Health and its determinants in Scotland and other parts of post-industrial Europe: the ‘Aftershock of Deindustrialisation’ study – phase two
This paper reports on the second stage of a research project comparing health and its determinants in West Central Scotland (WCS) with a number of other post-industrial European regions. These are important and relevant comparisons because post-industrial decline is often used as an explanation for WCS's enduring poor health status.

The first stage of research sought to identify other regions in Europe which had experienced comparable levels of deindustrialisation, and then compared detailed trends in mortality between those regions and WCS. The results showed that mortality was generally lower in the other regions compared to WCS, and was improving faster. The aim of this second stage was to investigate why this was the case.

Analyses were undertaken of a range of administrative and survey data across 12 post-industrial regions in Europe. The principal findings are that:

- The vast majority of the post-industrial regions share important characteristics: deindustrialisation causes economic and social upheaval, and impacts on population health.

- The particular poor health status of WCS compared to the other regions cannot be explained in terms of current measures of poverty and deprivation; nor do time series data provide convincing evidence that historical poverty is responsible for current poor health outcomes in WCS.

- Compared to other post-industrial regions in mainland Europe, income inequalities in WCS (and in the other UK deindustrialised regions) are greater.

- Health inequalities also appear to be wider in WCS than in the other regions.

- WCS stands out in terms of a number of social factors. For example, proportionally higher numbers of its population live alone or as lone parents. Similar differences are seen in relation to aspects of child and maternal health (e.g. higher rates of teenage pregnancy).

- Some of these distinguishing features – higher income inequalities, more lone parent households, more teenage mothers – are true also of the other UK post-industrial regions. In addition, these regions share a recent economic history different to that experienced elsewhere in Europe.
The results suggest that poor health in WCS can be attributed to three layers of causation. First, deindustrialisation is a fundamental driver of poor health. WCS, alongside other parts of Europe, has suffered from this experience. Second, as part of the UK, the region has experienced a set of economic policies and social trends in the last few decades which differ from other relevant parts of continental Europe in important ways: in particular in relation to the more ‘neo-liberal’ economic policies pursued by the UK, higher levels of economic inequality, and higher proportions of potentially vulnerable households. The third level has to do with unexplained factors which cause WCS to experience worse health outcomes than similar regions within the UK. A particular example is Merseyside which has a remarkably similar history and socio-economic profile to WCS, but lower mortality. This investigation is continuing with a programme of research focussing on the post-industrial cities of Glasgow, Liverpool and Manchester, with initial results expected in 2012.
INTRODUCTION

In 2008, the Glasgow Centre for Population Health (GCPH) and NHS Health Scotland published a report entitled ‘The Aftershock of Deindustrialisation – trends in mortality in Scotland and other parts of post-industrial Europe’. The background to that report was that post-industrial decline is often cited as an underlying cause of Scotland’s – and particularly West Central Scotland’s (WCS) – enduring poor health status. That first stage of research, therefore, sought to: (a) identify other regions in Europe which had experienced comparable levels of deindustrialisation, and (b) collect and analyse long-term trends in mortality for all the identified regions. The results were surprising, showing that mortality was generally lower in the other regions compared to WCS, and was improving faster. That finding was complicated by the fact that data also suggested that WCS’s socio-economic profile was superior to that of the majority of these regions.

The first phase of the project was principally an investigation of mortality trends, and only very limited socio-economic data for the regions of interest were presented. Furthermore, the report could only speculate about the role of other important health determinants (e.g. education, health behaviours, environmental factors) and other important issues (e.g. income inequalities). A much more detailed investigation of these factors was required to obtain a better understanding of the differences in health profiles between WCS and other post-industrial areas. That was the aim of the second stage of the project.

AIMS AND PURPOSE

The overall aim of the research was to obtain, using routinely available data, a greater understanding of the reasons why WCS experiences poorer health than other, comparably deindustrialised, European regions. In particular, the project focussed on two research questions:

1. Could WCS’s relatively poorer health status be explained purely in terms of socio-economic factors (poverty, deprivation etc.)?

2. Could comparisons of other health determinant information identify important differences between WCS and other regions?
INTRODUCTION

accompanying case studies.

A broad range of routine administrative and survey data were analysed for WCS compared to 11 other post-industrial regions in Europe (four in the UK, four in western mainland Europe, and four in eastern mainland Europe). These analyses were underpinned by illustrative examples from more in-depth comparisons between WCS and four particular regions within Germany (The Ruhr), France (Nord-Pas-de-Calais), Poland (Katowice/Silesia) and the Czech Republic (Northern Moravia). In addition, the project drew on emerging results from accompanying research analysing the historical, economic and political context in these four key regions. The analyses of data across all 12 regions have been published in one report. The more in-depth comparisons have been published separately as four accompanying case studies.

FINDINGS AND CONCLUSIONS

The main research findings were that:

• The vast majority of the post-industrial regions share important characteristics: deindustrialisation causes economic and social upheaval, and impacts on population health. WCS is not unique in this regard. For example, the ex-mining area of France, Nord-Pas-de-Calais, has experienced comparable industrial job losses to WCS in recent decades. Its unemployment and poverty rates are among the highest in France, and the average life expectancy of its population is the lowest.

• The particular poor health status of WCS compared to the other regions cannot be explained in terms of current measures of poverty and deprivation: socio-economic conditions within WCS are similar to, or better than, many regions which have superior health profiles. For example, Figure 1a shows that unemployment levels in WCS in 2008 compared favourably to the majority of the other post-industrial regions, while Figure 1b shows that at a sub-regional level, nearly all districts of the Ruhr area in Germany experience higher unemployment than comparably sized areas within WCS yet mortality rates are lower in the German areas. Figure 2 (which plots income per capita against female life expectancy for the 12 regions) suggests that there is a ‘disconnection’ between measures of wealth and health in WCS: generally, the wealthier regions have higher life expectancy, but this is not the case for WCS.

• Importantly, time series data do not provide convincing evidence that historical poverty is responsible for current poor health outcomes in WCS.

• Compared to the other post-industrial regions in mainland Europe, income inequalities are greater in WCS (and in the other UK regions) (Figure 3). This is important, given the evidence that has been presented in recent years linking high levels of income inequality with a range of poor health and social outcomes within affluent countries.
Investigating a 'Glasgow Effect': why do equally deprived UK cities experience different health outcomes?

FINDINGS SERIES 31  BRIEFING PAPER

Health inequalities also appear to be wider in WCS than in the other regions.

WCS also stands out in terms of a number of social factors. For example, proportionally higher numbers of its population live alone or as lone parents.

Differences are also apparent in relation to aspects of child and maternal health. For example, there are relatively higher rates of teenage pregnancy and motherhood (Figure 4), and of low birth-weight babies in WCS.

Some of these distinguishing features – higher income inequalities, more lone parent households, more teenage mothers – are true also of the other UK post-industrial regions. These regions also share a recent economic history different to that experienced elsewhere in Europe.

Of all the other deindustrialised regions in Europe, Merseyside appears the most similar to WCS: it shares almost all the adverse social and economic characteristics listed above. However, what distinguishes WCS from Merseyside is a poorer health profile.

What emerges from these observations is a picture that is only partially coming into focus. Poorer health in WCS can be attributed to three layers of causation. First, it is a deindustrialised region. This is a fundamental driver of poor health which WCS shares with all the other regions that were part of this analysis. Second, by virtue of being part of the UK, WCS has experienced a set of economic policies and social trends which overlap with continental Europe but are, nonetheless, different in important ways. Chief amongst these are the more 'neo-liberal' economic policies pursued by the UK, higher levels of economic inequality and higher proportions of potentially vulnerable households. The third level has to do with unexplained factors which cause WCS to experience worse health outcomes than similar regions within the UK: in particular, WCS has worse health outcomes than regions like Merseyside which have remarkably similar histories and socio-economic profiles. That is why the picture is only partially in focus. The investigation is continuing with a programme of research focussing on the post-industrial cities of Glasgow, Liverpool and Manchester. Initial results are expected in 2012.
Figures

Figure 1a

Unemployed as percentage of economically active adults: 2008

![Graph showing unemployment rates in various regions.]

Sources: Eurostat; Annual Population Survey; Statistische Ämter des Bundes und der Länder, Czech Statistical Office

Figure 1b

(example of sub-regional unemployment comparison)

Unemployment rates, West Central Scotland Local Authorities and Rhur area districts: 2007

![Graph showing unemployment rates in different areas.]

Sources: Annual Population Survey; Eurostat
Investigating a ‘Glasgow Effect’: why do equally deprived UK cities experience different health outcomes? The ‘Aftershock of Deindustrialisation’ study – phase two

**Figure 2**

Disposable income per capita (in Euros) and female life expectancy, selected European post-industrial regions: 2004-06

![Graph showing disposable income per capita and life expectancy](image)

Sources: Eurostat; ONS; GROS

**Figure 3**

Income inequality in West Central Scotland and selected post-industrial regions: 2004

![Graph showing income inequality](image)

Sources: Luxemburg Income Study; FRS; Scottish Household Survey

* Except Wallonia (2000), Nord-Pas-de-Calais (2005), Merseyside (2003-07) and WCS (2003-04)
Health and its determinants in Scotland and other parts of post-industrial Europe: the 'Glasgow Effect' study – phase two

INTRODUCTION

Sources: Eurostat; SMR 02 ISD Scotland; Czech Statistical Office Regional Yearbooks

Figure 4

Percentage of births to mothers under 20 years of age: 2005-06

Sources: Eurostat; SMR 02 ISD Scotland; Czech Statistical Office Regional Yearbooks
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All the above are available from: www.gcph.co.uk/publications
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