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Supplementary materials for article

Inequality in green space distribution and its association with preventable deaths across urban neighbourhoods in the United Kingdom, stratified by index of multiple deprivation

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Table S1. Statistical output geographies in the four countries of the United Kingdom (Census 2011)

	Statistical output geographies (small to large)		
England and Wales	Output Areas (OAs) Resident population: 100-625 persons England & Wales: 181,408 OAs	Lower layer Super Output Areas (LSOAs) Resident population: 1,000-3,000 persons Usually made up of 4-5 OAs England: 32,844 LSOAs Wales: 1,909 LSOAs	Middle layer Super Output Areas (MSOAs) Resident population: 5,000-15,000 Usually made up of 4-5 LSOAs England: 6,791 MSOAs Wales: 410 MSOAs
Scotland	Data Zones (DZ) Resident population: 500-1000 Scotland: 6,976 DZs	Intermediate Zones (IZs) Resident population: 2,500-6,000 Scotland: 1,279 DZs	
Northern Ireland (NI)*	Small Areas (SAs) Resident population: 400 (range: 98-3,072) NI: 4,537 SAs	Super Output Areas (SOAs) Resident population: 2000 NI: 890 SOAs	

* For Census 2021, NI has new statistical output geographies: Data Zones and Super Data Zones. These replaced 2011 Census Output Areas.

References:

1. Office of National Statistics (ONS). 2011 Census geographies. Available at: <https://www.ons.gov.uk/methodology/geography/ukgeographies/censusgeographies/2011censusgeographies>
2. Scottish Borders Council. Scottish Borders Datazones and Intermediate Zones. Available at: <https://www.scotborders.gov.uk/council-2/research-data/5>
3. Northern Ireland Statistics and Research Agency (NISRA). Output geography for Census 2011. Available at: <https://www.nisra.gov.uk/support/geography/output-geography-census-2011>

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Table S2. Index of multiple deprivation (IMD) in the United Kingdom

The index of multiple deprivation (IMD) is an overall relative measure of deprivation calculated by combining the weighted indices of deprivation from several domains. Each of these domains is based on a set of indicators (please see references for the full list of indicators in each country of the UK).

	England	Wales	Scotland	Northern Ireland
Statistical unit	Lower layer Super Output Areas	Lower layer Super Output Areas	Data zones	Super output areas
Domains of deprivation and Domain weight (%)	1. Income Deprivation (22.5%)	1. Income (22%)	1. Income (28%)	1. Income (25%)
	2. Employment Deprivation (22.5%)	2. Employment (22%)	2. Employment (28%)	2. Employment (25%)
	3. Education, Skills and Training Deprivation (13.5%)	3. Education (14%)	3. Education (14%)	3. Education, Skills and Training (15%)
	4. Health Deprivation and Disability (13.5%)	4. Health (15%)	4. Health (14%)	4. Health and disability (15%)
	5. Crime (9.3%)	5. Community safety (5%)	5. Crime (5%)	5. Crime and disorder (5%)
	6. Barriers to Housing and Services (9.3%)	6. Access to services (10%)	6. Access to services (9%)	6. Access to services (10%)
		7. Housing (7%)	7. Housing (2%)	
	7. Living Environment Deprivation (9.3%)	8. Physical environment (5%)		7. Living environment (5%)

References:

1. Ministry of Housing, Communities & Local Government. The English Indices of Deprivation 2019 – Research report. Available at: <https://www.gov.uk/government/publications/english-indices-of-deprivation-2019-research-report>
2. Statistics for Wales, Welsh Government. Welsh Index of Multiple Deprivation (WIMD) 2019 - Technical report. Available at: <https://www.gov.wales/sites/default/files/statistics-and-research/2023-10/welsh-index-multiple-deprivation-2019-technical-report.pdf>
3. Scottish Government. Scottish Index of Multiple Deprivation (SIMD) 2020 Technical Notes. Available at: <https://www.gov.scot/publications/simd-2020-technical-notes/>
4. Northern Ireland Statistics & Research Agency (NISRA). Northern Ireland Multiple Deprivation Measures 2017. Journal of Statistical and Social Inquiry Society of Ireland Vol. XLVIII. Available at: <https://www.tara.tcd.ie/handle/2262/91639>

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Table S3. UKCEH Land Cover Classes

UKCEH Land Cover Class	LC identifier	UKCEH Land Cover Class	LC identifier	UKCEH Land Cover Class	LC identifier
Deciduous woodland	1	Fen	8	Supralittoral rock	15
Coniferous woodland	2	Heather	9	Supralittoral sediment	16
Arable	3	Heather grassland	10	Littoral rock	17
Improve grassland	4	Bog	11	Littoral sediment	18
Neutral grassland	5	Inland rock	12	Saltmarsh	19
Calcareous grassland	6	Saltwater	13	Urban*	20
Acid grassland	7	Freshwater	14	Suburban*	21

** Not mutually exclusive with other classes (1-19)*

Definition for each class is described in the reference (page 19-24).

In our study, grassland category was made up of class 4-7, and 10 while woodland category was made up of class 1 and 2.

Reference:

1. UK Centre for Ecology & Hydrology (UKCEH). User guide for UKCEH Land Cover Maps 2017, 2018 and 2019. Available at: https://www.ceh.ac.uk/sites/default/files/2021-11/lcm2017-2019product_documentation_v1_5_1.pdf