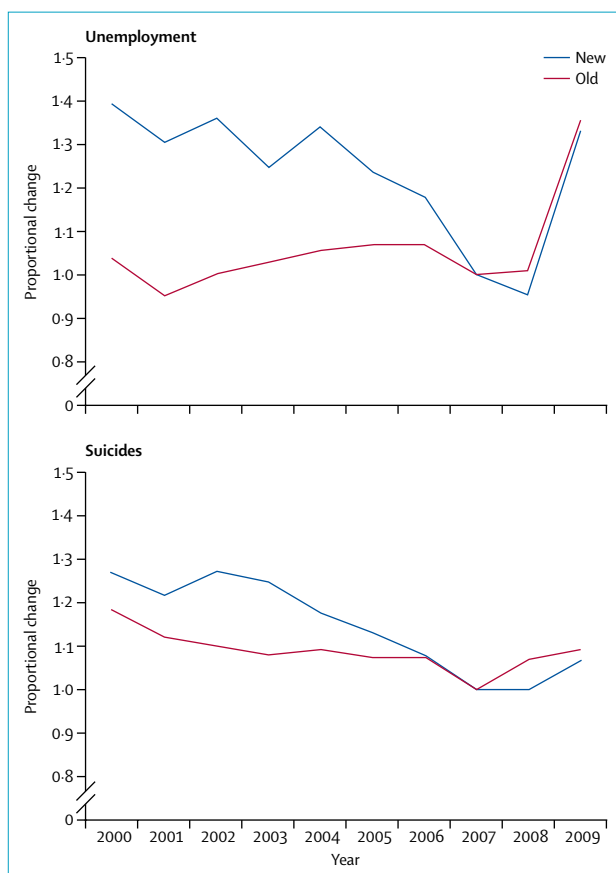




See Online for webappendix



**Figure:** Indexed changes in adult unemployment and in age-standardised suicide rates (age 0–64 years) in old (pre-2004) and new European Union Member States 2007 is the index year, and y-axis values represent proportional change relative to that year.

## Effects of the 2008 recession on health: a first look at European data

2 years ago, we published a paper in *The Lancet* reviewing the mortality experience of 26 European countries during economic crises over three decades.<sup>1</sup> We showed how increases in unemployment had been associated with increased suicides among people younger than 65 years and with fewer road-traffic fatalities (reflecting lower car use). On the basis of our analyses, we predicted that the economic crisis that began in summer, 2008, would have similar consequences. To what extent have our predictions been fulfilled? We can now offer a preliminary assessment based on data on mortality in several European countries for 2009.

We extracted mortality rate data by age-group and cause from the WHO European Health for All database,<sup>2</sup> and adult unemployment trends from EUROSTAT.<sup>3</sup> Unfortunately, complete data for the period 2000–09 are currently only available for 10 of the 27 European Union (EU) countries: six in the pre-2004 EU (Austria, Finland, Greece, Ireland, the Netherlands, and the UK) and four in the post-2004 EU (Czech Republic, Hungary, Lithuania, and Romania). We combined data from countries in each group, weighted by population size.

The figure shows changes in rates of adult unemployment and suicide in people aged 0–64 years in each part

of the EU, indexed on 2007, the last complete year before the economic crisis. In both old and new EU Member States, official unemployment did not increase until 2009, after the banking crisis. Job loss then increased rapidly, to about 35% above the 2007 level in both parts of Europe (about 2.6 percentage points in the EU overall). However, the steady downward trend in suicide rates, seen in both groups of countries before 2007, reversed at once. The 2008 increase was less than 1% in the new Member States, but in the old ones it increased by almost 7%. In both, suicides increased further in 2009. Among the countries studied, only Austria had fewer suicides (down 5%) in 2009 than in 2007. In each of the other countries the increase was at least 5%. These changes are at the upper limit of the estimates in our 2009 paper,<sup>1</sup> in which we noted that an increase in unemployment of more than 3% increased suicides in those younger than 65 years (by 4.45%, 95% CI 0.65–8.24).

Road-traffic fatalities also fell substantially, especially in new member countries where they were initially very high. The webappendix shows three countries with high (Lithuania), medium (Hungary), and low (Netherlands) death rates before 2008, indicating that the scale of the post-crisis decline is related to the initial level. Thus, the rate of road-traffic fatalities in Lithuania fell rapidly, by almost 50%. However, when rates are already very low, as in the Netherlands, there is little scope to fall further.

Overall, consistent with our earlier predictions, we found no evidence of a major deviation from past trends in all-cause mortality rates, since the short-term mortality fluctuations were mainly driven by suicides and road-traffic fatalities.

This initial analysis is inevitably limited by the many gaps in the mortality data, a reminder of the contrast between the substantial efforts expended by governments to collect up-to-the-minute financial data while

health data lag by several years. This situation means that our population weights are heavily influenced by the UK among the old member states, and Romania among the new.

Once data from elsewhere become available, our analysis will need to be updated and the differences in experiences across Europe explored. However, we can already see that the countries facing the most severe financial reversals of fortune, such as Greece and Ireland, had greater rises in suicides (17% and 13%, respectively) than did the other countries, and in Latvia suicides increased by more than 17% between 2007 and 2008.

On the basis of our earlier work, we argued that formal and informal social protection such as active labour market policies and strong social support networks could mitigate the predicted increase in suicides.<sup>1,4</sup> In this context, we note that Austria, with a strong social safety net, had a slight decline in suicides despite an increase in unemployment of 0.6 percentage points between 2007 and 2009. However, unexpectedly, Finland, also with strong social protection systems, had an increase in suicides of just over 5% in the same period, by contrast with previous recessions.

Our findings are also consistent with evidence from countries that were not included in our data. Thus, the USA reports traffic deaths declining by more than 10% to the lowest level ever reported, although strangely, given our findings, commentators have described the reasons as "something of a mystery".<sup>5</sup> Availability of organs for transplants, which are dependent on supply from motor-vehicle accidents, have fallen substantially in Spain<sup>6</sup> and Ireland<sup>7</sup> where, as we have seen, road-traffic deaths fell by more than 25% between 2007 and 2009.

These findings also reveal the rapidity of the health consequences of financial crises. Critics of our earlier work<sup>8</sup> asked how changes in mortality could coincide with changes in unemployment, even though individual-level studies

show the adverse effects of anticipating job loss and job insecurity.<sup>9</sup> However, in the pre-2004 EU, we see that suicides increased both before and during periods when unemployment rose, at a time of significant economic insecurity across Europe. This is also consistent with historical studies that show immediate rises in suicides associated with "early indicators" of crisis, such as turmoil in the banking sector, which precipitates later unemployment.<sup>10</sup>

We are currently engaged in a much more detailed analysis of the health effects of the ongoing economic crisis and the responses to it,<sup>11,12</sup> using aggregate mortality and individual-level data from European household surveys, coupled with analyses of policy responses. In particular, we want to understand better why some individuals, communities, and entire societies are especially vulnerable yet some seem more resilient to economic shocks<sup>13</sup> as well as the extent to which the very different policy responses being pursued by European governments affect health. There is clearly much more to be written on the health consequences of the events of 2008.

We declare that we have no conflicts of interest.

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