Scottish Index of Multiple Deprivation

Child Poverty in the Orkney Islands

A rural deprivation case study

Introduction

The Child Poverty Map of the UK (2016) showed that 14% of children living in the Orkney Islands are in poverty (after housing costs). This is the equivalent of 508 children or 17 school classes.

The main aim of this case study is to demonstrate how SIMD can be used with other publicly available data to explore child poverty, using the Orkney Islands as an example. The case study will also address the issue of 'hidden deprivation' in rural areas by showing how census indicators can be used to identify areas within data zones where child poverty is more likely to exist.

What we did

- We identified the most deprived areas of the Orkney Islands using SIMD.
- We sourced other publicly available data about child poverty. This includes child poverty estimates provided by the End Child Poverty Campaign and estimates of children living in low income families, provided by HM Revenue and Customs (HMRC).
- We explored risk factors associated with child poverty using indicators from Scotland's Census 2011 at the output area level.

Further information about the data sources used in this case study can be found in the Annex.

What are child poverty risk factors?

Previous studies have suggested certain factors which are useful for measuring child poverty in local areas. For example, this includes the percentage of lone parent households and percentage of households with no persons in employment with dependent children in an area. Such measures are found in the census and are publicly available at different geographical levels, including output areas.

Although these factors do not provide an exact measure of how many children are in poverty, they provide an indication of the neighbourhoods in which child poverty is more likely to be found.

What is an output area?

An output area is created by a grouping together of postcodes. A single output area can contain 50 people and 20 households, but can contain more. Information at the output area level is helpful for investigating issues in rural areas, where SIMD data zones can cover much larger geographical areas. In the Orkney Islands, there are 190 output areas which fit within 29 data zones.

Using SIMD alongside the census indicators relating to child poverty is helpful for those planning interventions aimed at particular groups.

Child poverty indicators which are used in this case study reflect the Child Poverty Risk Factors identified by Save the Children, Barnado's and the Joseph Rowntree Foundation. They are also related to some of the indicators found in the Scottish Government's Child Poverty Measurement Framework:

- Lone parent households with dependent children - Lone parent households are more likely to be in poverty than those with two parents. They are more likely to

be unemployed, feel isolated and lack confidence. They may also experience poor health and social exclusion.

- Households with no persons in employment (except full-time students) with dependent children - Unemployment is a major cause of poverty. However, even when people do work they can still be living in poverty.
- People with a long-term health condition or disability – Adults with a long term illness or disability are less likely to work. In those cases, it may also be possible that any children in the household are carers.

What we found

Where are the deprived areas?

The most deprived area in the Orkney Islands, according to SIMD16, is the data zone covering the South Isles. These include Hoy, the second largest island of the Orkney Islands, and Flotta. The South Isles data zone is within the 30% most deprived in Scotland.

Relatively high levels of deprivation are also found in West Kirkwall and the North Isles, including Sanday and North Ronaldsay. These are also among the most deprived areas when looking at the individual SIMD domains for employment, income and housing.

Map 1 illustrates the different levels of deprivation found in the Orkney Islands. Data zones are categorised by the 20% band (quintile) nationally in which their ranking is found.

There are no data zones in the Orkney Islands which are in the 20% most deprived in Scotland. However, this does not mean that people living here do not experience deprivation.

Further information about the SIMD results for the Orkney Islands can be found in the council area profile. This can be found here: http://www.gov.scot/Resource/0051/00510731.pdf
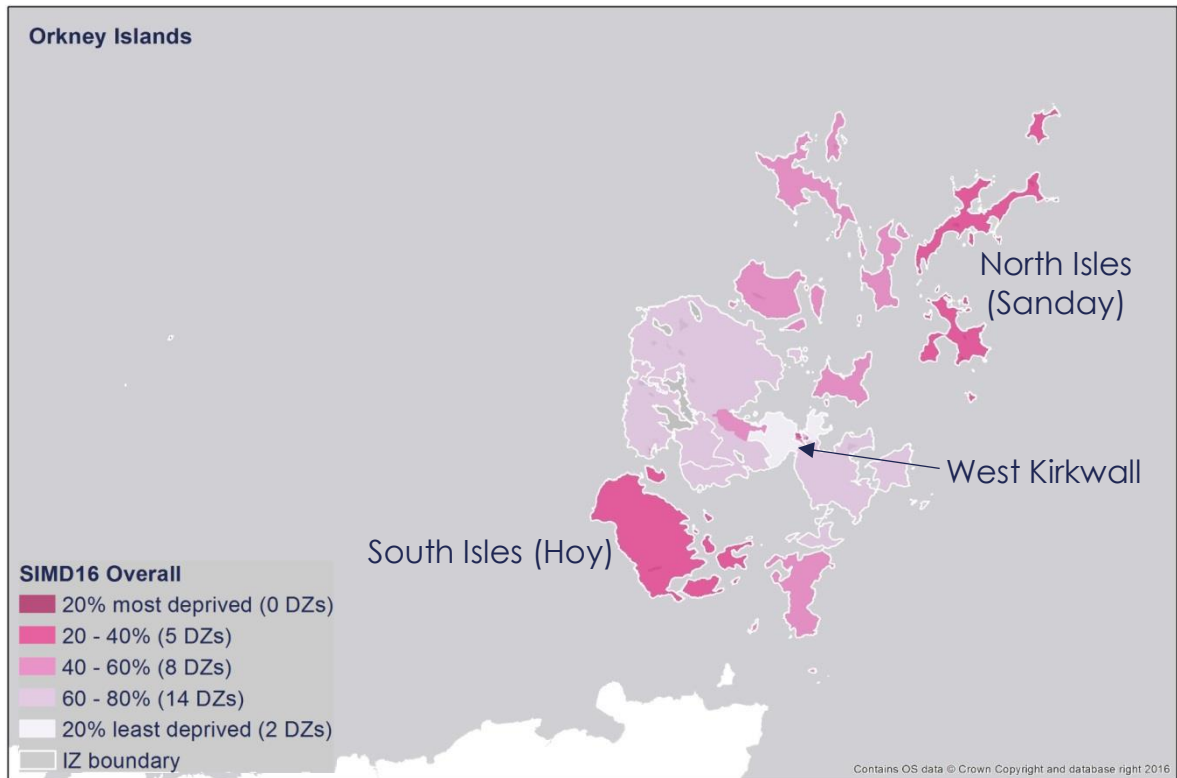
Where is child poverty?

Child poverty can be found across the council area. Map 2 shows the percentage of children in poverty (after housing costs) across the Orkney Islands for each of the multi-member wards. This data comes from estimates provided by the End Child Poverty Coalition[1], see Annex 2. The estimates are based on HMRC figures (2013) of children in low-income families. This includes the number of children in households receiving out of work benefits and children in families on tax credits whose income is less than 60% of the UK median. The estimates are then updated using more recent regional Labour Market Survey data (2015) on trends in the number of children in out-of-work households.

The percentage of children living in poverty ranges from 4.8% in the East Mainland, South Ronaldsay and Burray ward, to 27.7% in the North Isles. If we compare Map 1 and Map 2, we can see that some of the areas with the most child poverty, are also among the most deprived. The table in Annex 2 shows this data for each of the multi-member wards in the Orkney Islands.
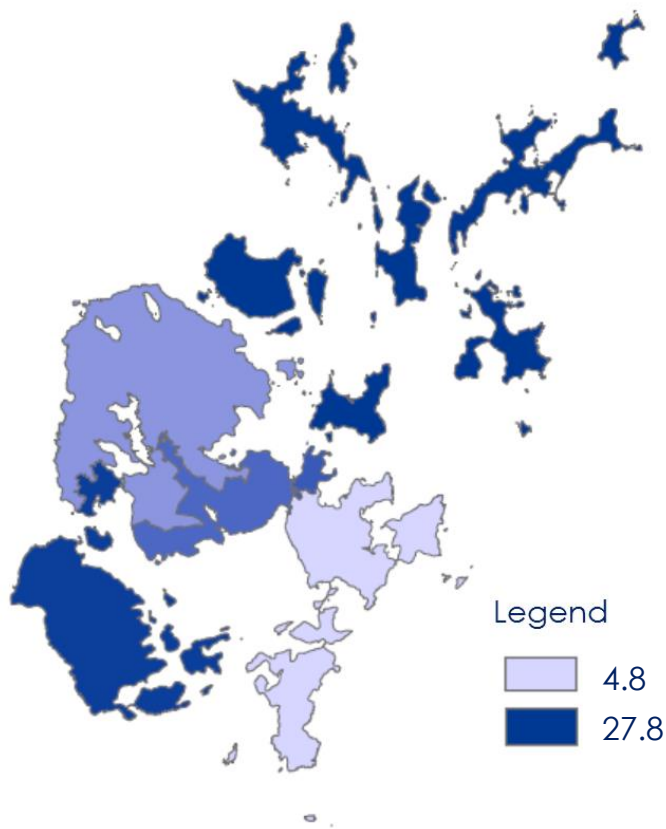
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[1] http://www.endchildpoverty.org.uk/

Map 1 – SIMD16 Quintiles

Orkney Islands

North Isles
(Sanday)

West Kirkwall

South Isles (Hoy)

SIMD16 Overall
- 20% most deprived (0 DZs)
- 20 - 40% (5 DZs)
- 40 - 60% (8 DZs)
- 60 - 80% (14 DZs)
- 20% least deprived (2 DZs)
- IZ boundary

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Map 2 – The percentage of children in poverty in 2015 (after housing costs) for multi-member wards
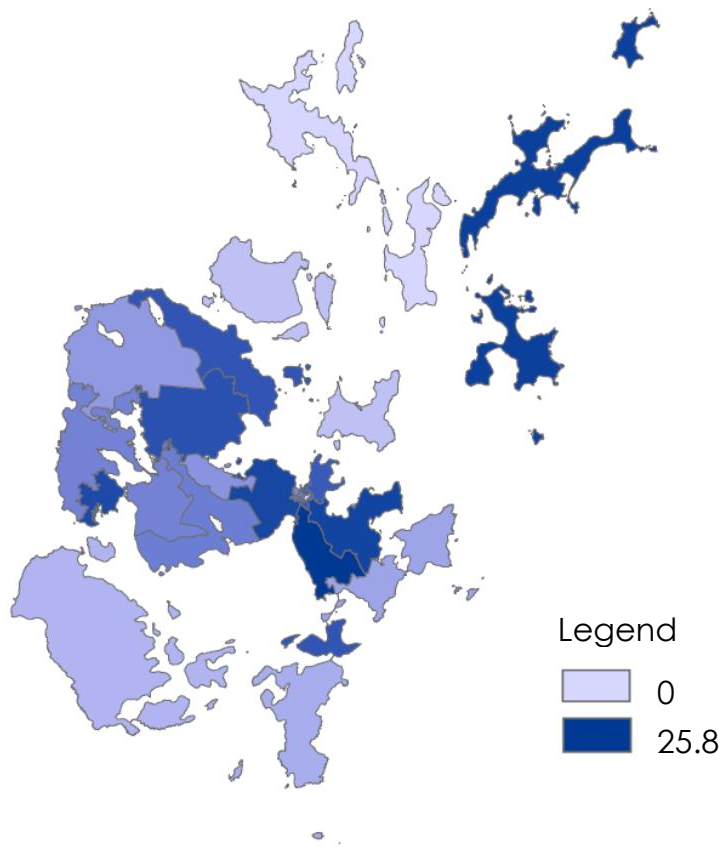

Legend
- 4.8
- 27.8

The HMRC estimates (2013) for children in low income families are also publicly available, see Annex 3. This is the data on which the End Child Poverty estimates are based upon, but without the adjusted figures from the Labour Market Survey 2015. Although these data are older this is still useful as the information is available at the data zone level, which are smaller geographical areas than multi-member wards. Map 3 shows these estimates for the Orkney Islands.

The area with the highest proportion of children in low-income families (25.8%) is the East Mainland data zone and covers St Mary's, Hamly Hill and Tradespark. This data zone is in the 40% least deprived areas of Scotland. Relatively high proportions can also be found in the Stromness, Sandwick and Stenness data zone (19.0%) and the North Isles (18.7%).

In the data zone covering the islands of Westray and Edsay, the data suggests there are no children in low-income families. The table in Annex 3 shows the HMRC figures for each of the data zones in the Orkney Islands.

If we compare Map 2 and Map 3, we can see variation in the proportion of children in poverty within the multi-member wards. We can also see change between the two time periods, with some data zones experiencing an increase or decrease in poverty. This suggests that movement in and out of poverty can happen quickly.

Map 3 – The percentage of children in low income families in 2013 for data zones

Legend

- ☐ 0
- ■ 25.8

Where are children at risk of poverty?

We explored three of the most deprived data zones in the Orkney Islands using output area level indicators sourced from Scotland's Census 2011. The indicators reflect the Child Poverty Risk Factors and include:

- The number of lone parent households with dependent children.

- The number of households with no persons in employment with dependent children.

- The number of households with at least one person with a long term illness or disability and with dependent children.

Census data & confidentiality

Publishing data for small areas carries a risk that individuals could be identified and confidential information about them could be released. To minimise this risk, statistical disclosure control methods have been applied to the Census data which modify, summarise or perturb the data. As a result, a small value may not be the exact value for this area.
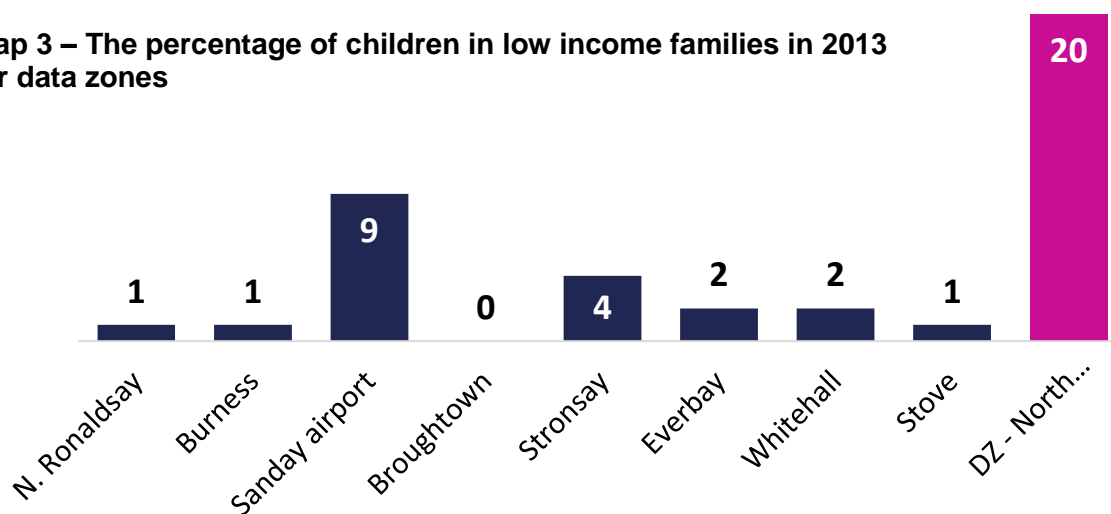
Table 1 shows the number of children, total number of people and number of output areas in each of the three data zones examined.

Table 1 – Population numbers

Data zone	Number of children	All people	Number of output areas
South Isles	55	527	6
West Kirkwall	81	435	4
North Isles	141	803	8

Graph 1 shows the number of lone parent households with dependent children for each of the output areas in the North Isles data zone. The pink bar is for the whole data zone. We can see that there is variation within the data zone with no lone parent households in the Broughtown area and nine in the Sanday airport area.
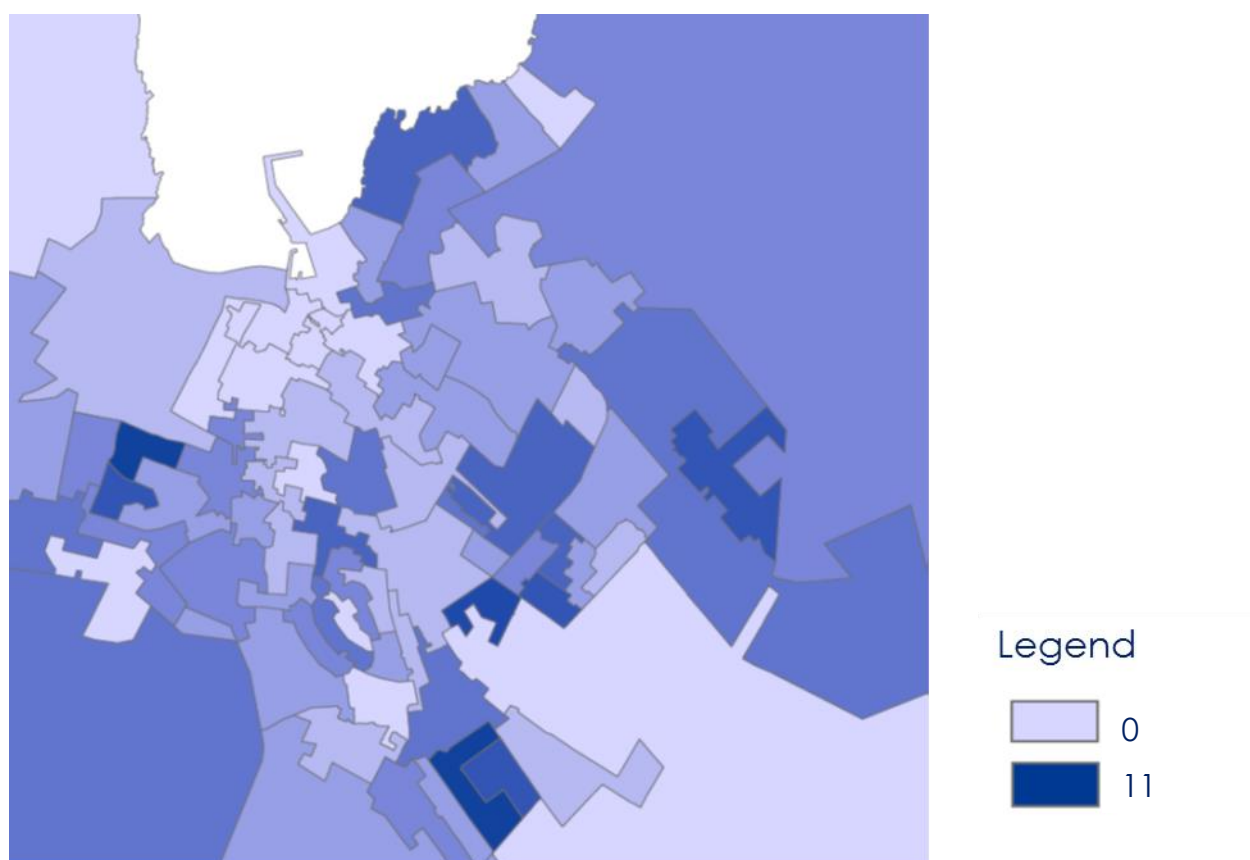
Map 3 – The percentage of children in low income families in 2013 for data zones

N. Ronaldsay	Burness	Sanday airport	Broughtown	Stronsay	Everbay	Whitehall	Stove	DZ - North...
1	1	9	0	4	2	2	1	20

For the indicator capturing households with no persons in employment with dependent children, just two were found in the areas of Lyness and Longhope in the South Isles, which is the most deprived data zone.

When we examined the number of households with at least one person with a long term illness or disability and with dependent children in Kirkwall West, we found variation within the data zone. Whereas most areas had none or very few households members with an illness or disability, one output area had eight households. Map 4 shows the results for the whole of Kirkwall. Again, we can see variation within the town with concentrations in some of the neighbourhoods.

Map 4 – The number of households with at least one person with a long term illness or disability and with dependent children in Kirkwall by output area.
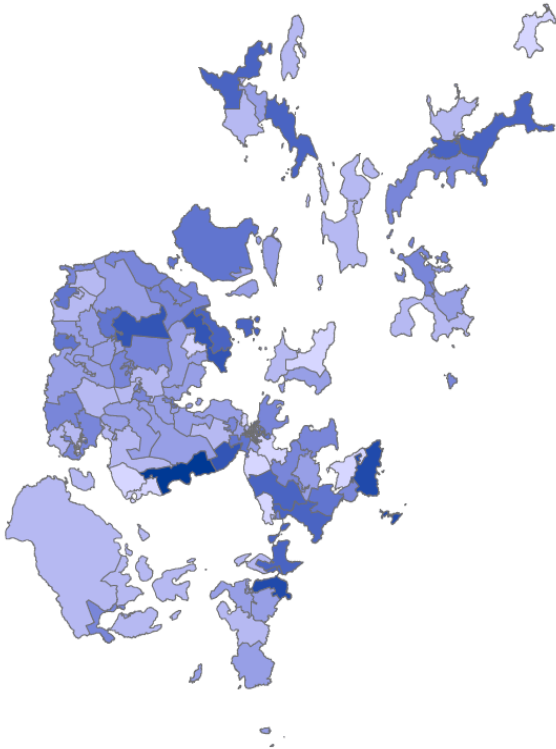

We can also examine each of the three risk factors above for the whole of the Orkney Islands and compare with the SIMD map.
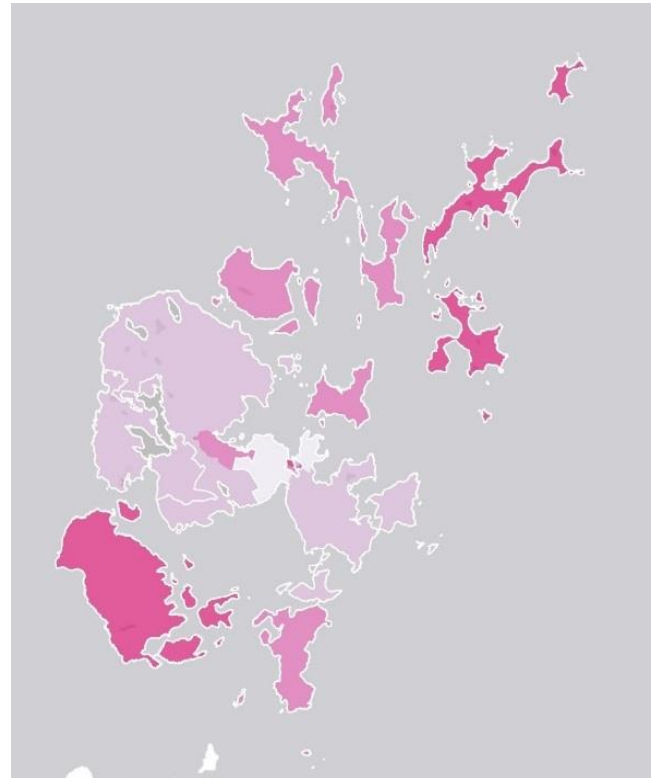
As we can see in Figure 1 below, there is variation in each of the risk factors across the Orkney Islands. It is interesting to note that the most deprived data zone (South Isles), has relatively low numbers of unemployment where there are children in the household, and lone-parent families.

There are parts of the Mainland and North Isles where high numbers can be found for all three of the risk factors. When comparing the risk factors with SIMD, we can see that that the risk factors are not necessarily more prevalent in the most deprived areas.
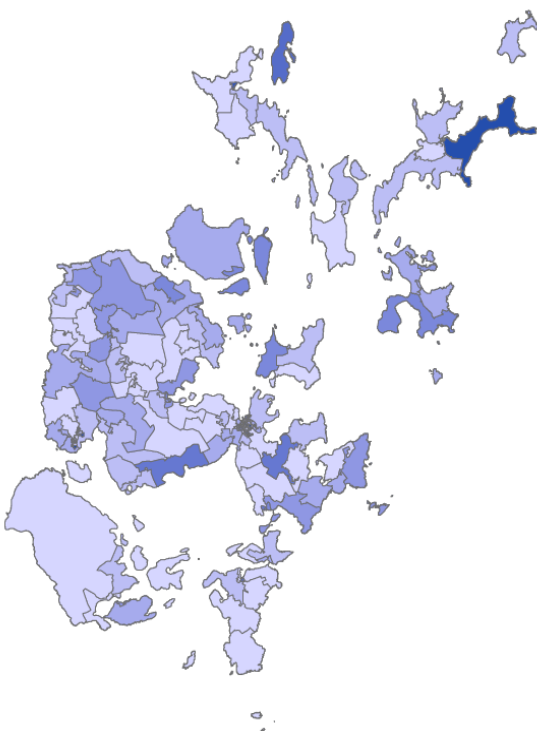
Figure 1 - Maps comparing prevalence of each of the risk factors across output areas and SIMD for the whole of the Orkney Islands (minimum and maximum values in an output area)
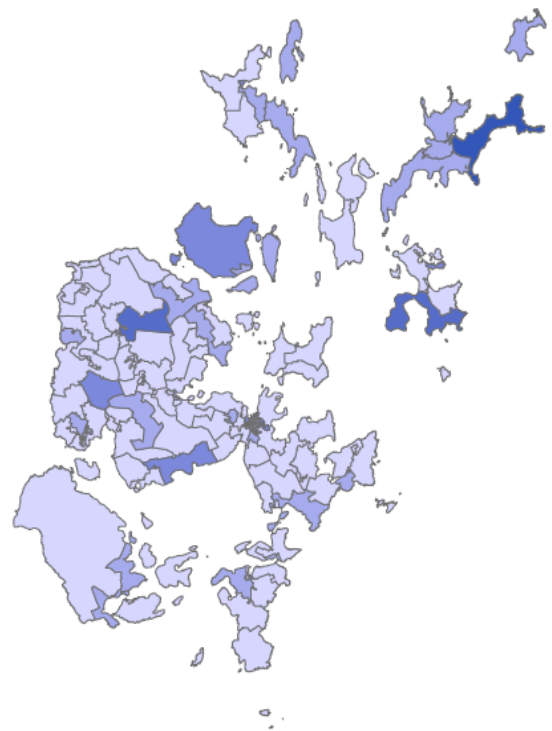

Illness and disability
(minimum=0, maximum=11)

SIMD

Lone parent households
(minimum=0, maximum=15)

Unemployment
(minimum=0, maximum=9)

Summary & Recommendations

- SIMD is useful for identifying rural areas where children might be in poverty.
- Using SIMD with other data enhances what we know about an issue in a particular area. This provides a useful set of tools for targeting interventions at groups and places in need.
- It is important to recognise that children at risk of poverty do not just live in the deprived areas.
- Moving in and out of poverty can happen quickly. Use up to date data where possible.
- The indicators show that there is variation within the data zones. Where possible, compare SIMD with data at a smaller geographical level.
- Administrative data at the local authority level or for a community group could also be used alongside SIMD if information on postcodes or data zones for households are available.

24 February 2017   Contact: SIMD@gov.scot

Annex 1 - Publicly available data sources used in this case study

Data source	Year	Indicators provided	Smallest geography provided
End Child Poverty Campaign	2015	% of children in poverty	Multi-member wards, Local authority
HMRC	2013	% of children in low income families	Data zone
Scotland's Census	2011	% Lone parent households with dependent children	Output area
		% Households with no persons in employment (except full-time students) with dependent children	
		% Socially rented housing	
		% People with one or more long-term health conditions	
		% People with learning disability	
		% People with physical disability	

Annex 2 - Child poverty estimates for multi-member wards in the Orkney and Shetland constituency, provided by End Child Poverty*

Percentage of children in poverty, 2015	Before housing costs	After housing costs
Parliamentary Constituency and wards (ward boundaries as of 2013)		
Orkney and Shetland	**7.5%**	**12.2%**
Kirkwall East	8.2%	13.5%
Kirkwall West and Orphir	7.5%	12.5%
Stromness and South Isles	12.1%	19.1%
West Mainland	5.7%	9.4%
East Mainland, South Ronaldsay and Burray	2.9%	4.8%
North Isles	18.2%	27.8%
North Isles	5.6%	9.3%
Shetland North	6.7%	11.0%
Shetland West	3.6%	6.0%
Shetland Central	10.8%	17.1%
Shetland South	5.1%	8.3%
Lerwick North	5.7%	9.5%
Lerwick South	8.3%	13.8%

* The Centre for Research in Social Policy makes annual estimates for the End Child Poverty Coalition of the number of children in poverty in each ward, local authority and parliamentary constituency in the UK. These estimates are not accurate counts of how many children are in poverty in each area. Rather, they use the best local data available to give an indication of where child poverty is particularly high, and therefore where there need to be the strongest efforts to tackle it.

Up to the publication of the latest figures in early 2013, which apply to 2012, the data has been assembled on the basis of:

- The HMRC figures estimating local child poverty based on administrative data. This combines a count of children on out of work benefits and children in families on tax credits whose reported family incomes are below 60 per cent of the median. Child Benefit data are used to count the total number of children in each area.

- An estimated update to the above data, which is about 2½ years out of date at the time of publication. The update uses more recent regional Labour Market Survey data on trends in the number of children in out of work households to adjust figures for out-of-work child poverty.

Annex 3 - Children in low income families estimates for each SIMD data zone, provided by HMRC (2013)*

Data zone	Data zone name	SIMD16 decile	% of Children in low-income families
S01011804	Stromness, Sandwick and Stenness - 01	5	19.0%
S01011827	Isles - 01	3	1.9%
S01011821	West Kirkwall - 04	4	3.1%
S01011822	West Kirkwall - 05	4	4.3%
S01011831	Isles - 05	4	18.7%
S01011824	East Kirkwall - 02	4	6.1%
S01011832	Isles - 06	5	0.0%
S01011808	West Mainland - 01	5	3.0%
S01011820	West Kirkwall - 03	5	4.8%
S01011830	Isles - 04	6	1.8%
S01011823	East Kirkwall - 01	6	0.6%
S01011819	West Kirkwall - 02	6	5.8%
S01011828	Isles - 02	6	2.3%
S01011809	West Mainland - 02	7	4.3%
S01011825	East Kirkwall - 03	7	6.6%
S01011829	Isles - 03	7	9.3%
S01011812	West Mainland - 05	7	9.3%
S01011813	East Mainland - 01	7	25.8%
S01011806	Stromness, Sandwick and Stenness - 03	7	12.7%
S01011810	West Mainland - 03	7	11.5%
S01011826	East Kirkwall - 04	7	11.9%
S01011811	West Mainland - 04	7	2.8%
S01011815	East Mainland - 03	8	17.0%
S01011818	West Kirkwall - 01	8	9.3%
S01011814	East Mainland - 02	8	2.7%
S01011807	Stromness, Sandwick and Stenness - 04	8	3.9%
S01011805	Stromness, Sandwick and Stenness - 02	8	6.5%
S01011817	East Mainland - 05	9	12.8%
S01011816	East Mainland - 04	10	7.5%

*These estimates take into account the number of children in households in receipt of child tax credits (below 60% median income) or in receipt of income support or job seekers allowance.