## The relationship between economic crisis and health: are austerity policies the relevant issue?

Relación entre crisis económica y salud: ¿lo relevante son las políticas de austeridad?

La Parra, Daniel<sup>1</sup>; Álvarez-Dardet, Carlos<sup>2</sup>

<sup>1</sup>PhD in Sociology. Researcher, Interuniversity Institute of Social Development and Peace. Tenured Professor, Universidad de Alicante. Spain. daniel.laparra@ua.es

<sup>2</sup>PhD in Medicine. Professor of Public Health, Department of Community Nursing, Preventive Medicine and Public Health and History of Science, Universidad de Alicante, Centro de Investigación Biomédica en Red en Epidemiología y Salud Pública, Spain. carlosalvarezdardetdiaz@gmail.com

**Discussion of:** Tapia Granados JA. The economic crisis and health in Spain and Europe: Is mortality increasing? Salud Colectiva. 2014;10(1):81-91.

The study of the relationship between economic crises and health status is especially interesting in the present moment of economic depression being experienced in a number of European countries. Tapia Granados suggests that "in European countries in general and especially in those most affected by the crisis, general mortality has decreased and the health of the population has improved in 2007-2010" (1). He does so by presenting life expectancy data for 19 European countries in 2004, 2007 and 2010.

The article therefore makes two affirmations: that crises have a positive effect on both "general mortality rates" and "population health." And it may indeed be understood that the general mortality rate or life expectancy (a synthesized indicator of mortality levels) are equivalent to an improvement in population health. However, such a statement contains important nuances that should be addressed.

Life expectancy depends to an important degree on external causes of mortality such as accidents (workplace and traffic accidents, among others), suicides and homicides, the causes of which are not necessarily associated with the state of a person's health. All of these present relatively low levels when compared to other causes of death, but they have an important effect on life expectancy to the extent that these causes appear at young ages. During crises, as highlighted by the author (1), the number of traffic accidents tends to decrease - although in cases such as Spain they were already decreasing before the crisis thanks to road safety measures. The number of work-related accidents also decreases, something which is not mentioned in Tapia's work but is nonetheless very relevant since the crisis has fundamentally affected economic sectors like the construction industry, which has higher accident levels. Suicides, which in fact are related to the mental health state of a person, may increase during economic crises. However, their evolution may be connected - as the author also points out - to specific prevention policies, to the treatment of mental diseases and to other factors, so it is best not to jump to conclusions based on a time series of just a few years (2).

In the same way, an improvement in general mortality rates is compatible with setbacks in the incidence of certain diseases such as HIV, since effective therapeutic mechanisms exist to reduce mortality. It was estimated that cases of HIV rose 60% in Greece during 2011 (3,4).

Finally, there are multiple ailments that do not necessarily translate into higher mortality, but that do cause harm in terms of quality of life. Most psychological problems (for example, depression, anxiety and alcohol dependency) are in this group. Indeed, part of the literature describing the negative effects of the crisis on health has focused on the analysis of this type of aspects (5). Once again, in Greece, the first non-imported malaria outbreak since the 1950s along with an outbreak of West Nile virus were observed (6,7).

As has already been suggested, there may be aspects mediating the relationship between an economic crisis and its effects on mortality. Among the most prominent are found policies related to welfare, but also road safety, prevention of workplace accidents or mental health, and others. This introduces an aspect not considered in the data given by Tapia: What is the scope of the austerity policies in the studied countries? This aspect is actually the main argument of Stuckler and Basu's

thesis (8). For these authors, health may improve during periods of economic downturn, as long as welfare policies are not disregarded, especially active work policies and public health policies.

This intermediating factor may be very relevant when interpreting the data on which Tapia bases his statements (let us remember that they are focused on the data available up to 2010), since countries such as Spain (9) or Greece (10) applied their harshest austerity policies starting in mid-2010 (and the most important Spanish policies related to health services were passed in 2012), while they were applied in a more gradual way in places such as Germany or Sweden before the depression. It should also be considered that some countries have not applied austerity policies but rather have reinforced welfare policies, as explained by Stuckler and Basu for Iceland (8). In the case of Spain, for example, there exists an important diversity of situations in each region, since there are a number of autonomous communities - whose governments bear the responsibility for health matters - that have scarcely applied austerity measures.

Apart from introducing elements into the analysis to evaluate the impact of the harshness of the austerity policies, it would also be necessary to include elements to measure the severity of the economic crisis. Although the gravity of the crisis is considered in Tapia's interpretation of the results, data evaluating the severity was not included in the analysis (except the indicator of unemployment).

Tapia's article chooses the level of unemployment as the main indicator with which to discuss the relationship between crisis and health status, but he does not include aspects related to other key factors such as levels of public health expenditure, housing policy, or even the level of democratic development. A multivariate analysis model might include other potentially important aspects such as poverty rates (there is a variety: multidimensional, absolute, and relative poverty, among others), social expenditure and so on. The possible association between economic crisis and health presented in Tapia's work is not analyzed through any multivariate or bivariate analysis technique, in spite of which he speaks of "a positive correlation between change in unemployment change and gains in life expectancy at birth."

In the same way, the geographical restriction imposed by the data source utilized is relevant. To refer to the European situation data for 19 countries are employed, when the European Union itself is composed of 28 countries and the WHO's Regional Office for Europe includes a total of 53 countries.

The temporal restriction in the data must also be highlighted. The most severe effects of the crisis and the austerity policies have appeared after 2010. Therefore, the series ends too soon to draw conclusions about the effects of the crisis (or the effects of the austerity policies, since the two must not be confused) on specific or general mortality rates, or on health status (which also must not be confused).

Another aspect that was not analyzed is that the effect of the crisis on the health of the population may not be equally distributed. Measures such as those implemented in Spain (for example, excluding from the right to health immigrants without a residence permit, the inclusion of copayments for drugs for the elderly or the increase in copayments for the rest of the population, the exclusion of services or the restriction of aid for dependency) concentrate their effects on specific population groups such as immigrants, pensioners, people with little economic resources, and dependent people and their caregivers. Taking into account that differences in life expectancy can be more than ten years due to factors such as educational level or postal code, it is necessary to include in the analysis and discussion information about the unequal distribution of the impacts.

Finally, exactly as the author himself states, there is no clear theoretical model to explain the reasons behind a possible mortality improvement in moments of crisis. Under these circumstances, any statement should be made cautiously; of course, finding a relationship between variables does not mean discussing them in terms of causality. Without a theoretical model or an explanatory framework for the data, it is difficult to define the exposure: What indicator should be used to measure the scope of the crisis – the variation in the gross domestic product (GDP) or in unemployment? For example, in places such as Spain in previous crisis, unemployment levels remained steadily high for several years after the GDP began to grow again. Without a theoretical framework it is difficult to determine the existence of confounding effects caused by third-party variables or intermediate elements in the causal mechanism. The possible intermediating effect of the austerity policies has already been mentioned, but other factors may also interfere: Is the effect of a crisis on health independent of the economic level reached by the country? Does the level of inequality of a country produce any effect on the relation between crisis and health? One of the aspects to determine in such model would be the latency time to be considered, that is how much exposure time is needed for an effect on health to be produced. For example, if the analyses on the cumulative effects of the social determinants of health in the life cycle are correct (11,12), the impact of a crisis would not be viewed until children born in that period reach the most advanced stages in life (in other words, it might be necessary to wait several decades and/or refine the analysis to consider differentiated effects according to age, cohort and period). That is, the gains in life expectancy observed during crisis periods might be attributable to previous expansion stages, and, in the same way, the decrease in life expectancy in a specific period of expansion might be related to phenomena experienced in previous years.

As a conclusion, we believe that in order to progress in this field, predictive caution should be adopted, the theoretical model and the indicators employed should be thoroughly discussed, and the data should be supplemented.

## **BIBLIOGRAPHIC REFERENCES**

- 1. Tapia Granados JA. La crisis y la salud en España y en Europa: ¿Está aumentando la mortalidad? Salud Colectiva. 2014;10(1):81-91.
- 2. Fountoulakis KN, Grammatikopoulos IA, Koupidis SA, Siamouli M, Theodorakis PN. Health and the financial crisis in Greece. The Lancet. 2012;379(9820):1001-1002.
- 3. Malliori M, Terzidou M, Paraskevis D, Hatzakis A. HIV/AIDS among IDUs in Greece: report of a recent outbreak and initial response policies [Internet] 2011 [cited 30 Oct 2013]. Available form: http://www.emcdda.europa.eu/attachements.cfm/att\_143752\_EN\_HIV\_greek\_report.pdf.
- 4. Paraskevis D, Nikolopoulos G, Tsiara C, Paraskeva D, Antoniadou A, Lazanas M, et al. HIV-1 outbreak among injecting drug users in Greece, 2011: a preliminary report.

Euro Surveill [Internet]. 2011;16(36):pii = 19962 [cited 30 Oct 2013]. Available from: http://www.eurosurveillance.org/images/dynamic/EE/V16N36/art19962.pdf.

- 5. 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. The European Journal of Public Health. 2013;23(1):103-108.
- 6. Bonovas S, Nikolopoulos G. High-burden epidemics in Greece in the era of economic crisis: Early signs of a public health tragedy. Journal of Preventive Medicine and Hygiene. 2012;53:169-171.
- 7. Andriopoulos P, Economopoulou A, Spanakos G, Assimakopoulos G. A local outbreak of autochthonous Plasmodium vivax malaria in Laconia, Greece—a re-emerging infection in the southern borders of Europe?. International Journal of Infectious Diseases. 2013;17(2):e125-128.
- 8. Stuckler D, Basu S. Por qué la austeridad mata: El coste humano de las políticas de recorte. Madrid: Taurus; 2013.
- 9. Legido-Quiqley H, Otero L, La Parra D, Álvarez-Dardet C, Martin-Moreno JM, McKee M. Will austerity cuts dismantle the Spanish healthcare system. British Medical Journal. 2013;346:2363.
- 10. Kentikelenis A, Papanicolas I. Economic crisis, austerity and the Greek public health system. The European Journal of Public Health. 2012;22(1):4-5.
- 11. Ben-Shlomo Y, Kuh D. A life course approach to chronic disease epidemiology: conceptual models, empirical challenges and interdisciplinary perspectives. International Journal of Epidemiology. 2002;31(2):285-293.
- 12. Davey Smith G, Gunnell D, Ben-Shlomo Y. Lifecourse approaches to socio-economic differentials in cause-specific adult mortality. In: Leon D, Walt G. Poverty, inequality and health: An international perspective. Oxford: Oxford University Press; 2001.

## **CITATION**

La Parra D, Álvarez-Dardet C. The relationship between economic crisis and health: are austerity policies the relevant issue? Salud Colectiva. 2014;10(1):92-94.

The translation of this article is part of an interdepartmental collaboration between the Undergraduate Program in Sworn Translation Studies (English <> Spanish) and the Institute of Collective Health at the Universidad Nacional de Lanús. This article was translated by Eliana Capizzi and Braian Castaño, reviewed by Pamela Vietri and modified for publication by Vanessa Di Cecco.