**Austerity and the new age of population health?**

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The Great Recession of 2007/08 saw the largest period of economic downturn since World War II or the Great Depression. The dominant political response was to reduce state spending through cutting back social insurance programmes such as welfare entitlements or health care provision. The arguments put forward for austerity were to encourage economic growth through stabilising public finances and focusing investment on the private sector.

Both the recession and subsequent period of austerity were large scale societal events that affected whole populations (to varying degrees) and each had the potential to affect trends in population health. What became evident was that the impact of the recession on population health was not as severe as that due to austerity. Some outcomes such as suicide (particularly middle aged males) rose during the recession in many countries including Greece [1], Italy [2], UK [3], and USA [4]. However, few other changes in population health were observed in large quantities consistently across countries.

This is nothing new. Stuckler and Basu [5] demonstrate that during previous recessions populations do not die in large numbers because the economy has faltered in the short term. In fact, paradoxically, recessions can actually be beneficial for population health (although I wouldn’t recommend them as a policy intervention!). For example in the US, vehicle-related fell during (and after) the 2007/08 Great Recession as people opted to make fewer trips to save resources [4]. Rather it is how society and governments respond to a recession (particularly regarding fiscal policy) that has a large impact on their populations.

The impact of austerity on health has been well document across Europe. Many countries have cut back on their provision of health care [6], or increased costs to patients [7]. Some of these impacts were largely expected, but others such as HIV outbreaks in Greece due to cuts in preventive measures were not [5]. These effects have been far reaching to the extent that its impact has not been completely tied to specific austerity measures, with indirect effects also arising through rising anxiety and poorer wellbeing partly associated to the wider political climate [8]. Other impacts such as rising unemployment, declining wage growth in real terms, rising costs of food, and loss of services are difficult to quantify and their effects may only be detected in time.

The UK embraced austerity the most in Western Europe, with widespread cuts to welfare and public services particularly health care and adult social care. It also happened to experience its largest annual spike in mortality rates for almost 50 years in 2015 [9-11]. The majority of these deaths occurred in the frail elderly. This was not just a one off event – mortality rates have remained almost as high throughout 2016 and into 2017 [12]. Various explanations have been proposed but each fail to explain the increase – that is all bar the austerity argument which becomes even more convincing given the wider impacts of austerity occurring elsewhere [9,11]. In fact the magnitude of the jump was so large (estimated to be an additional 39,074 deaths by Green et al. [9]) that one researcher claimed that they must be due to a new undiscovered disease because that was a more plausible explanation [13]!

The experience in the UK is unique, but not too dissimilar to what we see across Western Europe. Figure 1 examines the change in life expectancy between 2011 and 2015, compared to the change in government spending over the same period (as a measure of level of austerity). There is a positive correlation (r = 0.49) – countries which saw a growth in the size of the state saw larger increases in life expectancy over the period. Both Finland and Norway maintained their levels of social spending resulting in the preservation of their strong welfare states – unsurprisingly they experienced the largest increase in life expectancy over the period.



**Figure 1:** Change in life expectancy and general government expenditure (as a percentage of overall Gross Domestic Product) across Western Europe, 2011-15. Key: AUS – Austria, BEL – Belgium, DEN – Denmark, POR – Portugal, SWI – Switzerland, UK – United Kingdom. Source of data: EUROSTAT.

These trends in life expectancy though are unprecedented times. The great success of the 20th Century was the continual improvement in population health. Take the UK for instance; estimated life expectancy in 1800 was 38.6 and 100 years later had increased to 46.3 in 1900 (although the modal age of death was 68). Contrast this to the experience 100 years later where life expectancy had shot up to 77.8 by 2000 [14]. The average change in life expectancy of the countries in Figure 1 between 2011 and 2015 was 0.41 – for the five years previous (2006-10) it was twice as large (0.84). Germany’s experience (an increase of 0.1 years between 2011 and 2015) might have been different though without its high levels of young and healthy migrants.

That being said, the argument could be made that the UK, Finland and Norway are clear outliers. Removing them produces a correlation of r = -0.60 suggesting that austerity is beneficial to population health. Understanding the uncertainty in responses of countries to austerity programmes is important. The drivers of trends in life expectancy and health often operate on long time scales, and it may take several years or decades to truly understand what the effects of austerity were.

One common explanation for the declining gains in life expectancy is that we are starting to witness the impacts of ‘ageing populations’. A greater share of most affluent nation’s population are aged 65+ and it is plausible that since ill health is concentrated in the elderly such a population shift may impact on population health. However, such an impact is often overstated [15]. The post-war baby boomers had not reached the ages where mortality rates increased the largest in the UK [9]. It also misappropriates the underlying cause of trends since while a greater proportion of elderly populations may increase demand on health services, issues will only arise if services are underfunded.

Focusing solely on these national-level trends conceals within-country differences in health. Many cut backs were targeted at services and social provisions that vulnerable groups such as ethnic minorities, the disabled and the poor are dependent on [8]. There is emerging evidence of these effects taking hold. Despite long-term declines in infant mortality, trends have now reversed for manual occupational groups in the UK [16]. There has been declining mental health among insecure employees and the unemployed in Spain [17] and Sweden [18], which may be partly explained by housing worries such as the financial strain of rent/mortgage payments [19]. Austerity has also increased the level of social inequality for access to medical care in Greece [20]. However, there is a paucity of evidence and we need greater insight into how austerity affects different populations as new data becomes available. In particular, much of the current evidence base is derived from repeated cross-sectional data and there is a need for longitudinal analyses to separate out cause and effect of the impact of austerity.

Any investigation of social inequalities should not focus purely on the bottom of society. The social gradient operates throughout the whole social distribution. Austerity measures are not always targeted solely at the most vulnerable in society (even if that is where they are concentrated), but are affecting the middle classes as well. What was surprising about the jump in mortality rates observed in England and Wales was that they occurred everywhere – in affluent and poor areas [9]. Austerity harms everyone – when you are frail and dependent on others, your income matters less if the support you need has been cut back in availability or quality.

Despite the early evidence of changing trends in population health (and other associated impacts of austerity), austerity remains the primary policy discourse in many countries.  In fact the economic argument for austerity is in tatters. Those countries which responded with stimulus (e.g. US or Iceland) saw their economies grow more than those who opted for austerity [5,8]. Even the IMF, once in favour of austerity, are now arguing that austerity does more harm than good [21]. The emergence of new populist movements in some countries under an anti-austerity banner has begun to gain some traction particularly among younger populations. But it does provoke some troubling questions of the extent governments will continue. Evidence no longer seems to matter to the proponents of austerity [8].

These trends in health and mortality raise questions about what the future holds for trends in population health. Omran’s [22] Epidemiological Transition theory predicted that mortality rates might fluctuate in post-industrial societies. It now seems possible that we might be entering a new age of population health characterised by the instability of population health largely dictated by the social and political determinants of health. Only time will tell if this is the case; it has almost been a decade since the 2007-08 Great Recession. There is still time for governments to intervene and avoid a sustained period of declining life expectancy.

**Conflict of interests**

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