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Perspective

Austerity and health in Europe^{☆,☆☆}

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ABSTRACT

Many European governments have abundantly cut down public expenditure on health during the financial crisis. Consequences of the financial downturn on health outcomes have begun to emerge. This recession has led to an increase in poor health status, raising rates of anxiety and depression among the economically vulnerable. In addition, the incidence of some communicable diseases along with the rate of suicide has increased significantly. The recession has also driven structural reforms, and affected the priority given to public policies. The purpose of this paper is to analyse how austerity impacts health in Europe and better understand the response of European health systems to the financial crisis.

The current economic climate, while challenging, presents an opportunity for reforming and restructuring health promotion actions. More innovative approaches to health should be developed by health professionals and by those responsible for health management. In addition, scientists and experts in public health should promote evidence-based approaches to economic and public health recovery by analyzing the present economic downturn and previous crisis. However, it is governance and leadership that will mostly determine how well health systems are prepared to face the crisis and find ways to mitigate its effects.

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1. Introduction

The economic downturn has affected much of Europe severely. In 2009 real gross domestic product (GDP) growth rate fell in European Union Member States with a mean decrease of 4.3% [1]. In parallel, unemployment increased considerably from 7.2% in 2007 to 11% in July 2013,

although unemployment rates have varied widely from lows of 4.8% and 5.3% in Austria and Germany, to 26.3% and 27.6% in Spain and Greece respectively [1]. Because of the European sovereign-debt crisis, many European Union Member States have adopted harsh austerity policies and have substantially cut down in public expenditure. Growth in health spending per capita fell in real terms in 2010 in almost all European countries, reversing a trend of steady increases. Namely, from an annual average growth rate of 4.6% per year between 2000 and 2009, towards a fall in health spending per capita of 0.6% in 2010 [2]. As a result of the downturn in health spending in 2010, the percentage of GDP devoted to health stabilised or declined slightly in many EU Member States. Nonetheless in 2010, European Union Member States devoted on average 9.0% of their GDP to health spending, up significantly from 7.3% in 2000, but down slightly from the peak of 9.2% in 2009 [3].

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The consequences of the economic crisis on health have not been overlooked within various non-governmental institutions and by many policy makers throughout the world. For example, the World Health Organisation (WHO) identified the importance of awareness of the risks for health and health systems, but also the opportunities for action that the crisis entails by introducing a resolution in 2009 which invites European Union Member States to ensure that their health systems continue to demonstrate effectiveness, and to act as wise economic actors in terms of investment, expenditure and employment [4]. Furthermore, the WHO has recently noted the diversity in health policies being pursued by EU Member States following the onset of the financial crisis [5]. The economic downturn receives a lot of attention within the European Institutions. The European Parliament has appointed a new specific committee (CRIS Committee) in order to analyse the causes and consequences of the current crisis, the costs of inaction, and possible ways to overcome the crisis and to prevent any repeat [6]. In addition, recently the Council of the European Union invited Member States and the European Commission to reflect on effective ways to invest in health. Therefore, different working groups have been set up to issue a response, working on an effective use of structural funds, on cost-effective use of medicines, integrated care and hospital management and monitoring the effectiveness of health investment in the European Union [7]. Another example of the attention to austerity and health by the European Institutions has been given by STOA, the Science and Technology Options Assessment body of the European Parliament. In collaboration with the European Observatory on Health Systems and Policies, – an international partnership hosted by the WHO Regional Office for Europe – STOA organised a workshop to analyse the role of evidence in promoting and strengthening public health against the economic crisis [8–11]. The economic downturn has raised major concerns that the function of health systems in different European Union countries could be compromised by reduced health budgets. However, it is necessary to note that some studies, primarily carried out by economists in high-income countries, find that health conditions may improve rather than decline in economic downturns. Recession might improve health at least in the short run, because it is associated with a reduction in road-traffic fatalities, a decrease in exposure to hazardous working conditions and other causes [12–15]. Nevertheless, compared with wealthier groups, the health of population groups particularly hard hit in economic terms is likely to suffer potentially leading to wide health inequities. Economic shocks, whether positive or negative, have in the past often been associated with increased rates of common mental health problems as well as suicidal behaviour [15].

Quantifying the health effects of the crisis is difficult for many reasons, not least the delay or lack in collecting data on the health status from a number of European Union countries. For each argument of the present commentary we tried to provide a link between crisis and consequence on health. However, there is also a component of interpretation and opinion that supports each reference. We also acknowledge the difficulty of saying

with certainly how responses to the crisis have affected health systems. Nevertheless, the paper seeks to contribute towards a better understanding of the importance of health policies within the European Union during the current crisis.

2. The response of European health systems to austerity

Reductions in public spending on health were achieved through different measures throughout the European Union. In countries such as Greece, which have been hardest hit, the budget for health programmes has faced real-term cuts. In this country public health expenditure was reduced from 9.8% of the GDP pre-crisis to 6% of GDP post-crisis, inducing more than 100 Greek academics and medics to sign a public letter to Greek politicians expressing their serious concerns [16]. Several countries including Ireland, Romania, Slovenia and the United Kingdom (UK) have frozen or reduced wages, and/or have cut or not replaced posts [17]. Increasing user charges has been another way in which to meet the challenge of austerity. Some Member States instituted or increased user charges for households. For example, in Portugal, user charges roughly doubled (including fees at emergency departments) [18]. They are the most significant source of support for health expenditure beyond taxes and/or social insurance [3]. However these charges are often criticised because their potential for cost saving and increasing efficiency appears limited [19]. In addition a huge collection of literature suggests that individuals' disposition to seek care may decline when these individuals have reduced financial resources to pay for it [20–22]. Evidence from developing countries is paradigmatic at this regard [23]. While is not possible to predict long-term consequences in reductions of medical care, today's penny-pinching might lead to tomorrow's undetected illness [24].

The economic downturn has also acted as a catalyst for structural reform, such as the closure or merger of hospitals and a greater focus on outpatient and primary care. In Italy the number of hospital beds fell to 4.1 per 1000 in 2010, below the European average of 5.5 per 1000 inhabitants [25]. However, a reduction in beds needs to be matched by adequate investment in the infrastructure for public health, health promotion, and primary care services. This comes at a time when Italy is also facing the risk of a major reduction in investments for preventive medicine, infrastructures, and health information systems [26,27]. In addition, *due to* the significant contribution of pharmaceuticals to total health expenditure (25% in Greece (2007), 21% in Portugal (2008) and 17% in Ireland (2009)) [28,29], the pharmaceutical sector was asked to contribute to the effort to reduce costs in some countries. Measures observed include reductions in prices paid to manufacturers, as well as changes in co-payments, distribution margins and VAT rates [30].

3. The consequence for health

Looking to previous international economic crises (for example the Great Depression in 1929, the collapse of the Soviet Union in 1991, the South East Asian financial crisis

in the late 1990s, etc.), can be useful for understanding the public health effects of this crisis, and for anticipating or mitigating the consequences [31–34]. Nevertheless, it is not so easy to learn from previous crises [35], because each crisis was different and the public health effects of economic downturns depend on several key issues. Such as the scale of the crisis, the nature of government responses, the pre-existing conditions before the crisis, the extent to which populations are exposed, among others [17]. Despite these limitations, a range of existing studies have examined the impact of this recession in Europe and found a series of negative effects.

Consequences for health and health care in Greece are well described by Ifanti and Colleagues in this issue of the journal [36]. However, problems are also common in other European countries. In the UK for example, the number of people self-reporting 'bad' or 'very bad' health rose by 3.8% between July 2009 and December 2010 [37]. Unemployment can often increase anxiety and stress-related conditions [38]. In Spain, the rates of people seeking primary care in hospitals for mood, anxiety, somatoform, and alcohol-related disorders rose during the recessionary period. About one third of this increased risk could be attributed to the threat of unemployment and/or housing foreclosure [39]. Reports from Italy, the UK and some other European countries, have observed that, there has been a reversal of the downward trend in the suicide rate concurrent with increasing unemployment [40–44]. However, caution should be exercised when looking at suicide data, both because of the time lag between recessionary events and the publication of official suicide data, and secondly because some of the countries most affected by the crisis such as Spain have seen a fall in their suicide rates since 2009 [45], while overall rates in Ireland have also changed little [46]. Suicidal event data can act as a barometer for the crisis. It is, however, a very blunt instrument that only represents the tip of the iceberg. It probably underestimates the broader mental health crisis linked to increased rates of stress, anxiety and depression among populations who are most vulnerable to economic volatility.

Rising incidence rates among some communicable diseases have also been observed during the current recession. A cross-national review suggested that economic crises worsen infectious disease outcomes [47]. During the last 3 years for example, Greece has been suffering from a high burden of different large-scale epidemics. Between 2007 and 2010, 10–15 new HIV infections were reported yearly among injecting drug users; this number increased to 256 in 2011, and to 314 in the first 8 months of 2012 [48,49]. An increase of new HIV infections in this population was also reported in 2011 in Romania. While reporting 3 to 5 cases annually from 2007 to 2009, HIV infections among injecting drug users increased to 12 cases in 2010 and to 62 cases in 2011. While in 2011, 15% (62/405) of the reported HIV infections were found among them, this had been only 3% (12/440) in 2010 and 1% (5/428) in 2009 [50]. Additional reports on the health situation showed a decline in other health conditions. Stillbirth rates in Greece continuously decreased over 42 years, from 16.03/1000 live births in 1966 to a low of 3.31/1000 in 2008. In 2009–2010, this changed dramatically. The stillbirth rate increased to 4.28

in 2009 and 4.36 in 2010 – an increase of 32% between 2008 and 2010 [51]. In northern Italy, rates of first admission for heart attack increased dramatically in 2011, one possible consequence of the stress related to the crisis [52].

The health effects of the financial crisis also concern other areas not routinely associated with healthcare, such as alcohol abuse, homicide, and road traffic accidents. Recessionary periods across the European Union Member States between 1970 and 2007, show that a 1% rise in the unemployment rate is associated with a 0.79% rise in the homicide rate. Most strikingly, a 3% rise in the unemployment rate was associated with a 28% increase in deaths from alcohol abuse [53]. In the last six years, unemployment increased substantially in many European Union Member States, suggesting that similar effects might be observed during this crisis as well as prior crises. In contrast, past recessions have been associated with a reduction in road traffic accidents and increases in physical activity due to the costs of transportation. Such recessions have also potentially increased time spent with family and friends. In the current downturn for instance road traffic fatalities have continued to fall in all EU countries [54], but it will be difficult to determine whether there will be any long term impacts associated with any changes in physical activities.

4. Austerity: a window for promotion, prevention and innovation?

The promotion of good health and wellbeing are essential elements of all health systems; poor health and wellbeing has consequences that go well beyond the health system and have wider negative impacts on the economy. This is particularly true because evidence from some past economic shocks suggests that these adverse impacts can be long lasting [55]. Despite the importance of health promotion, countries do not appear to spend much on prevention from within their health care budgets. Cyclically, when health care budgets have been under pressure, health promotion and public health have been among the first areas where cuts have been made. On average health promotion and disease prevention accounted for just 3% of health care expenditure in OECD EU countries in 2010 [2], although it is important to recognise that many health promoting actions take place outside of the health sector (such as in kindergartens, schools, workplaces and the housing system). Pressure on budgets is not confined to health systems alone and some European countries have had to make substantial reductions in some areas of public expenditure which may also increase risks to health [56]. It is therefore vital to both strengthen and make use of existing evidence on the cost effectiveness of measures to alleviate the impact of economic shocks on health.

The aforementioned increased risks to physical and mental wellbeing at times of economic crisis further emphasise the importance of careful investment in cost effective interventions. The most immediate impacts of economic shocks are on psychological wellbeing, risks of suicidal behaviour and inter-personal violence. Many cost effective actions to protect mental health can be implemented outside the health care system [57]. But also socio-economic health risk factors related to poverty, such

as food-related or housing conditions, are critical at a time of economic recession, and require attention to promote and protect health. Different approaches will be required in different countries depending on resources available and populations that are most at risk. One key area concerns active labour market programmes which help people to stay in work or provide support to help them re-enter the labour market [58,59]. Not only do these active labour market programmes provide health assets and bolster resilience but they can also promote economic growth [58]. Combinations of different interventions, including tax reforms, as well as restrictions on sales and advertising, can be cost effective in tackling harmful alcohol use, including binge drinking and inter-personal violence, across Europe [60]. Another area with evidence on long-term cost effectiveness concerns continued investment in interventions at an early age, both to support families that may be in stress due to their socio-economic circumstances, as well as measures to promote the emotional health and resilience of children and adolescents [60,61].

The timely availability of data is particularly relevant when health authorities are asked to react quickly and yet relevant health data has often been published 2 years behind other financial accounts [62]. This particularly concerns trends in suicides where data from 2010 to 2011 are only now becoming available in many countries. There may be scope for better information flows at the European level, analyzing the phenomena on which the crisis may exert major effects. It is also the case that the crisis has had different effects on health in different countries; it is important to better understand what protective factors may be in place and have a flexible approach to action, as required in different contexts.

The current economic climate while challenging, presents opportunities for restructuring interventions over the long term. Ways to reduce inappropriate care need to be better implemented. For example avoiding unnecessary hospital admissions and shortening hospital stays is becoming a priority [63]. Hospitalisations due to uncontrolled diabetes are too high throughout Europe [3]. Chronic obstructive pulmonary diseases are preventable or may be managed by preventive interventions, avoiding hospitalisation [64]. Alternatives to conventional hospitalisation include day centres [65,66], quick diagnosis units [67], hospital at home [68] and, in some circumstances, tele-monitoring [69]. These measures, when accurately utilised, not only may reduce costs, but also increase patient comfort and improve efficiency. Better use of laboratory tests can be encouraged. A recent study from Italy showed that an appropriate use of pathology-specific laboratory profiles (a battery of tests) can decrease total prescriptions, suggesting a more appropriate use of tests and a better allocation of resources [70]. Roughly 30% of the out-patient laboratory tests are ordered without a definite diagnosis (“just to check, to reassure the patients, or because lab tests should be done at least once a year”, etc.) [70–72]. Inappropriate medication prescriptions is another possible area of intervention: approximately one in five prescriptions to older people in primary care is inappropriate [73]. As already mentioned, some countries used the crisis to cut costs in the pharmaceutical sector, strengthening their

position in price negotiations with pharmaceutical companies. This needs to be pursued. However, in this sector more could be promoted. For example it is hard to explain the reasons in this time of crisis for observed delays in the entry of generic medicines to the market or why the cost of drugs purchased by hospitals could be much different from hospital to hospital even within the same country [74].

There are also opportunities to think about health issues more holistically, recognising that the costs and benefits of actions go across many sectors. Addressing these issues from a sector specific perspective leads to missed opportunities for the implementation of effective actions. For instance, there are opportunities for innovative approaches to protecting health outside the health sector, such as investing in measures to reduce the risks of unmanageable debt [75]. Measures, including financial advice from non-commercial organisations to help individuals deal with problem debt, can improve mental health outcomes [76]. Within the health system as well, the current economic downturn could bring together clinical medicine and public health in more mutually beneficial ways that could improve health and allow for more efficient health system spending [77]. In doing all of this however, it is important to determine efficiency and cost effectiveness. Therefore, cooperation between European countries is essential: it allows synergies and benchmarking and provides proper evidence for action, in identifying best practice cases, which can be transposed and adapted to different systems.

5. Conclusions

The on-going financial and economic crisis impacts health in a variety of ways. Primarily, factors which determine health but also socio-economic status could support population health and social wellbeing [19]. On one hand, health professionals and those responsible for health management systems need to be more proactive with new innovative approaches, for example reducing inappropriate admissions and stays, based on careful analysis of data and causes of inappropriateness. In addition, scientists and experts in public health should also be able to promote an evidence-based approach to economic and public health recovery, analyzing past successes and failures [78]. Attention must be paid to the new EU Framework programme for research and innovation 2014–2020 (Horizon 2020) as it appears that health research questions concerning, among others, the quality and safety of health care, the financial feasibility, and productivity of health systems are failing the test of attention within this new framework [79].

On the other hand, policy makers need to be well aware that these interventions need to be assessed in the light of health systems objectives. Historical evidence suggests that in times of economic crisis, policies of cutbacks can further jeopardise population health [47,80]. At the same time they have to be conscious of the consequences for health outcomes and the importance of investing in health to boost the economy. During the present economic crisis, there are examples of European governments whose health policies try to guarantee standard of their health system. These include policies which try to maintain public funding for the health system, raising contributions

and broadening the revenue base, (as in the Netherlands), or targeting to protect people with low incomes (as in Portugal). In other cases policies provide major impetus in enhancing efficacy, strengthening pharmaceutical policy (Austria, France, Greece), consolidating primary care access and quality (Italy, UK, Lithuania), restructuring the health system (Denmark, Bulgaria, Spain), and encouraging a cost-effective investment in health goods, services and technologies (UK, Belgium, Portugal) [81].

Healthcare is frequently represented only as a drain of resources, but it can represent a sector which would drive economic growth [82–84]. As one of the largest service industries, the health sector represents one of the most important sectors in developed economies. Currently its output accounts for about 9% of GDP in the EU-28, and around 10% of all workers in the European Union belong to the health and welfare sector. Through efficiency in productivity the health sector, could have an important impact on performance measures in economies as a whole [83,85]. The disease burden in developed countries is mainly driven by lifestyle-related factors, and consequently, health, education, and cultural factors are closely related. Therefore, health investment should involve measures addressing issues outside the influence of the traditional healthcare systems [83].

There is growing evidence that negative impacts on health can be moderated by appropriate investment in social protection, public health and health promotion, in addition to healthcare provision. While there is a consensus that data and evidence should underpin the formulation of austerity policies, it is governance and leadership that will mostly determine how well health systems are prepared to face the crisis and find ways to mitigate its effects. However what we should not permit in the European Union is that inequity in access to health services marked deep inequalities in health outcomes [86]. It could represent an additional element of discrimination and unacceptable difference among European Union Member States.

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References

- [1] European Commission. Eurostat; 2013 <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>
- [2] OECD Health Data. Eurostat statistics database. Frequently requested data; 2012 <http://www.oecd.org/health/health-systems/oecdhealthdata2012-frequentlyrequesteddata.htm>
- [3] OECD indicators. Health at a glance; 2011 <http://www.oecd.org/health/health-systems/49105858.pdf>
- [4] WHO Regional Office for Europe. Resolution. Health in times of global economic crisis: implications for the WHO European Region; 2009 http://www.euro.who.int/_data/assets/pdf_file/0005/68945/RC59_eres03.pdf
- [5] WHO Regional Office for Europe. Draft Interim report on implementation of the Tallinn Charter; 2011 http://www.euro.who.int/_data/assets/pdf_file/0019/134470/08E_InterimTallinn.110515-V2.pdf
- [6] European Parliament. Special committee on the financial, economic and social crisis. <http://www.europarl.europa.eu/document/activities/cont/201109/20110901ATT25750/20110901ATT25750EN.pdf>
- [7] Eur-Lex. Official Journal of the European Union. Commission Decision of 5 July 2012 on setting up a multisectoral and independent expert panel to provide advice on effective ways of investing in health (2012/C 198/06). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:198:0007:0011:EN:PDF>
- [8] Science and Technology Options Assessment (STOA). <http://www.europarl.europa.eu/stoa/cms/cache/offonce/home/about;jsessionid=0F484293E2C85B8987AE4C8D26C16CB2>
- [9] European Observatory on Health Systems and Policies. <http://www.euro.who.int/en/who-we-are/partners/observatory>
- [10] Science and Technology Options Assessment (STOA). Strengthening health protection in times of economic crisis: increasing the evidence-base. http://www.europarl.europa.eu/stoa/cms/home/events/workshops/2013_health
- [11] McDaid D, Quaglio GL, Correia de Campos A, Dario C, Van Woensel L, Karapiperis T, et al. Health protection in times of economic crisis: challenges and opportunities for Europe. *Journal of Public Health Policy* 2013. <http://dx.doi.org/10.1057/jphp.2013.35>.
- [12] Gerdtham U, Ruhm C. Deaths rise in good economic times: evidence from the OECD. *Economics and Human Biology* 2006;4:298–316.
- [13] Ruhm C. A healthy economy can break your heart. *Demography* 2008;44:829–48.
- [14] Tapia-Granados J. Macroeconomic fluctuations and mortality in post-war Japan. *Demography* 2008;45:323–43.
- [15] Suhrcke M, Stuckler D. Will the recession be bad for our health? It depends. *Social Science & Medicine* 2012;74:647–53.
- [16] Kakouli T, Akritas A, Albrecht-Piliouni E, Almpoura E, Denis VS, Anastassopoulou I, et al. “Troika” mandated austerity and the emerging healthcare crisis in Greece: an open letter to the Greek government. *British Medical Journal* 2013;346:f2807. <http://dx.doi.org/10.1136/bmj.f2807>.
- [17] Mladovsky P, Srivastava D, Cylus J, Karanikolos M, Evetovits T, Thomson S, et al. Health policy in the financial crisis. *Quarterly of the European Observatory on Health systems and policies*. *Eurohealth* 2012;18:3–6.
- [18] Barros PP. Health policy reform in tough times: the case of Portugal. *Health Policy* 2012;106:17–22.
- [19] Karanikolos M, Mladovsky P, Cylus J, Thomson S, Basu S, Stuckler D, et al. Financial crisis, austerity, and health in Europe. *Lancet* 2013;381:1323–31.
- [20] Adler NE, Ostrove JM. Socioeconomic status and health: what we know and what we don't. *Annals of the New York Academy of Sciences* 1999;896:3–15.
- [21] Williams DR, Collins C. US socioeconomic and racial differences in health: patterns and explanations. *Annual Review of Sociology* 1995;21:349–86.
- [22] Feinstein JS. The relationship between socioeconomic status and health: a review of the literature. *Milbank Quarterly* 1993;71:279–322.
- [23] Lagarde M, Palmer N. The impact of user fees on access to health services in low- and middle-income countries. *Cochrane Database of Systematic Reviews* 2011;(4):CD009094. <http://dx.doi.org/10.1002/14651858.CD009094>.
- [24] Lusardi A, Schneider D, Tufano P. The economic crisis and medical care usage. http://www.dartmouth.edu/~alusardi/Papers/healthcare_031610.pdf
- [25] Italian Ministry of Health. Statistics yearbook 2010; 2013 http://www.salute.gov.it/imgs/C_17_pubblicazioni_1933_allegato.pdf
- [26] Paterlini M. Italy's health system reforms on hold. *Lancet* 2013;381:1085–6.
- [27] de Belvis AG, Ferrè F, Specchia ML, Valerio L, Fattore G, Ricciardi W. The financial crisis in Italy: implications for the healthcare sector. *Health Policy* 2012;106:10–6.
- [28] The World Health Organisation. Health for all database 2012; 2013 <http://data.euro.who.int/hfad/b/>
- [29] Vondros S, Stargardt T. Reforms in the Greek pharmaceutical market during the financial crisis. *Health Policy* 2013;109:1–6.
- [30] Vogler S, Zimmermann N, Leopold C, de Joncheere K. Pharmaceutical policies in European countries in response to the global financial crisis. *Southern Medical Review* 2011;4:69–79.

- [31] Lipton D, Sachs JD. Privatization in Eastern Europe: the case of Poland. *Brookings Papers on Economic Activity* 1990;20:293–341.
- [32] King L. Shock privatization: the effects of rapid large-scale privatization on enterprise restructuring. *Politics & Society* 2003; 3:3–34.
- [33] Hopkins S. Economic stability and health status: evidence from East Asia before and after the 1990s economic crisis. *Health Policy* 2006;75:347–57.
- [34] Stuckler D, Basu S. *The Body Economic: why austerity kills*. New York: Basic Book Publisher; 2013.
- [35] Stuckler D, Basu S, Suhrcke M, McKee M. The health implications of financial crisis: a review of the evidence. *The Ulster Medical Journal* 2009;78:142–5.
- [36] Ifanti AA, Argyriou AA, Kalofonou FH, Kalofonos HP. Financial crisis and austerity measures in Greece: their impact on health promotion policies and public health care. *Health Policy* 2013. <http://dx.doi.org/10.1016/j.healthpol.2013.05.017>, pii: S0168-8510(13)00154-1.
- [37] Astell-Burt T, Feng X. Health and the 2008 economic recession: evidence from the United Kingdom. *PLoS ONE* 2013;8:e56674.
- [38] Minton JW, Pickett KE, Dorling D. Health, employment, and economic change, 1973–2009: repeated cross sectional study. *British Medical Journal* 2012;344:e2316. <http://dx.doi.org/10.1136/bmj.e2316>.
- [39] Gili M, Roca M, Basu S, McKee M, Stuckler D. The mental health risks of economic crisis in Spain: evidence from primary care centres, 2006 and 2010. *European Journal of Public Health* 2013; 23:103–8.
- [40] De Vogli R, Marmot M, Stuckler D. Excess suicides and attempted suicides in Italy attributable to the great recession. *Journal of Epidemiology and Community Health* 2013;67:378–9.
- [41] Reeves A, Stuckler D, McKee M, Gunnell D, Chang SS, Basu S. Suicide, recession, and unemployment? Authors' reply. *The Lancet* 2013;381:722.
- [42] Rihmer Z, Kapitany B, Gonda X, Dome P. Suicide, recession, and unemployment. *The Lancet* 2013;381:722–3.
- [43] Fountoulakis KN, Savopoulos C, Siamouli M, Zaggelidou E, Mageirias I, Iacovides A, et al. Trends in suicidality amid the economic crisis in Greece. *European Archives of Psychiatry and Clinical Neuroscience* 2013;263:441–4.
- [44] Fountoulakis KN, Koupidis SA, Siamouli M, Grammatikopoulos IA, Theodorakis PN. Suicide, recession, and unemployment. *Lancet* 2013;381:721–2.
- [45] Spanish National Institute of Health Statistics. Death statistic according to cause of death; 2013 <http://www.ine.es/jaxi/menu.do?type=cpxis&path=/t15/p417/&file=inebase>
- [46] Irish Central Statistic Office (CSO); 2013. <http://www.cso.ie/en/>
- [47] Suhrcke M, Stuckler D, Suk JE, Desai M, Senek M, McKee M, et al. The impact of economic crises on communicable disease transmission and control: a systematic review of the evidence. *PLoS ONE* 2011;6:e20724.
- [48] European Centre for Disease Prevention and Control. Technical report: risk assessment on HIV in Greece; 2012 <http://ecdc.europa.eu/en/publications/Publications/20121130-Risk-Assessment-HIV-in-Greece.pdf>
- [49] Kondilis E, Giannakopoulos S, Gavana M, Ierodiakonou I, Waitzkin H, Benos A. Economic crisis, restrictive policies, and the population's health and health care: the Greek case. *American Journal of Public Health* 2013;103:973–9.
- [50] European Monitoring Centre for Drugs and Drug Addiction. *European Drug Report 2013: trends and developments*. Luxembourg; 2013.
- [51] Vlachadis N, Kornarou E. Increase in stillbirths in Greece is linked to the economic crisis. *British Medical Journal* 2013;346. <http://dx.doi.org/10.1136/bmj.f1061>.
- [52] Costa G, Marra M, Salmaso S, Bena A, Dalmaso M, diErrico A, et al. Health indicators in the time of crisis in Italy. *Epidemiologia & Prevenzione* 2012;36:337–66.
- [53] Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. *Lancet* 2009;374:315–23.
- [54] European Commission. http://ec.europa.eu/transport/road_safety/pdf/observatory/historical_evol.pdf
- [55] Hong J, Knapp M, McGuire A. Income-related inequalities in the prevalence of depression and suicidal behaviour: a 10-year trend following economic crisis. *World Psychiatry* 2011;10: 40–4.
- [56] BBC News Europe. EU austerity drive country by country; 2012 <http://www.bbc.co.uk/news/10162176>
- [57] Wahlbeck K, McDaid D. Actions to alleviate the mental health impact of the economic crisis. *World Psychiatry* 2012;11:139–45.
- [58] Martin JP, Grubb D. What works and for whom: a review of OECD countries' experiences with active labour market policies. *Swedish Economic Policy Review* 2001;14:9–56.
- [59] Clayton S, Bamba C, Gosling R, Povall S, Misso K, Whitehead M. Assembling the evidence jigsaw: insights from a systematic review of UK studies of individual-focused return to work initiatives for disabled and long-term ill people. *BMC Public Health* 2011;11:170. <http://dx.doi.org/10.1186/1471-2458-11-170>.
- [60] McDaid D, Park AL. Investing in mental health and well-being: findings from the DataPrev project. *Health Promotional International* 2011;26(Suppl. 1):i108–39. <http://dx.doi.org/10.1093/heapro/dar059>.
- [61] Mihalopoulos C, Vos T, Pirkis J, Carter R. The economic analysis of prevention in mental health programs. *Annual Review of Clinical Psychology* 2011;7:169–201.
- [62] McKee M, Karanikolos M, Belcher P, Stuckler D. Austerity: a failed experiment on the people of Europe. *Clinical Medicine* 2012;12:346–50.
- [63] Pericás JM, Aibar J, Soler N, López-Soto A, Sanclemente-Ansó C, Bosch X. Should alternatives to conventional hospitalisation be promoted in an era of financial constraint? *European Journal of Clinical Investigation* 2013;43:602–15.
- [64] Menn P, Heinrich J, Huber RM, Jorres RA, John J, Karrasch S, et al. Direct medical costs of COPD—an excess cost approach based on two population-based studies. *Respiratory Medicine* 2012;106:540–8.
- [65] Banerjee P, Tanner G, Williams L. Intravenous diuretic day-care treatment for patients with heart failure. *Clinical Medicine* 2012;12:133–6.
- [66] Raphael JL, Kamdar A, Beavers MB, Mahoney DH, Mueller BU. Treatment of uncomplicated vaso-occlusive crises in children with sickle cell disease in a day hospital. *Pediatric Blood & Cancer* 2008;51:82–5.
- [67] Bosch X, Moreno P, Rios M, Jordan A, Lopez-Soto A. Comparison of quick diagnosis units and conventional hospitalization for the diagnosis of cancer in Spain: a descriptive cohort study. *Oncology* 2012;83:283–91.
- [68] Shepperd S, Doll H, Broad J, Gladman J, Iliffe S, Langhorne P, et al. Early discharge hospital at home. *Cochrane Database of Systemic Review* 2009;(1):CD000356. <http://dx.doi.org/10.1002/14651858.CD000356.pub3>.
- [69] Polisena J, Tran K, Cimon K, Hutton B, McGill S, Palmer K, et al. Home telemonitoring for congestive heart failure: a systematic review and meta-analysis. *Journal of Telemedicine and Telecare* 2010;16:68–76.
- [70] Baricchi R, Zini M, Nibali MG, Vezzosi W, Insegnante V, Manfuso C, et al. Using pathology-specific laboratory profiles in clinical pathology to reduce inappropriate test requesting: two completed audit cycles. *BMC Health Services Research* 2012;12:187. <http://dx.doi.org/10.1186/1472-6963-12-187>.
- [71] Van Walraven C, Naylor CD. Do we know what inappropriate laboratory utilization is? A systematic review of laboratory clinical audits. *The Journal of the American Medical Association* 1998;280:550–8.
- [72] van Wijk MA, van der Lei J, Mosseveld M, Bohnen AM, van Bemmel JH. Compliance of general practitioners with a guideline-based decision support system for ordering blood tests. *Clinical Chemistry* 2002;48:55–60.
- [73] Opondo D, Eslami S, Visscher S, de Rooij SE, Verheij R, Korrevaar JC, et al. Inappropriateness of medication prescriptions to elderly patients in the primary care setting: a systematic review. *PLoS ONE* 2012;7(8):e43617. <http://dx.doi.org/10.1371/journal.pone.0043617>.
- [74] European Commission. Executive summary of the pharmaceutical sector inquiry report; 2009 http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/communication_en.pdf
- [75] Meltzer H, Bebbington P, Brugha T, Farrell M, Jenkins R. The relationship between personal debt and specific common mental disorders. *European Journal of Public Health* 2013;23:108–13.
- [76] Evans-Lacko S, Brohan E, Mojtabai R, Thornicroft G. Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. *Psychological Medicine* 2012;42:1741–52.
- [77] Stine NW, Chokshi DA. Opportunity in austerity – a common agenda for medicine and public health. *New England Journal of Medicine* 2012;366:395–7.
- [78] Stuckler D, Basu S, McKee M. How government spending cuts put lives at risk. *Nature* 2010;465(7296):289. <http://dx.doi.org/10.1038/465289a>.
- [79] Walshe K, McKee M, McCarthy M, Groenewegen P, Hansen J, Figueras J, et al. Health systems and policy research in Europe: Horizon 2020. *Lancet* 2013. [http://dx.doi.org/10.1016/S0140-6736\(12\)62195-3](http://dx.doi.org/10.1016/S0140-6736(12)62195-3).

- [80] [Stuckler D, Basu S. The International Monetary Fund's effects on global health: before and after the 2008 financial crisis. *International Journal of Health Services* 2009;39:771–81.](#)
- [81] World Health Organization. European Observatory on Health and Systems and Policies. Summary. Health, health systems and economic crisis in Europe. Impact and policy implications; 2013.
- [82] [Katz A. The Sachs Report: investing in health for economic development – or increasing the size of crumbs from the rich man's table, part I. *International Journal of Health Services* 2004;34:751–73.](#)
- [83] Suhrcke M, McKee M, Sauto Arce R, Tsolava S, Mortensen J. European Commission. Directorate General Health and Consumer protection. The contribution of health to the economy in the European Union; 2005 http://ec.europa.eu/health/ph_overview/Documents/health_economy_en.pdf
- [84] [McKee M, Balabanova D, Basu S, Ricciardi W, Stuckler D. Universal health coverage: a quest for all countries but under threat in some. *Value in Health* 2013;16:39–45.](#)
- [85] European Commission. Occupational health and safety risks in the healthcare sector—Guide to prevention and good practice. Luxembourg: Publications Office of the European Union; 2010.
- [86] [Kleinert S, Horton R. Health in Europe—successes, failures, and new challenges. *Lancet* 2013;381:1073–4.](#)