**Scotland Vulnerability Resource documentation**

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# 1. Abstract

This data set is intended as a single resource with demographic, socioeconomic, and deprivation measures for Scotland. The current version doesn’t include the Mid-2019 Population Estimates Scotland, yet.

With this data set you will be able to us to identify vulnerable people using a broader definition than healthcare use and it will also allow you to measure if a given group is different from the region as a whole.

# 2. Metadata for Scotland Vulnerability Resource

Table 1: Metadata for the Scotland Vulnerability Resource

|  |  |
| --- | --- |
| **Metadata** |  |
| Contributor | Bernhard Scheliga, Jessica Butler |
| Coverage | Scotland |
| Creator | Bernhard Scheliga |
| Date | 18/06/2020 |
| Description | Single resource with demographic, socioeconomic, and deprivation measures for Scotland |
| Format | .csv-file |
| Identifier | NA |
| Language | English |
| Publisher | University of Aberdeen, Welcome Trust? |
| Relation | Scotland Vulnerability Resource documentation**,** <https://github.com/AbdnCHDS/Scotland_Vulnerability_Resource> |
| Rights | NA |
| Source | SIMD+2020v2+-+indicators.xlsx, SIMD+2020v2+-+postcode+lookup.xls,  SIMD+2020v2+-+datazone+lookup.xlsx from https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/. (Accessed: 9th June 2020); NHS board region from <https://en.wikipedia.org/wiki/Subdivisions_of_Scotland> (Accessed: 11th June 2020) |
| Subject | demographic, socioeconomic, deprivation |
| Title | Scotland Vulnerability Resource |
| Type | spatial, temporal |

# 3. Key and other important information

## 3.1 Description of the columns in the Grampian data

Table 2: Description of the columns in the Grampian data with information on the, Category, data type and source data set

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Column name** | **Data type** | **Description** | **Source data set** |
| Geography | Postcode | Code | UK Postcode | SIMD+2020v2+-+postcode+lookup.xlsx |
| Geography | Data\_Zone | Code | 2011 Data Zone | SIMD+2020v2+-+indicators.xlsx |
| Geography | Intermediate\_Zone | Name | 2011 Intermediate Zone name | SIMD+2020v2+-+indicators.xlsx |
| Geography | Council\_area | Name | Council area name | SIMD+2020v2+-+indicators.xlsx |
| Geography | NHS\_Health\_Board\_Region | Name | NHS Health Board Region name | Wikipedia |
| Population | Total\_population | Count | 2017 NRS small area population estimates | SIMD+2020v2+-+indicators.xlsx |
| Population | Working\_age\_population | Count | 2017 NRS small area population estimates and state pension age | SIMD+2020v2+-+indicators.xlsx |
| Income | Income\_rate | Percentage | Percentage of people who are income deprived | SIMD+2020v2+-+indicators.xlsx |
| Income | Income\_count | Count | Number of people who are income deprived | SIMD+2020v2+-+indicators.xlsx |
| Employment | Employment\_rate | Percentage | Percentage of people who are employment deprived | SIMD+2020v2+-+indicators.xlsx |
| Employment | Employment\_count | Count | Number of people who are employment deprived | SIMD+2020v2+-+indicators.xlsx |
| Health | CIF | Standardised ratio | Comparative Illness Factor: standardised ratio | SIMD+2020v2+-+indicators.xlsx |
| Health | ALCOHOL | Standardised ratio | Hospital stays related to alcohol use: standardised ratio | SIMD+2020v2+-+indicators.xlsx |
| **Category** | **Column name** | **Data type** | **Description** | **Source data set** |
| Health | DRUG | Standardised ratio | Hospital stays related to drug use: standardised ratio | SIMD+2020v2+-+indicators.xlsx |
| Health | SMR | Standardised ratio | Standardised mortality ratio | SIMD+2020v2+-+indicators.xlsx |
| Health | DEPRESS | Percentage | Proportion of population being prescribed drugs for anxiety, depression or psychosis | SIMD+2020v2+-+indicators.xlsx |
| Health | LBWT | Percentage | Proportion of live singleton births of low birth weight | SIMD+2020v2+-+indicators.xlsx |
| Health | EMERG | Standardised ratio | Emergency stays in hospital: standardised ratio | SIMD+2020v2+-+indicators.xlsx |
| Education, Skills and Training | Attendance | Percentage | School pupil attendance | SIMD+2020v2+-+indicators.xlsx |
| Education, Skills and Training | Attainment | Score | Attainment of school leavers | SIMD+2020v2+-+indicators.xlsx |
| Education, Skills and Training | no\_qualifications | Standardised ratio | Working age people with no qualifications: standardised ratio | SIMD+2020v2+-+indicators.xlsx |
| Education, Skills and Training | not\_participating | Percentage | Proportion of people aged 16-19 not participating in education, employment or training | SIMD+2020v2+-+indicators.xlsx |
| Education, Skills and Training | University | Percentage | Proportion of 17-21 year olds entering university | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | drive\_petrol | Time (minutes) | Average drive time to a petrol station in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | drive\_GP | Time (minutes) | Average drive time to a GP surgery in minutes | SIMD+2020v2+-+indicators.xlsx |
| **Category** | **Column name** | **Data type** | **Description** | **Source data set** |
| Geographic Access to Services | drive\_PO | Time (minutes) | Average drive time to a post office in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | drive\_primary | Time (minutes) | Average drive time to a primary school in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | drive\_retail | Time (minutes) | Average drive time to a retail centre in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | drive\_secondary | Time (minutes) | Average drive time to a secondary school in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | PT\_GP | Time (minutes) | Public transport travel time to a GP surgery in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | PT\_Post | Time (minutes) | Public transport travel time to a post office in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | PT\_retail | Time (minutes) | Public transport travel time to a retail centre in minutes | SIMD+2020v2+-+indicators.xlsx |
| Geographic Access to Services | broadband | Percentage | Percentage of premises without access to superfast broadband (at least 30Mb/s download speed) | SIMD+2020v2+-+indicators.xlsx |
| Crime | crime\_count | Count | Number of recorded crimes of violence, sexual offences, domestic housebreaking, vandalism, drugs offences, and common assault | SIMD+2020v2+-+indicators.xlsx |
|  |  |  |  |  |
| **Category** | **Column name** | **Data type** | **Description** | **Source data set** |
| Crime | crime\_rate | Rate per 10,000 population | Recorded crimes of violence, sexual offences, domestic housebreaking, vandalism, drugs offences, and common assault per 10,000 people | SIMD+2020v2+-+indicators.xlsx |
| Housing | overcrowded\_count | Count | Number of people in households that are overcrowded | SIMD+2020v2+-+indicators.xlsx |
| Housing | nocentralheat\_count | Count | Number of people in households without central heating | SIMD+2020v2+-+indicators.xlsx |
| Housing | overcrowded\_rate | Percentage | Percentage of people in households that are overcrowded | SIMD+2020v2+-+indicators.xlsx |
| Housing | nocentralheat\_rate | Percentage | Percentage of people in households without central heating | SIMD+2020v2+-+indicators.xlsx |
| Scottish Index of Multiple Deprivation (SIMD) | SIMD2020v2\_Rank | Rank | Overall SIMD 2020v2 rank - 1 is most deprived, 6,976 is least deprived | SIMD+2020v2+-+datazone+lookup.xlsx |
| Scottish Index of Multiple Deprivation (SIMD) | SIMD2020v2\_Vigintile | Vigintile | SIMD 2020v2 5% band - 1 is most deprived, 20 is least deprived | SIMD+2020v2+-+datazone+lookup.xlsx |
| Scottish Index of Multiple Deprivation (SIMD) | SIMD2020v2\_Decile | Decile | SIMD 2020v2 10% band - 1 is most deprived, 10 is least deprived | SIMD+2020v2+-+datazone+lookup.xlsx |
|  |  |  |  |  |
| **Category** | **Column name** | **Data type** | **Description** | **Source data set** |
| Scottish Index of Multiple Deprivation (SIMD) | SIMD2020v2\_Quintile | Quintile | SIMD 2020v2 20% band - 1 is most deprived, 5 is least deprived | SIMD+2020v2+-+datazone+lookup.xlsx |
| Income | SIMD2020v2\_Income\_Domain\_Rank | Rank | SIMD 2020v2 income domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Employment | SIMD2020\_Employment\_Domain\_Rank | Rank | SIMD 2020 employment domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Education, Skills and Training | SIMD2020\_Education\_Domain\_Rank | Rank | SIMD 2020 education domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Health | SIMD2020\_Health\_Domain\_Rank | Rank | SIMD 2020 health domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Geographic Access to Services | SIMD2020\_Access\_Domain\_Rank | Rank | SIMD 2020 access domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Crime | SIMD2020\_Crime\_Domain\_Rank | Rank | SIMD 2020 crime domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Housing | SIMD2020\_Housing\_Domain\_Rank | Rank | SIMD 2020 housing domain rank | SIMD+2020v2+-+datazone+lookup.xlsx |
| Geography | URclass | Rank | 2016 Scottish Government 6-fold urban rural classification | SIMD+2020v2+-+datazone+lookup.xlsx |
| Geography | URname | Name | 2016 Scottish Government 6-fold urban rural classification name | SIMD+2020v2+-+datazone+lookup.xlsx |

## 3.2 What is a datazone?

The Scottish Government “[…] split Scotland into 6,976 small areas, called ‘data zones’, with roughly equal populations” 1. The population per data zone has between 700 – 800 people.

## 3.3 Missing and supressed values in the data set

### 3.3.1 Scottish Index of Multiple Deprivation

In the SIMD2020v2 source data missing and supressed values are denoted by a “\*”. In the Scotland Vulnerability Resource, those values are denoted with “NA” to ease the analysis using R.

### 3.3.2 Postcodes

The data zones in Table 3 have a population of zero, no active postcode and therefore an “NA” in therefore postcode field in the Scotland Vulnerability Resource.

Table 3: Data zone with zero population and no postcodes

|  |  |  |
| --- | --- | --- |
| **Data\_Zone** | **Intermediate\_Zone** | **Council\_area** |
| S01010206 | Petershill | Glasgow City |
| S01010226 | Sighthill | Glasgow City |

# 4. Resource

## 4.1 Source data set

SIMD+2020v2+-+indicators.xlsx 2, SIMD+2020v2+-+datazone+lookup.xlsx2, SIMD+2020v2+-+postcode+lookup.xlsx 2, NHS Board region3

## 4.2 Creating the Scotland Vulnerability Resource

For details on how Scotland Vulnerability Resource was created please visit the GitHub repository “Scotland Vulnerability Resource” from the Aberdeen Centre for Health Data Science (ACHDS)

<https://github.com/AbdnCHDS/Scotland_Vulnerability_Resource>

# 5. Literature reference

1. The Scottish Government. Introducing the Scottish Index of Multiple Deprivation (SIMD). (2020). Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2020/01/scottish-index-multiple-deprivation-2020/documents/scottish-index-multiple-deprivation-2020/scottish-index-multiple-deprivation-2020/govscot%3Adocument/scottish-index-multiple-deprivation-2020.pdf?forceDownload=true. (Accessed: 9th June 2020)

2. The Scottish Government. Scottish Index of Multiple Deprivation (SIMD). (2020). Available at: https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/. (Accessed: 9th June 2020)

3. Wikipedia. Subdivisions of Scotland. Available at: https://en.wikipedia.org/wiki/Subdivisions\_of\_Scotland. (Accessed: 11th June 2020)