



Lochaber Service Redesign

Dimensions of deprivation

A report to support the Lochaber Clinical Strategy

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Directorate of Public Health
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The Public Health Intelligence Team are part of the Directorate of Public Health of NHS Highland and provide an expert resource of demographic and population health evidence.

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Multiple Deprivation in Lochaber

The links between socio-economic deprivation and people's health and well-being outcomes are well evidenced and deprivation impacts on child development, people's lifestyle choices, healthy life expectancy, including living with an illness or chronic condition, and life expectancy. A consequence of deprivation and poverty is generally an increased demand for health and social care services¹.

NHS Health Scotland defines inequalities in health as the unfair and avoidable differences in people's health across social groups and between different population groups².

Where people live can affect their health and life chances. The Scottish Index of Multiple Deprivation (SIMD) is the official and widely used composite measure of deprivation for data zones (small areas with a median population of about 760 people) in Scotland³. The most recent version of the SIMD was published in 2016 and is based upon 2011 Census geography.

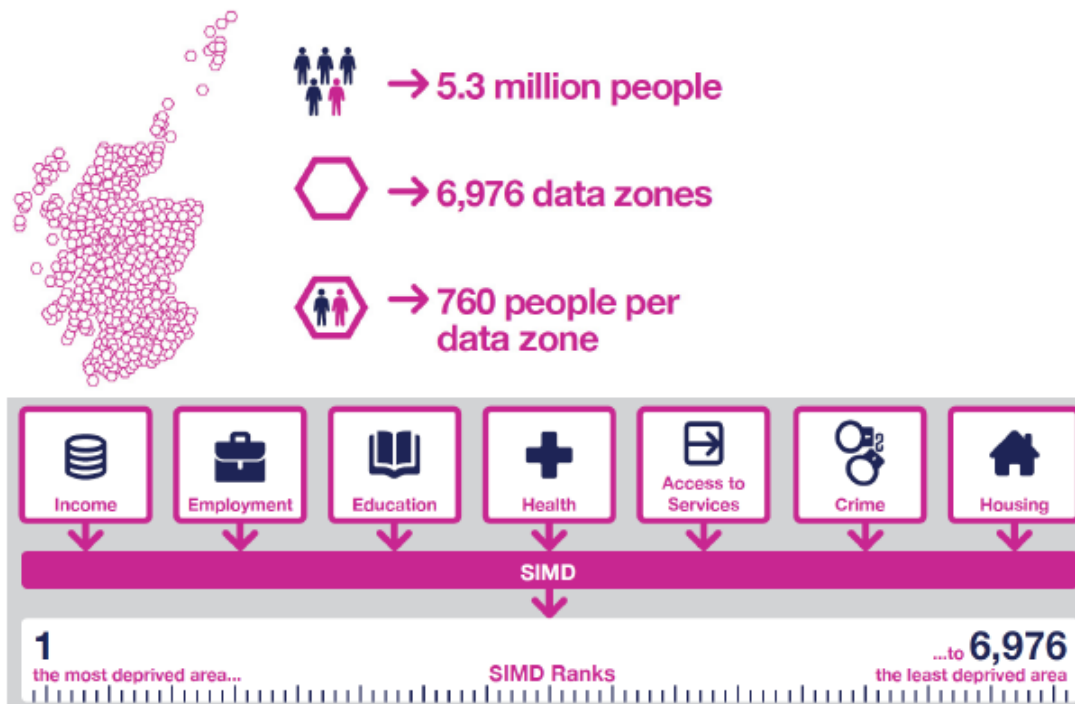
Multiple deprivation does not just identify areas with 'poor' or 'low income'; it can also mean people live in areas that have relatively fewer resources and opportunities within the seven domains of the index: Income, Employment, Education, Health, Access to Services, Crime and Housing. The SIMD is put together by combining indicator scores from these 7 domains for every small area and ranking (Figure 1 and [Appendix 1](#)) these areas from the most to the least deprived, where 1 is the most deprived and 6,976 the least deprived in Scotland (Figure 2).

Figure 1: SIMD domains and their weightings

Domain	2016 Weight	Percentage of overall SIMD
Income	12	28%
Employment	12	28%
Health	6	14%
Education, Skills and Training	6	14%
Geographic Access to Services	4	9%
Crime	2	5%
Housing	1	2%

Data source: Scottish Government – The Scottish Index of Multiple Derivation³

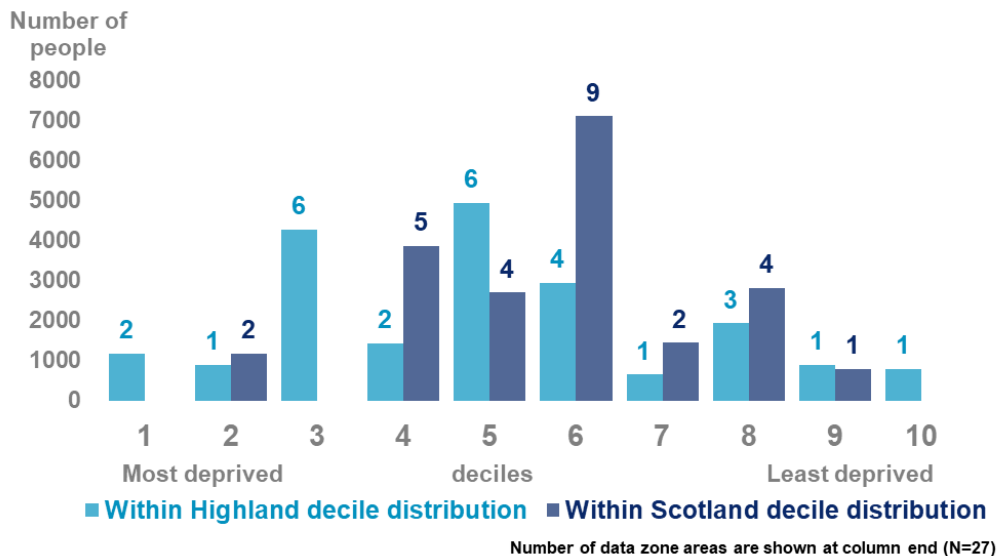
Figure 2: Data zones across Scotland and SIMD domains 2016



Data source: Scottish Government – The Scottish Index of Multiple Deprivation³

These ranks are commonly grouped into quintiles (20% bands) and deciles (10% bands) of deprivation by data zone either within Scotland, Health Board or Council Area. This permits benchmarking within the area of interest in detail with deciles or an overview with quintiles.

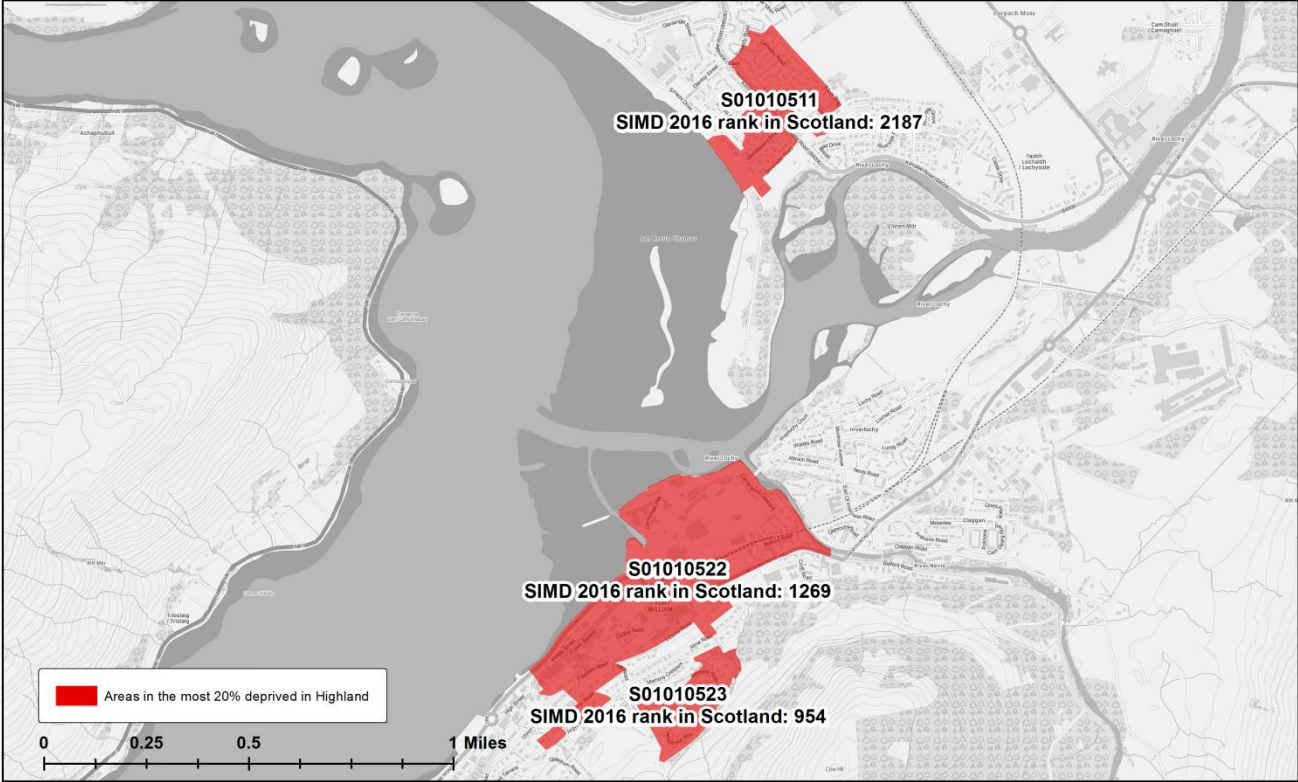
Figure 3: Population of data zone areas in Lochaber (N=27) stratified by decile distribution of the SIMD within Highland and within Scotland




Data source: Scottish Government – The Scottish Index of Multiple Deprivation³

Lochaber data zone ranks range from 954 (Fort William North, S01010523) to 6,086 (Corpach East and Banavie, S01010513). These areas fall into quintile 1 and quintile 5 of national deprivation as shown in figures 3. In addition to the Fort William North area, a data zone in the centre of Fort William (Fort William Central, S01010522) is also identified as being in the most deprived 20 percent of areas in Scotland. The area of Caol South East (S01010511) is within the most deprived quintile of multiple deprivation in Highland Council, but the SIMD rank of 2187 places the area in quintile 2 nationally (Figure 5).

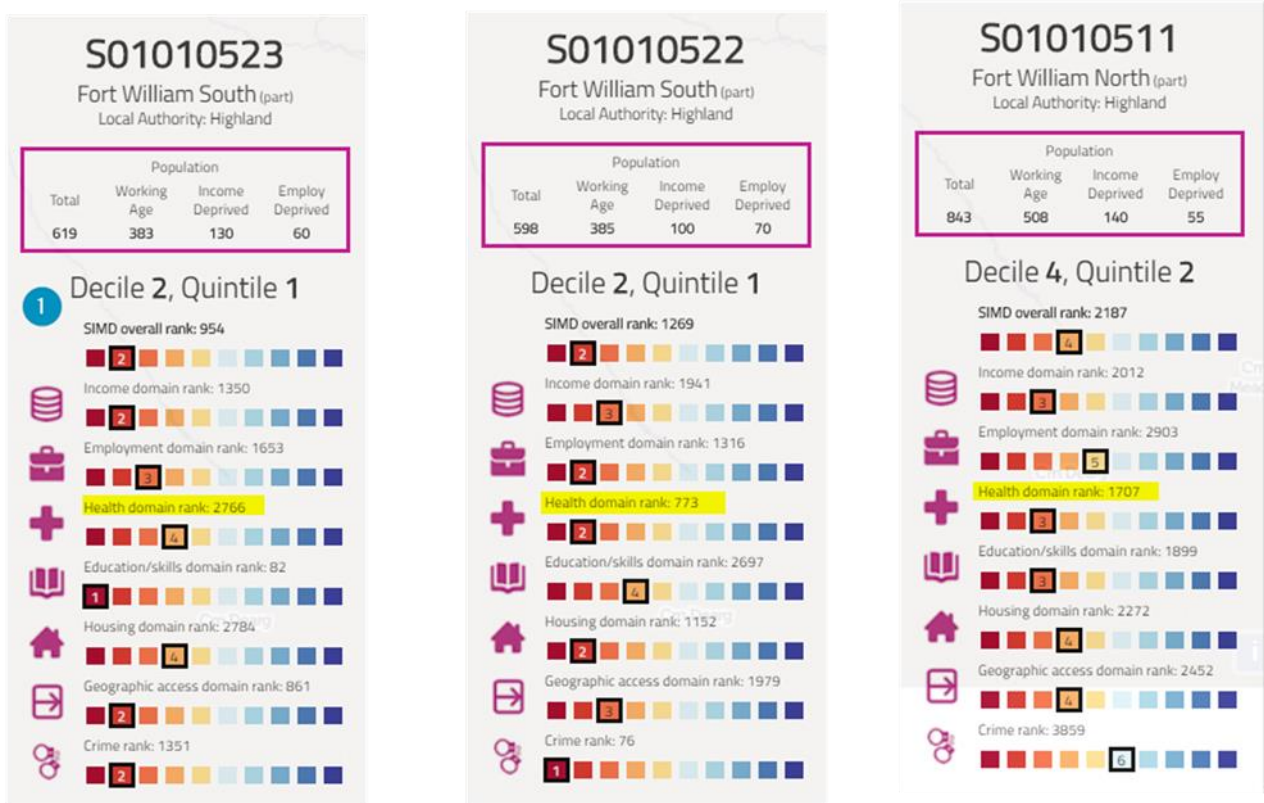
Figure 4: Data zone areas in Lochaber in the most 20 percent of deprived in Highland



<p>SIMD 2016: data zone areas in Lochaber in the most 20 percent deprived in Highland</p>	
<p><small>This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. © Crown copyright and database right. All rights reserved. 100010825 2019</small></p>	<p>Public Health Intelligence Team Larch House, Inverness Date: Oct 2019</p>

Data source: Scottish Government – The Scottish Index of Multiple Deprivation³

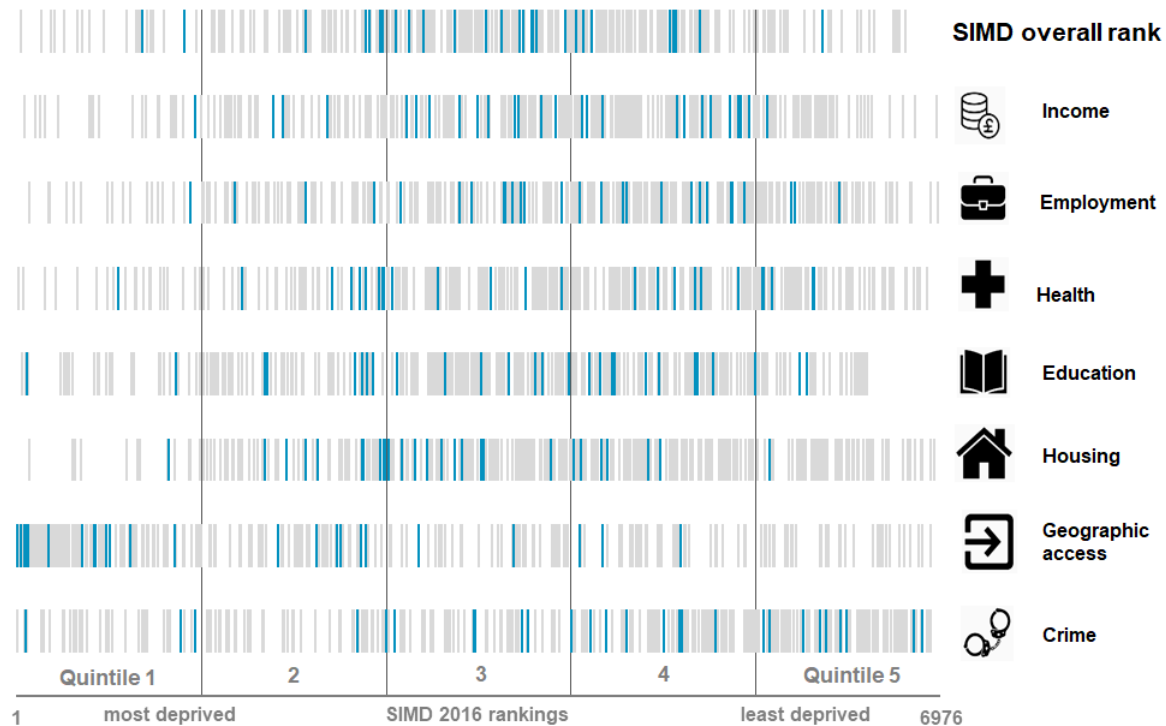
Figure 5: Data zone areas in Lochaber in the most 20 percent of deprived in Highland -



Data source: Scottish Government – The Scottish Index of Multiple Deprivation³

With the exception of these three small areas the individual domain ranks of data zones in Lochaber have population health and material wellbeing scores that generally reflect the overall distribution of deprivation in Highland with most area scores concentrated in quintiles 2 to 4. The exception to this picture is the access domain score that places the majority of the areas in Lochaber among the most deprived in Scotland (Figure 3). Almost 80 percent of the Lochaber population live in the most 20 percent of access deprived areas in Scotland with the data zone areas of Ardnamurchan & the Small Isles (S01010504) and Ardgour, Sunart and Morven (S01010508) ranked the most and sixth most access deprived areas nationally.

Figure 6: SIMD 2016 overall and domain rankings within Scotland: Lochaber data zones in blue and Highland Council data zones in grey



Data source: Scottish Government – The Scottish Index of Multiple Deprivation³

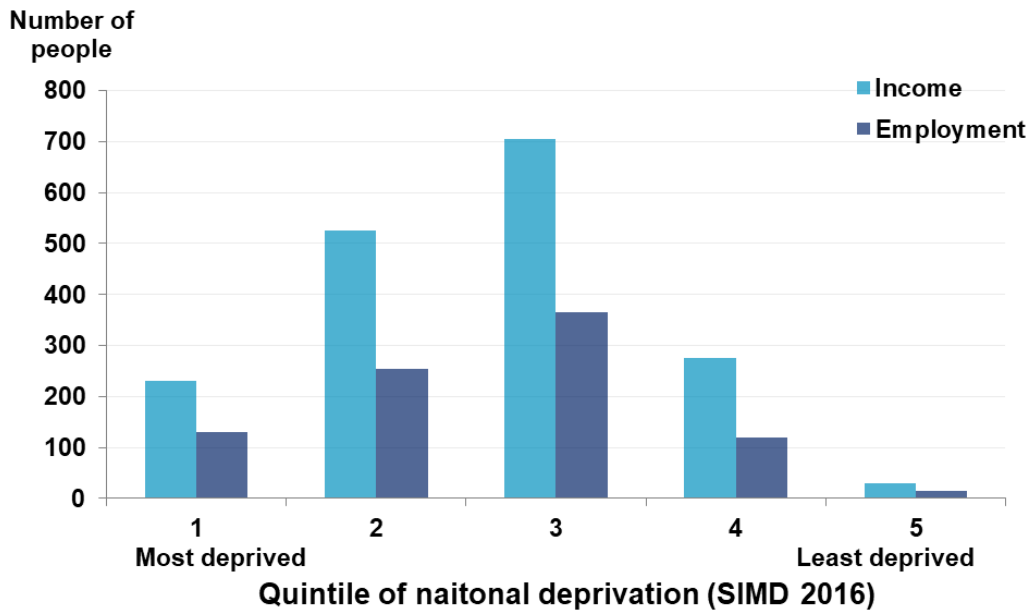
The health domain suggests that relative health is generally better in Lochaber than in most areas in Scotland. However, caution should be exercised in drawing any conclusion about overall population health need from this data. To compare areas the SIMD methodology calculates standardised ratios of health and disability to describe variation from what might be expected of a population of a particular age. The health domain therefore does not report actual levels of poor health and disability. We know that the prevalence of chronic conditions and limiting long-term illnesses increase with age.

As highlighted in our demography paper⁴, the Lochaber population is predicted to continue to age with the cohorts born in the baby boom years increasingly making up a larger proportionate share of the population. Age places increased demand on health and social care. The Institute for Fiscal Studies estimates that a 65 year old costs double in terms of health spending when compared to a 30 year old, and a 90 year old eight times more⁵.

Data from the income and employment domains of the SIMD is available as counts of individuals and these can potentially be used to identify absolute numbers of people experiencing deprivation. In SIMD 2016 15 percent of the population of Lochaber were identified as being income deprived and 7 percent employment deprived³.

Absolute figures highlight that not all deprived people live in deprived areas and that an analysis using the overall score of the SIMD can obscure those experiencing employment and income disadvantage.

Figure 7: Number of people income and employment deprived in Lochaber by national quintile of multiple deprivation (SIMD 2016)



Data source: Scottish Government – The Scottish Index of Multiple Deprivation³

Rural deprivation and fragile areas in Lochaber

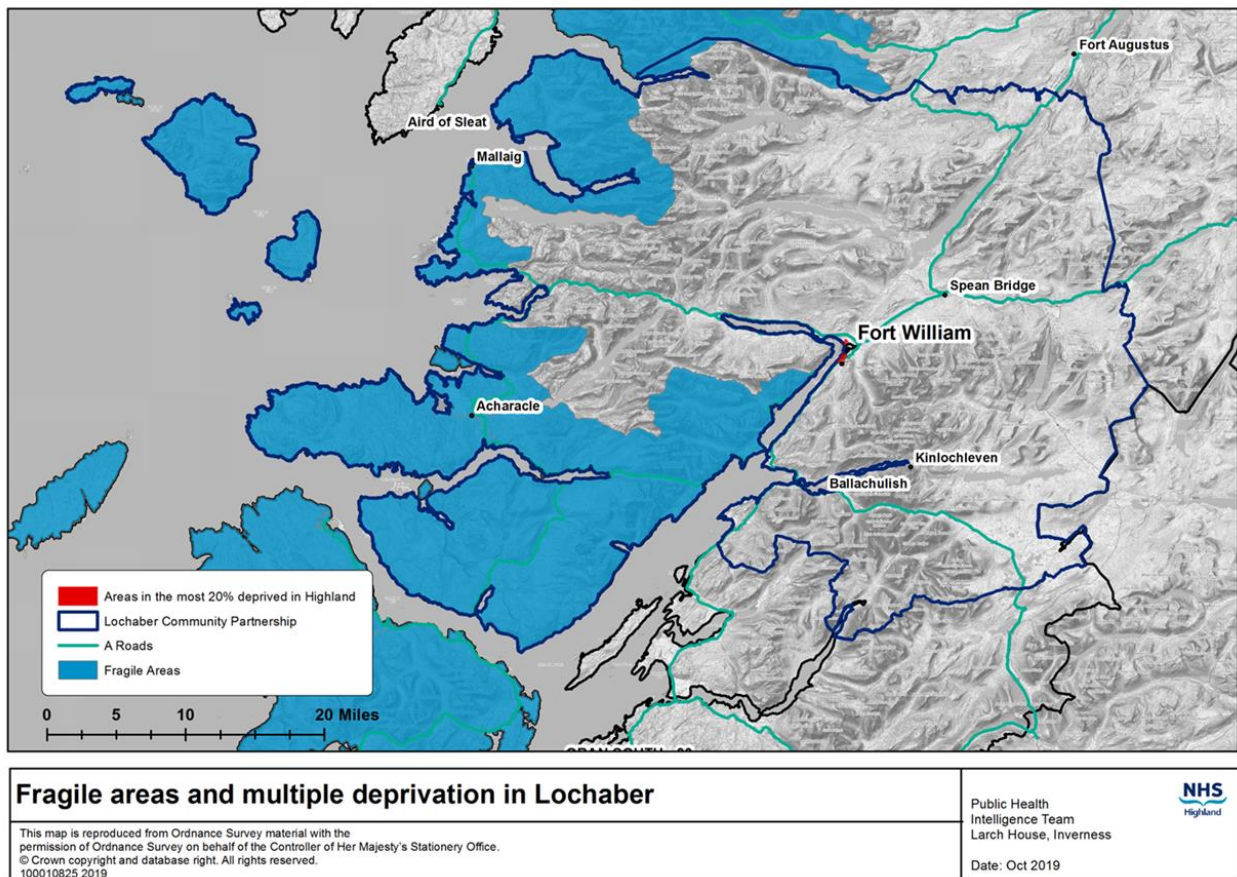
While the SIMD identifies three areas in Lochaber with high deprivation scores the tool is less accurate in rural areas⁶. This is in part a reflection that the statistical indicators used in the index do not capture the nature of rural deprivation and that disadvantaged and poor households in rural areas are unlikely to be spatially concentrated⁷.

Rural areas tend to be less homogenous than urban ones in terms of deprivation with the numbers involved tending to be smaller. Deprived households in rural areas are therefore unlikely to make much statistical impact on an area basis. A consequence is that rural disadvantage is less visible and ‘less easily tractable’.

Rural poverty, disadvantage and deprivation have been recognised to have particular characteristics. These include: low incomes due to seasonal, short-term employment; fuel poverty due to old housing stock and being off-grid; and in difficulties in accessing services^{8 9 10}.

Fragile areas are a designation employed by Highlands and Islands Enterprise to identify places at risk of population decline, having fewer younger people, lacking economic and employment opportunities and with transport challenges. About 3,750 people or 20 percent of the population of Lochaber live in five areas viewed as ‘fragile’ that have combinations of population, economic and communication challenges¹¹.

Figure 8: Fragile areas and multiple deprivation in Lochaber



Evidence from the literature highlights that people living in rural areas experience deprivation differently from those living in towns and cities^{8,9,11}.

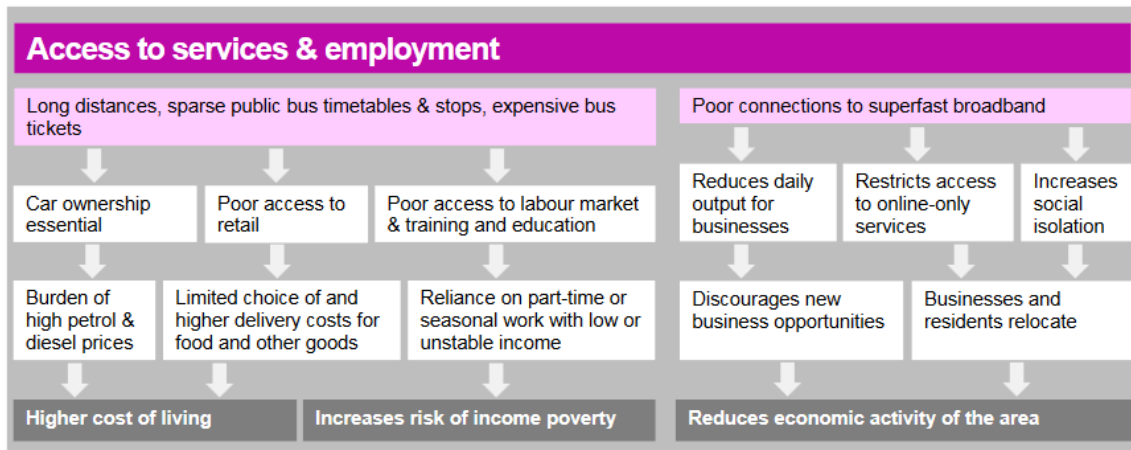
Particular issues in rural areas include:

- Less accessible key services including health and social care, childcare and high speed digital networks
- Higher consumption of fuel for heating and transport
- Reduced opportunities to earn adequate income
- Higher cost of living impacted by prices for basic essential supplies
- Limited frequency and coverage of public transport

These factors can work as a compound with the low incomes of people in remote rural areas being exacerbated by additional costs including more expensive food and fuel, as shown in work on the Minimum Income Standard for Remote Rural Scotland¹².

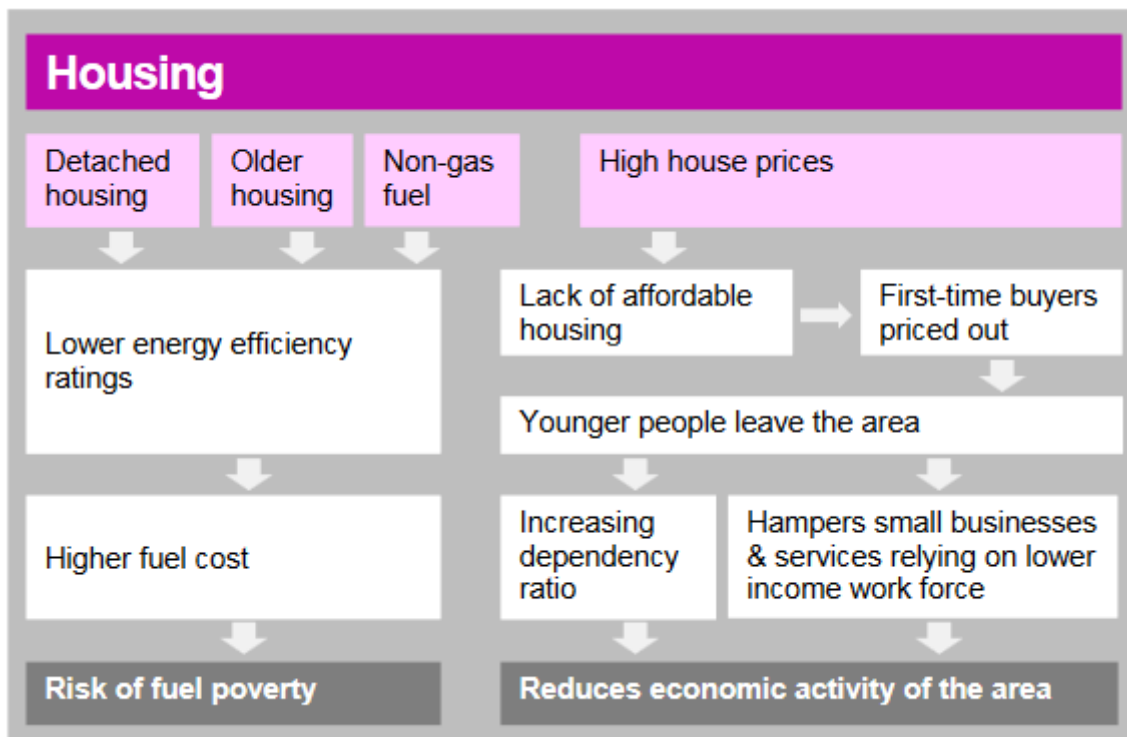
Figures 9 and 10 below illustrate how such disadvantages interact. However, while we can describe these relationships it is not always possible from routinely collected national data to create metrics to inform the SIMD⁷.

Figure 9: Access to services and employment in rural areas identified from the literature



Data source: Scottish Government⁷

Figure 10: Housing issues and associated impacts in rural Scotland identified from the literature



Data source: Scottish Government⁷

The current evidence suggests that people living in remote rural areas face different challenges than those living in urban areas, and therefore, the experiences of deprivation are not the same.

Rural communities are increasingly older and our previous work on the demography of Lochaber projected a large increase in the population over 75 years of age by 2037⁴. Deprivation works in combinations and the elderly in remote rural areas are vulnerable to low income in combination with problems of isolation and access to services. The younger population tends to decline the more remote and rural the settlement type is, with implications for informal care and workforce supply.

The SIMD currently includes no measure of access to secondary care services. However, it would be anticipated that there would be a strong positive correlation with the existing indicators of access to local services for remote rural areas.

Summary

The Scottish Index of Multiple Deprivation identifies three areas in Lochaber, all within Fort William, that are among the most deprived within Highland. Approximately 2,000 people or 10 percent of the population of Lochaber live in these data zones, including 500 children less than 18 years of age.

Evaluation of the income and employment domains of the index highlights that while income poverty and lack of employment opportunity are more concentrated in the populations living in these three areas similar poverty exists for families and households across the area. The literature suggests that rural deprivation is often hidden and dispersed within areas of apparent affluence with the financial challenges accentuated by a combination of low pay and higher cost of goods and transport.

The health domain of SIMD also indicates that the population of the area is relatively healthy compared to Scotland. However, changing population demographics have and will increasingly result in an elderly population living in the area. This group are more likely to be predisposed to a range of associated health conditions (such as dementia) and long-term chronic conditions that require regular ongoing treatment and services.

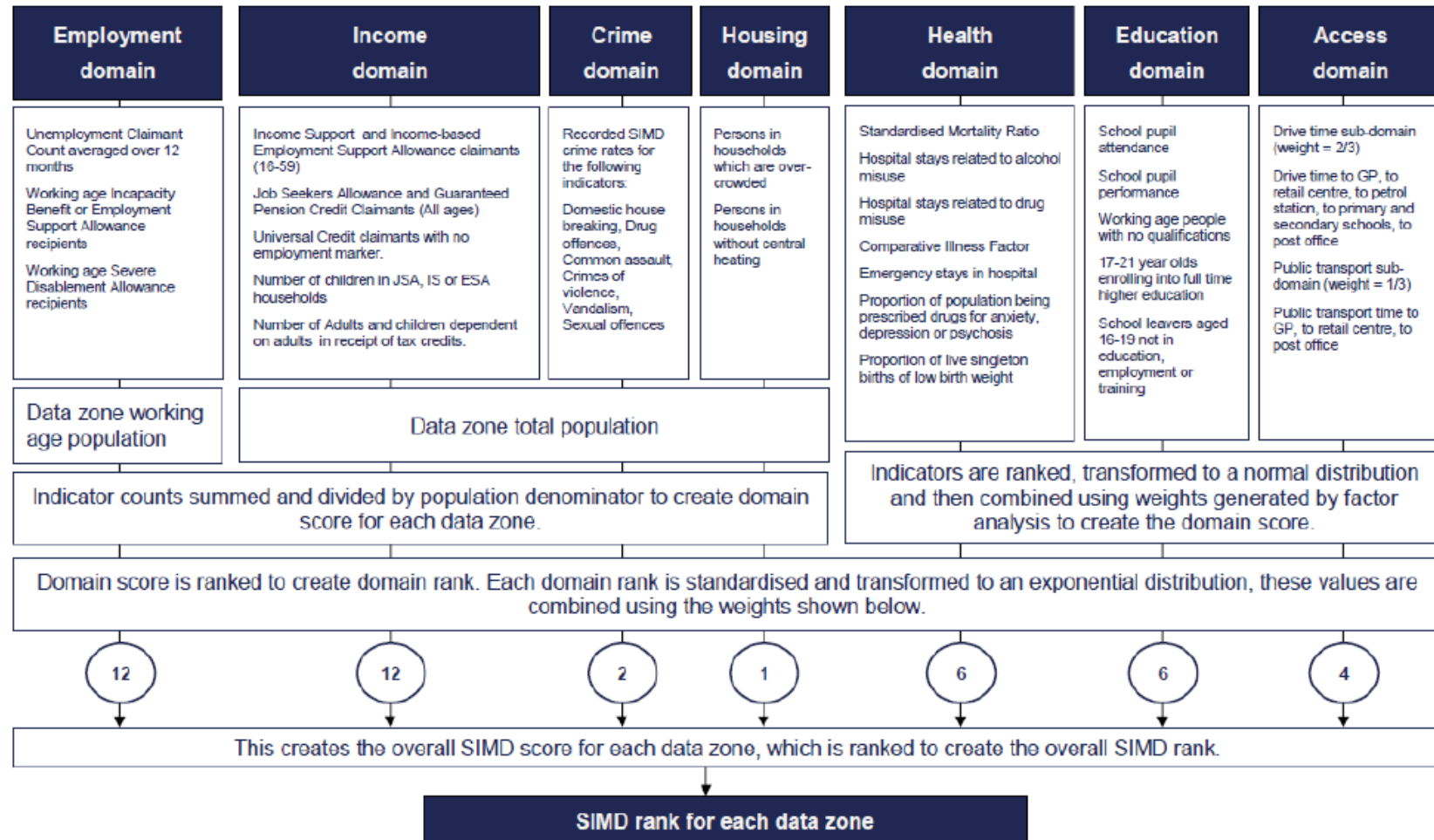
The SIMD access domain clearly highlights that availability of services is a major issue in remote rural areas. The focus of the domain measure is access to local services including pharmacies and GP and there are area differences across Lochaber. Limited availability of primary care services can be compounded by distance to specialist services. There are difficulties of supplying specialist health services in rural areas including the availability of staff and the lower numbers of patients with associated challenges to maintain clinical skills. Accessing specialist services such as for cancer care are likely to mean that people who live in rural areas are required to travel long distances regularly. A lack of specialist care can negatively impact on patient health, particularly on those with complex support needs. As healthcare may not be readily accessible certain groups do not report illnesses or present until later stages in disease progression¹³. This can contribute to health inequalities and higher levels of unmet need. Urban deprivation can result in similar delays in help-seeking and stage of disease presentation, for different reasons.

Transport links are therefore vital for rural populations requiring care in other areas. Reciprocally, patient location impacts on healthcare staff and such as social workers, nurses, GPs or home carers who need to travel to provide services within homes and clinics.

Innovative approaches to the provision of remote and rural healthcare are required. Outpatient video appointments are increasingly possible in more rural areas of NHS Highland through the 'Near Me' programme that allow patients to 'attend anywhere'. However, the increasing employment of technology to deliver remote care raises issues of digital exclusion. Although internet connectivity remains a challenge, the NHS Near Me programme aims to minimise access differences by engaging across population groups and offering the service in appropriately equipped clinic rooms in remote rural areas where people cannot connect from home¹⁴.

A range of health issues affect the population of Lochaber. Many of these problems interact and include accessibility, isolation, population dynamics and demographic change and socio-economic challenges. None of these issues are unique to the Lochaber area but the future models of care need to consider how these factors impact on population health and wellbeing both in the more urban setting of Fort William and in some of Scotland's most remote and socio-economically fragile areas.

Appendix 1: How the Scottish Index of Multiple Deprivation 2016 is constructed



Data source: Scottish Government – The Scottish Index of Multiple Derivation³

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