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Plain Language Summary

What is the effect of unemployment on mortality?

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Scottish Longitudinal Study project 2008_005

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Key points:

- Previous research has demonstrated a link between unemployment and an increase in death rates.
- The aim of this study was to test whether it is unemployment itself or other factors which cause this rise in mortality, such as poor health or low socio-economic status.
- Background information on around 3,260 Scottish people was gathered from the 1991 and 2001 censuses. All of them were in employment in 1991, but half of the group were no longer in work at 2001.
- The results found strong evidence of a direct link between unemployment and subsequent death rates in men.

There has been a great deal of research showing a clear link between unemployment and subsequent poor health and mortality. However, these studies were not able to show that the increase in mortality was directly caused by unemployment, rather than being due to other factors such as poverty or poor health.

The main problem with previous studies has been with the data used. For example, some studies have simply observed people in the general population who have, or have not, become unemployed. Others have used “natural experiments”, such as when a large group of people are made redundant. The main problem with these methods is that it is very difficult to ensure that there are not other differences between the employed and unemployed groups which lead to a higher risk of death. Another common problem in previous studies is the use of self-reported health information, which can be an unreliable measure of actual levels of general health.

This study tried to address these two problems in order to find out whether unemployment is really a cause of increased death-rates. To make sure that the employed and unemployed groups were closely matched on other risk-factors such as existing health problems or coming from a more deprived background, a technique was used to create a ‘match’ for each person in the unemployed sample who differed only in the fact that they were still in work. To get a more accurate measure of health, NHS data were used.

In order to have a large enough sample, and to be able to follow what happened to the groups over a long period of time, the Scottish Longitudinal Study was used. This brings together information from the census and other sources such as births, deaths and marriages and NHS data for about 5% of the Scottish population.

Roughly 3,260 people were included in the main analysis (approx 2,200 men and 1,060 women). All of them reported that they were employed at the 1991 census. Half of the sample were unemployed at 2001, and the other half were a carefully matched sample who had similar levels of health and

socio-economic background but who were still in employment at 2001. Checks were then made to compare how many people in each group had died during the period 2001-2010.

The results showed that men who had become unemployed by 2001 were 85% more likely to die compared to the men who were still in work. A smaller increase in mortality was found for women, but this was not large enough to prove a direct link.

This study is the first of its kind, using NHS data and large well-matched groups to give a clearer picture than ever before. It has provided strong evidence that, for men at least, unemployment is directly linked to an increased risk of death.

LINKS

Original Paper:

[Clemens, T., Popham, F. & Boyle, P. \(2015\) What is the effect of unemployment on all-cause mortality? A cohort study using propensity score matching. European Journal of Public Health, 25\(1\), 115-121](#)

Further information about the Scottish Longitudinal Study:
sls.lscs.ac.uk

Further information about CALLS Hub:
www.calls.ac.uk

This summary written by Fiona Cox, CALLS Hub, 26 May 2015

