



PERGAMON

Social Science & Medicine 56 (2003) 961–971

SOCIAL
SCIENCE
&
MEDICINE

www.elsevier.com/locate/socscimed

Trends in the association between average income, poverty and income inequality and life expectancy in Spain

Enrique Regidor*, M. Elisa Calle, Pedro Navarro, Vicente Domínguez

Faculty of Medicine, Department of Preventive Medicine and Public Health, Universidad Complutense de Madrid, Ciudad Universitaria s/n, 28040 Madrid, Spain

Abstract

In this paper, we study the relation between life expectancy and both average income and measures of income inequality in 1980 and 1990, using the 17 Spanish regions as units of analysis. Average income was measured as average total income per household. The indicators of income inequality used were three measures of relative poverty—the percentage of households with total income less than 25%, 40% and 50% of the average total household income—the Gini index and the Atkinson indices with parameters $\alpha = 1, 1.5$ and 2. Pearson and partial correlation coefficients were used to evaluate the association between average income and measures of income inequality and life expectancy. None of the correlation coefficients for the association between life expectancy and average household income was significant for men. The association between life expectancy and average household income in women, adjusted for any of the measures of income inequality, was significant in 1980, although this association decreased or disappeared in 1990 after adjusting for measures of poverty. In both men and women, the partial correlation coefficients between life expectancy and the measures of relative income adjusted for average income were positive in 1980 and negative in 1990, although none of them was significant. The results with regard to women confirm the hypothesis that life expectancy in the developed countries has become more dissociated from average income level and more associated with income inequality. The absence of a relation in men in 1990 may be due to the large impact of premature mortality from AIDS in regions with the highest average total income per household and/or smallest income inequality.

© 2002 Elsevier Science Ltd. All rights reserved.

Keywords: Inequality; Income; Life expectancy; Spain

Introduction

Several recent studies have shown that inequality in income is an important predictor of mortality and health status in relatively wealthy societies. Although some research in the late seventies had already shown the importance of this association (Lynch & Kaplan, 1997) the study of the association between income inequality and mortality came to be widely known in the fields of sociology and health beginning in the mid eighties, with the work published by Wilkinson. These studies showed important associations between inequalities in income and differences in life expectancy among industrialised countries (Wilkinson, 1986, 1990, 1992a, b).

Judge et al. (Judge, 1995; Judge, Mulligan, & Benzeval, 1998) made a critical analysis of these studies based on international comparisons and noted that many biases had not been taken into account when interpreting their results, for example, the lack of data comparability; the fact that income was not adjusted for taxes, benefits and household size; the lack of a theory or a rational basis for the measure of income inequality selected; and the failure to control for other factors that might be interacting with income. However, several studies comparing the 50 states and the metropolitan areas of the US, in which the same source of data was used, and which controlled for several confounding variables and took into account household size and the differences in taxes among the different states, have confirmed Wilkinson's findings in detecting an

*Corresponding author.

important relation between various measures of inequality and different health indicators (Kaplan, Lynch, Pamuk, Cohen, & Balfour, 1996a; Kaplan, Pamuk, Lynch, Cohen, & Balfour, 1996b; Kennedy, Kawachi, & Pothrow-Stith, 1996; Kennedy, Kawachi, Glass, & Prothrow-Stith, 1998; Lynch et al., 1998; Ross et al., 2000). Other studies comparing different countries have also found an association between income inequality and premature mortality (Van Doorslaer et al., 1997; Lobmayer & Wilkinson, 2000).

In other cases, these findings have not been confirmed. For example, some authors have observed that changes in the magnitude of socio-economic differences in mortality in the Nordic countries have not been associated with changes in income distribution in the population (Martikainen & Valkonen, 1999). Likewise, a study using data from different Spanish regions found no relation between inequalities in income and the prevalence of long-term disability (Regidor, Navarro, Domínguez, & Rodríguez, 1997). Similarly, in Canada no relation was found between income inequality and mortality when comparing the different provinces and metropolitan areas (Ross et al., 2000).

Despite these discrepancies in the empirical evidence on this subject, and even though many studies come from a single country—the United States—it is surprising that a wide theoretical debate exists about the possible mechanisms that mediate the relation between income inequality and mortality (Muntaner & Lynch, 1999; Wilkinson, 1999; Lynch, Davey Smith, Kaplan, & House, 2000; Baum, 2000; Wilkinson, 2000; Lynch, Due, Muntaner, & Davey Smith, 2000). Some authors explain this relation in terms of a perception of relative disadvantage and the psychological consequences of inequality, while others focus on the structural causes of inequalities, such as the systematic underinvestment across a wide range of human, physical, health and social resources.

This debate is even more surprising because, as some authors have pointed out, research on the relation between income distribution and health is in its infancy, so there are many issues yet to be explored (Lynch & Kaplan, 1997). With the exception of one study (Chiang, 1999) there is little empirical confirmation of the original hypothesis according to which variations in life expectancy in the more developed countries are progressively more dissociated from absolute income level and increasingly associated with measures of income inequality (Wilkinson, 1994; Wilkinson, 1996). Likewise, despite the fact that many studies have found the association between socio-economic status and mortality to be less strong for women than for men, few studies of inequalities in income and health have studied men and women separately. Consequently, the present study was undertaken to test the original hypothesis in Spain, by analysing the association between average income

and life expectancy and between different measures of income inequality and life expectancy in 1980 and 1990, using the 17 regions of Spain as the unit of analysis, and analysing men and women separately.

Methods

Source of data

The measures of average income and income inequality were obtained from the study “Inequality and Poverty in Spain” (Martín-Guzmán et al., 1996). The investigators in that study used information contained in the Survey of Family Budgets (EPF) to estimate average income, income inequality and measures of poverty in Spain’s 17 regions. In this study, we used the indicators calculated from the EPFs of 1980–81 and 1990–91.

The EPF is carried out periodically by the National Statistics Institute; its objective is to describe the structure of consumer expenditures on goods and services in Spanish households, as well as the structure of income received, regardless of its origin. The EPF covers a sample of the non-institutionalised Spanish population, representative both at national, regional and provincial levels. The first stage units are made up of census sections, while the second stage units consist of all family households in the census sections selected for the sample. Finally, all members of the household are included in the sample to be interviewed. An independent, representative sample was selected in each of the 50 Spanish provinces. The EPF of 1980–81 was made up of 30,331 households and 88,543 persons, while the EPF of 1990–91 was made up of 21,155 households and 77,123 persons (Instituto Nacional de Estadística, 1985, 1994).

The investigators in the study “Inequality and Poverty in Spain” used total household income to calculate the estimates of average income and income inequality. In the EPF, total income is considered to be the sum of all income received by all members of the household, regardless of its origin or nature, in the 12 months preceding the interview, after deducting the amounts paid for taxes, social security contributions and similar payments. Each of the estimated indices was weighted in each family household by its corresponding sample weighting coefficient.

Data on life expectancy for 1980 and 1990 were obtained from the mortality tables developed by the National Statistics Institute based on deaths in 1980–81 and 1990–91 and the population from the 1981 and 1991 censuses (Instituto Nacional de Estadística, 1988, 1995).

Measures of average income and income inequality

The measure of average income used is the average total income per household in each region. The amount

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات