

# PUBLIC HEALTH IN EUROPE DURING THE AUSTERITY YEARS

A RESEARCH REPORT FROM ILC-UK

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# CONTENT

Executive summary .....	4
Introduction .....	7
Chapter 1. The 2008 financial crisis and the road to pan-European austerity .....	8
Chapter 2. How was austerity delivered across Europe?.....	13
Chapter 3. Mapping health outcomes during the austerity years .....	20
Chapter 4. Isolating the impact of austerity on public health.....	25
Chapter 5. Delving deeper: The impact of austerity on health in specific countries .....	33
Greece.....	34
Spain .....	35
Ireland.....	36
UK.....	37
Chapter 6. Conclusion.....	39

# EXECUTIVE SUMMARY

## About this report

This report explores the relationship between austerity policies and public health across Europe. While there has been much debate about the relative success of austerity in terms of supporting economic growth and controlling spending, its direct impact on health has not been as widely explored, particularly at the international level. Using cross-national data and evidence from individual countries, this report charts the evolution of austerity across the continent, the subsequent changes to health systems and health outcomes, before seeking to unpick the specific channels through which austerity may have impacted health during this period.

## The road to pan-European austerity

- A crisis in the banking sector quickly led to a credit crunch across Europe, with many countries falling into recession.
- The subsequent rise in government debts worried financial markets, and concerns grew about the sustainability of public finances, particularly in Southern European countries.
- Governments across Europe committed to a path of austerity, with those most affected by the crisis conducting the severest fiscal adjustment.
- Despite austerity measures and a recent return to growth, government debts remain elevated by comparison to pre-crisis levels. Barring a significant political game changer, government budgets are likely to remain tight for the foreseeable future.

## How was austerity delivered across Europe?

- Austerity policies included cuts to health spending as well as social security spending related to unemployment. Only old age spending per head rose consistently across Europe during the austerity years.
- While there were significant differences across countries in health spending cuts, reductions in prevention spending were almost universal.
- Comparable data on type of prevention spending is patchy, but there is evidence of significant reductions to flu vaccination coverage while improvements in coverage rates for breast cancer screening largely stalled.
- Cuts to prevention spending may not translate into immediately worse health outcomes but could store up problems for the future.

## What happened to health indicators during the austerity years?

- Mortality rates continued to improve during the austerity years, but the rate of improvement slowed across many countries – particularly the Northern European countries.
- The slowdown in improvements to mortality translated into a slowdown in life expectancy improvements during the austerity years.
- The youngest age group included in this study - 15-24 - experienced a fall in subjective health and all other age groups, saw slower improvements. The UK is an exception in that all age groups experienced falls in subjective health, particularly the over 65s.
- Levels of unmet health needs rose during the austerity years. There is a positive statistical relationship between those countries who cut spending the hardest and those experiencing the highest level of unmet need due to health care costs.

## To what extent does austerity account for differences in health outcomes?

- To measure the effects of austerity on health we build an empirical model which has two parts: first it estimates the effects of unemployment on mortality rates across European countries and second, it explores whether unemployment had stronger or weaker effects on mortality depending on the severity of the austerity pursued. In our analysis we include two measures of austerity – one based on cuts to health expenditure and the other based on cuts to social expenditure.

- The model utilises data up to 2015, which means this is a short-term exploration of the effects of austerity on mortality indicators.
- Our findings suggest a multifaceted, short-term relationship between unemployment, austerity and health: high austerity countries experienced smaller increases in some mortality indicators than modest austerity countries (i.e. smaller increases in respiratory and pneumonia deaths), and smaller falls with regards to other causes of mortality (i.e. liver and traffic deaths). Finally, high austerity countries experienced a fall in alcohol related deaths by comparison to a rise in deaths amongst modest austerity countries (see table).
- But the effects are relatively small – austerity has not had much of an impact on mortality rates in either direction.
- For a fuller picture, a longer term, distributional analysis of the effects of austerity is required, which considers the prevalence of chronic disease rather than just exploring cause specific mortality rates. But this requires better cross-national information on chronic disease and a longer time series of data.

**Table 1: The headline effects of unemployment on mortality outcomes in modest vs high austerity countries**

Type of austerity	Health outcomes in modest austerity countries	Health outcomes in high austerity countries
Health austerity (cuts to health expenditure)	<ul style="list-style-type: none"> <li>Increased respiratory mortality</li> <li>Reduced liver mortality</li> <li>Increased pneumonia mortality</li> <li>Reduced traffic mortality</li> <li>Increased alcohol mortality</li> </ul>	<ul style="list-style-type: none"> <li>Smaller increase in respiratory mortality</li> <li>Smaller reduction in liver mortality</li> <li>Smaller increase in pneumonia mortality</li> <li>Smaller reduction in traffic mortality</li> <li>Fall in alcohol mortality</li> </ul>
Social austerity (cuts to social expenditure)	<ul style="list-style-type: none"> <li>Increased respiratory mortality</li> <li>Reduced heart mortality</li> <li>Reduced liver mortality</li> <li>Increased pneumonia mortality</li> <li>Increased alcohol mortality</li> </ul>	<ul style="list-style-type: none"> <li>Smaller increase in respiratory mortality</li> <li>Smaller rise in heart mortality</li> <li>Smaller reduction in liver mortality</li> <li>Smaller increase in pneumonia mortality</li> <li>Fall in alcohol deaths mortality</li> </ul>

### What about the effects of austerity in specific countries?

- In addition to exploring cross national data on health in Europe, we also explore the state of the evidence with regards to four specific European countries that undertook austerity: Greece, Spain, Ireland and the UK.
- The health systems of Greece, Ireland and Spain experienced profound changes during the austerity years, with co-payments and user charging either introduced for the first time or significantly ramped up.
- The UK's system did not experience such dramatic change, but spending has been squeezed at a time when demand for services is growing due to an ageing population.
- Evidence on the direct effects of austerity on health outcomes is very limited, but it is clear that a number of health systems have undergone immense changes in a relatively short period of time.
- The behavioural responses of individuals to health system changes and their subsequent health outcomes may take time to emerge, and even longer to translate into measureable indicators showing up in national statistical databases.

### So what should we think about the future of austerity and health?

- Europe is ageing fast, and health is arguably the most important asset to ensuring a sustainable future – healthy ageing supports longer working lives and reduces potential health care costs over an individual's lifetime.

- Whatever further changes to health systems (as well as social security systems) are made in the short term due to continued spending pressures, must not save costs today whilst storing up problems for the future.
- The drive for efficiency in public services is a noble goal, but efficiency must equate to continual progress in health and other quality of life outcomes, otherwise it is tantamount to failure.

# INTRODUCTION

The term “austerity” has come to define a large part of the last decade. In the aftermath of the financial crisis of 2008-9, countries around the world – and Europe in particular - committed to a path of austerity to try and bring their public finances under control. But while there has been much debate about the relative success of austerity in terms of supporting economic growth and controlling spending, its direct impact on health has not been as widely explored, particularly at the international level. For this reason, we are largely in the dark regarding the human cost or benefit related to arguably the defining feature of recent government policy.

From the ILC-UK’s perspective, this is an important omission. The future trajectory of health is arguably the single biggest determinant of long run fiscal sustainability, with future expenditure expected to rise dramatically due to demographic, technological and other cost pressures<sup>1</sup>. Understanding how to deliver sustainable health systems has therefore formed a large part of our recent and ongoing work. In this context, this report explores the ways in which austerity has shaped the health landscape across Europe, and critically, how austerity has impacted on specific health outcomes such as mortality and life expectancy.

The austerity years represent a great international experiment. With multiple countries undertaking austerity measures at the same time, it may be possible to compare and contrast the different approaches taken and their relative successes and failures. Such analysis has practical implications, the most important of which is to help policymakers decide whether they should continue to pursue austerity policies or not. Moreover, it may provide clues as to the common features of more sustainable health systems – those that are both affordable and that deliver good health outcomes.

In order to explore the impact of austerity on health, this report is structured in six chapters:

**Chapter 1** provides a potted history of the financial crisis and road to pan-European austerity.

**Chapter 2** explores the types of austerity policies undertaken by different countries with a specific focus on health systems.

**Chapter 3** outlines health outcomes in the austerity years and compares them with the years before austerity was implemented.

**Chapter 4** presents the findings of our empirical model which explores the statistical associations between austerity and health during an economic downturn.

**Chapter 5** reveals our review of literature and evidence on austerity and health in four countries: Greece, Spain, Ireland and the UK.

**Chapter 6** concludes the report and presents our considered view on the success/failure of austerity with regard to health outcomes.

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<sup>1</sup>For more on this see: Bamford, Franklin, Hochlaf and Holley-Moore (2017) “Towards affordable healthcare: Why effective innovation is key”, Report for the ILC-UK: [http://www.ilcuk.org.uk/images/uploads/publication-pdfs/ILC-UK\\_-\\_Towards\\_affordable\\_health\\_-\\_Why\\_effective\\_innovation\\_is\\_key\\_.pdf](http://www.ilcuk.org.uk/images/uploads/publication-pdfs/ILC-UK_-_Towards_affordable_health_-_Why_effective_innovation_is_key_.pdf)

CHAPTER 1:

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# THE 2008 FINANCIAL CRISIS AND THE ROAD TO PAN-EUROPEAN AUSTERITY

## About this chapter

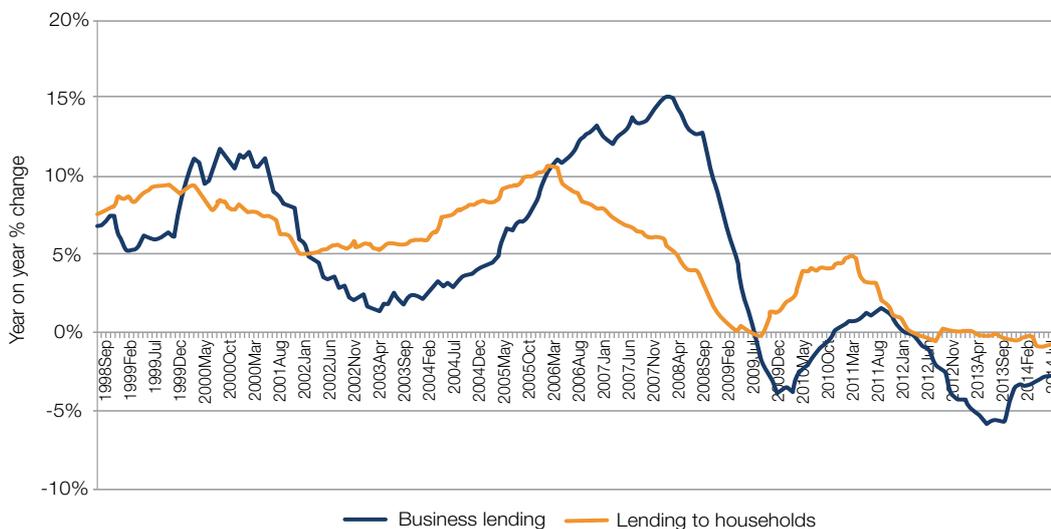
This chapter provides a potted economic history of the 2008 financial crisis and subsequent road to austerity across the continent. It exploits official data from the OECD, ECB, Eurostat and IMF to starkly illustrate the key facts and figures associated with this extraordinary period, and defines critical terms such as “government debt” and “austerity” along the way. It concludes with a short discussion of the future of austerity across Europe.

## Anatomy of a crisis

### Phase 1. The credit crunch

Europe has experienced nearly a decade of economic turmoil. While the underlying causes of this period are still debated, developments in the banking sector are usually seen to be the critical trigger. In 2007 and 2008, a sudden crisis of confidence in the solvency of banks led to a severe drop in the supply of, and demand for, credit across the region which in turn reduced consumption and investment. As the below chart shows, lending to businesses and households flatlined across the Eurozone at the end of 2008 and it has not recovered since<sup>2</sup>.

**Figure 1: Change in lending by monetary financial institutions to businesses and households across the Eurozone**



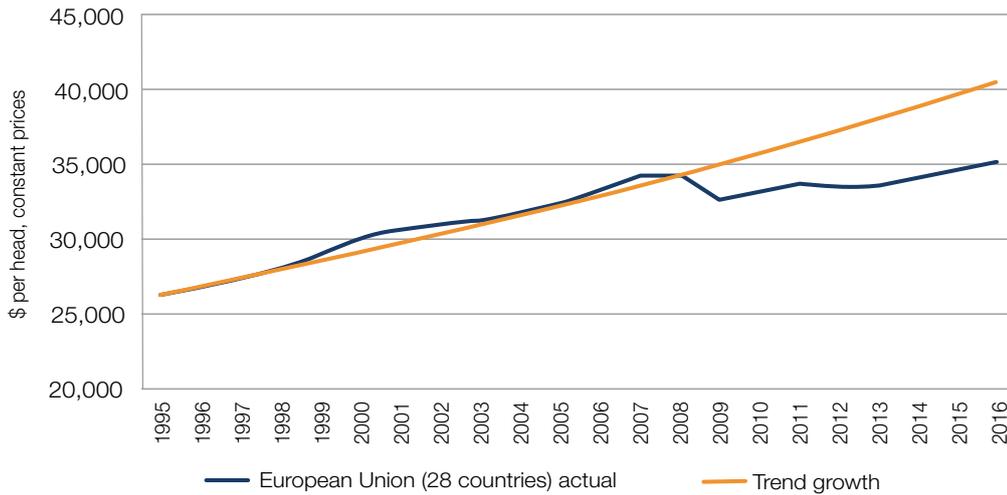
Source: European Central Bank

### Phase 2. Recession

In the wake of the financial crisis, economic output per head fell by 4.6% peak-to-trough while unemployment rose by 4 percentage points, illustrating the severity of the subsequent recession. But some countries faced much more severe recessions than others – Greece saw unemployment rise by 20 percentage points between 2008 and 2013, while Spain experienced a rise of 15 percentage points. This meant that in both countries, nearly a quarter of people in the labour force were out of work by 2013, and it remains a similar proportion today. Most European countries have now returned to growth, but output in the region still languishes 11% below the level implied by the pre-crisis trend (see chart below).

<sup>2</sup> It also flatlined in countries that are in Europe but not in the Eurozone such as the UK but we have used the Eurozone example as the ECB's data is the best aggregate data on lending across the continent.

**Figure 2: EU economic output way below trend**



Source: OECD and author's calculations

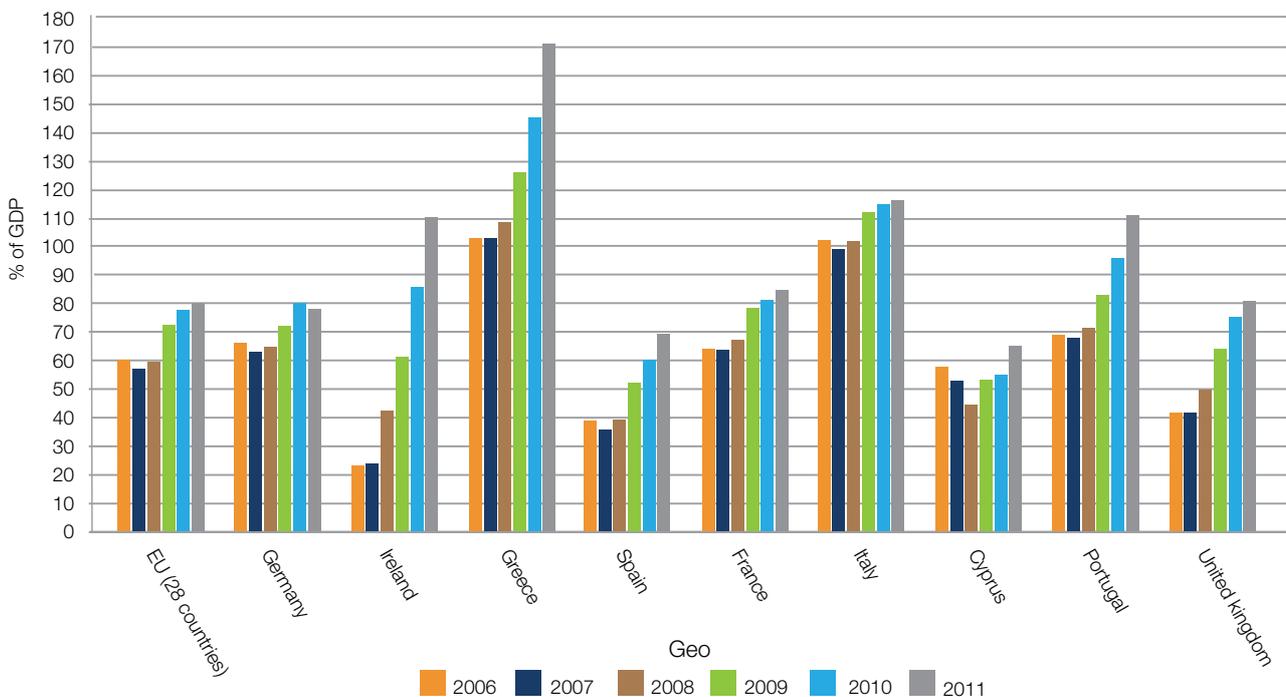
*Phase 3. National debts rose in response to the recession*

Rising unemployment and faltering economic growth put pressure on government finances. A number of countries ran large budget deficits adding to overall national debt. In particular, Greece's debt to GDP rose from around 100% in 2006 to over 170% by 2011, while Ireland's debt rose from just over 20% of GDP to over 100% during the same period. Most European countries saw a substantial rise in debt as a proportion of GDP during this difficult time.

**What is the difference between deficit and debt?**

- If in any given year government spending exceeds tax revenue, it is said to have run a *deficit*.
- If revenue exceeds spending it is said to have run a *surplus*.
- By contrast, *national debt* is the total amount owed by a government taking into account many years' worth of government spending and borrowing.
- Running a deficit thereby adds to the overall level of national debt

**Figure 3: General government debt**



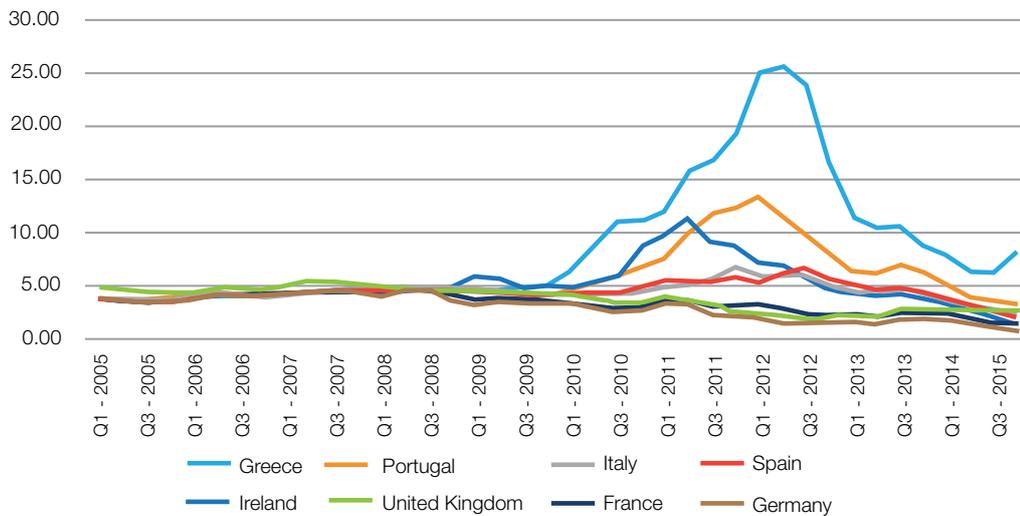
Source: Author's analysis of Eurostat data

*Phase 4. Economic problems led to questions about debt sustainability*

As the recession kicked-in and government debts rose, financial markets became concerned about the

solvency of certain countries' debt levels. This manifested itself most dramatically in soaring government bond yields for southern European countries and in particular Greece, where government borrowing costs rose from 5% in 2008 to over 25% by 2012. Yields also rose above 10% in Ireland and Portugal, while they fell in the UK and Germany as investors fled to perceived "safe haven" assets.

**Figure 4: Nominal yield on long term government bonds (2005-2014)**



Source: OECD and author's calculations

*Phase 5. Many countries adopted austerity policies*

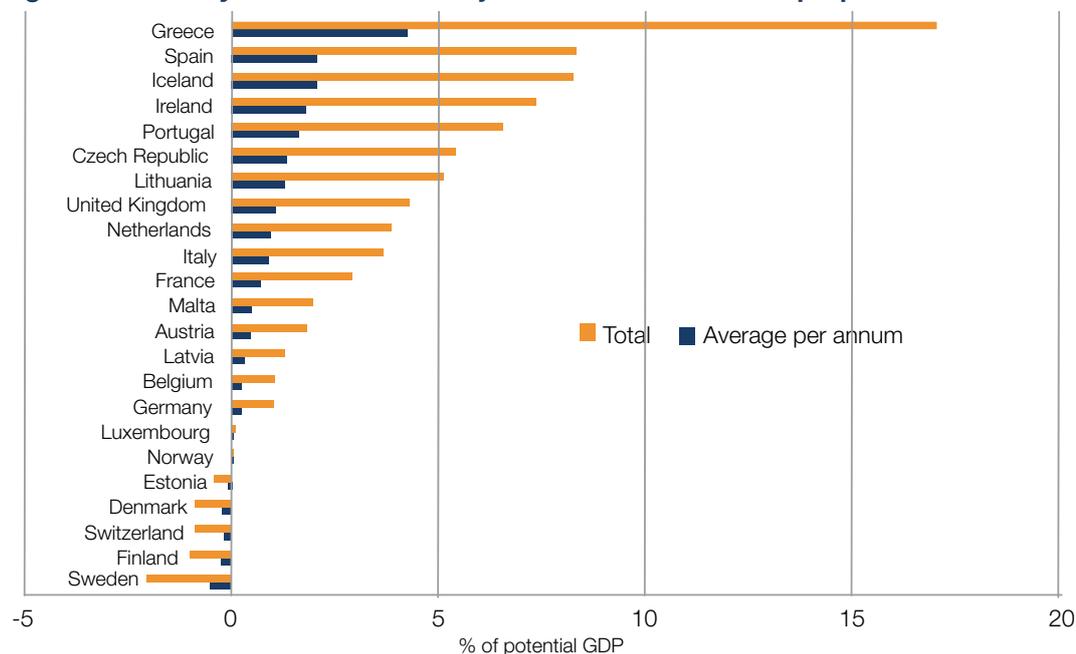
In response to concerns about rising government debt, many European countries committed themselves to a path of austerity. Measuring the degree of austerity across countries is tricky because of the need to account for the economic environment in which public policy is conducted. For this reason, most economists look at changes in the Cyclically Adjusted Primary Balance (CAPB). This measure highlights the **difference between taxes and non-interest spending if the economy were at full employment.**

The below chart plots changes to CAPB between 2009 and 2013. It shows that the majority of European countries sought to bring down their budget deficits through austerity policies, and that austerity was particularly severe in Greece, Spain, Iceland, Ireland and Portugal – countries that were most exposed to the adverse consequences of the financial crisis.

**What is austerity?**

- Policies that aim to reduce government deficits by the following means:
  - Reducing public spending
  - Raising taxes
  - A mixture of both
- Austerity can take place at any point in the economic cycle.

**Figure 5: Austerity in action: Fiscal adjustment 2009-2013 as a proportion of GDP**

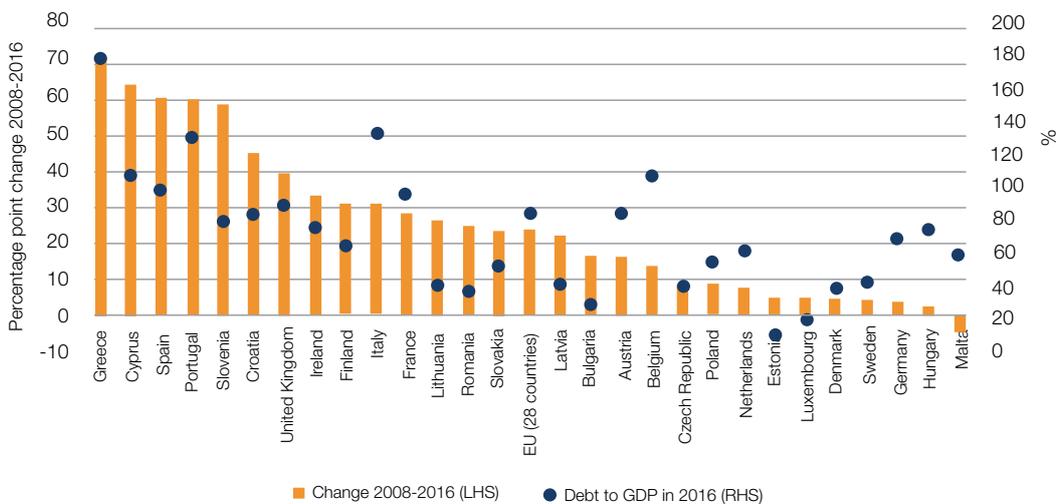


Source: IMF and author's calculations

## Phase 6. Is there more austerity to come?

While Europe may have returned to a position of growth in 2014, rates of growth remain lower than they were before the financial crisis (1.5% growth in 2016 by comparison to 2.1% average per annum between 1995-2008). Meanwhile, despite years of austerity, levels of government debt remain close to peak and way above where they were before the crisis of 2008. For instance, debt to GDP in Greece remains 70 percentage points higher than it was in 2008, while it remains 60 percentage points higher in Spain and Portugal. A number of countries therefore continue to have government debts in excess of their total annual economic output including: Greece, Cyprus, Spain, Portugal, Italy and Belgium (see chart). Bringing down these debt levels at a time of stagnant economic growth and population ageing, which in turn is likely to require increased expenditure on old age social security, health and care, will be a substantial challenge. Barring any game-changing political developments, government budgets across the European Union are likely to remain extremely tight for the foreseeable future - austerity of one form or another is not over yet.

**Figure 6: Evolution of debt to GDP 2008-2016**



Source: Eurostat and author's calculations

## Chapter summary

- A crisis in the banking sector quickly led to a credit crunch across Europe, with many countries falling into recession.
- The subsequent rise in government debts worried financial markets, and concerns grew about the sustainability of public finances, particularly in Southern European countries.
- Governments across Europe commit to a path of austerity, with those most affected by the crisis conducting the severest fiscal adjustment.
- Despite austerity measures and a recent return to growth, government debts remain inflated by comparison to pre-crisis levels. Barring a significant political game changer, government budgets are likely to remain tight for the foreseeable future.

CHAPTER 2:

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# HOW WAS AUSTERITY DELIVERED ACROSS EUROPE?

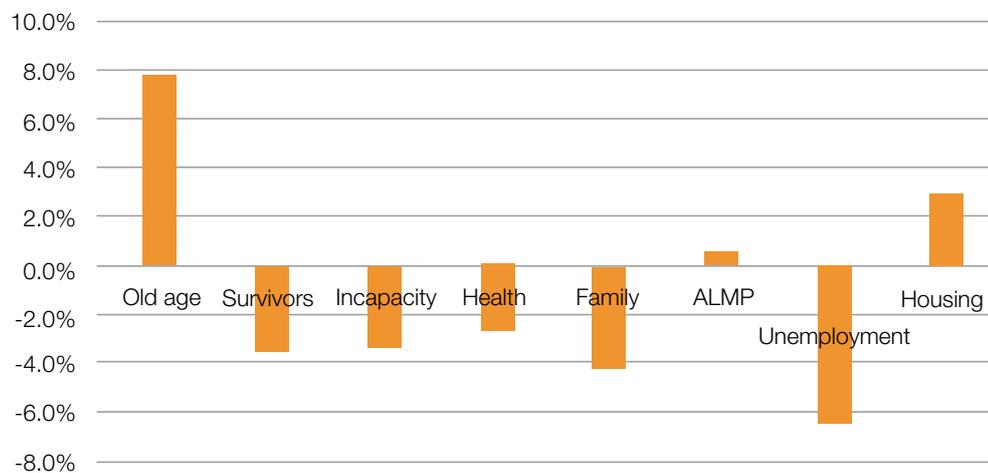
## About this chapter

The last chapter noted how austerity can be delivered through either spending cuts, tax rises or a combination of both. In this chapter, we explore the spending element of austerity across Europe, with a specific focus on different health services. While countries may have conducted austerity policies at somewhat different points in time, we generally look at 2009 to 2012/13 as this covers a period where most EU countries were trying to actively reduce their budget deficits through austerity measures. In terms of measuring spending across countries, we typically report spending figures in real terms on a per person basis to ensure that our findings account for inflation and population change.

### Health and unemployment spending fell

Most components of government spending, including health spending, fell in real terms during the austerity period. Perhaps most stark of all was the fall in unemployment spending during this time – which fell by more than 8% despite unemployment rising in many countries. The exceptions to this were old age spending (i.e. pensions and other social security payments to the retired) – which rose by 8 percent and housing – which saw wide variations of spending patterns across countries. Active Labour Market Programmes (ALMP), which seek to help the unemployed back to work through activities like job placement services, also experienced a modest rise.

**Figure 7: Change in spending by type during austerity years 2009-2012 (or nearest year)**

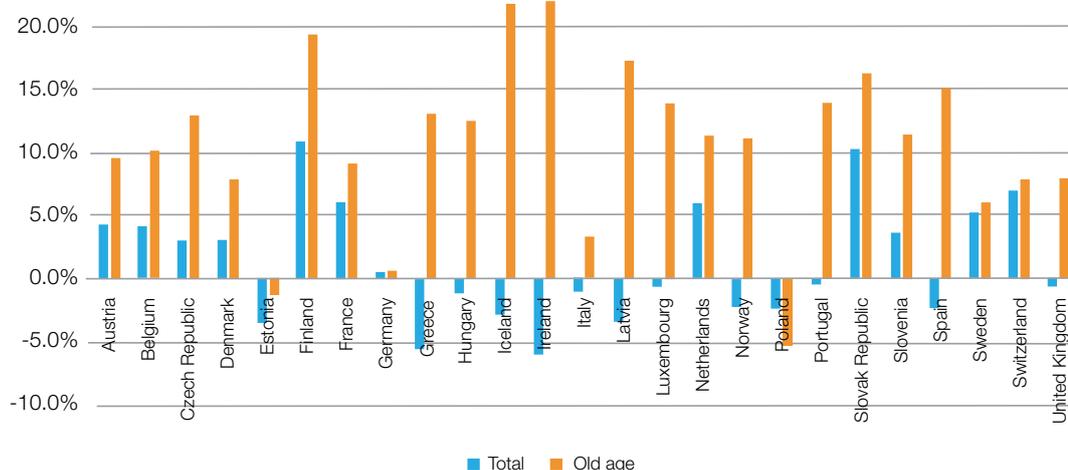


Source: OECD and authors calculations. Data - Per head, at constant prices (2010) and constant PPPs (2010), in US dollars

### Old age spending was largely insulated from cuts but health spending was not

While many EU countries cut total spending during the austerity years, old age spending per person only fell in two countries – Estonia and Poland. Indeed, for all but one country (Germany), there was a wide discrepancy between the trajectory of total government spending and old age spending during the 2009-2013 period.

**Figure 8: Change in spending by type during austerity years (2009-2013)**



Source: OECD and authors calculations. Data - Per head, at constant prices (2010) and constant PPPs (2010), in US dollars

Health spending was generally not insulated from austerity, with many countries cutting spending in real terms despite increases in their older populations. The countries that reduced health spending the most were typically those that were worst affected by the economic crisis (see chart). But some countries cut more than others in response to the downturn. Greece certainly stands out in this regard – in the face of a dramatic fall in output (-22%) Greece cut public expenditure on health by even more (-30.2%). Meanwhile Latvia cut spending by more than 10% despite experiencing economic growth during the austerity years. Gool and Pearson (2014) find that those who cut furthest were both those worst affected by the economic crisis *and* those that had experienced the fastest levels of health spending growth *before* the crisis<sup>3</sup>.

**Figure 9: Health spending falls in countries worst effected by the recession**

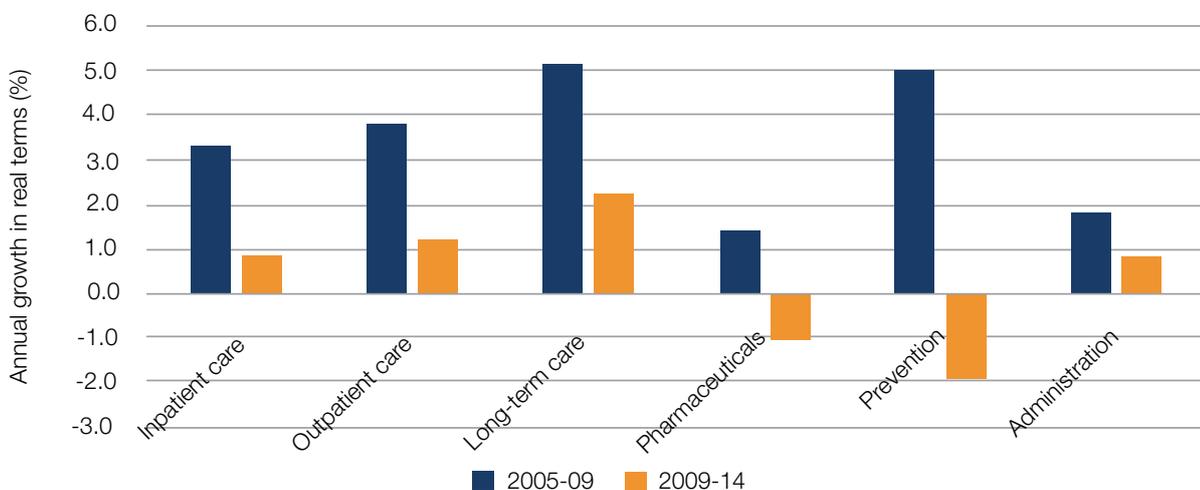


Source: OECD and authors calculations. Data - Per head, at constant prices (2010) and constant PPPs (2010), in US dollars

### Which types of health spending took the brunt of the cuts?

By comparison to the four years before the austerity years, spending growth on all health functions slowed substantially or fell in the years afterwards. In particular, spending on prevention and pharmaceuticals fell which was in contrast to the years before austerity when spending on both functions grew. Long term care saw the fastest growth rates, but even this represented a significant slowdown in the pace of growth by comparison to the years before austerity.

**Figure 10: Growth of health spending for selected functions, EU average 2005-2014**

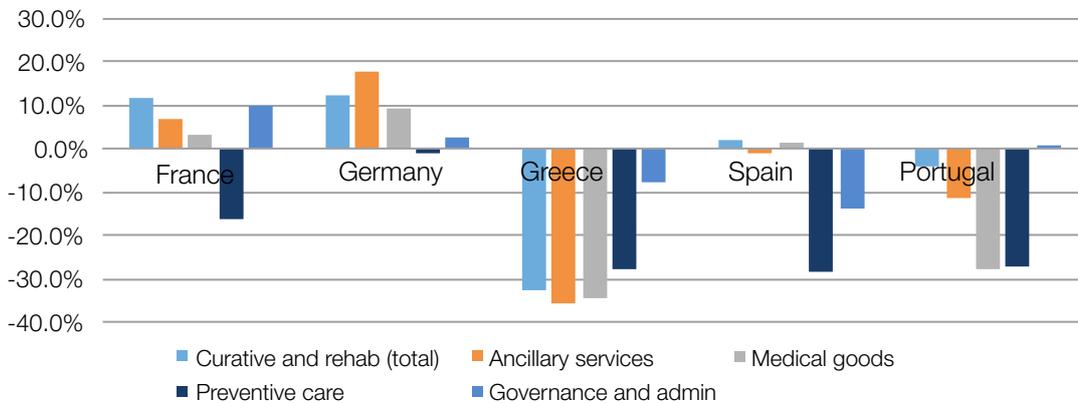


Source: OECD and Eurostat 2016. Data - Per head, at constant prices (2010) and constant PPPs (2010), in US dollars

<sup>3</sup>Gool V, K. & Pearson, M., 2014. *Health, austerity and economic crisis: Assessing the short-term impact in OECD countries*, s.l.: OECD Health Working Papers 76.

While there were big differences in spending patterns across countries, a common theme was a reduction in prevention spending and a slow-down or reduction in spending on drugs. Greece was an outlier in that it substantially cut all elements of public spending on health (aside from long term care). Other countries cut heavily on prevention spending while generally maintaining or increasing spending on curative and rehabilitative health care.

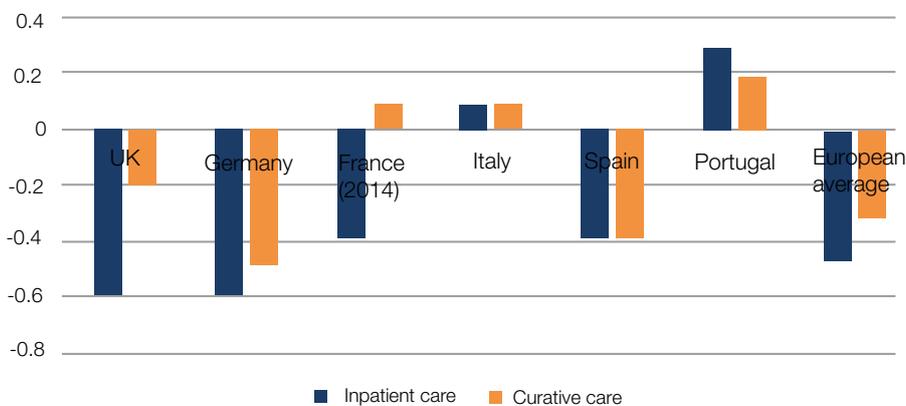
**Figure 11: Real terms change in spending by function (2009-2015)**



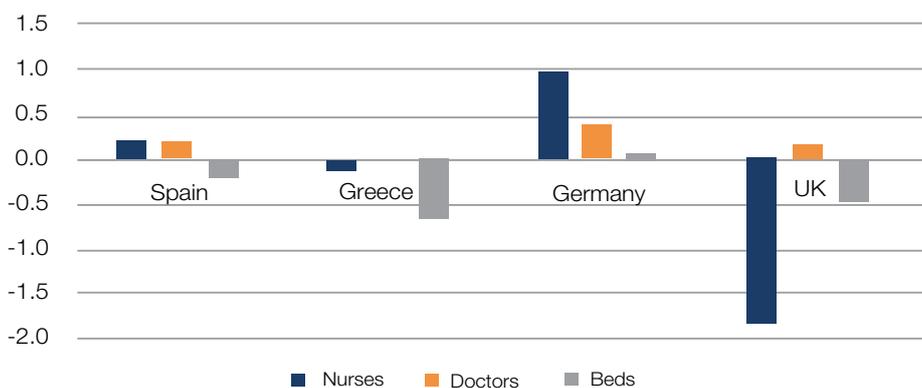
Source: OECD and authors calculations. Data - Constant prices, constant PPPs, OECD base year

During the austerity years, European health services reduced the average number of days spent in hospital by just under half a day per patient, although there were substantial differences across countries. The UK and Germany cut the number of hospital days by more than the European average, while the number of hospital days in Italy remained virtually the same. A number of European countries reduced the number of beds per 1000 people, but the UK is an outlier in that it also significantly cut the number of nursing staff.

**Figure 12: Change in average number of days spent in hospital**



**Figure 13: Change in number of nurses, doctors and beds per 1,000 people (2009-2013)**



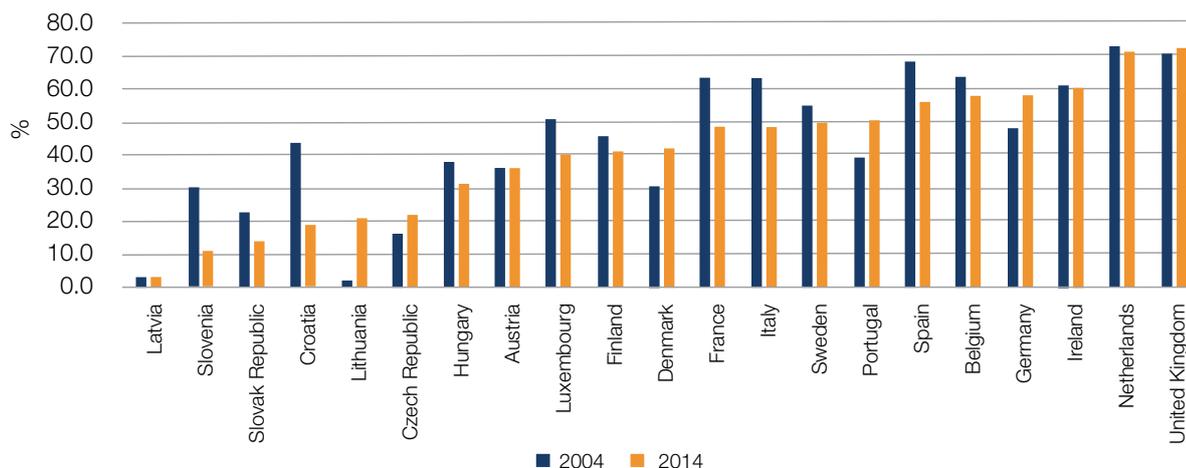
Source for charts: OECD and authors calculations

## What happened to prevention services?

According to the European Commission, prevention offers “the most cost-effective, long-term strategy for reducing the European burden of diseases. It involves tackling major health determinants, such as smoking, unhealthy diets and physical inactivity<sup>4</sup>”, plus vaccination programmes to prevent disease and cancer screening to enable early detection. While the comparable data on prevention spending is patchy, there is some good evidence on certain vaccination rates and screening services.

Analysis of available vaccination data suggests that most vaccines experienced an increase in take-up with the important exception of the flu vaccine, which suffered from a substantial fall during the austerity period. Indeed, this fall was widespread and in some countries, quite dramatic. For instance, in Croatia the proportion vaccinated against flu fell from around 45% of people aged over 65 in 2004 to less than 20% by 2014. Only Denmark, Portugal, Germany and the UK increased levels of coverage during this time.

**Figure 14: Flu vaccination coverage, population over 65 2004 and 2014 (or nearest year)**



Source: OECD Health Statistics 2016 and Eurostat 2016

### ... “suboptimal” rates of flu vaccination coverage and breast cancer screening

Vaccination coverage rates for flu have been recognised as sub-optimal – falling well below the 75% level recommended by the EU council<sup>5</sup>. There are both health and economic reasons to raise vaccination coverage. Robust attempts to calculate the economic benefits of higher flu vaccination coverage are challenging due to the lack of good comparable data on flu hospitalisation and mortality, but credible efforts have been made. In particular, Preaud et al find that between 1.6 and 1.7 million influenza cases could be prevented each year in Europe. This would mean half a million fewer general practitioner visits, 23,800-31,400 fewer hospitalisations, 9,800-14,300 fewer deaths, and avoidance of almost 1 million lost days of work. Overall, the authors estimate that between €190 million and €226 million could be saved every year<sup>6</sup>.

Breast cancer is a major cause of female mortality and morbidity, with Western Europe having some of the highest incidence in the world. Screening is the critical component of early detection with breast cancer prevention being a major public health goal of the EU<sup>7</sup>. But data suggests that European countries have not made much progress in raising coverage rates since 2007. Available breast cancer screening data indicates that coverage has remained pretty steady and that there is a wide variation in coverage rates across Europe. The Czech Republic, Lithuania and Slovakia are outliers in that they have all increased their coverage during this time period, but this is from a very low starting point (less than 50% of the target population). Moreover, several countries continue to have breast cancer screening rates below the recommended 75% of the target group.

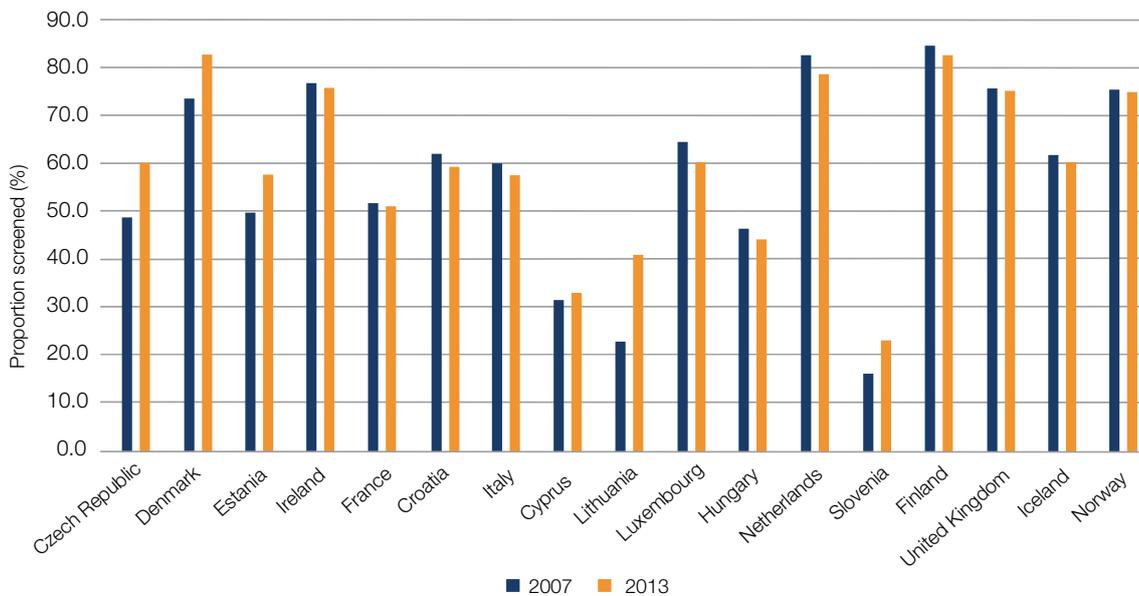
<sup>4</sup> Eurostat 2017, Healthcare activities statistics - preventive services [http://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare\\_activities\\_statistics\\_-\\_preventive\\_services](http://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare_activities_statistics_-_preventive_services)

<sup>5</sup> European Centre for Disease Prevention and Control, Facts about influenza vaccination <https://ecdc.europa.eu/en/seasonal-influenza/prevention-and-control/influenza-vaccination>

<sup>6</sup> Preaud E, Durand L, Macabeo B, Farkas N, Sloesen B, Palache A, Shupo F, Samson SI (2014) *Annual public health and economic benefits of seasonal influenza vaccination: a European estimate*, BMC Public Health. 2014: <https://www.ncbi.nlm.nih.gov/pubmed/25103091>

<sup>7</sup> Altobelli E, Lattanzi A. Breast cancer in European Union: An update of screening programmes as of March 2014 (Review). *International Journal of Oncology*. 2014;45(5):1785-1792. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4203333/>

**Figure 15: Breast cancer screening, women aged 50-69, 2007 and 2013**



Source: Author's analysis of Eurostat data, Programme data

### **In focus: Why does prevention matter? The role of dependency**

A failure to invest in prevention may not result in immediate poor health outcomes but is likely to store up problems for the future, especially amongst countries ageing the quickest. Ensuring healthy older people will be important from a public spending perspective, as it will enable people to work for longer while being less reliant on health and care services during their lifetimes.

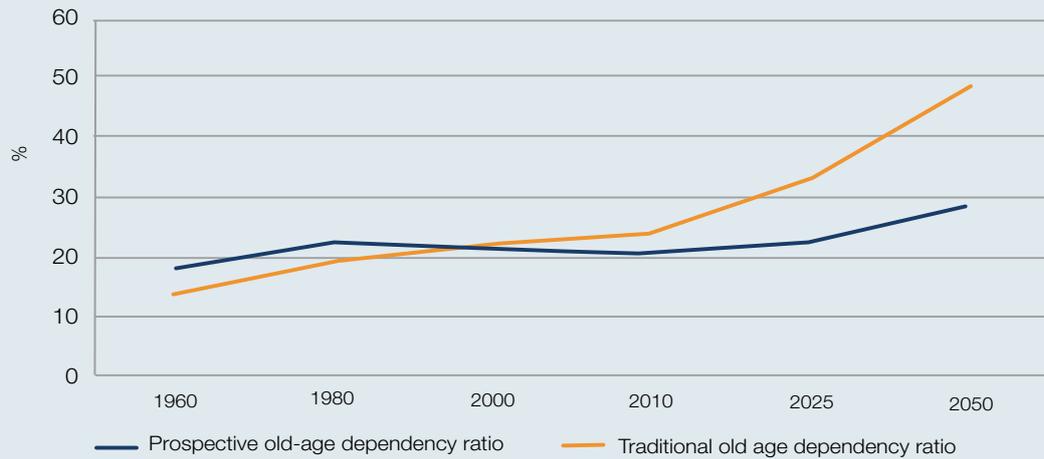
We can demonstrate this point by thinking about the traditional notion of dependency as used by demographers and economists. Typically, the dependent population has been defined as children (those aged 0-15) and older people (those aged 65+), while the group in the middle (16-64) are the workers who pay for the rest. Given the substantial projected increase in the numbers of people over the age of 65, by comparison to the slow growth or even fall in some countries in the numbers of working age people, this implies a dramatic rise in the overall share of the dependent population. According to this "traditional" measure of the dependency ratio, the proportion of older people to working age people in Europe will rise from 26.4% in 2015 to nearly 50% by 2050<sup>8</sup>. Such a rise in dependency will pose significant public spending challenges as there will be a relatively small, taxable workforce to pay for a substantially increased older dependent population.

The definition of old age being 65 is an arbitrary social construct. Continual gains in life expectancy and, even more importantly, healthy life expectancy could enable the working age population to extend out beyond 65, while health spending could be concentrated in the last few years of life. To illustrate this point, suppose old age was redefined as the last 15 years of someone's life rather than being age 65 onwards. This would dramatically change the shape of the dependency ratio. Rather than rising to nearly 50% by 2050, it would rise more gradually to 28.4%, which is not substantially different to what it is today (see Figure 16) for the prospective dependency ratio<sup>9</sup>. But for a more optimistic future to materialise, future life expectancy gains must translate into healthy life expectancy gains otherwise there will be a substantial economic and fiscal cost attached to ageing. Achieving this will require increased public policy effort today in order to improve people's health behaviours, as well as a strengthening of vaccination and screening programmes. Unfortunately the austerity years were characterised by policies that moved in the opposite direction – cutting health prevention spending in the majority of EU countries.

<sup>8</sup> Authors analysis of UN Population Projections 2017 Revision

<sup>9</sup> We have used the dataset from Sanderson and Scherbov 2015 to show the prospective age dependency ratio. The Characteristics Approach to Population Aging: New Measures (Version 2, December, 2015)

**Figure 16: Traditional vs prospective old age dependency ratio in Europe**



Source: Author's analysis of UN Population Projections and Sanderson and Scherbov 2015

Notes on formulas for dependency ratios:

- Prospective old age dependency ratio = No. of people remaining life expectancy  $\leq$  15 years / No. of people aged 20 to the old age threshold.
- Traditional old age dependency ratio = No. of people aged 65+ / No. of people aged 15-64.

## Chapter summary

- Austerity policies included cuts to health spending as well as social security spending related to unemployment. Only old age spending per head rose consistently across Europe during the austerity years.
- Those countries that were hit hardest by the recession and that had experienced strong growth rates in health spending before the crisis, reduced spending the most afterwards.
- While there were significant differences across countries in health spending cuts, reductions in prevention spending were almost universal.
- Comparable data on type of prevention spending is patchy, but there is evidence of significant reductions to flu vaccination coverage while improvements in coverage rates for breast cancer screening largely stalled.
- Cuts to prevention spending may not translate into immediately worse health outcomes but could store up problems for the future. Ensuring a healthy older society will be a critical aspect of securing sustainable public finances in the future, enabling people to work for longer and be less reliant on old age social security and health services.

CHAPTER 3:

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# MAPPING HEALTH OUTCOMES DURING THE AUSTERITY YEARS

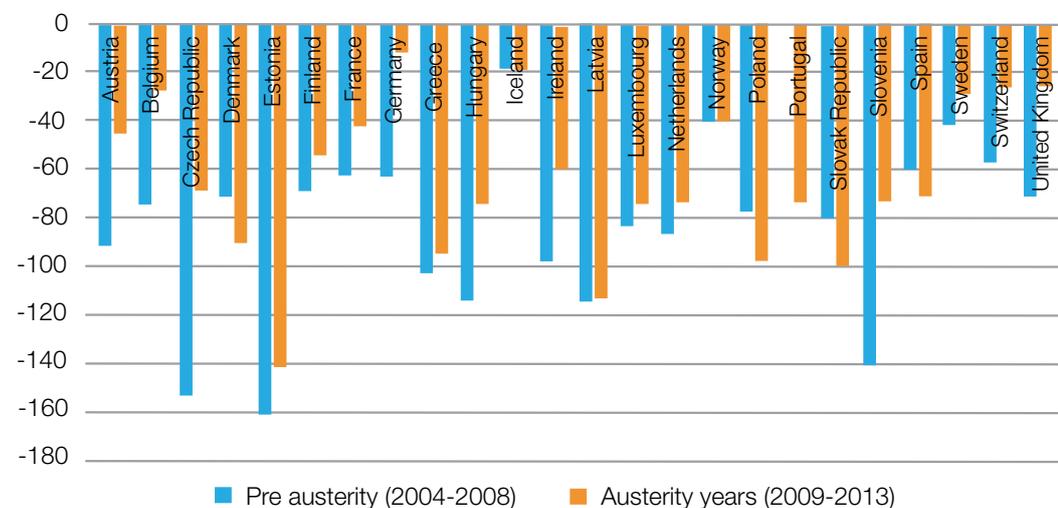
## About this chapter

In the previous chapter, we explored how health spending changed during the austerity years and discussed the potential implications of cuts, particularly with regards to prevention spending. In this chapter, we seek to understand how health outcomes changed across Europe during this period. As with previous chapters, we use aggregate data from the OECD and Eurostat to illustrate key trends, facts and figures. In particular, we explore data on mortality rates, life expectancy, subjective health and unmet healthcare needs.

### Improvements in mortality and life expectancy slowed

During the austerity years, there was a pronounced slowdown in the rate of improvement in mortality. To be clear, death rates fell over the course of 2009-2013, but they didn't fall as quickly as they did in the pre-austerity years. There was a wide variation in the extent to which these improvements slowed across countries with the Northern European countries of the UK, Germany, Iceland and Sweden slowing quicker than the Southern, Central and Eastern European countries of Greece, Estonia, Latvia, Poland and the Slovak Republic.

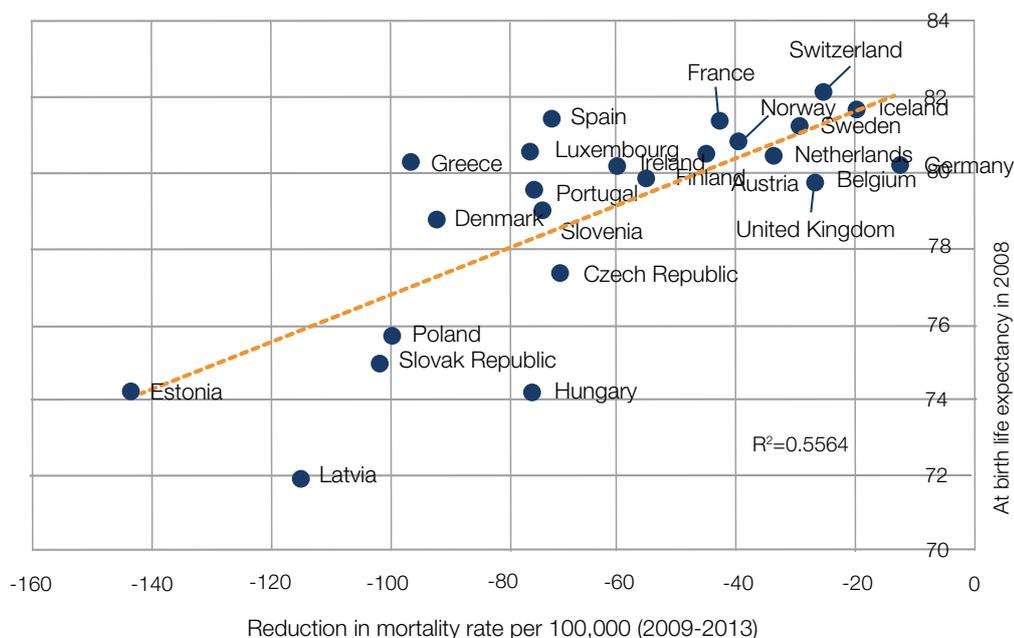
**Figure 17: Change in mortality rates before and during the austerity years (deaths per 100,000 population standardised)**



Source: OECD and authors' calculations

The countries that made the largest improvements in mortality were typically those with the lowest life expectancies before the austerity years. In other words, rather than austerity and the economic crisis being directly to blame for different rates of improvement, a significant proportion of the variation may simply be explained by the fact that some countries are broadly at the frontier of life expectancy while others are converging with them. The chart below shows how countries like Iceland and Switzerland who had the highest life expectancies in 2008 had the lowest rates of improvement in 2009-2013, while a country such as Latvia, which had the highest rates of improvement during these years also had one of the lowest life expectancies before the crisis. There are exceptions to this rule. Greece and Spain, for instance, had similar life expectancies to Germany and Norway in 2008, but the southern European countries experienced greater improvements in life expectancy than the Northern European countries. This is important, because Greece and Spain made large cuts to public spending in the intervening years.

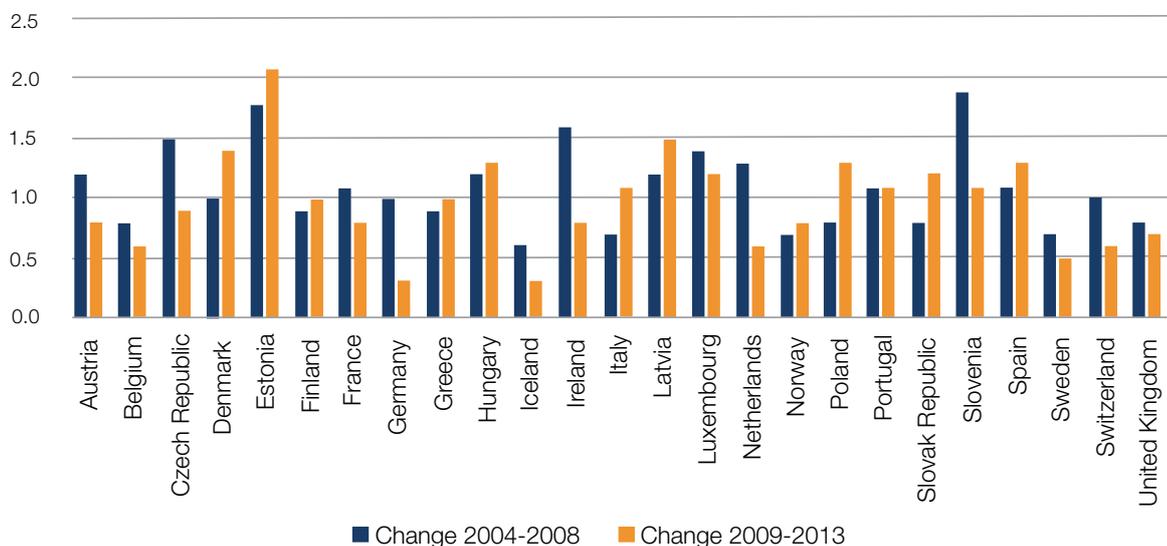
**Figure 18: The relationship between mortality improvements between 2009-2013 and life expectancy in 2008**



Source: OECD and authors' calculations

Improvements in mortality translate into improvements in life expectancy. As a result, those countries which experienced the greatest improvements in mortality also experienced the greatest improvements in life expectancy. The Northern European countries therefore experienced the greatest slowdown in life expectancy improvements during the austerity years, while the Southern, Central and Eastern European countries saw the fastest rates of improvement.

**Figure 19: Life expectancy at birth before and during austerity years (number of years)**

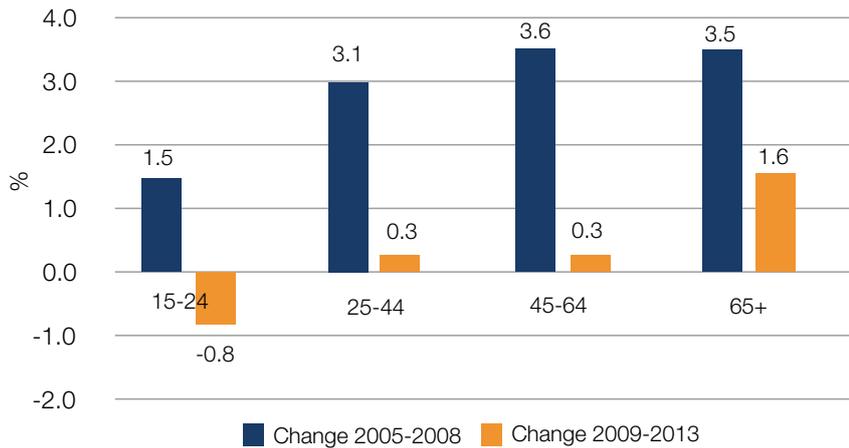


Source: OECD and authors' calculations

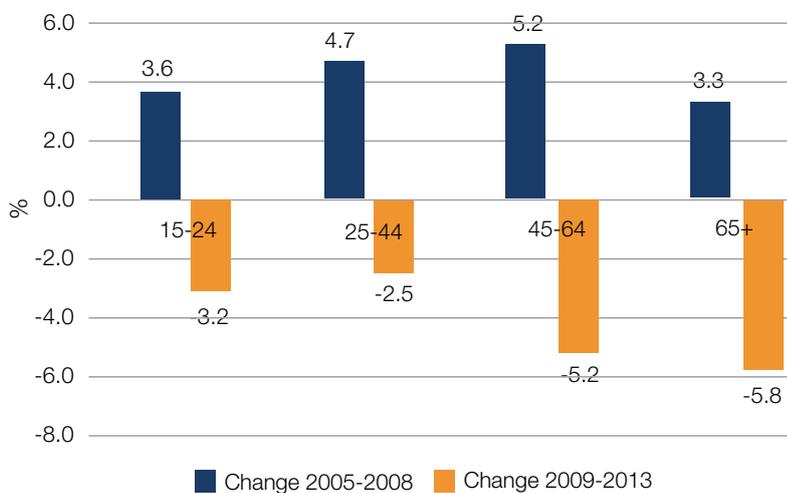
### Subjective health and unmet needs

Across Europe, self-perceived health fell amongst the youngest age group (15-24) during the austerity years. This may have been driven by reduced economic opportunity for this group, characterised by rising youth unemployment. But even amongst middle aged and older people, the rate of improvement in self-perceived health fell. The UK was very much an outlier in this regard – with self-perceived health falling for all age groups and in particular the over-65s where the proportion of people in good or very good health fell by 5.8 percentage points.

**Figure 20: Average change in proportion of people by age reporting good/very good health before and during austerity (23 European countries)**



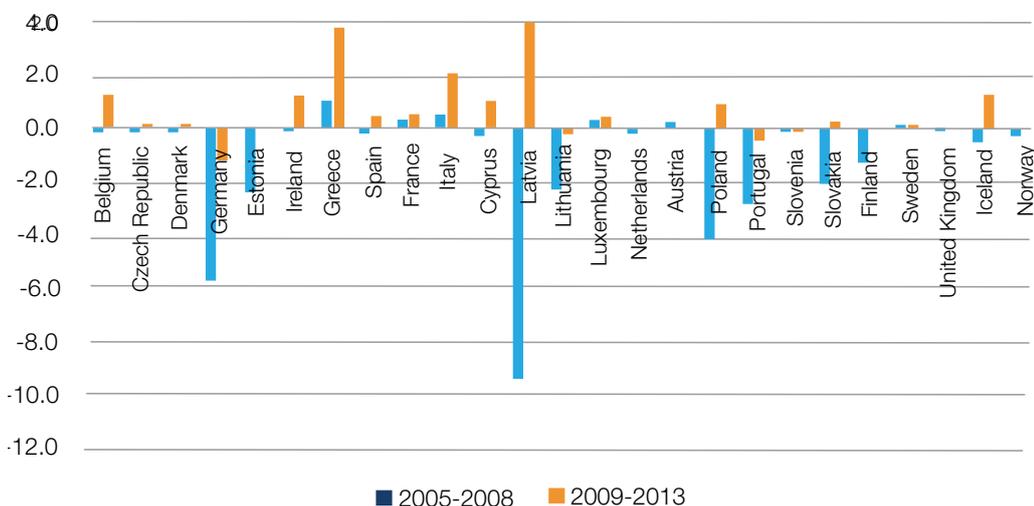
**Figure 21: Change in proportion of people by age reporting good/very good health before and during austerity (the UK)**



Source for charts: OECD and authors' calculations

Many European countries experienced either a rise in the level of unmet medical care needs due to health costs being “too expensive” or a slowdown in the rate of unmet needs falling during the austerity years. This is perhaps unsurprising, since many countries increased eligibility for free healthcare, introduced co-payments and raised user charges at a time when personal incomes were falling.

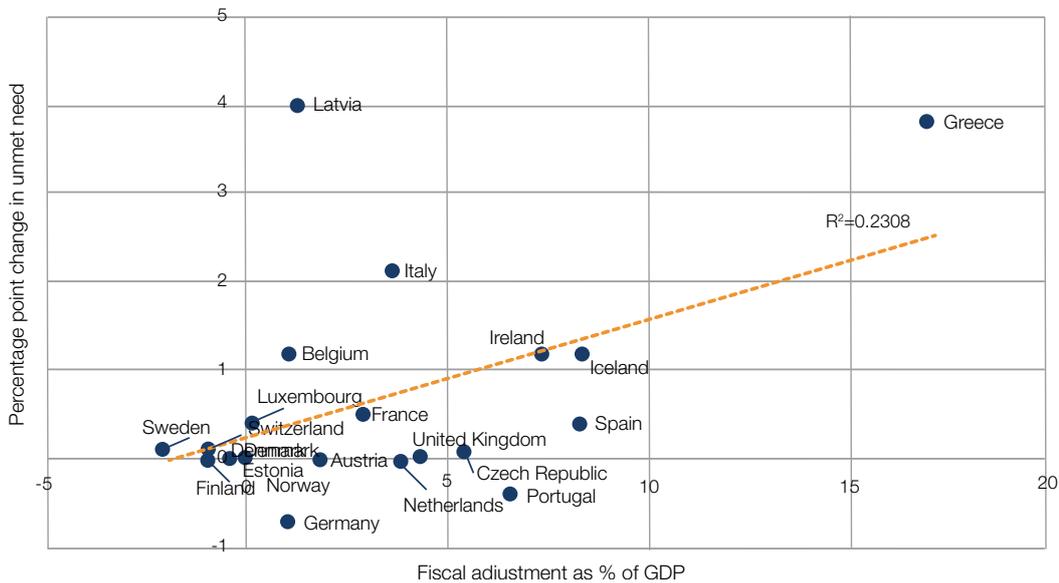
**Figure 22: Change in level of unmet need before and after austerity years**



Source: Eurostat and authors' calculations

On average, the countries which conducted more severe austerity also experienced the greatest increases in unmet need. In our analysis, we show the statistical relationship between austerity (measured in terms of fiscal adjustment) and percentage point change in unmet need due to healthcare being “too expensive”. As the chart indicates, there is a positive association ( $R^2 = 23\%$ ) between the degree of austerity and a rise in unmet need due to hospital treatment being “too expensive”, and the strength of this relationship rises to 43% if we exclude outlier Latvia from our analysis.

**Figure 23: Relationship between change in unmet need vs fiscal adjustment 2009-2013**



Source: Eurostat, IMF and author's calculations

## Chapter summary

- Mortality rates continued to improve during the austerity years, but the rate of improvement slowed across many countries – particularly the Northern European countries.
- In part, the different rates of mortality improvement during the austerity years can be explained by life expectancy before the financial crisis. Those countries with the lowest life expectancy in 2008, saw the greatest gains during this period.
- The important exceptions to this are Greece and Spain which experienced rising life expectancy despite already coming from a relatively high base and facing some of the severest spending cuts.
- The slowdown in improvements to mortality translated into a slowdown in life expectancy improvements during the austerity years.
- The youngest group - 15-24 - experienced a fall in subjective health during austerity and all other groups experienced slower improvements. The UK was an exception in that all age groups experienced falls in subjective health, particularly the over-65s.
- Levels of unmet health needs rose during the austerity years. There is a positive statistical relationship between those countries which cut spending the hardest and the level of unmet need due to health care costs.

CHAPTER 4:

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# ISOLATING THE IMPACT OF AUSTERITY ON PUBLIC HEALTH

## About this chapter

So far, we have established the trends in public spending and broad health outcomes across Europe in the aftermath of the financial crisis. But we can't yet say whether austerity was directly related to the changes in health outcomes identified. In this chapter, we apply quantitative analysis to establish a link between austerity and health. Using established statistical techniques and aggregate data from the OECD and Eurostat, we illustrate the association between a selection of mortality indicators and austerity, against the backdrop of an economic downturn. This new analysis builds on existing economic literature and theory to serve as an important stimulant for debate concerning the appropriate policy responses in the face of adverse economic conditions.

## Conceptual framework for understanding the impact of austerity on health

Recent austerity policies were introduced during a period of economic turmoil, characterised by low or negative economic growth and high unemployment. To understand how austerity influences health, we must look through the prism of how general economic downturns effect health and then consider how austerity influences this dynamic. The mechanisms by which an economic downturn influences health are well established in the health economics literature<sup>10</sup>. Three major mechanisms recur in the literature, all of which could have different types of health impacts – both positive and negative. In turn, austerity is likely to interact with these economic impacts, exacerbating their effects in a number of ways and directions.

### The “budgeting mechanism”

During a recession, real household income is likely to fall. This can reduce spending on goods which are beneficial for health, especially in economies where health services charge additional fees, but it can also force individuals to invest time and effort into managing the consequences of lost jobs or income. Ultimately, this could reduce the time spent on activities which might promote good health such as eating well and exercising.

On the other hand, individuals and households may consume less harmful goods when their incomes fall. For instance, a reduction in income may reduce consumption of non-essential goods such as alcohol, tobacco and illicit drugs. Furthermore, it is argued that a reduction in time spent at work also frees time for other activities such as exercise or monitoring health.

### How might austerity interact with the budgeting mechanism?

Cuts to social security spending, such as unemployment benefit, would reduce the incomes of those who lose their jobs during a recession. On the one hand, this could exacerbate the negative health effects of a recession on those who are out of work, by reducing the amount individuals can spend on their own healthcare. This effect will be particularly severe in countries where healthcare is provided through co-payments, and may explain why Greece saw such an increase in unmet health care need during the austerity years. But on the other hand, by further reducing the income of those who lose their jobs, austerity may result in a greater fall in the consumption of harmful goods such as alcohol, which would help to reduce levels of alcoholism and liver disease. Austerity may also reduce traffic accidents through the same income effect, with people less willing to spend money on non-essential travel.

### The “stress mechanism”

Concerns over employment prospects and personal finances can cause stress, either directly or through increasing the likelihood of other stressors such as marital difficulties. Additional stress can create mental and physical strains which worsen health.

On the other hand, many causes of stress in everyday life are linked to working, therefore a reduction in time spent at work may reduce the prevalence of such stress. Furthermore, it is suggested that firms have better capacity to deal with safety hazards when the pace of work slows.

<sup>10</sup> For a seminal paper on these channels see: Catalano, R., Goldman-Mellor, S., Saxton, K., Margerison-Zilko, C., Subbaraman, M., LeWinn, K. and Anderson, E., 2011. The health effects of economic decline. *Annual review of public health*, 32, pp.431-450.

### **How might austerity interact with the stress mechanism?**

Austerity policies may involve a reduction in the number of people employed by the government. Unless the private sector can create new roles for these individuals, it is likely that there will be an increase in frictional unemployment at the very least which may raise stress levels. Moreover, cuts to health services, especially mental health services, may reduce the ability of the health service to respond to increased stress amongst the labour force. Meanwhile cuts to social expenditure on unemployment support raises the stakes of becoming unemployed thereby potentially creating more stress amongst those in insecure jobs and amongst job seekers.

On the other hand, if unemployment results in reduced stress because it limits the amount of time in work, then it follows that austerity could be associated with a reduction in stress levels if the austerity policies themselves lead to rising unemployment.

### **The “frustration aggression” mechanism**

Economic downturns may diminish career prospects and salary. The elimination of an expected reward may increase the likelihood of aggression. Furthermore, economic strain may induce anti-social behaviours as a form of coping mechanism such as through increased alcohol and drug abuse. Others have argued the sense of unfairness during downturns may result in increased mental health problems which may elevate the risk for immediate family members<sup>11</sup>.

The counter argument is that economic downturns may generate an inhibition effect through fear. During a downturn, individuals are at risk of losing their job, and this concern causes individuals to be more cautious so they can retain employment. Employees may look to avoid antisocial behaviour that increases their chances of losing their job.

### **How might austerity interact with the frustration mechanism?**

Austerity may raise the likelihood of aggression and anti-social behaviour insofar as it contributes to, or sustains, the economic downturn. In addition, reduced government investment and redundancies of government workers may also increase the likelihood of aggression amongst those who have lost their jobs. Moreover, cuts to policing and other front line services, may reduce the perceived deterrent to criminal activity and the level of support and rehabilitation for those who commit crime.

On the other hand, austerity may make losing a job more risky – cuts to social security make it even more important that individuals keep their jobs because they cannot rely on the state to bail them out. Austerity may therefore contribute to less risky social behaviours amongst those who fear the consequences of losing their job.

### **Measuring the effect of austerity**

There is a surprising lack of robust analysis on the impact of austerity on public health. Moreover, within the past literature on this theme, there is no consensus about whether the impact of austerity on health outcomes is broadly good or bad. This is partly because the effects of austerity on health will depend on the specific health outcomes of interest, and partly because it is difficult to disentangle the health effects of austerity from the effects of the economic downturn. Most studies also focus on specific countries – such as Greece, Spain and Ireland (of which more in the next chapter) which faced particularly severe austerity, but this means it is impossible to generalise about the effects of austerity on health more broadly. In addition, a number of these country-specific studies fail to control for the effects of the economic downturn and as we have seen, those countries that committed to the severest austerity also faced the largest economic shocks.

<sup>11</sup>Catalano, R.A., Lind, S.L., Rosenblatt, A.B. and Attkisson, C.C., 1999. Unemployment and foster home placements: estimating the net effect of provocation and inhibition. *American Journal of Public Health*, 89(6), pp.851-855.

## The model

Various external factors influence health outcomes. Income, lifestyle, genetics, public policy and many more variables can determine the health of an individual, a region or even a country. For these reasons, it is unlikely that we would be able to estimate the singular causal effect of austerity on public health across such a diverse range of health systems. Instead, we focus on whether there is any discrepancy between public health outcomes in those countries which made severe budget cuts and those that did not against the backdrop of an economic crisis.

Previous research has focused on assessing the impact of economic downturns on health outcomes. In a seminal research paper, an underlying model was developed that assessed the association between recessions and health outcomes<sup>12</sup>. Pearson and Van Gool built on this for an OECD paper, which used the same method, and then extended it to identify countries which implemented severe or rapid cuts to health expenditure, comparing the associations between high and modest austerity countries to determine whether the degree of austerity was associated with better or worse health outcomes.

Our model builds on the work of Pearson and Van Gool, using two key measures to identify countries which implemented austerity:

- Health budgets – countries which had a negative average growth in health spending following 2008.
- Social budgets – countries which had a negative average growth in social spending following 2008.

The OECD study only examined the impact of cuts to the health budget, so the introduction of a new measure of austerity provides a more complete picture, and helps us to establish whether certain types of austerity policies are more desirable than others. In addition, we have used more up to date data, allowing for analysis over a longer time period.

## Key variables and data

To measure health outcomes, we use mortality rates by specific causes. General mortality is included, but in addition, we look at various causes of death, from non-communicable diseases such as cancer, heart and liver disease, to suicides and traffic accidents, incidents that may reflect mental health conditions or poorer public safety. Using a broad spectrum of mortality causes gives us a deeper insight into the areas that may be more potentially impacted by macro-economic conditions and public policy choices.

Three key variables are used in the modelling (all data comes from OECD statistical databases):

- **Unemployment** – This is the most critical variable for our purposes. We use the unemployment rate as a proxy for economic performance. Higher rates of unemployment suggest a reduction in production and demand in the economy, thereby signifying a downturn. In turn, we are interested in whether unemployment has stronger effects on health outcomes for higher versus lower austerity countries.
- **Demographics** – An ageing population is likely to increase the prevalence of certain, age-related diseases. We account for this by including the proportion of people over 65 in a country in our model, so that the impact of an ageing population is not conflated with the economic impact.
- **Time trend** – We include a time trend to reflect the improvements we might expect over time which would help improve public health outcomes. Advances in technology, treatment and procedures all contribute to improved health outcomes, but naturally occur over time, regardless of the public policies of the government.

Using this model, we estimate the associations between austerity and the key health outcomes we are exploring, which will provide an empirical basis for understanding the ways in which austerity might impact health during an economic crisis.

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<sup>12</sup>Ruhm, C.J., 2015. Recessions, healthy no more? *Journal of health economics*, 42, pp.17-28.

The model used was a fixed effects model, whereby our dependent variable is the log of the mortality rate in question, while the independent variables include an unemployment variable, another unemployment variable interacted with a dummy variable representing countries which implemented harsh austerity and the proportion aged over 65 as a proxy for the age profile of the country.

## Results

### ***The general impact of a downturn (excluding austerity)***

Firstly, we look at the general impact of an economic downturn on key health outcomes. We find that the general association between rising unemployment and mortality has been negative, as evidenced in Table 2. A rise in unemployment of 1% is associated with a decline in general mortality rates of 0.11%. While many might consider this surprising, intuitively it can be explained by the reasoning we set out in the conceptual framework, earlier in this chapter. For instance, unemployment will result in less spending power thereby leading to falls in alcohol consumption and travel, which might explain the falls in alcohol, liver and traffic related deaths. Indeed, it should be noted that there are statistically significant declines in deaths caused by alcohol and traffic accidents, with a 1% rise in unemployment associated with declines of 3.45% and 1.21% respectively.

An increase in unemployment is associated with marginal increases in mortality by other causes such as cancer and heart disease, and there is a strong association with suicide which increases by 2% when unemployment rises by 1%, suggesting a deterioration in the mental well-being of vulnerable people.

**Table 2: Relationship between unemployment and health outcomes**

Unemployment			
	Coefficient	Standard error	P value
<b>Mortality*</b>	-.001126	.0005895	0.057
<b>Infant mortality</b>	-.0072648	.0024619	0.003
<b>Cancer</b>	.000894	.0005829	0.126
<b>Suicide</b>	.0203526	.0023208	0.000
<b>Respiratory</b>	.0072281	.0027011	0.008
<b>Heart</b>	0.005264	.0019889	0.008
<b>Liver</b>	-.0123002	.003779	0.001
<b>Pneumonia</b>	.0091725	.0063747	0.151
<b>Traffic</b>	-.0121496	.0024249	0.000
<b>Alcohol</b>	-.034594	.0075517	0.000

\*All highlighted indicators are statistically significant at the 5% level except Mortality which is significant at the 10% level.

### **Health expenditure**

For the next stage of our analysis, we separate countries into high and modest austerity countries, and examine the effect of unemployment on health outcomes for these two sets of countries. Table 3 looks at the results when we use reductions in health expenditure as our measure of austerity<sup>13</sup>.

We find fewer results that are statistically significant, with the relationship between austerity and health being multifaceted. For instance, in the case of respiratory disease, we see that a 1% increase in unemployment is associated with a 4.9% increase in respiratory deaths in modest cutting countries, while in high cutting countries this association is less than a 0.4% increase. By contrast, when looking at liver related deaths, a 1% rise in unemployment in modest austerity countries is associated with a decline in liver related mortality by 4.6%, but in high cutting countries, the associated decline is only 0.9%.

Modest austerity is associated with elevated alcohol related deaths, with a 1% increase in unemployment associated with a 3.4% increase in alcohol mortality, while in high cutting countries, the same rise in unemployment is associated with a fall in alcohol related deaths of 4%. Pneumonia is the only other statistically significant cause of death with an associated worsening in modest cutting countries compared to those that made more severe cuts.

<sup>13</sup> To interpret these results, the coefficient on our “modest” countries can be taken at face value, but for countries which implement high expenditure cuts, the coefficients must be added on to coefficients of our modest set of countries.

**Table 3. Relationship between unemployment and health outcomes amongst modest vs high austerity countries**

	Modest health expenditure cut countries			High health expenditure cut countries		
	Coefficient	Standard error	P value	Coefficient	Standard error	P value
<b>Mortality</b>	-.0018554	.0019499	0.342	.0007877	.0083431	0.050
<b>Infant mortality</b>	-.0079175	.0081062	0.329	.0163946	.0079606	0.066
<b>Cancer</b>	.0007226	.0019287	0.708	.0001851	.001985	0.926
<b>Suicide</b>	.0030627	.0075791	0.686	.025285	.0075125	0.001
<b>Respiratory</b>	.0492415	.0086587	0.000	-.0453682	.0086587	0.000
<b>Heart</b>	.0093886	.006577	0.154	-.004454	.0067692	0.511
<b>Liver</b>	-.0465886	.0123724	0.000	.0370264	.0127338	0.004
<b>Pneumonia</b>	.0730616	.0208214	0.001	-.0689907	.0214297	0.001
<b>Traffic*</b>	-.0258673	.0079906	0.001	.0148131	.008224	0.072
<b>Alcohol</b>	.0346291	.0247182	0.162	-.0747506	.0254404	0.003

\*All highlighted indicators are statistically significant at the 5% level except Traffic which is significant at the 10% level.

### Social expenditure

To explore the issue further, we turn our attention to the countries which made significant cuts to social expenditure. Our results are broadly similar, in part because many of the countries which implemented harsh cuts to health expenditure made cuts to social spending. However, there remain some interesting differences, as seen in Table 4.

Modest cutting countries maintain a higher association between respiratory disease and unemployment, of around 3%, while the association among high expenditure cutting countries is smaller at 0.5%. Heart related mortality is also statistically significant using the social spending measure of austerity, with a 1% rise in unemployment associated with a decline of 1.7% in modest cutting countries, while unemployment results in a less than 1% rise for high cutting countries. Deaths from pneumonia, alcohol and liver disease all maintain similar associations as we saw with countries which implemented health cuts.

**Table 4. Relationship between unemployment and health outcomes amongst modest vs high austerity countries**

	Modest social expenditure cut countries			High social expenditure cut countries		
	Coefficient	Standard error	P value	Coefficient	Standard error	P value
<b>Mortality</b>	-.0023595	.0018562	0.204	.0013408	.0013408	0.484
<b>Infant mortality</b>	-.006233	.0077242	0.420	.0146715	.0079606	0.066
<b>Cancer</b>	.002947	.0018335	0.109	-.0022315	.0018896	0.238
<b>Suicide</b>	.0093377	.0072894	0.201	.0119726	.0075125	0.112
<b>Respiratory</b>	.0305754	.0084206	0.000	-.0253773	.0086783	0.004
<b>Heart</b>	-.0171875	.0061531	0.005	.0244037	.0063415	0.000
<b>Liver*</b>	-.0328634	.0118474	0.006	.223511	.0122203	0.068
<b>Pneumonia</b>	.0620597	.0198898	0.002	-.0574856	.0204986	0.005
<b>Traffic</b>	-.0228651	.0076195	0.003	.0116472	.0078528	0.139
<b>Alcohol*</b>	.0410238	.0234552	0.081	-.0821926	.0241731	0.001

\*All highlighted indicators are statistically significant at the 5% level except Alcohol and Liver which are significant at the 10% level.

## Discussion

This chapter has looked at the short-term associations between different measures of austerity and various causes of mortality. The results suggest a multi-faceted relationship between austerity and health, complicated by the presence of an economic downturn. First of all, our analysis explored the relationship between unemployment and mortality with the results suggesting that rising unemployment is associated with a short-term decline in overall mortality, though with some causes of mortality - such as suicide - rising. Second, when comparing countries by severity of austerity, we find the relationship between unemployment and various mortality indicators are somewhat dampened for countries that committed to harsh austerity. For instance, across health and social measures of austerity, unemployment in modest austerity countries seems to be associated with increased respiratory, pneumonia and alcohol related deaths, but reduced liver related deaths. By contrast, in high austerity countries, the rise in respiratory and pneumonia related deaths is smaller, while there appears to be a fall (rather than a rise) in alcohol related deaths. Meanwhile, there is a smaller reduction in liver related deaths in high austerity countries.

**Table 5: The headline effects of unemployment on health outcomes in modest vs high austerity countries**

Type of austerity	Health outcomes in modest austerity countries	Health outcomes in high austerity countries
Health austerity (cuts to health expenditure)	<ul style="list-style-type: none"> <li>Increased respiratory mortality</li> <li>Reduced liver mortality</li> <li>Increased pneumonia mortality</li> <li>Reduced traffic mortality</li> <li>Increased alcohol mortality</li> </ul>	<ul style="list-style-type: none"> <li>Smaller increase in respiratory mortality</li> <li>Smaller reduction in liver mortality</li> <li>Smaller increase in pneumonia mortality</li> <li>Smaller reduction in traffic mortality</li> <li>Fall in alcohol mortality</li> </ul>
Social austerity (cuts to social expenditure)	<ul style="list-style-type: none"> <li>Increased respiratory mortality</li> <li>Reduced heart mortality</li> <li>Reduced liver mortality</li> <li>Increased pneumonia mortality</li> <li>Increased alcohol mortality</li> </ul>	<ul style="list-style-type: none"> <li>Smaller increase in respiratory mortality</li> <li>Smaller rise in heart mortality</li> <li>Smaller reduction in liver mortality</li> <li>Smaller increase in pneumonia mortality</li> <li>Fall in alcohol deaths mortality</li> </ul>

Overall, the associations between austerity and mortality in high and modest countries are small and would translate into a very small number of additional/fewer deaths in any given country over the short term. Our overriding conclusion from this data is that austerity did not have much of an influence on the selected aggregate public health outcomes explored in this report.

Nevertheless, a word of caution is needed before asserting that austerity has had little influence on public health outcomes. Aggregate studies, by their nature, paint a broad picture of the situation. While it is encouraging that overall mortality rates do not appear to have risen due to austerity, there may be some groups which are particularly vulnerable – there may be distributional impacts that our analysis could not pick up.

The finding in this report, that overall mortality did not rise as unemployment increased, warrants further investigation into the groups which might be especially affected by an economic downturn. Those that lose their jobs or who are in work but have little financial security, are potentially more exposed to the consequences of spending cuts, but the specific impacts of austerity on this group may not show up in aggregate analysis.

Furthermore, our efforts were limited to using mortality rates as the key health outcomes, yet, given the ageing of populations in Europe, death is no longer the sole health concern many worry about. Chronic conditions associated with ageing are rising rapidly, to the serious detriment of long term public health. Non-communicable diseases, persistent mental health concerns and long-term conditions can inhibit the everyday life of individuals but may not be reflected in mortality rate data.

Finally, this analysis has only looked at the short-term impacts of austerity. Most European countries began implementing austerity policies in the aftermath of the 2008 crisis, and to this day, austerity dominates the political narrative in many European nations. As data is only available until 2015, it is impossible to know what the long-term impact are likely to be. Indeed, short term mortality rates are likely to be influenced most by the experiences of older individuals, but as we have seen in earlier

chapters, old age spending was largely insulated by the crisis, while it is working age individuals that have seen incomes and job prospects hit hardest – both as a result of the economic downturn and, arguably austerity. These younger individuals may be most heavily affected by cuts to social security and health prevention spending, but it may take many years to be reflected in aggregate mortality statistics. Therefore, we must once again stress that the results presented in this chapter, should be viewed as a short-term exploration of the association between austerity and mortality rates.

More must be done to build on this work to explore the groups in society which are worse hit by the potential impact of austerity and economic downturns, so that in future, when recessions strike, or when governments seek to implement spending cuts, they can better target policies to protect the most vulnerable.

## **Chapter summary**

- There is a lack of cross national analysis on the impacts of austerity on public health outcomes.
- We model the short-term impact of an economic downturn on health outcomes and separate out the effects for different countries depending on the severity of austerity policies related to health spending and social security spending.
- Our findings suggest a multifaceted, short term relationship between austerity and health, with high austerity seemingly dampening the effects of an economic downturn on a number of mortality indicators.
- But the effects are relatively small – austerity has not had much of an impact on mortality rates over the short term.
- This does not prove that austerity has had little impact on public health, but that its effects do not show up in aggregate mortality data.
- A longer term, distributional analysis of the effects of austerity is required, which considers the prevalence of chronic disease rather than just exploring cause specific mortality rates.

CHAPTER 5:

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# **DELVING DEEPER: THE IMPACT OF AUSTERITY ON HEALTH IN SPECIFIC COUNTRIES**

## About this chapter

Our analysis in the previous chapter showed that austerity may have only affected mortality rates at the margin. But such cross-country analysis is inevitably limited because it looks at patchy aggregate data on health outcomes. There may be distributional effects within countries that such an analysis cannot pick up, or there may not be sufficient data at the aggregate level with regards to certain health indicators that may be picked up in national-level data. In this context, this chapter explores the state of the evidence on austerity and health with regards to four specific European countries that undertook austerity: Greece, Spain, Ireland and the UK, in an effort to tease out more information on the possible causal links between austerity and health.

## Greece

### Background

Out of all European countries, Greece was the worst affected by the economic crash. Between 2008 and 2013, the unemployment rate in Greece increased by 20 percentage points, and saw its debt to GDP increase from 100% to 170% between 2006 and 2011. Greece also experienced the most severe budgetary cuts of any European country; yet despite this fiscal adjustment, debt to GDP remains high.

### Austerity measures taken in health

Greece serves as an important case study in exploring how austerity measures have shaped public healthcare, as the country saw significant cuts to health budgets. Most significantly, the share of the population with public health coverage decreased from 100% in 2008 to 86% in 2015, with many people unable to afford health insurance plans<sup>14</sup>. The reduction in healthcare spending was delivered, in part, through pay cuts<sup>15</sup>, as well as adopting the practice of co-payments<sup>16</sup>. Prescription charges of €1 were introduced raising the overall cost of access in buying medication. Moreover, cuts were made in the treatment of users of illicit drugs and in condom and syringes distribution (below the targets set by the European Centre for Disease Control which led to a rise in HIV infections). Mosquito spraying programmes were also cut. Additionally, funding for mental health services decreased by 20% from 2010 to 2011<sup>17</sup>.

Budgetary cuts have resulted in staff shortages. Austerity measures, such as cuts in new recruitment, prompted senior health professionals to retire early, which has left the health service with a shortage of nurses and general practitioners<sup>18</sup>.

### Possible impact on health outcomes

Greece has been used as a case study for a number of studies looking at the possible relationships between austerity measures and public health outcomes. These studies have shown an association between austerity and non-traditional means of accessing healthcare, for example relying on street clinics<sup>19</sup> or informal payments to health professionals<sup>20</sup>. There is also evidence that patients discontinued treatment due to a lack of medicines and increasingly being unable to afford treatments<sup>21</sup>.

Studies have shown an estimated 120% increase in the need to access mental health services between 2011 and 2014<sup>22</sup>. This is at the same time as funding for mental health services was cut dramatically. A long-term study of suicide rates in Greece showed that suicides increased after austerity measures were implemented<sup>23</sup>. Research has also shown an increase in babies born with low birthweights, and increases in infant mortality<sup>24 25</sup>.

<sup>14</sup> OECD (2016), Health Policy in Greece, OECD Health Policy Overview <http://www.oecd.org/greece/Health-Policy-in-Greece-January-2016.pdf>

<sup>15</sup> Kondilis, E. et al., 2013. Economic Crisis, Restrictive Policies, and the Population's Health and Health Care: *The Greek Case*. *Am J Public Health*, 103(6), p. 973–979

<sup>16</sup> Quaglio, G. e. a., 2013. Austerity and health in Europe. *Health Policy*, 113 (1), pp. 13 - 19

<sup>17</sup> Kentikelenis, A. e. a., 2014. Greece's health crisis: from austerity to denialism. *The Lancet*, 383(9918), pp. 748-753

<sup>18</sup> Kentikelenis, A. & Papanicolas, I., 2012. Economic crisis, austerity and the Greek public health system. *Eur J Public Health*, 22 (1), pp. 4-5

<sup>19</sup> McKee, M., Karanikolos, M., Belcher, P. & Stuckle, D., 2012. Austerity: a failed experiment on the people of Europe. *Clinical medicine*, 12(4), pp. 346-350

<sup>20</sup> Ifanti, A. A., Argyriou, A. A. & Kalofonou, F. H., 2013. Financial crisis and austerity measures in Greece: their impact on health promotion policies and public health care. *Health policy*, 113(1), pp. 8-12

<sup>21</sup> Ibid

<sup>22</sup> Kentikelenis, A. & Papanicolas, I., 2012. Economic crisis, austerity and the Greek public health system. *Eur J Public Health*, 22 (1), pp. 4-5

<sup>23</sup> Branas, C. C. et al., 2015. The impact of economic austerity and prosperity events on suicide in Greece: a 30-year interrupted time-series analysis. *BMJ Open*

<sup>24</sup> Kentikelenis, 2014

<sup>25</sup> Levett, J., 2014. From cradle of European civilization to grave austerity: does Greece face a creeping health disaster?. *Prehospital and disaster medicine*, 29(1), pp. 2-3

However, not all studies indicate poorer health outcomes after austerity. One study found that healthcare spending cuts in Greece did not have a negative effect on health and healthcare, and in fact deaths were higher in periods of economic expansion. In research looking at the period 2007 to 2011, life expectancies at birth, at age 45, and age 65 increased at the same rate as the previous years<sup>26</sup>. Cause-specific mortality such as cardiovascular disease, respiratory diseases, and malignant neoplasm continued to decline<sup>27</sup>. Additionally, there was a decline in TB, while the initial rise of HIV during the economic crisis, was followed by a fall after 2010 undermining the view that austerity had driven a rise in HIV.

## Spain

### Background

The Spanish economy was particularly exposed to the financial crash through a property price bubble, and GDP subsequently fell by 12% in 2009<sup>28</sup>. Of all Eurozone countries, Spain faced some of the greatest challenges around employment during the recession, with huge levels of unemployment. In 2009, the unemployment rate was 25%, increasing to 53% for the young<sup>29</sup>. The Spanish Government initially resisted a bailout, choosing to implement significant austerity measures; however, despite this, in 2012, Spain agreed a bailout with European finance ministers.

### Austerity measures taken in health

As part of austerity, Spain made radical changes to the health system. To implement these far-ranging changes, the Spanish government bypassed parliament, and used a Royal Decree to push through these reforms<sup>30</sup>. The reforms moved the health system from universal coverage, paid for by general taxation, to a contribution-based system<sup>31</sup>.

The changes to the health system had three overarching aims; to increase the money going into the health system from non-governmental sources, to increase efficiency and to reduce government expenditure. In fiscal terms, there was a decrease in government health expenditure, with the central government health budget being reduced by 14% in 2012, and 23% in 2013<sup>32</sup>. However, most health spending in Spain is organised at a regional level, and estimates of changes to health expenditure are much smaller at this level, with only a 5% reduction across all regions between 2010 and 2012<sup>33</sup>.

Structurally, the change from a universal coverage model to a contribution-based model meant that parts of the population's entitlement to healthcare was revoked. Examples include people aged over 26 who had no employment history, and illegal immigrants<sup>34</sup>. Studies on the impacts on health services tend to be regional in scope; for example, a study in Catalonia found that since the financial crash, the numbers of hospital beds were reduced and health services had closed<sup>35</sup>.

Reforms to Spain's health system increased user charges through co-payments. Working aged people, middle and higher earners have seen the percentage of what they pay for medicines increase from around 40% to 50%. Pensioners have also seen contributions for medicines go up, significantly. Before the reforms, all medicines were free for people who had retired, but since the reforms, middle and higher income pensioners saw their contributions increase to 10% and 60% respectively (albeit with a payment ceiling limiting how much a person would pay each month)<sup>36</sup>.

### Possible impact on health outcomes

There is limited evidence on how austerity has impacted health outcomes in Spain. One study looking at mental health outcomes found statistically significant increases in patients with alcohol-related disorders during the financial crash (comparing 2006 with 2010). As this report also finds, flu vaccination rates decreased, from a level nearly reaching the desired 75%, to a level significantly below.

<sup>26</sup>Granados, J. A. T. & Rodriguez, J. M., 2015. Health, economic crisis, and austerity: a comparison of Greece, Finland and Iceland. *Health Policy*, 119(7), pp. 941-953

<sup>27</sup>Ibid

<sup>28</sup>Karanikolos, M., et al., 2013. Financial crisis, austerity, and health in Europe. *The Lancet*, 381 (9874), pp 1323-1331.

<sup>29</sup>Gallo, P. and Gené-Badia, J., 2013. Cuts drive health system reforms in Spain. *Health Policy*, 113(1), pp.1-7.

<sup>30</sup>Rada, A.G., 2012. New legislation transforms Spain's health system from universal access to one based on employment. *BMJ: British Medical Journal (Online)*, 344.

<sup>31</sup>Ibid.

<sup>32</sup>Gallo, P. and Gené-Badia, J., 2013. Cuts drive health system reforms in Spain. *Health Policy*, 113(1), pp.1-7.

<sup>33</sup>Ibid.

<sup>34</sup>Ibid

<sup>35</sup>Karanikolos, M., et al., 2013. Financial crisis, austerity, and health in Europe. *The Lancet*, 381 (9874), pp 1323-1331.

<sup>36</sup>Gallo, P. and Gené-Badia, J., 2013. Cuts drive health system reforms in Spain. *Health Policy*, 113(1), pp.1-7.

## Ireland

### Background

After the financial crisis, Ireland's economy was adversely affected. The country accepted an economic bailout from the IMF and European Central Bank. In exchange for the financial bailout, Ireland agreed to extensive policy reforms, including significantly reducing government spending<sup>37</sup>.

The Irish health system has some relatively unique characteristics. Revenue from the health system comes from both user charges as well as revenue raised through taxation. There are therefore higher 'out of pocket' costs for GPs than in other European countries<sup>38</sup>.

### Austerity measures taken in health

A significant component of austerity in Ireland was in relation to spending on the provision of health services. At a top-line level, between 2009-13 the budget of the Health Service Executive was reduced by 22%<sup>39</sup>, and in nominal terms, public health spending decreased by 9% between 2008 and 2012<sup>40</sup>.

As well as reducing expenditure, health policy in Ireland moved towards placing more emphasis on payment by individuals rather than the state, largely through increasing the eligibility thresholds or increasing existing charges. Examples include higher inpatient charges for those who used hospitals, introducing prescription charges (which were then increased after implementation), and an increase in accident and emergency charges<sup>41</sup>. In terms of changing eligibility thresholds, the Irish government ended free medical care for people aged 70 and over and introduced a higher threshold for drug reimbursement<sup>42</sup>. These measures resulted in the percentage of total health spending from government falling from 77% in 2004 to 67% in 2011, as the emphasis moved from the state to the individual<sup>43</sup>.

### Possible impact on health outcomes

There have been fears that a combination of a reduction in health spending and provision, combined with demands from population ageing would result in poorer health outcomes. However, few studies look directly at the impact of austerity on health outcomes, and instead focus on the use of services before and after austerity or the wider effects of an economic crisis. For instance, one study found "more day cases in the hospital sector, more attendances and admissions at emergency departments, and slightly lower lengths of stay<sup>44</sup>. Other research has found that the total number of hospital beds in Ireland reduced by 10% between 2008 and 2012, and whilst waiting times initially shortened after austerity measures, they have since increased and all initial gains in waiting times have been lost<sup>45</sup>. According to our knowledge, there is only one study that found an association between increased suicides in Ireland and the overall economic crisis, but this did not disentangle the effects of the economic crisis from austerity<sup>46</sup>. On the whole, there is very little robust evidence on how austerity impacted health outcomes in Ireland, but some limited evidence on the responses of the health service itself.

<sup>37</sup>Corcoran, P., Griffin, E., Arensman, E., Fitzgerald, A.P. and Perry, I.J., 2015. Impact of the economic recession and subsequent austerity on suicide and self-harm in Ireland: An interrupted time series analysis. *International journal of epidemiology*, 44(3), pp.969-977.

<sup>38</sup>Nolan, A., Barry, S., Burke, S. and Thomas, S., 2014. The impact of the financial crisis on the health system and health in Ireland. WHO/European Observatory on Health Systems and Policies Case Study [Online] Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1)

<sup>39</sup>Thomas, S., Burke, S. and Barry, S., 2014. The Irish health-care system and austerity: sharing the pain. *The Lancet*, 383(9928), pp.1545-1546.

<sup>40</sup>Nolan, A., Barry, S., Burke, S. and Thomas, S., 2014. The impact of the financial crisis on the health system and health in Ireland. WHO/European Observatory on Health Systems and Policies Case Study [Online] Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1)

<sup>41</sup>Thomas, S., Burke, S. and Barry, S., 2014. The Irish health-care system and austerity: sharing the pain. *The Lancet*, 383(9928), pp.1545-1546.

<sup>42</sup>Ibid.

<sup>43</sup>Nolan, A., Barry, S., Burke, S. and Thomas, S., 2014. The impact of the financial crisis on the health system and health in Ireland. WHO/European Observatory on Health Systems and Policies Case Study [Online] Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1)

<sup>44</sup>Thomas, S., Burke, S. and Barry, S., 2014. The Irish health-care system and austerity: sharing the pain. *The Lancet*, 383(9928), pp.1545-1546.

<sup>45</sup>Ibid.

<sup>46</sup>Nolan, A., Barry, S., Burke, S. and Thomas, S., 2014. The impact of the financial crisis on the health system and health in Ireland. WHO/European Observatory on Health Systems and Policies Case Study [Online] Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0011/266384/The-impact-of-the-financial-crisis-on-the-health-system-and-health-in-Ireland.pdf?ua=1)

## UK

### Background

With a large multinational banking sector, the UK also suffered from an economic downturn, as credit was squeezed in 2008-2009. Whilst the UK did not require a bailout from international and European institutions, several major banks were nationalised by the UK government. Due to falling tax revenues, the UK government decided to implement a number of austerity measures, cutting budgets across government.

### Austerity measures taken in health

Analysis of spending in England (health policy is devolved across the UK) during austerity paints a mixed picture. Overall, health spending has been increasing in real terms, at an average of 1.2% a year between 2010/11 and 2014/15<sup>47</sup>. This trend is set to continue through this current Parliament. However, in a longer-term context, budgets in the years before austerity saw far higher increases. The years of small increases should also be viewed within the context of growing demand, due to an ageing population and increasing costs of healthcare.

Health spending in England is often decentralised, and different parts of the health service are finding different solutions as a result of tighter budgets. Some are overspending and running deficits, some are cutting staff (both clinical and administrative), some are releasing capital through selling buildings, and some are restricting access (through increasing eligibility thresholds)<sup>48</sup>. However, it should be noted that unlike other European health systems during austerity, there remained strong commitments to continuing access to free at the point of use care, with little increase in the already very limited co-payment models (e.g. flat-rate prescription charges).

Public health spending was devolved from central to local government in 2013. Local authorities receive a direct grant from the Department of Health to fund public health programmes, and whilst in the two years after 2013 it increased by 5% each year, in 2015 the grant was cut by £200 million<sup>49</sup>. At the same time responsibility for children's public health was transferred from central to local government. Analysis of the combination of the grant reduction and more responsibilities indicate overall public health budgets have declined in real terms, and will continue to decline until 2018<sup>50</sup>. Local authorities have responded by restricting or stopping public health services, with the biggest reductions being seen in tobacco control, substance misuse and sexual health<sup>51</sup>.

### Possible impact on health outcomes

It has been argued that the government's decision to restrict funding for prevention in England is because it viewed it as an 'easy target', as the benefits of good prevention are longer term, and the public notice prevention cuts less than cuts to other services such as hospitals and GPs<sup>52</sup>. When assessing whether health outcomes have been affected, it is important to remember budget reductions do not necessarily mean poorer services; there will be examples of efficiency whilst improving outcomes. However, there are concerns that future planned budget cuts could be particularly damaging, as the least damaging cuts have already been made, leaving the more difficult decisions to follow<sup>53</sup>. Despite these concerns, there have been no systematic and robust efforts to measure the impacts of austerity measures on overall health outcomes in a UK context.

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<sup>47</sup>The Kings Fund (2017) 'Understanding NHS Financial pressures: How are they affecting patient care' [Online] Available at: [https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_summary/Understanding%20NHS%20financial%20pressures%20-%20report%20summary.pdf](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_summary/Understanding%20NHS%20financial%20pressures%20-%20report%20summary.pdf) Accessed 20/10/2017

<sup>48</sup>Ibid

<sup>49</sup>Ibid.

<sup>50</sup>Buck, D (2017) 'Chickens coming home to roost: local government public health budgets for 2017/18', The Kings Fund Blog [Online] Available at: <https://www.kingsfund.org.uk/blog/2017/07/local-government-public-health-budgets-2017-18> Accessed 20/10/2017

<sup>51</sup>Ibid

<sup>52</sup>Paddison C (2017) 'Cuts to public health: why spending less will cost the NHS more', Nuffield Comment [Online] Available at: <https://www.nuffieldtrust.org.uk/news-item/cuts-to-public-health-why-spending-less-will-cost-the-nhs-more#so-why-doesnt-the-bottom-line-reflect-this> Accessed 20/10/2017

<sup>53</sup>Buck, D (2017) 'Chickens coming home to roost: local government public health budgets for 2017/18', The Kings Fund Blog [Online] Available at: <https://www.kingsfund.org.uk/blog/2017/07/local-government-public-health-budgets-2017-18> Accessed 20/10/2017

## Discussion

Overall, there is very little evidence regarding the impact of austerity on health outcomes in these four countries. Most research explores the changing nature of the health systems during the austerity years, or looks at the broader effects of recessions on health, without trying to disentangle the direct effects of austerity policies. Greece is the most researched case study, which is not surprising given the enormous cuts to government budgets undertaken since the start of this decade. Indeed, while austerity may be pan-European, Greece is very much an outlier in terms of the severe degree of fiscal adjustment that took place. But even in Greece, there are only a very limited number of robust studies looking into the effects of austerity on health outcomes. Despite the lack of evidence on the effects of austerity, what is clear, is that a number of health systems have undergone truly profound changes in a relatively short period of time, typically characterised by a move to co-payments and a rise in user charges. The behavioural responses of individuals to these changes and their subsequent health outcomes may take time to emerge, and even longer to translate into measureable indicators showing up in national statistical databases.

### Chapter summary

- The health systems of Greece, Ireland and Spain experienced profound changes during the austerity years, with co-payments and user charging either introduced for the first time or significantly ramped up.
- The UK's system has not experienced such dramatic change, but spending has been squeezed at a time when demand for services is growing due to an ageing population.
- Evidence on the direct effects of austerity on health outcomes is very limited, but evidence from Greece suggests that austerity may have had negative implications for mental health in the country while it had little if any impact on overall mortality.
- Despite the lack of evidence on the effects of austerity, what is clear, is that a number of health systems have undergone immense changes in a relatively short period of time.
- The behavioural responses of individuals to health system changes and their subsequent health outcomes may take time to emerge, and even longer to translate into measureable indicators showing up in national statistical databases.
- More research is needed at a country specific level to better understand the distributional impacts of austerity on health outcomes and to better disentangle the effects of austerity policy choices from the economic downturn.

CHAPTER 6:

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# CONCLUSION

## **Austerity as a pan-European experiment**

Austerity has been a giant pan-European experiment. The majority of European countries undertook some degree of belt-tightening in the aftermath of the financial crisis of 2008-2009. This typically manifested itself in cuts to health and unemployment expenditure (as well as cuts to other functions), while expenditure on pensions and other old age social security continued to rise. The health systems of a number of countries underwent wide-ranging reforms at a time of economic turmoil – with governments choosing to cut back investment in prevention spending and to introduce greater use of co-payments and user charges in order to limit government expenditure.

In general, the tougher the economic conditions facing countries, the harsher the overall austerity pursued. During this period, rates of improvement in mortality fell. To be absolutely clear on this point, mortality rates continued to improve for all countries, but the rate of this improvement slowed during the austerity period. This in turn translated into slower rates of improvement in life expectancy – particularly for Northern European countries. This slower rate of improvement for the Northern countries is more likely to be the result of their relatively high starting position on the international life expectancy league table in 2008, rather than because austerity held them back. Indeed, Spain and Greece, two countries which undertook the severest austerity, experienced some of the fastest rises in life expectancy and falls in mortality during this time.

Alongside the general slowdown in life expectancy improvements, there was a slowdown in the improvement in self-reported health, and most worrying of all, a fall in subjective health amongst the youngest age group (15-24 year olds). Moreover, a number of countries experienced rising unmet medical needs during the austerity period, as a combination of rising medical costs and falling personal incomes made medical care too expensive for some.

### **But has austerity resulted in worse health outcomes?**

While there has been a pronounced slowdown in the rate of improvement across key health indicators, it is difficult to tell why this is the case purely from descriptive data analysis. For instance, it may be the result of the economic downturn, or it may be because developed countries are now at the frontier of life expectancy and additional gains will be smaller. In order to isolate the effects of austerity on health across Europe, this report has built on the empirical models of OECD economists to explore whether periods of unemployment resulted in worse outcomes for high austerity countries when compared to modest austerity countries.

Our findings tentatively suggested that high austerity countries saw the short-term effects of the economic downturn dampened on a number of mortality indicators. But the effects are relatively small – austerity has not had much of an impact either way on the health indicators we explored in this report. This does not, however, prove that austerity has had little impact on public health. It is important to note that short-term mortality rates are likely to be most heavily influenced by the experiences of older individuals, but old age spending was largely insulated from cuts during the crisis, while it is working age individuals that have seen their incomes and job prospects hit hardest. These younger individuals are likely to be directly affected by cuts to social security, active labour market policies and health prevention spending, but it may take many years to be reflected in aggregate data.

Given the limitations of aggregate mortality data, this report explored the state of existing literature and evidence on four countries that pursued austerity policies – Greece, Spain, Ireland and the UK. But on a country-specific basis, there is very little robust evidence about the role austerity played in determining the health outcomes of their populations. Moreover, very few studies attempt to distinguish between the effects of an economic downturn from the effects of austerity policies. Such an effort is further complicated by the fact that for at least some countries, austerity policies may have been partly to blame for the subsequent economic conditions facing citizens.

### **So where should we stand on austerity and health?**

Austerity policies of one form or another are not finished yet. Despite years of austerity, levels of government debt remain close to peak and way above where they were before the crisis of 2008. Several countries have government debts in excess of their total annual economic output. Bringing down debt levels at a time of stagnant economic growth and population ageing will be a substantial challenge. Budgets are likely to remain highly constrained for the foreseeable future. For these reasons, it is important to take a considered view on the possible health impacts of the most recent period of austerity and the potential impacts of continued austerity on health in the future.

On the one hand, it is encouraging that recent cuts to health and social expenditure have not made much of an impact on the short-term mortality rates of Europe's population. On the other hand, our analysis of aggregate mortality statistics does not show the full health picture, and at best only explores the short-term effects of austerity on a limited number of health outcomes. Indeed, our earlier descriptive analysis of Europe-wide data paints a more worrying picture, whereby progress on a number of key health indicators stalled – or even fell (such as subjective health amongst 15-24 year olds) - during the austerity years. While we could not demonstrate a causal link between austerity and the stalling of these indicators, it is too soon to rule out such a possibility.

What is certain, is that many European countries undertook profound changes to their health systems. The behavioural responses to these changes will take time to emerge and understand. Europe is ageing fast, and health is arguably the most important asset to ensuring a sustainable future – healthy ageing supports longer working lives and reduces potential health care costs over an individual's lifetime. Whatever further changes to health systems (as well as social security systems) are made in the short term due to continued spending pressures, must not save costs today whilst storing up problems for the future. The drive for efficiency in public services is a noble goal, but efficiency must equate to continual progress in health and other quality of life outcomes, otherwise it is tantamount to failure. Health services across Europe may have successfully insulated themselves from the worst short-term effects of austerity, but such a limited goal cannot be sustained, either politically, socially or economically over the medium to longer term. Of this, we are sure.





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