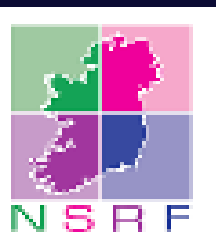


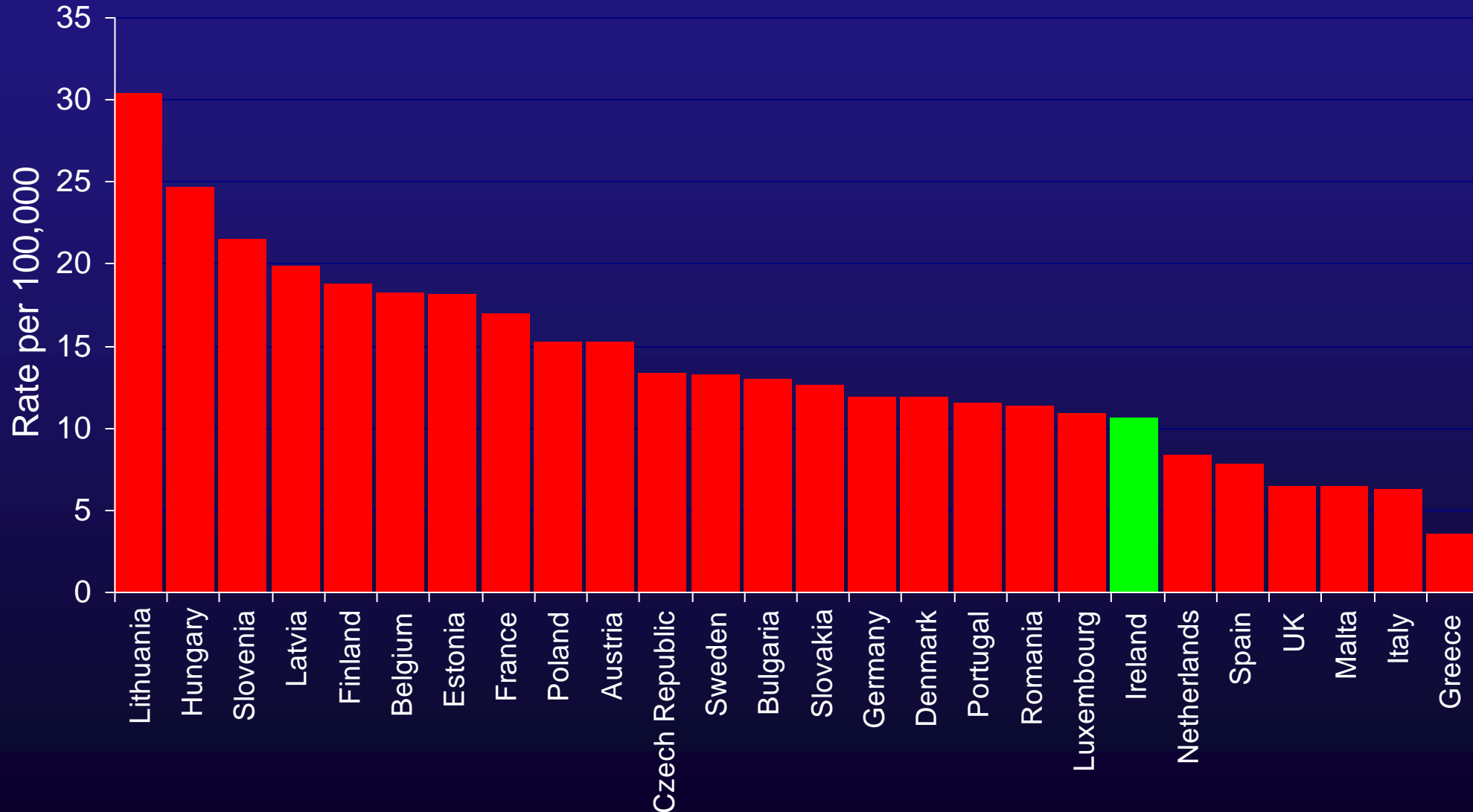
Impact of the economic recession and subsequent austerity on suicide and self harm in Ireland

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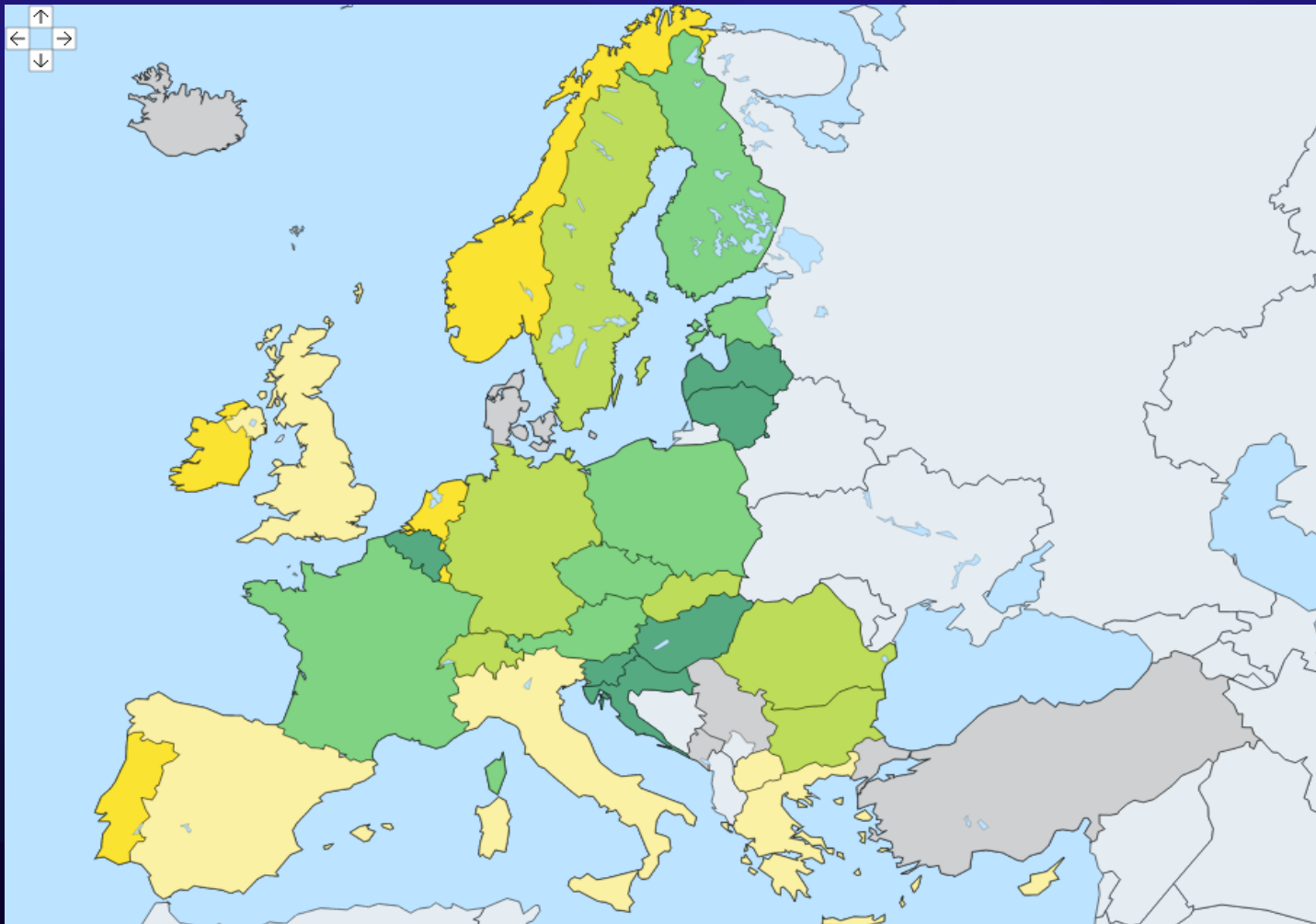


Suicide in Ireland and in other EU countries, Rates per 100,000 –All ages






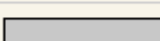


Data for 2004-2008 - WHO-EuroStat

Suicide death rate by both genders, standardised in Europe per 100,000 inhabitants



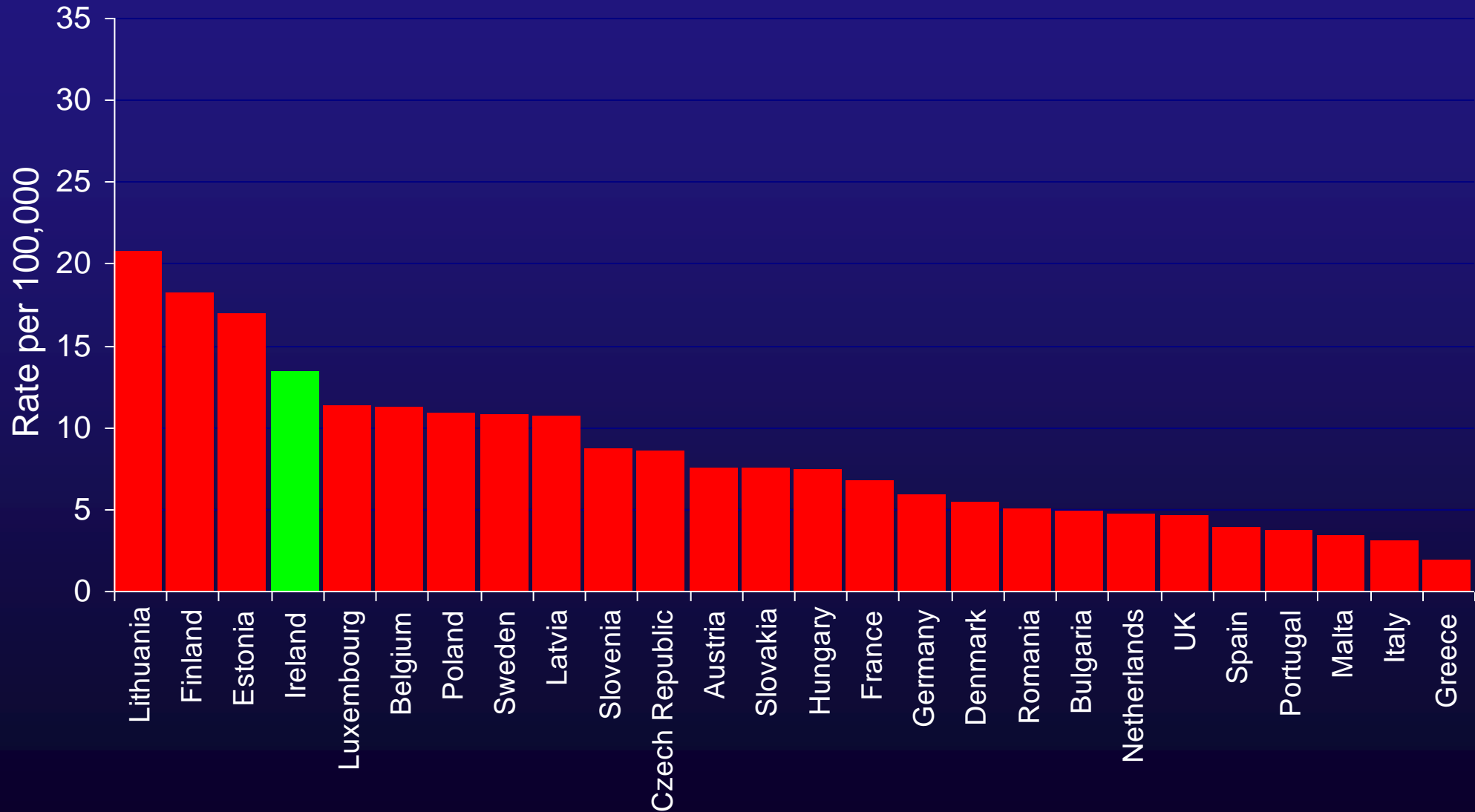
Data for 2010

Legend	Cases
 3.3 - 6.8	6
 6.8 - 11.7	6
 11.7 - 13.7	6
 13.7 - 17.8	6
 17.8 - 32.9	7
 Data not available	6

Minimum value:3.3
Maximum value:32.9
:=not available

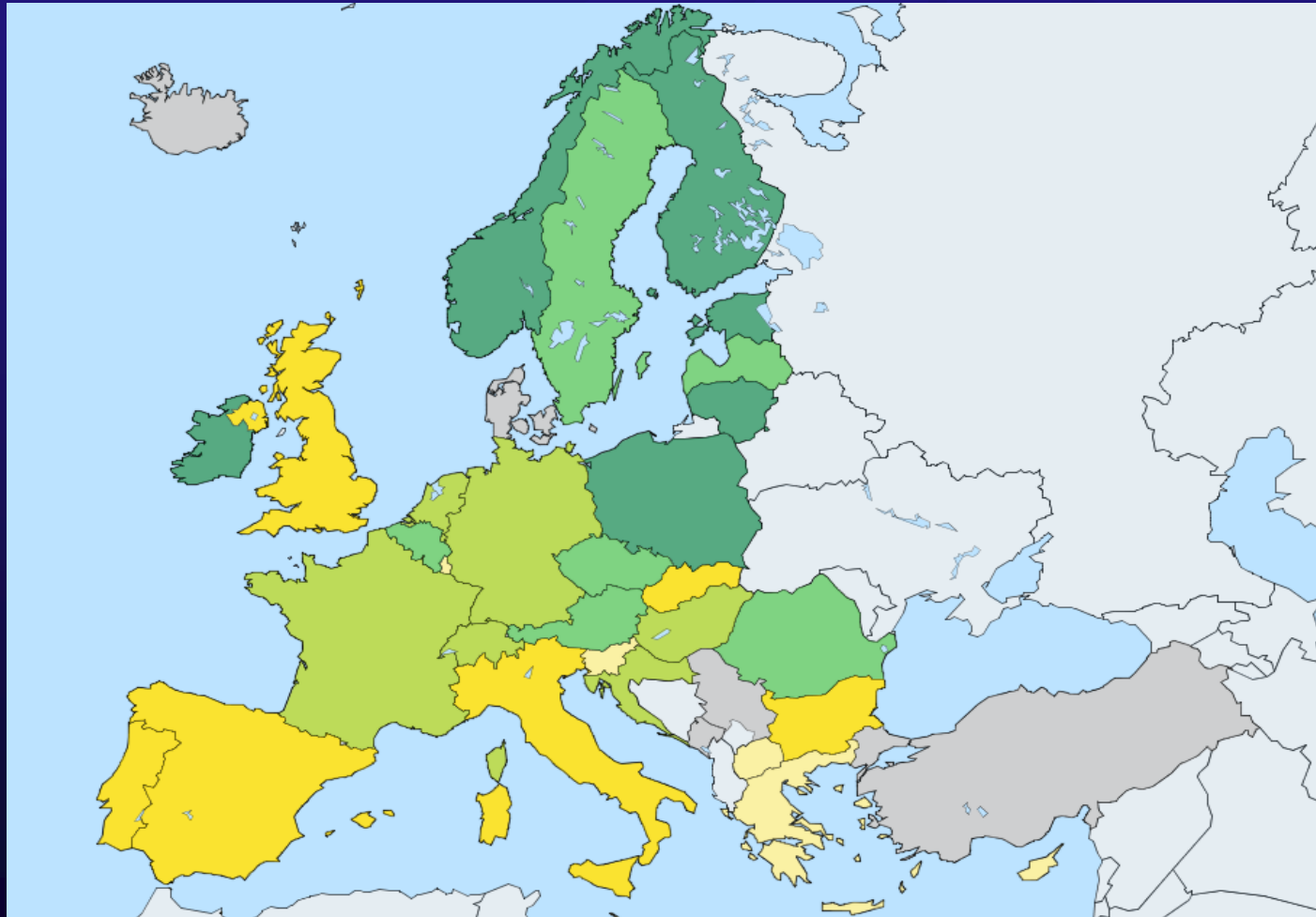
WHO-EuroStat

Suicide rate per 100,000 of 15-24 year-olds in Ireland and in other EU countries



Data for 2004-2008 - WHO-EuroStat

Suicide death rate for 15- 19 year old males in Europe, crude death rate per 100,000 persons



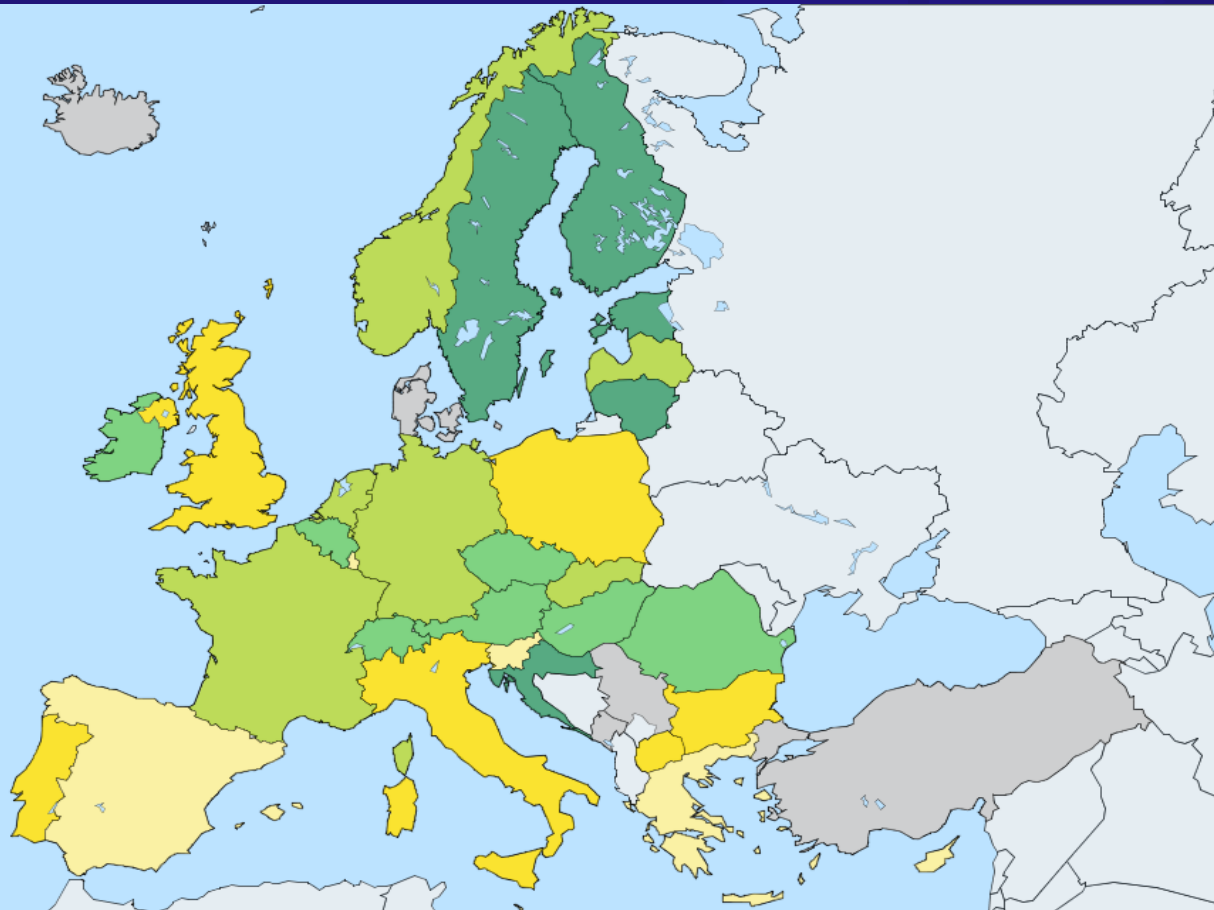
Data for 2010

Legend	Cases
0.0 - 1.4	6
1.4 - 4.9	6
4.9 - 7.9	6
7.9 - 11.3	6
11.3 - 21.1	6
Data not available	3

Minimum value:0.0
Maximum value:21.1

WHO-EuroStat

Suicide death rate for 15- 19 year old females in Europe, crude death rate per 100,000 persons



Data for 2010

Legend	Cases
0.0 - 0.7	6
0.7 - 2.0	6
2.0 - 3.2	6
3.2 - 3.8	7
3.8 - 7.2	5
Data not available	3

Minimum value:0.0
Maximum value:7.2

WHO-EuroStat

Background

- Financial crisis and global economic recession in 2008
- Ireland has been profoundly affected
- Unemployment levels in Ireland grew from 4% in 2007 to a peak of 15% in early 2012
- In 2012, Ireland had the highest emigration rate and was the 4th most indebted of the 27 EU Member States (Eurostat)

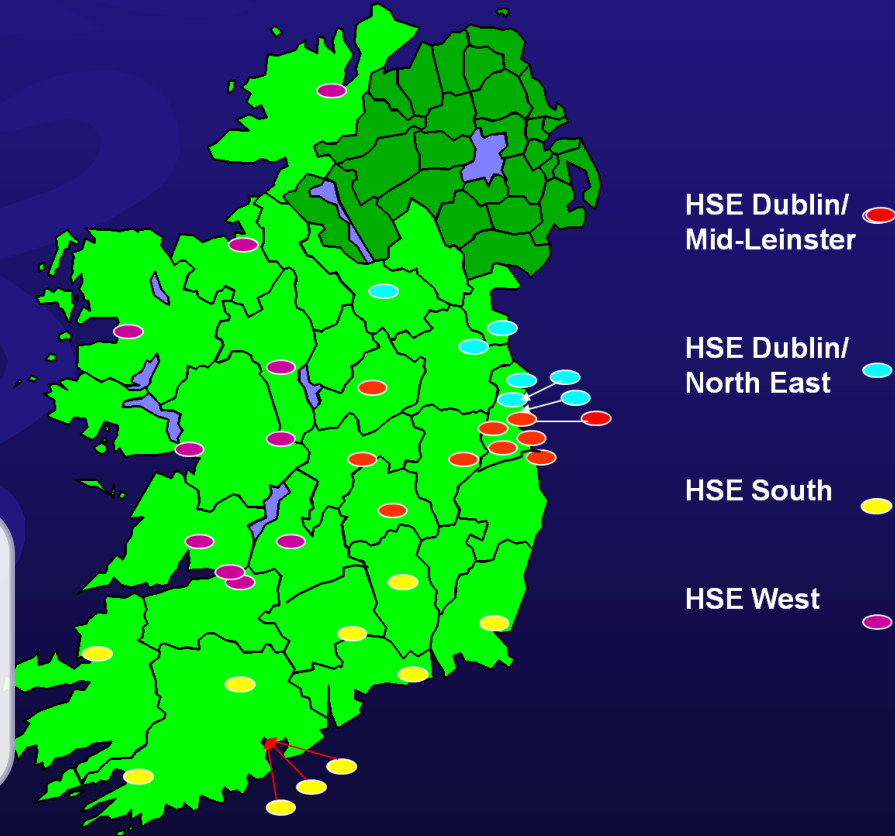
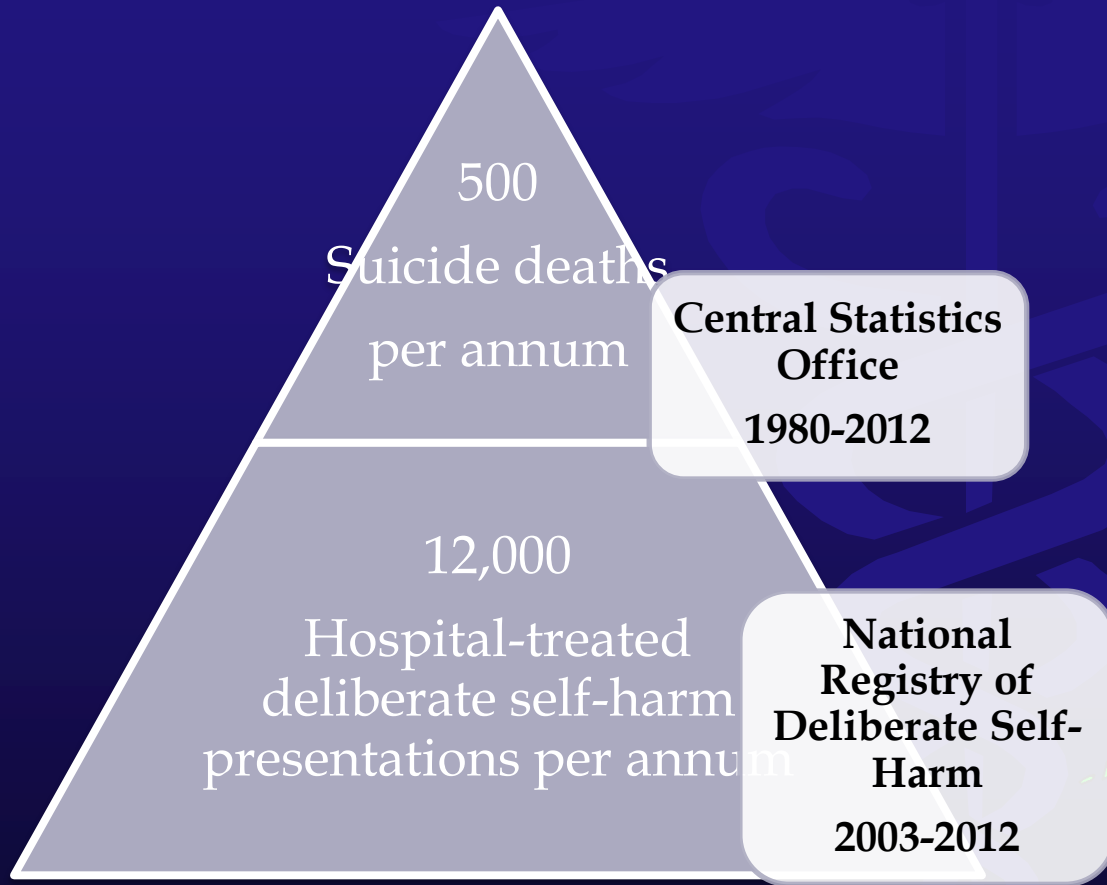
Background

- Studies have shown that economic recession generally increases suicide
- Analysis of 54 countries showed an excess in 2009 of 4,884 suicides compared to the number expected if the trend in 2000-2007 had continued
- Over the three years 2008-2010 studies found an excess of 680 suicides in Spain, 1,000 suicides in England and 4,750 suicides in the US
- The impact of recession on non-fatal suicidal behaviour has not been well established
- Ireland's National Registry of Deliberate Self Harm provides a unique opportunity to assess the recession's impact at a national level on a well-defined form of medically-serious suicidal behaviour

Aims

To assess the impact of economic recession and austerity in Ireland over the five years 2008-2012 on national rates of both suicide and self harm

Setting and data



Pop. 4,585,500 (2011 census, CSO)

Analysis

Step 1: Joinpoint analysis of suicide rates 1980-2012

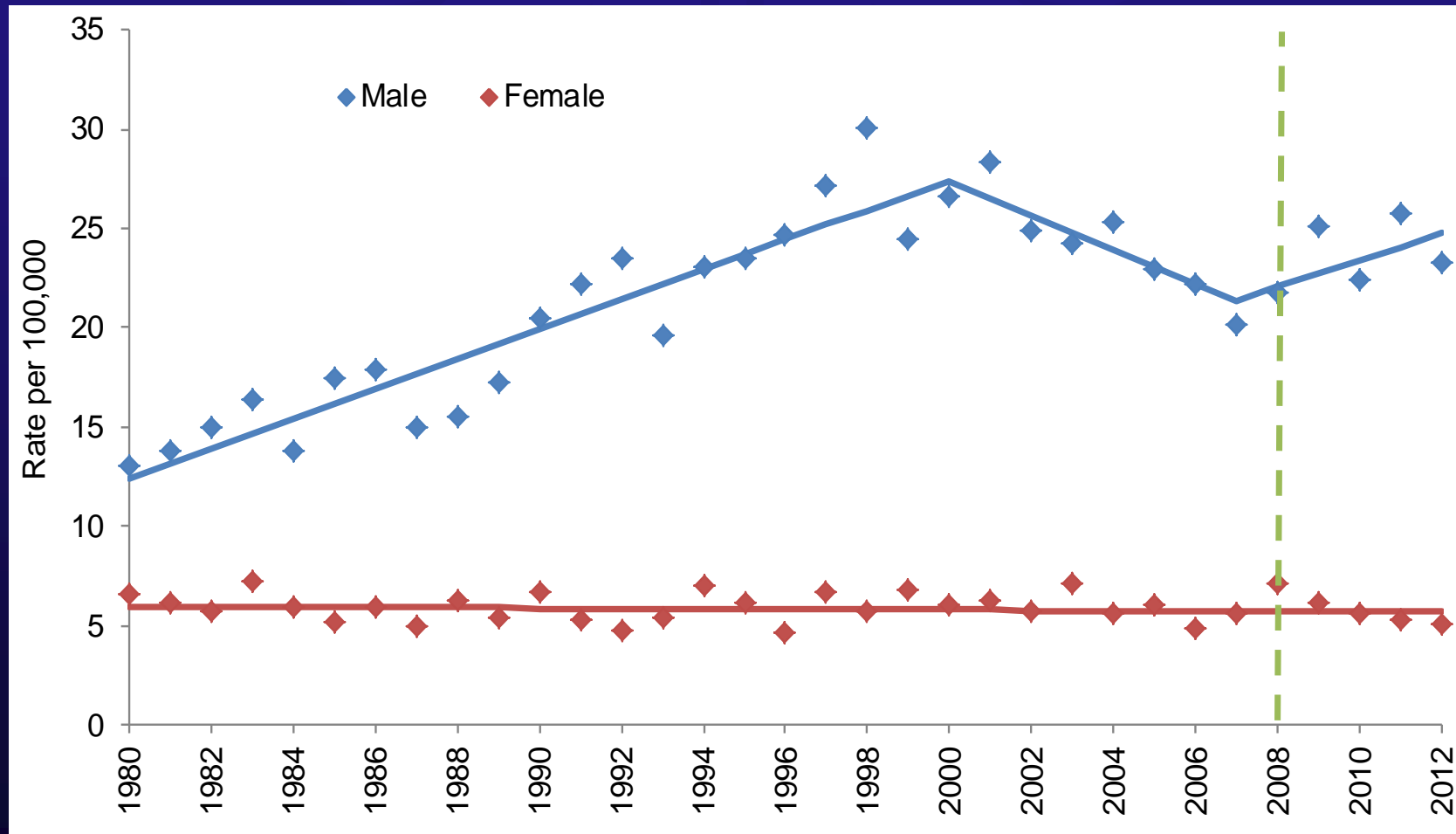
Step 2: Interrupted time series analysis of quarterly suicide rates 2001-2012 and monthly self-harm rates 2004-2012

- Tests for change in level and trend
- Used quarter 1 (or January) of 2008 as the advent of the recession
- Adjusted for serial autocorrelation and seasonality

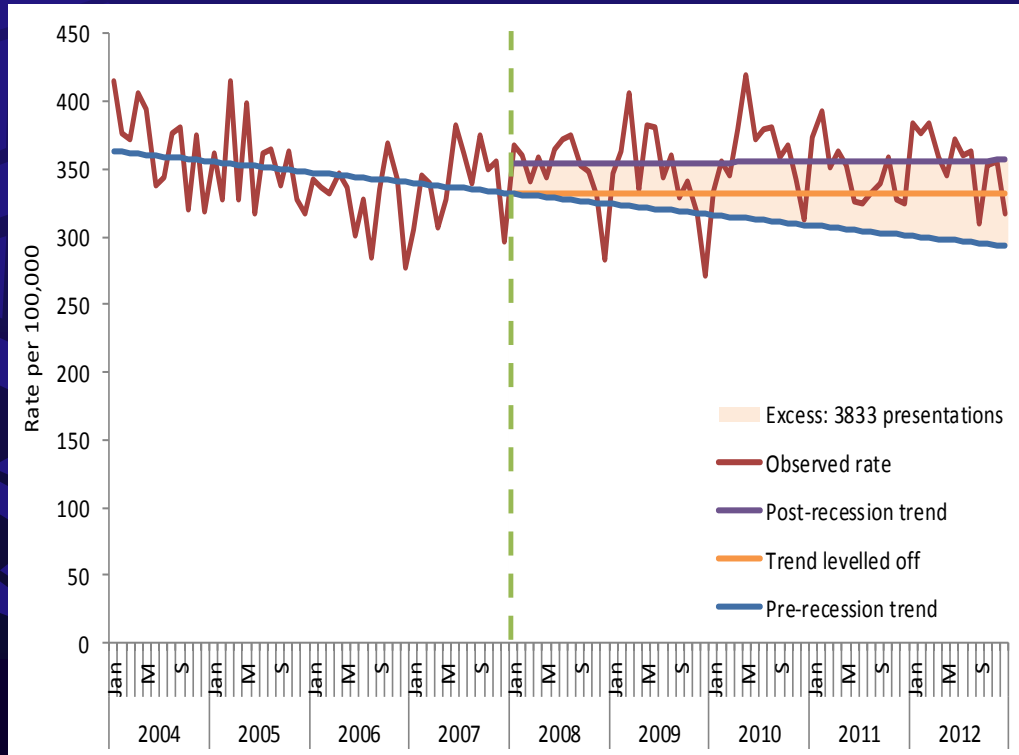
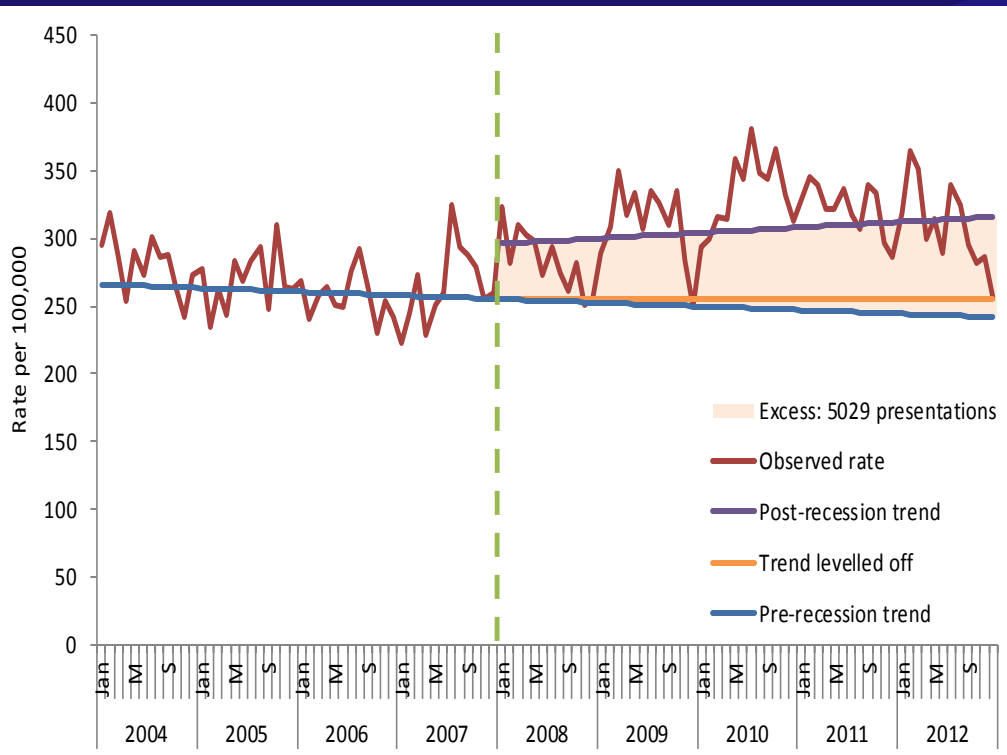
Step 3: Estimated the excess number of suicide deaths and self-harm presentations

- Assuming the pre-recession trend continued
- Assuming the pre-recession trend levelled-off

Joinpoint analysis of Irish suicide



Trend in monthly male (left) and female (right) self harm presentations to hospital (2004-2012)



Estimated impact of the economic recession and subsequent austerity on suicide and self harm in Ireland, 2008-2012

Scenario	Rate by end 2012				Cumulative excess by end 2012		
	Without recession	With recession	Difference (95% CI)	% difference	Rate	Number	
A. If pre-recession trends continued	Suicide					Deaths	
	Male	15.2	23.8	8.7*** (4.8, 12.5)	57%	109.1*** (62.8, 155.4)	476*** (274, 678)
	Female	4.5	4.8	0.3 (-1.1, 1.8)	7%	19 (-2, 39.9)	85 (-9, 180)
	Self harm					Hospital presentations	
	Male	241.9	316.0	74.1 (-6.3, 154.6)	31%	3454.9* (430.3, 6479.5)	5029* (626, 9432)
	Female	293.3	356.5	63.2* (4.1, 122.2)	26%	2552.8* (213.5, 4892)	3833* (321, 7345)
B. If pre-recession trends levelled off	Suicide					Deaths	
	Male	19.8	23.8	4.0** (1.1, 6.9)	20%	60.4*** (27.7, 93.2)	264*** (121, 407)
	Female	5.4	4.8	-0.6 (-1.5, 0.3)	-12%	9.0 (-5.3, 23.3)	41 (-24, 105)
	Self harm					Hospital presentations	
	Male	255.4	316.0	60.6*** (26.3, 94.8)	24%	3040.9*** (1500.9, 4580.9)	4426*** (2185, 6668)
	Female	332.5	356.5	24.0* (2.3, 45.6)	7%	1357.1* (183.2, 2530.9)	2038* (275, 3800)

Note: * p<0.05, ** p<0.01, *** p<0.001; Recession arrived in January 2008; Dependent variables were the age-standardised rate of quarterly suicide and of monthly self harm presentations to hospital per 100,000 >15 years.

Age-specific impact

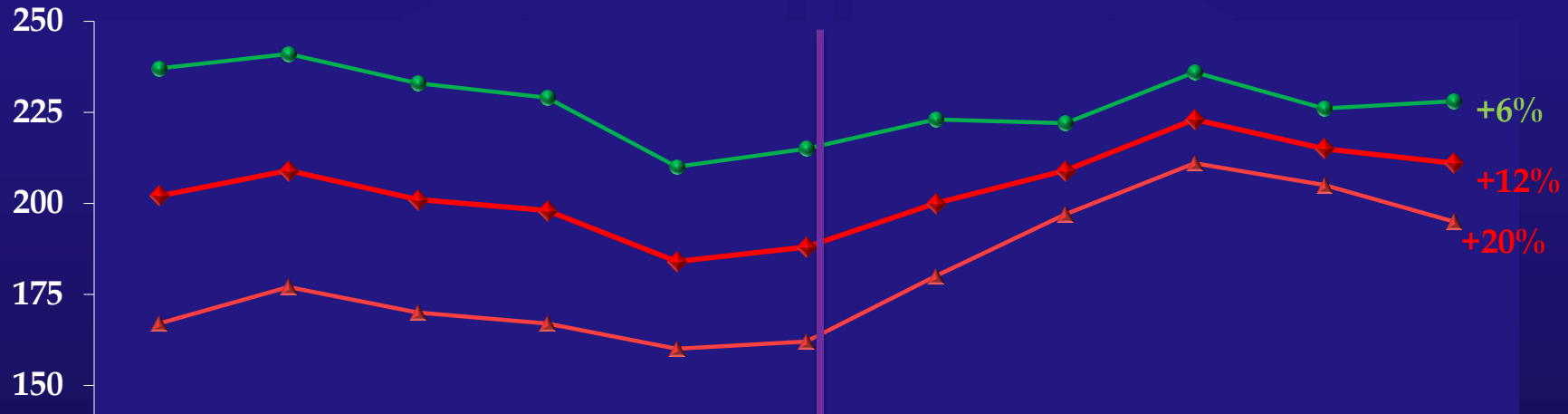
- The 25-44 year-old male suicide rate was twice what it would have been (104% higher) if the pre-recession trend continued with an associated excess of 336 deaths (95% CI=179 to 493, $P<0.001$).
- The 45-64 year-old male suicide rate was 72% higher and there was an excess of 185 deaths (95% CI=67 to 304, $P=0.003$).
- The significant impact on male self harm was also most evident in these age groups with 3064 (95% CI=644 to 5484, $P=0.014$) and 881 (95% CI=156 to 1605, $P=0.018$) excess self harm presentations by 25-44 and 45-64 year-old men, respectively.
- The recession's impact on female suicidal behaviour was confined to self harm among 15-24 year-olds for whom there were 1398 (95% CI=122 to 2675, $P=0.032$) more presentations to hospital than if pre-recession trends had persisted.

Summary

- The study provides compelling evidence that the profound economic recession from which Ireland is now emerging has led to increased suicide mortality in men and increased non-fatal suicidal behaviour by men and women.
- This provides a stark reminder of the tragic human costs of policy failure in economic management by governments and other institutions at national and international level.
- The findings also highlight the need for reliable and well-standardised data on suicide, self harm and determinants of suicidal behaviour in the population to guide policy on how best to mitigate the effects of economic crises on mental health and wellbeing.

Trends in rates of self-harm and suicide in Ireland

Age-standardised rate per 100,000



Trends in rates of suicide

