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Scottish Index
of Multiple
Deprivation

Rural deprivation Evidence Summary



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Introduction

Studies suggest that deprivation is experienced differently between people living in rural and urban parts of the country. The main issues in rural areas include access to services, lack of affordable housing and higher fuel costs. Developing a clearer understanding of these issues and how to measure them better is an important step in reducing deprivation across all parts of Scotland.

Previous research also indicates that area-level measures of deprivation fail to capture households experiencing disadvantage in rural areas. This is because rural deprivation can be more dispersed in rural areas compared to urban areas. This can lead to inadequate resources and interventions being located in these areas.

This paper reviews the current evidence on rural deprivation in Scotland. The paper will firstly present the latest key statistics about poverty, deprivation and the rural population in Scotland. The main issues of deprivation in rural areas, including the impacts of being deprived in a rural area will then be discussed, and key gaps in the evidence identified. Our paper will also review the criticisms of the Scottish Index of Multiple Deprivation (SIMD) in relation to measuring rural deprivation, and outline ways in which limitations can be mitigated.

Scotland's rural population, poverty and deprivation

- Rural areas can be defined as settlements of less than 3,000 people, as per the Scottish Government two-fold Urban Rural Classification. There is no standard definition of rural across the world. Ways of measuring how rural or urban an area is varies across different countries.
- Rural Scotland comprises thousands of different communities located in widely varying environments, from island communities to commuter villages, from fishing and coastal villages to highland croft and lowland farming, and from prosperous rural market towns to deprived post-industrial communities.
- Approximately 1.15 million people live in Scotland's rural areas, which is almost one fifth of the population (Scottish Government, 2016a).
- The population of rural Scotland has grown at a faster rate than the rest of the country, with more people moving into rural areas than moving from rural to urban areas.
- An ageing population and out-migration of young people are typical of rural areas. For example, projections show that the proportion of people over the age of 75 is expected to increase by 108% in Aberdeenshire and in the Shetland Islands (2014 to 2039). Urban areas are expected to see smaller increases e.g. 66% in Aberdeen City and 54% in Glasgow (SRUC, 2014).
- The proportion of households experiencing low-income poverty living in rural areas of Scotland is approximately 13% (Scottish Government, 2016a).
- Approximately 30,000 people living in rural areas live in the 20% most deprived parts of Scotland. However, it is estimated that 150,000 people (1 in 8 individuals) living in rural Scotland are living in income poverty. In urban areas approximately 1.95 million people live in the 20% most deprived areas, with

810,000 people in income poverty (1 in 5 individuals) (Scottish Government, 2016a).

- Income deprived people are more dispersed in rural areas than for the whole of Scotland. As shown in Figure 1, one in four people living in a deprived area are income deprived (just under 1 in 3 people for the whole of Scotland). Nine out of ten people who are income deprived do not live in deprived areas (2 in 3 people for the whole of Scotland).



Figure 1: Income deprived people and deprived areas in rural parts of Scotland

Main issues in rural areas

Evidence suggests that people living in rural areas experience deprivation differently from those living in towns and cities. Particular issues in rural areas include:

- higher consumption of fuel for heating and transport
- less accessible key services including healthcare, childcare and broadband
- limited opportunities to earn adequate income compared to urban areas.

The main issues identified in the literature and the associated impacts are described below.

Costs of living are higher

People living in many rural areas have considerably higher costs of living than those in urban areas. A report by Citizen Advice Scotland (2015) identified that a comparable food basket can cost up to 50% more on island communities than in an urban area. This could be due to there being more small, independent retailers which tend to be more expensive than large supermarkets found in urban areas.

The report also showed that the cost of heating a home using off-grid power sources such as oil or solid fuels, which are more prevalent in rural areas, can be up to twice as much as costs for gas central heating systems.

Differences in transport costs between urban and rural areas can be up to £40 per week, due to longer commuting distances and higher fuel costs.

People in rural areas can also be charged higher prices for delivery of food and other household items, which contributes to higher living costs.

Transport to work and study is challenging

In rural areas, the main issues experienced by residents are related to the lack of access to employment and essential services. Public transport services in rural areas often involve long journeys, sparse bus timetables and expensive tickets, in comparison to urban areas. Owning a car is therefore seen as a solution; however, for low income families, car ownership may be pushing them into poverty due to maintenance costs and higher fuel prices (SRUC, 2014).

Poor public transport networks mean that people do not have good access to services, or opportunities for employment, training or education, particularly if they rely on bus networks for travelling around. The Scotland's Colleges 2015 report states that students living in remote areas are likely to have journeys of over 1 hour, at a median cost of £10 return (Audit Scotland, 2015).

For those who are unemployed, accessing employment opportunities can be costly. For example, for those who receive job seeker's allowance living in the Nairn area, a return bus trip to the nearest Job Centre costs 15% of their weekly income (Citizens Advice Scotland, 2016).

Findings from a qualitative study examining the experiences of vulnerable groups (single pensioners, single parents, people with mental health issues or disabilities and migrant workers) suggest that local part-time or seasonal work, which pays low or unstable salaries, is often the main income source for rural households who are unable to travel (EKOS, 2009).

On the other hand, a quantitative study, the sample of which is not restricted to particular groups (Bailey et al 2016), found that survey respondents aged 18-64 living in rural areas (including remote areas) had more stable employment. Only ten percent reported that they had been unemployed for some time over the last 5 years, compared to 21% in urban areas.

The differences in findings between the two studies could be due to the different methodologies applied. For example, the qualitative study focuses on vulnerable groups whose choices of jobs and whose work availability might be restricted. They may also experience discrimination, further restricting employment opportunities.

Access to medical care and amenities is difficult

People living in rural areas also experience long distances and expensive bus travel when going to see their GP and attending hospital appointments. However, a recent review of equality evidence found that people living in remote rural areas had more positive experiences of accessing GP services. The main issues were lack of out-of-hours access and collection of prescriptions (Scottish Government, 2015).

Visiting the nearest bank, post office or supermarket can also be a longer journey for people living in rural areas. A survey of rural areas across Scotland found that on average, a return bus trip to the nearest bank branch takes 40 minutes. The longest journey times collected by Citizens Advice Scotland were from Aberdeenshire. For residents living in Cookney, it takes 90 minutes to travel to the nearest GP surgery by bus (Citizens Advice Scotland, 2016).

Delivering education can be challenging

Linked to poor access to services is the challenge of delivering education in rural communities. Areas across rural and urban Scotland have experienced primary school closures over the last twenty years. However, rural areas also have problems with recruiting teachers who are willing to relocate to more remote areas.

School closures can have both direct and wider impacts in rural areas, where the school itself serves a greater purpose than education. In small rural communities, the school is seen as a village resource used not just by children and a key place for everyday social interaction. Losing this resource reduces parent involvement and interaction and reduces quality of life for pupils, parents and the rest of the community.

The loss of school staff and jobs also reduces the overall economic activity in the area (LGiU Scotland, 2016)

Broadband access and quality are limited

People living in rural areas have less broadband coverage than those in urban areas. For example, in the Orkney Islands 52% of households and businesses have access to superfast broadband (speed over 24Mb/s). In Highland, 70% have access. In urban areas, coverage is much better with 96% of premises having access in the City of Edinburgh council area and 95% having access in Glasgow (Think Broadband, 2016).

This affects individuals and organisations in a number of ways. Poor internet access means that people are unable to use 'online only' services easily (SRUC, 2014). Lack of internet access may also increase feelings of social isolation as people are less able to communicate with family and friends via email and social networking. Poor internet connection limits sales opportunities and daily outputs for businesses, encouraging these organisations and the people working for them to relocate to better serviced areas. This also makes rural areas less desirable locations for new businesses (LGiU, 2016).

Access to services & employment

Long distances, sparse public bus timetables & stops, expensive bus tickets

Car ownership essential

Poor access to retail

Poor access to labour market & training and education

Burden of high petrol & diesel prices

Limited choice of and higher delivery costs for food and other goods

Reliance on part-time or seasonal work with low or unstable income

Higher cost of living

Increases risk of income poverty

Poor connections to superfast broadband

Reduces daily output for businesses

Restricts access to online-only services

Increases social isolation

Discourages new business opportunities

Businesses and residents relocate

Reduces economic activity of the area

Figure 2: Poor access to services and employment and associated impacts in rural areas of Scotland as identified in the current literature

Housing

The housing stock in many rural areas is regarded 'not fit for purpose' (SRUC, 2014). This is mainly due to the lack of suitable affordable housing available, lack of modern housing and single occupancy homes. These problems have social and economic impacts on the area. For example:

- The lack of affordable housing means that young first time buyers are priced out and have to leave the area (SRUC, 2014). This out-migration of young working people increases the dependency ratio (the number of people aged 65 or more per a hundred people aged 15-64).
- As low-income workers are unable to afford housing, small businesses and service providers which rely on a low-income workforce are unable to source staff (SRUC, 2014).
- Older, larger, detached, or non-gas heated homes, which are more common in rural areas, have lower energy efficiency ratings (Scottish Government, 2016b). For example, 63% of rural households are not covered by the gas grid and use other fuel sources to heat their homes which are more expensive than mains gas. This is a larger proportion than for urban areas where just 7% of households are not covered by the gas grid (Scottish Government, 2016c).
- Rural residents incur higher fuel costs which places low income households at risk of fuel poverty. Approximately 55% of households in Highland council area and 62% in the Western Isles experience fuel poverty (Scottish Government, 2014).

Other issues

There are other issues which have been noted in the literature surrounding rural deprivation, but for which there is less evidence. These include the following:

- Climate change is expected to be one of the major challenges affecting farming in Scotland. Changes in temperature and rainfall have impacted crop harvests and could affect animal health and increase the incidence of disease. For example, in the Scottish Borders, wet summers have resulted in lower crop yields and increased costs for grain drying. Heavy rainfall has also affected the quality of home grown fodder which means farmers have had to purchase additional feed to supplement cattle diets (SRUC, 2016; Unwin, 2016).
- A culture of independence and self-reliance in rural areas may discourage individuals from accessing income support or other benefits which they are entitled to. In small rural communities it can also be more difficult to use these services anonymously, and there is a stigma associated with dependence on income support (McKendrick et al., 2011; SRUC, 2014; Wilson, 2016). However, findings are mixed, with other studies finding no evidence that feelings of shame due to being poor are any different between urban and rural areas (Bailey et al., 2016).
- The impacts of rural deprivation are different across social groups. Examples include older people who are more likely to be worse affected by increases in fuel prices and lack of access by public transport to services (SRUC, 2014). Also, research shows that there are less mental health services in rural areas,

suggesting a lack of support for those experiencing mental health issues (The Poverty Alliance, 2012).

- Following the referendum in June 2016, the UK will leave the European Union. As a result, farmers are likely to be affected by the uncertainties around farming subsidies.

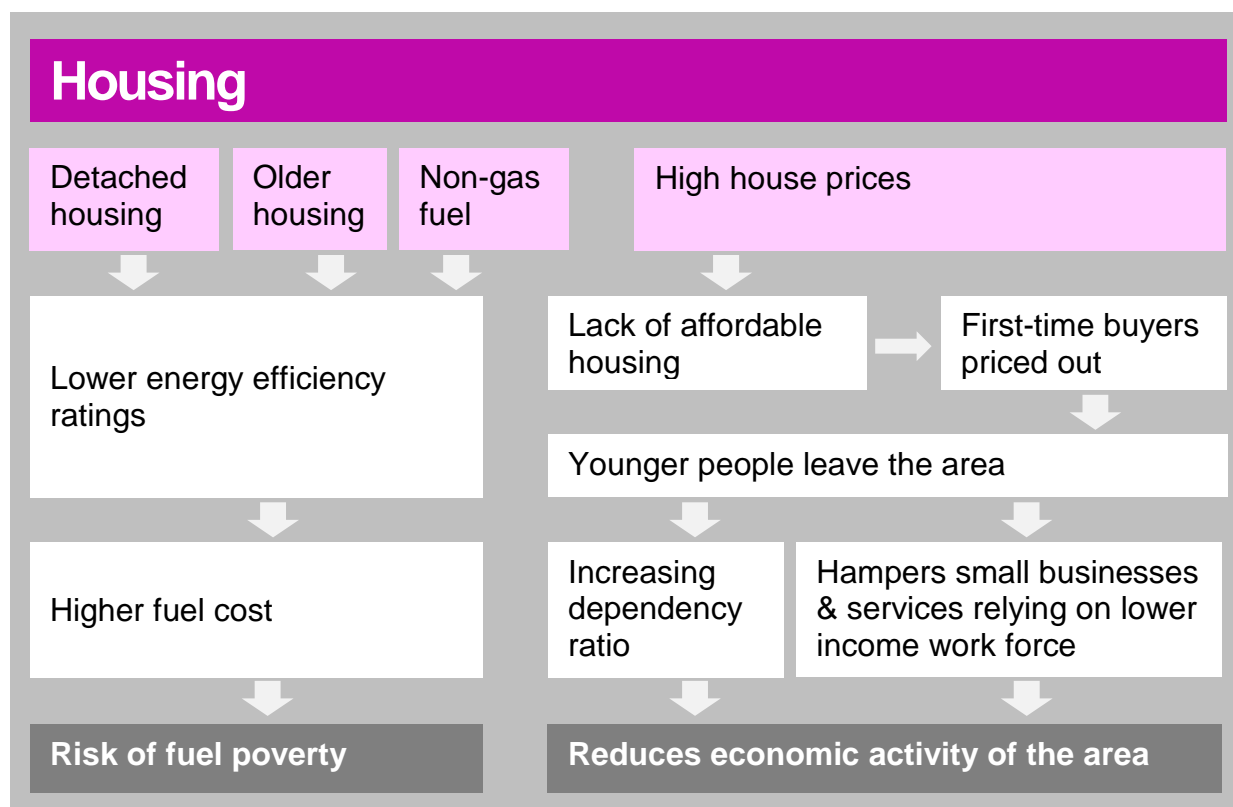


Figure 3: Housing issues and associated impacts in rural areas in Scotland as identified in the current literature.

Evidence gaps

Although there is evidence of the more prominent issues in rural areas of Scotland such as lack of access and adequate housing, it is difficult to develop a better understanding of those challenges for several reasons. These include the following:

- Publications on poverty and deprivation do not always provide an urban/rural breakdown. Therefore, issues specific to rural areas are often not described.
- Where studies have been conducted, these are often with relatively small samples of individuals which do not produce results representative of the population. Small samples also do not allow us to explore aspects of deprivation for particular social groups e.g. older people and ethnic minorities.
- Findings are mixed across the literature. Therefore, it is difficult to identify which are the most important issues affecting people in rural areas. This could suggest that issues vary across different regions or between different types of rural area as much as they do between rural and urban.

- There is an absence of measures at the data zone level which may be useful for examining deprivation in rural areas. This includes information about the different types of work people are employed in, multiple job ownership, skill levels and number of hours worked; broadband connectivity and the cost of living e.g. housing, fuel, transport, food etc, which is typical of the area. Examples of desirable measures include the following:
 - % of affordable homes
 - Average house price compared to average local income
 - Distance to the nearest large supermarket (capturing price of food)
 - Postage cost for a specific parcel size
 - Average fuel use (heat and travel)
- Differences in the level of deprivation within data zones are missed. This issue has particular relevance to rural areas, where the data zones are large. A way of addressing this issue might be to include a measure which captures variation within data zones.

Measuring deprivation in rural areas

SIMD is the official tool for identifying concentrations of deprivation in Scotland and where there is greater need for support and intervention. It splits Scotland into 6,976 geographical areas, data zones, each with an average of 760 people.

SIMD combines 38 indicators of deprivation into 7 domains: Income, Employment, Education, Health, Access to Services, Crime and Housing. These were weighted according to original research conducted when SIMD was first created in 2004 and the quality of data included in each indicator. The weights for each domain are shown in Table 1.

The data zones were then ranked from 1 (most deprived) to 6,976 (least deprived).

Domain	2016 weight	% of overall SIMD
Income	12	28
Employment	12	28
Health	6	14
Education	6	14
Access to Services	4	9
Crime	2	5
Housing	1	2

Table 1: Weights for each SIMD domain.

Is the use of SIMD limited in rural areas?

Since SIMD was created, the index has received criticism for failing to capture rural deprivation in particular. Criticisms mainly relate to poverty and deprivation being more spatially dispersed than in urban areas. We have listed the key criticisms specific to rural areas with our responses in Table 2.

Criticisms	Responses
<p>Dispersed poverty in rural areas means that the number of deprived data zones in a local authority will be a biased measure of relative poverty.</p> <hr/> <p>Measures have an urban/industrial bias due to the inclusion of many 'social ills' e.g. unemployment, crime, poor housing and poor health.</p>	<p>SIMD is an area-level measure which identifies concentrations of multiple deprivation across the whole of Scotland, using the best available data. Therefore, differences within data zones will not be captured.</p> <p>We strongly recommend (especially for larger data zones in rural areas) that other data is used alongside SIMD to identify households in poverty.</p> <p>As well as the overall SIMD rank, there is also the option to use the ranks for each of the domains and the data for individual indicators, which are useful for exploring specific issues or comparing these between data zones. These can be downloaded from the SIMD website.</p> <p>We have considered employment issues in rural areas. As seasonality of employment tends to affect rural areas more than urban areas, unemployment counts are averaged to take account of seasonal fluctuations in employment patterns.</p>
<p>Analysis at the data zone level means that the unique characters of communities are lost e.g. the Shetland outer islands are appended to the main land.</p>	<p>Cultures of small communities are difficult to quantify and are much better captured using qualitative data which would highlight the differences within data zones.</p>
<p>The use of benefits uptake is not representative as people in rural areas are less likely to take advantage of benefits due to the independence/self-reliance culture and the associated stigma of living on benefits.</p>	<p>There are mixed findings in the literature about this issue. A recent study suggests that there are no differences between urban and rural areas.</p> <p>SIMD takes into account a range of factors in addition to benefit figures. Therefore, deprivation is identified using indicators other than income and employment related benefits.</p>

Table 2: Criticisms of using SIMD in rural areas and our responses.

General limitations of SIMD

It is important to recognise that SIMD has limitations for capturing deprivation across the whole of Scotland as not everyone who is deprived lives in a deprived area, and not everyone who lives in a deprived area is deprived.

The following criticisms and responses apply to identifying multiple deprivation in both urban and rural areas:

- *‘The weighting of the access domain does not reflect the importance of this factor to rural areas.’* – The weighting of the access domain reflects the contribution of access issues to deprivation for people in both urban and rural areas. This includes a drive time subdomain and public transport subdomain.
- *‘The data included in the SIMD housing domain is out of date and underestimates the contribution of housing to deprivation.’* – The housing domain is the focus of future SIMD development work. The problems identified with the two indicators from the 2011 census used to calculate the housing domain (Persons in households which are overcrowded and persons in households without central heating) are recognised. Administrative data which captures housing issues in Scotland is relatively sparse and inconsistent. The low weighting of the Housing domain in the overall SIMD reflects this. The census is currently the most robust data source which tells us about housing across the population.
- *‘SIMD does not contain a measure of social isolation.’* – This issue may be partially captured in the Access domain and the Health domain. Health indicators include the proportion of population being prescribed drugs for depression. Studies have shown that social isolation and depression are linked.

Addressing the general limitations of SIMD

We are supporting government departments, local authorities, community groups and other organisations to use SIMD within the limitations described above. In 2011, guidance was published which considered an alternative way of using SIMD in rural areas by identifying the most income, employment and access deprived data zones in rural Scotland according to the relevant 2009 domains.

We also recommend using other data sources alongside SIMD for exploring particular topics or communities of interest. The Scottish Government has a wealth of data which is publicly available e.g. Census 2011. Linking SIMD data to administrative records may also be useful to local authorities and other organisations for identifying areas of need.

Conclusion

The current evidence suggests that people living in rural areas of Scotland face different challenges than those living in urban areas, and therefore, the experiences of deprivation are not the same. Issues of access to services and housing are of particular importance to people in rural areas. Mixed findings in the literature and a lack of suitable, robust measures make it difficult to fully understand these issues and to devise effective ways of improving quality of life for rural households experiencing deprivation.

SIMD is designed for identifying concentrations of multiple deprivation for the whole of Scotland, and for this purpose, it is the best available tool. In order to adequately identify and describe the main issues in particular areas where poverty and deprivation are more dispersed, we recommend using SIMD alongside other data sources.

Further information

SIMD website: www.gov.scot/SIMD

Email the SIMD team: simd@gov.scot

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