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, UK
Creator	Bernhard Scheliga
Date	2020
Description	Single resource with demographic, socioeconomic, and deprivation measures for Scotland
Format	text/csv
Identifier	NA
Language	en-GB
Publisher	University of Aberdeen
Relation	Scotland Vulnerability Resource documentation, https://github.com/AbdnCHDS/Scotland_Vulnerability_Resource
Rights	MIT license
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);
Subject	demographic, socioeconomic, deprivation, health data
Title	Scotland Vulnerability Resource
Type	Dataset

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 (HBname)	SIMD+2020v2+-+datazone+lookup.xlsx
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].

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

Table 4: Source data set, their download URL and when accessed

Source data set	Literature reference	URL	Accessed
SIMD+2020v2+-+indicators.xlsx	2	https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2020/01/scottish-index-of-multiple-deprivation-2020-indicatordata/ documents/simd_2020_indicators/simd_2020_indicators/govscot%3Adocument/SIMD%2B2020v2%2B-%2Bindicators.xlsx?forceDownload=true	09/06/2020
SIMD+2020v2+-+datazone+look up.xlsx	2	https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2020/01/scottish-index-of-multiple-deprivation-2020-datazone-look-up-file/documents/scottish-index-of-multiple-deprivationdata-zone-look-up/scottish-index-of-multiple-deprivation-data-zonelook-up/govscot%3Adocument/SIMD%2B2020v2%2B-%2Bdatazone%2Blookup.xlsx?forceDownload=true	09/06/2020
SIMD+2020v2+-+postcode+look up.xlsx	2	https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2020/01/scottish-index-of-multiple-deprivation-2020-postcode-look-up-file/documents/simd-2020-postcode-lookup-v5/simd-2020-postcode-lookup-v5/govscot%3Adocument/SIMD%2B2020v2%2B-%2Bpostcode%2Blookup.xlsx?forceDownload=true	09/06/2020

4.2 Creating the Scotland Vulnerability Resource

Scotland Vulnerability Resource was created using R. 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-. (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)