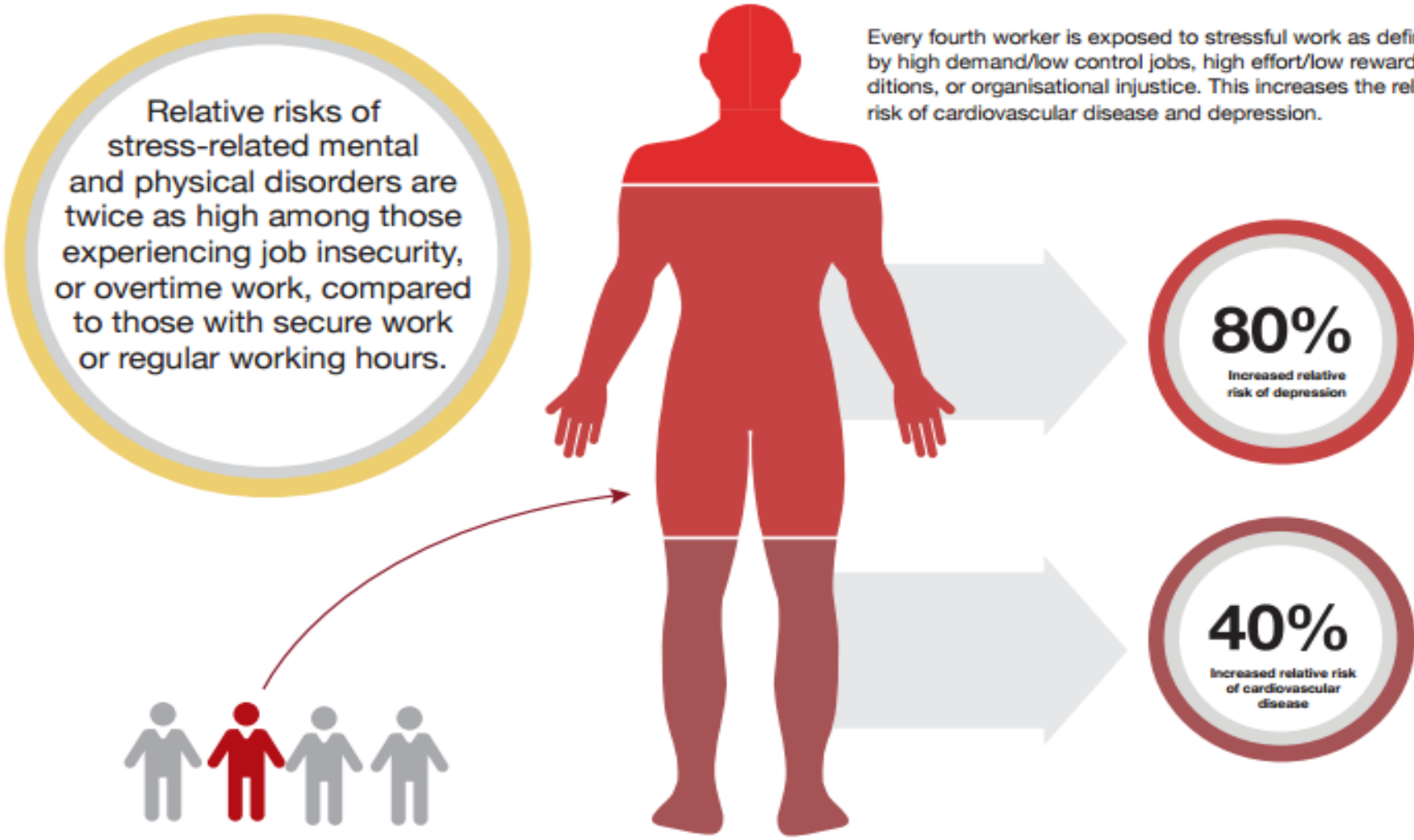


Figure 3 Male and female rate of suicide plus UD in Ireland by employment status, 1996–2006

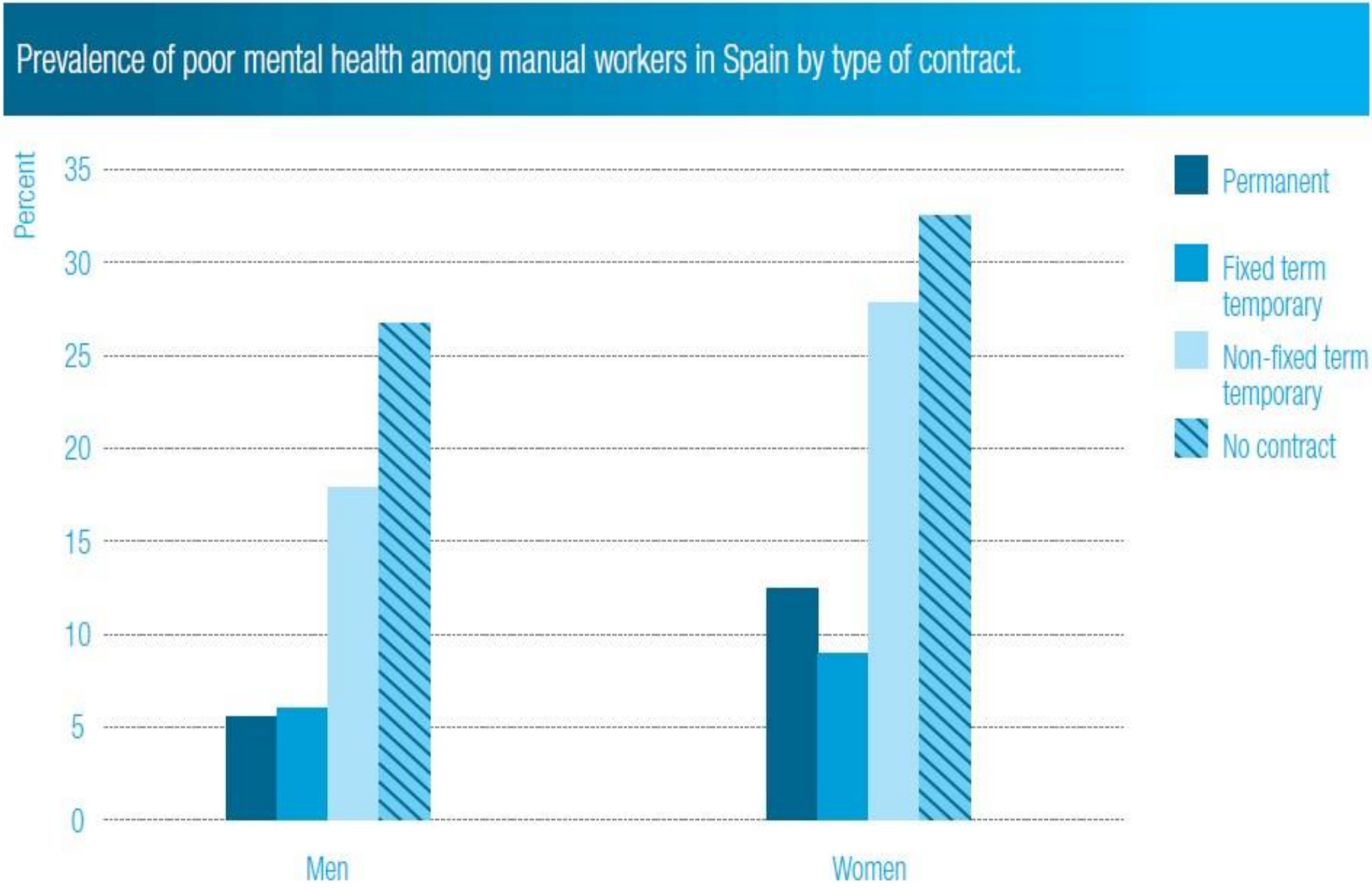
Corcoran & Arensman E J Public Health 2011

Job insecurity, job survival, long term labour market impacts

Impacts of job insecurity



Source: Siegrist, McDaid , Freire-Gabal, Levi et al – 'Santiago Declaration, 2013'



In Commission on Social Determinants of Health, 2008

Impacts of business downsizing, redundancy and being a survivor in workplace

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RESEARCH ARTICLE

Organizational Downsizing and Depressive Symptoms in the European Recession: The Experience of Workers in France, Hungary, Sweden and the United Kingdom

M. Harvey Brenner, Elena Andreeva, Töres Theorell, Marcel Goldberg, Hugo Westerlund, Constanze Leineweber, Linda L. Magnusson. Hanson, Ellen Imbernon, Sophie Bonnaud

Published: May 19, 2014 • DOI: 10.1371/journal.pone.0097063

Loading metrics

Downsizing, employment status & depression

Table 3. Odds ratios and 95% confidence intervals for the associations between employment status, depressive symptoms and dimensions of the downsizing process.

referent: reemployed (OR = 1)		redeployed		survivors		unemployed	
Dependent variables	**N**	**OR (95% CI)**	**p val.**	**OR (95% CI)**	**p val.**	**OR (95% CI)**	**p val.**
Depressive symptoms	756	1.13 (0.63 to 2.02)	0.684	2.04 (1.26 to 3.31)	0.004	2.85 (1.61 to 5.06)	<0.001
Downsizing transparent, understandable	736	0.75 (0.46 to 1.23)	0.260	1.02 (0.69 to 1.52)	0.906	0.73 (0.46 to 1.15)	0.176
Downsizing fair and unbiased	700	1.06 (0.64 to 1.77)	0.821				
Downsizing chaotic/disorganized	732	1.01 (0.61 to 1.67)	0.961				
Downsizing well planned	712	1.29 (0.77 to 2.16)	0.339				
Downsizing democratic	483	n.a.	n.a.				
Agreement with downsizing necessity	693	1.16 (0.68 to 1.97)	0.581				
Employee influence on downsizing	746	0.93 (0.37 to 2.29)	0.869				
Early warning about downsizing	754	0.89 (0.53 to 1.50)	0.659				
Trust in the employer's veracity	690	1.05 (0.61 to 1.82)	0.853				
Influence of personal factors	658	0.93 (0.54 to 1.60)	0.805				
Manager responsible for staff	755	0.93 (0.54 to 1.62)	0.809				
Forced to lay-off personnel	187	0.90 (0.35 to 2.35)	0.835				
Financial compensation	291	n.a.	n.a.				
Retraining	547	0.79 (0.47 to 1.33)	0.372				
Other help	547	1.14 (0.64 to 2.02)	0.655				
Decreased income and benefits	641	1.27 (0.73 to 2.22)	0.404				
Large-scale downsizing	502	n.a.	n.a.				

Results from multiple logistic regression analysis.
Variables included in the equations but not shown in the table were age (in years), sex, education, smoking, frequency of
Abbreviations: N, number of respondents; OR, odds ratio; 95% CI, 95% confidence interval; p val., p value; n.a., not approp
doi:10.1371/journal.pone.0097063.t003

Depressive symptoms relative to reemployed:

Survivors of downsizing
Odds Ratio: 2.04 P<0.004

Unemployed after downsizing:
Odds Ratio: 2.85 P<0.001

Brenner et al 2014

Perception of downsizing process & likelihood of depressive symptoms

Table 4. Odds ratios and 95% confidence intervals for the associations between the dimensions of the downsizing process and depressive symptoms.

Downsizing process	Model 1			Model 2			Model 3		
referent: no (OR = 1)	N	OR (95% CI)	p value	N	OR (95% CI)	p value	N	OR (95% CI)	p value
Downsizing transparent	738	0.60 (0.42 to 0.86)	0.005	736	0.61 (0.42 to 0.88)	0.008	626	0.63 (0.42 to 0.95)	0.026
Downsizing fair and unbiased	702	0.41 (0.28 to 0.60)	<0.001	700	0.40 (0.27 to 0.60)	<0.001	599	0.42 (0.27 to 0.65)	<0.001
Downsizing chaotic	734	2.53 (1.74 to 3.67)	<0.001	732	2.53 (1.73 to 3.69)	<0.001	625	2.79 (1.81 to 4.30)	<0.001
Downsizing well planned	714	0.47 (0.32 to 0.69)	<0.001	712	0.45 (0.30 to 0.67)	<0.001	608	0.40 (0.25 to 0.64)	<0.001
Downsizing democratic	483	0.48 (0.29 to 0.82)	0.006	483	0.50 (0.29 to 0.85)	0.010	380	0.60 (0.33 to 1.08)	0.088
Agreement with downsizing	694	0.51 (0.35 to 0.75)	0.001	693	0.53 (0.36 to 0.79)	0.002	590	0.55 (0.36 to 0.85)	0.007
Employee influence	748	0.78 (0.43 to 1.43)	0.426	746	0.75 (0.41 to 1.39)	0.366	632	0.85 (0.45 to 1.61)	0.617
Early warning	756	0.82 (0.57 to						(0.36 to 0.82)	0.004
Trust in the employer's veracity	692	0.49 (0.34 to						(0.27 to 0.65)	<0.001
Influence of personal factors	660	1.50 (1.04 to						(0.94 to 2.16)	0.099
Manager responsible for staff	757	0.90 (0.60 to						(0.56 to 1.40)	0.607
Forced to lay-off personnel	187	1.06 (0.52 to						(0.60 to 3.56)	0.400
Financial compensation	291	0.69 (0.39 to						(0.08 to 0.64)	0.005
Retraining	549	0.89 (0.55 to						(0.47 to 1.37)	0.420
Other help	549	0.87 (0.54 to						(0.41 to 1.28)	0.268
Decreased income/benefits	643	1.40 (0.93 to							n.a.
Large-scale downsizing	502	0.92 (0.60 to						(0.50 to 1.48)	0.594

Relative to no chaos: Chaotic downsizing 2.79 times more likely to experience depression

Results from multiple logistic regression analysis (dependent variable: depressive symptoms).
Variables included in the equations but not shown in the table were:
Model 1: country-specific effects.
Model 2 = Model 1 plus age (in years), sex, education, smoking, frequency of alcohol drinking (ordinal variable, referent: abstainer, OR = 1) and employment status (referent: reemployed, OR = 1).
Model 3 = Model 2 plus decreased income and benefits (actual responses).
Abbreviations: N, number of respondents; OR, odds ratio; 95% CI, 95% confidence interval; n.a., not appropriate.
doi:10.1371/journal.pone.0097063.t004

Brenner et al 2014

Risks to mental health even when economic shocks end - long term unemployment

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Causal and contextual relationship between long-term unemployment and suicide

TABLE 3—Suicide and Events of Undetermined Intent in 1993–1996, 1997–2002, and 1993–2002, by Unemployment Experience in 1992–1996, Among Men in Sweden, Born Between 1931–1965 Who Were Gainfully Employed in 1990 and Alive in 1992

Variable	Mortality Follow-Up, 1993–1996			Mortality Follow-Up, 1997–2002			Mortality Follow-Up, 1993–2002		
	Unemployed[a] Male HR (95% CI)	% Reduction in the HR	Total No. of Deaths	Unemployed[a] Male HR (95% CI)	% Reduction in the HR	Total No. of Deaths	Unemployed[a] Male HR (95% CI)	% Reduction in the HR	Total No. of Deaths
Suicide									
Employed (Ref)	1.00	. . .		1.00	. . .		1.00	. . .	
Age-adjusted	1.29 (1.16, 1.44)	. . .		1.75 (1.61, 1.91)	. . .		1.55 (1.45, 1.66)	. . .	
Age- and previous health–adjusted[b]	1.10 (0.98, 1.22)	66		1.55 (1.42, 1.69)	27		1.35 (1.26, 1.44)	36	
Age- and SFE–adjusted[c]	1.07 (0.96, 1.20)	76		1.51 (1.38, 1.65)	32		1.31 (1.23, 1.41)	44	
Fully adjusted	1.00 (0.90, 1.12)	100	1732	1.43 (1.31, 1.56)	43	2419	1.24 (1.16, 1.33)	56	4151
Fully adjusted[d]	1.05 (0.92, 1.20)	. . .	1274	1.48 (1.33, 1.63)	. . .	1912	1.30 (1.20, 1.40)	. . .	3186
Events of undetermined intent									
Employed (Ref)	1.00	. . .		1.00	. . .		1.00	. . .	
Age-adjusted	1.98 (1.66, 2.37)	. . .		3.29 (2.77, 3.91)	. . .		2.55 (2.35, 2.88)	. . .	
Age- and previous health–adjusted[b]	1.41 (1.17, 1.69)	58		2.45 (2.05, 2.93)	37		1.85 (1.63, 2.11)	45	
Age- and SFE–adjusted[c]	1.29 (1.07, 1.55)	70		2.41 (2.01, 2.89)	38		1.78 (1.54, 2.00)	50	
Fully adjusted	1.13 (0.94, 1.37)	87	542	2.09 (1.75, 2.52)	52	529	1.54 (1.35, 1.75)	65	1071
Fully adjusted[d]	1.08 (0.82, 1.42)	. . .	275	2.31 (1.82, 2.93)	. . .	310	1.63 (1.37, 1.95)	. . .	585

Note. CI = confidence interval; HR = hazard ratio; SFE = social, family, and employer characteristics.
[a]Unemployed = at least 30 d of unemployment in any 1 year, 1992–1996.
[b]Adjusted for the natural logarithm (no. of total hospitalizations), any previous suicide or self-injury attempt, any previous mental health diagnosis excluding an alcohol-related diagnosis, and any previous alcohol-related diagnosis, 1982–1991.
[c]Social, family, and employer characteristics = natural logarithm (no. of children), marital status, natural logarithm (yearly household income), education level, employer county location, and immigrant status.
[d]Excludes those with a previous history of self-injury or a suicide attempt, any previous mental health diagnosis excluding an alcohol-related diagnosis, and any previous alcohol-related diagnosis, 1982–1991.

Garcy and Vagero American Journal of Public Health June 2013

Risks associated with financial distress & unmanageable debt

Number of debts and source of debt impacts on mental health

Table 4 Prevalence of CMD by source of debt, number of debts, source of loan and number of lenders

Source of debt	No debt	Housing[a]	Utilities[b]	Shopping[c]	Other debts[d]
Any CMD (%)	13.9	41.8	44.1	44.8	40.8
Base	6678	342	247	192	285
Number of debts	**0**	**1**	**2**	**3**	**4+**
Any CMD (%)	13.9	32.3	27.0	54.3	54.3
Base	6678	279	148	70	127
Source of loan	**Family**	**Friends**	**Pawnbroker**	**Moneylender**	
Any CMD (%)	34.2	44.3	45.3	57.5	
Base	491	185	75	40	
Number of lenders	**0**	**1**	**2**	**3**	
Any CMD (%)	13.9	34.8	42.7	52.2	
Base	6678	475	124	25	

a: Housing debts comprise arrears in rent, mortgage and council tax
b: Utilities debt comprise arrears in gas, electricity and water
c: Shopping debts comprise arrears in hire purchase, credit card and mail order
d: Other debts include arrears in telephone, TV licence, road tax and child maintenance

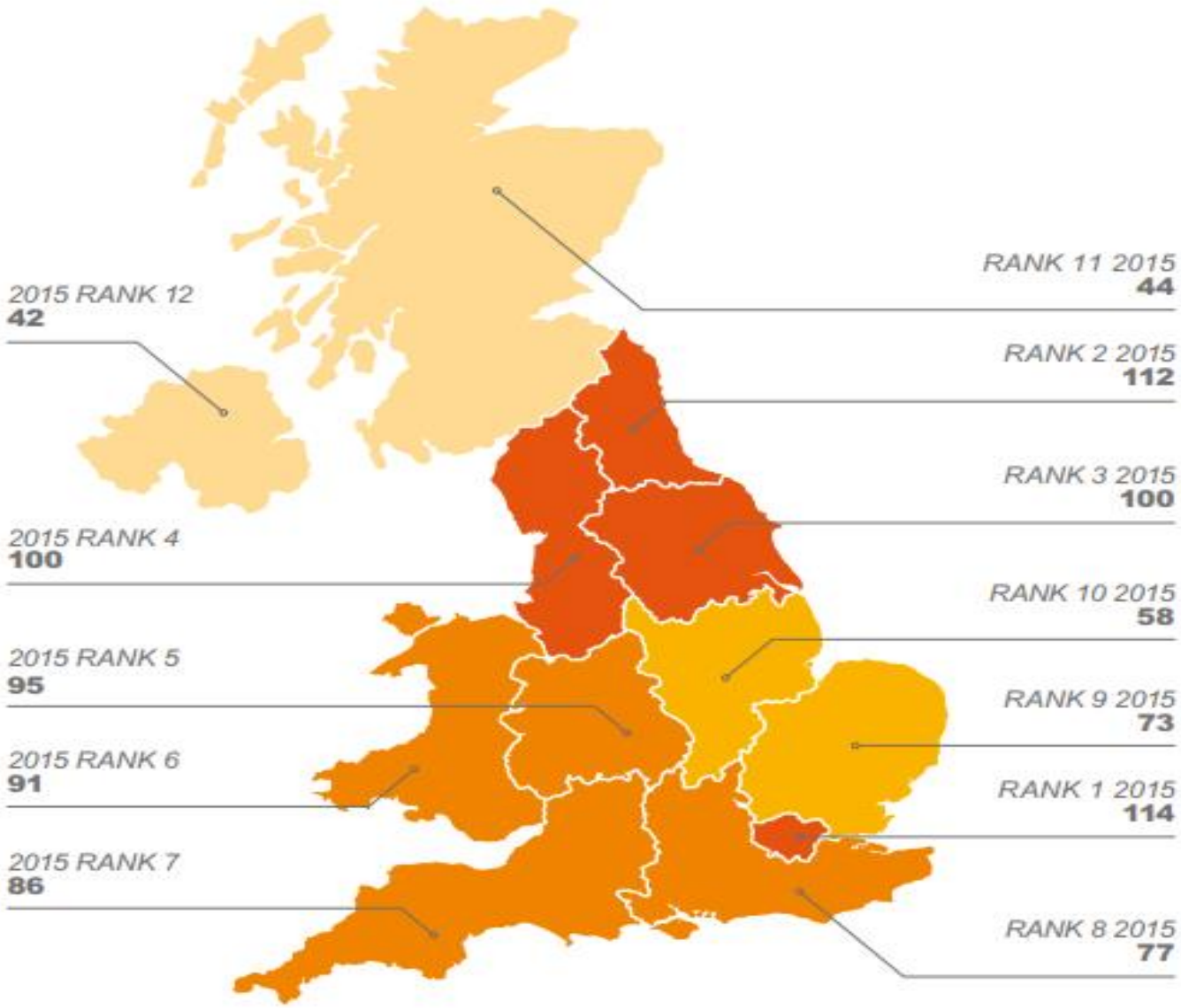
Source:Meltzer, Bebbington,Brugha,Farrell & Jenkins European Journal of Public Health 2013

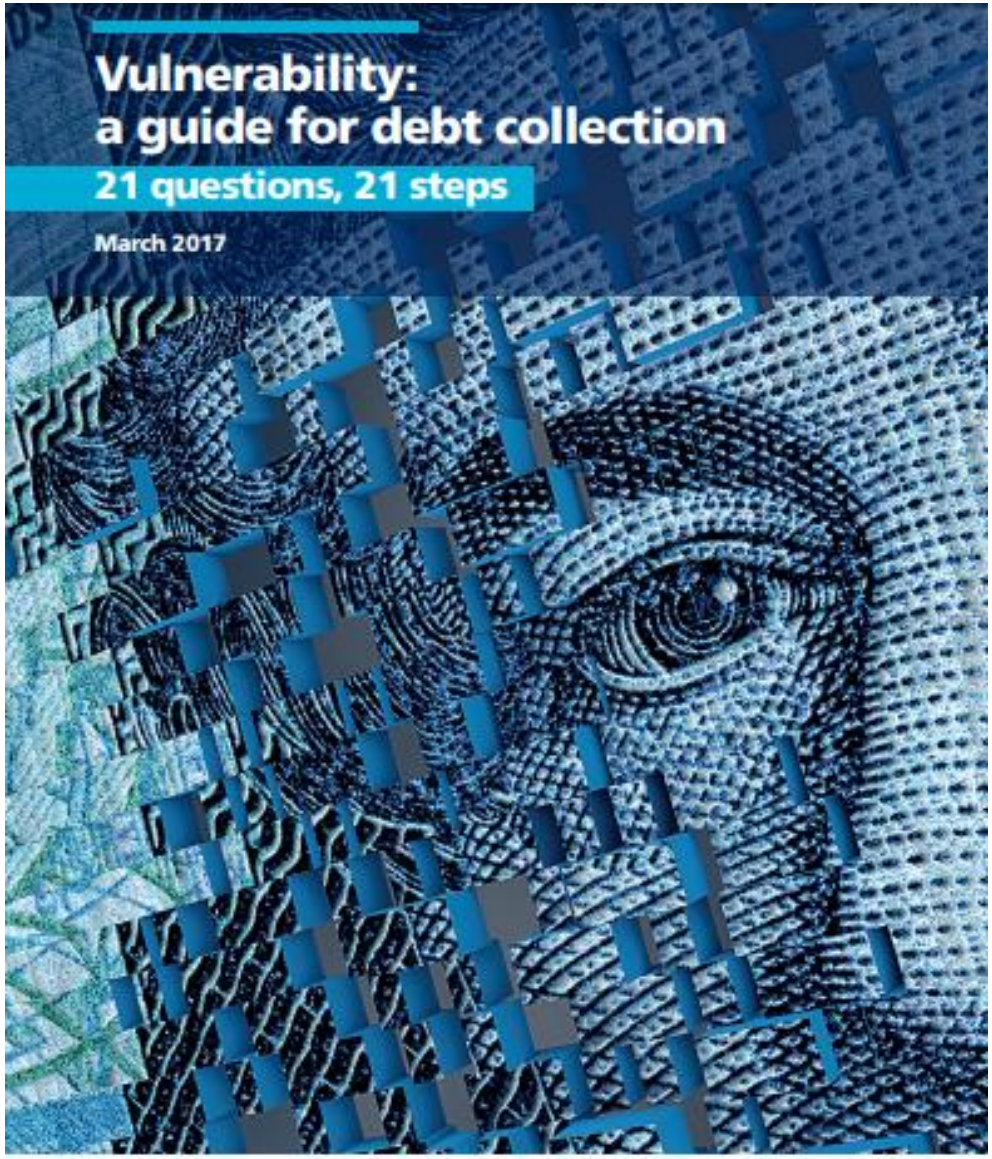
Contacts with StepChange 2015

The highest level of demand comes from London and the north of England, each with over 100 clients per 10,000 local population.

Clients per 10,000 population in 2015

- 25-50
- 50-75
- 75-100
- 100-125





- 1 in 4 frontline debt collection staff reported spoke to at least one customer they seriously believed might kill themselves
- 657 conversations were held by these staff with customers believed to be at serious risk of suicide
- 25% of frontline staff report being unsure what to do
- 18% report organisation does not have a clear policy on response • 24% unable to give out details of helping organisations
- 37% believe haven’t received sufficient training

Unmanageable debts and mental health

- In an analysis of 20 EU countries including the UK and Ireland, during the recent recession a 0.54% increase in completed suicides was observed for every 1% increase in indebtedness (Reeves 2015)

- Analysis of coroner records of 300 people who died by suicide in England in 2010 and 2011 revaled “4% of suicides entirely related to the recession, employment or financial-related difficulties and a further 9% where such difficulties contributed a lot to the suicide” Coope 2015.

- In Catalonia 90% of women and 84% of men in mortgage arrears and threatened with eviction had poor mental health compared with rates of 15% and 10% in the general population (Vasquez-Vera 2016)

To conclude

- Risks of suicide and poor mental health increase during times of economic change – linked to marginalisation and uncertainty on future income & opportunities
- Risks associated with employment, linked to quality and security of employment, including for survivors
- Financial distress is a risk factor for suicide – reported in many different country contexts
- Specific issues around risk of eviction & loss of home but also about unmanageable unsecured debts for bills etc

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Potential policy considerations

A. Consider more re social protection measures to cushion economic shocks to most vulnerable

B. Providing psychological support for employees as part of redundancy process

C. Consider what more can be done to mitigate job insecurity and support ‘survivors’ of any downsizing

D. Consider what more can be done to intervene to support people with unmanageable debts

E. Consider what more can be done to identify people at risk, as well as those having, unmanageable debts