

4.0 Using Area Based Measures

The Northern Ireland Multiple Deprivation Measure (NIMDM) is a spatial measure of deprivation, identifying small area concentrations of multiple deprivation. To achieve this, information relating to individuals is aggregated and presented at small geographical areas known as Census Output Areas (COAs) and Super Output Areas (SOAs). The 5,022 COAs each have an approximate population of 350 people and the 890 SOAs each have a population of approximately 2,000 people.

It should be noted that as the measures intend to identify *concentrations* of deprivation, both the most and the least deprived areas will contain deprived people, with the most deprived area containing a greater concentration of deprived people. Put succinctly, **not all deprived people live in deprived areas.**

A policy aimed at targeting *all* income deprived people using the deprivation measures to identify a certain number of income deprived areas will not succeed in reaching all those affected. The deprivation measures will identify areas with large concentrations of income deprived people, but those income deprived people living in areas where only a small proportion of their population are income deprived will be excluded from the policy.

The deprivation measures are therefore best included in policies with a spatial element, rather than those purely designed to target individuals.

For example, changes in the benefit system such as the introduction of Employment and Support Allowance were designed to target employment deprived individuals, whereas a spatial policy might inform the location of a new Jobs and Benefits Office to give training and employment advice to the unemployed.

4.1 Choice of Geographical Unit

The NIMDM 2010 provides results at COA, SOA, Ward, Local Government District (LGD) and Assembly Area (AA). The choice of geographical unit can impact on the number of areas that are included in a programme due to the existence of pockets of deprivation and the variation in levels of deprivation within large areas.

Consider three LGDs; Antrim, Dungannon and Armagh. The NIMDM 2010 results at LGD Level show Dungannon as the most income deprived of this group with 25% of its population income deprived, compared to 22% of the population in Armagh and 18% of the population in Antrim.

A hypothetical programme may be brought into areas where at least 22% of the population are income deprived. The table below shows the number of areas that would receive the intervention if the policy focus is LGD level, SOA level, or COA level.

	Number (and Percentage of Areas) eligible for intervention		
Geography	Antrim	Armagh	Dungannon
LGD level	0 (0%)	1 (100%)	1 (100%)
SOA level	9 (36%)	10 (40%)	12 (55%)
COA level	54 (39%)	59 (40%)	66 (51%)

When the policy is administered at LGD level, both Armagh and Dungannon LGDs receive the intervention while Antrim does not.

When the policy is administered at SOA level or COA level, areas within Antrim will receive the intervention, with 9 SOAs or 54 COAs meeting the criteria in Antrim. Similarly although all of Armagh and Dungannon LGD receives the intervention when the policy is administered at LGD level, fewer areas are included at the SOA and COA level.

The choice of geographical unit at which to target therefore impacts on the number of areas included in a programme.

The results above indicate that the income deprived people in each LGD are not spread evenly across the areas. If this were the case it would be expected that all areas in Armagh and Dungannon would be above the 22% threshold at the SOA and COA level, while all areas would remain below the threshold in Antrim LGD. The inclusion of areas at the SOA level in Antrim and the exclusion of areas in Armagh and Dungannon highlights the extent to which pockets of deprivation exist across each LGD.

4.2 Urban/Rural Considerations

The degree to which concentrations of deprivation exist and are identified by the NIMDM depends in part on the urban-rural characteristics of an area.

Areas in NI can be classed as either rural or urban according to the '*Statistical Classification and Delineation of Settlements*'¹ report produced by the Inter-Departmental Urban-Rural Definition Group in 2005. Using this classification approximately one third of SOAs (286) were classed as rural and two-thirds (604) as urban.

Although SOAs were designed to have similar population sizes to aid comparisons across NI, due to the smaller geographical size and the relatively homogeneous populations of urban areas compared to rural areas, small area concentrations of deprivation are more readily identified in urban areas than rural areas.

For example, Lisburn and Fermanagh LGDs have approximately the same proportion of their population experiencing income deprivation at 22% and 23% respectively. Lisburn LGD is mostly an urban LGD with more than two-thirds of its SOAs classed as urban while Fermanagh is mostly rural, with more than three-quarters of its SOAs classed as rural. If income deprivation were spread evenly throughout the LGDs, it would be expected that all SOAs would have the same proportion of the population identified as income deprived.

In fact income deprivation in Lisburn LGD ranged from 3% of the population in Wallace Park 1 SOA to 73% of the population in Collin Glen 3 SOA while in Fermanagh LGD income deprivation ranged from 11% to 46% of the population Lisnarrick SOA and Devenish SOA.

The variation in concentrations of deprivation identified is likely to in part be a reflection of the rural-urban composition of the LGDs. Concentrations of deprivation were identified in the urban SOAs of Lisburn LGD within which housing type and characteristics of the population are relatively similar. In contrast in the geographically larger rural areas the socio-economic characteristics of the population vary to a greater extent. Large clusters of deprived households or concentrations of deprivation therefore are not often identified in rural SOAs.

It is recommended that the urban-rural classification of areas is taken into account when identifying areas of need. The urban-rural classification for each area in NI is available from the NINIS² website.

¹ Please see http://www.ninis.nisra.gov.uk/mapxtreme_towns/Reports/sicagoccpaper24.pdf

²Please see

http://www.ninis.nisra.gov.uk/mapxtreme/viewdata/Compendia_and_Reference/Area_classifications/UrbanRuralClassification2005.xls

For example, as part of the Rural Anti-Poverty and Social Inclusion Framework, DARD in conjunction with the Public Health Agency, developed a Project entitled Maximising Access to and Uptake of Grants, Benefits and Services targeted at the most deprived rural Super Output Areas (SOAs) in Northern Ireland.

To do so the 286 rural SOAs were selected as per the urban-rural classification and the most deprived 88 of these were identified, based on the Multiple Deprivation Measure Ranks in 2005. The 88 most deprived SOAs, representing approximately 1/3rd of rural SOAs, was the maximum number of deprived areas that could be targeted within timescales and budget allocations.

Within the 88 areas, 'enablers' were recruited and they along with local community group personnel assisted in identifying those who were most in need. The enablers were taken through 2 days of training in which they were provided with background information on the range of benefits available, customer care training incorporating role play, training on energy efficiency, training on the completion of Project questionnaires forms and training on the Access to Benefits screening tool. Within the 88 rural areas the following vulnerable categories were targeted: elderly, ethnic minority, lone parents, carers, lone adults disabled people, farm families and low income families.

A COA Multiple Deprivation Measure was also created. The COA measures, based on areas with an approximate population of 350 people, allow the identification of smaller clusters of deprivation.

Although rural areas were not identified in the most deprived 10% of SOAs, fifteen rural COAs were within the 10% most deprived COAs in NI. This indicates that rural clusters of deprivation are more readily identified using the COA measures.

It is therefore recommended that the COA measures are also considered when identifying concentrations of deprivation in rural areas.

4.3 Neighbourhood Renewal Areas

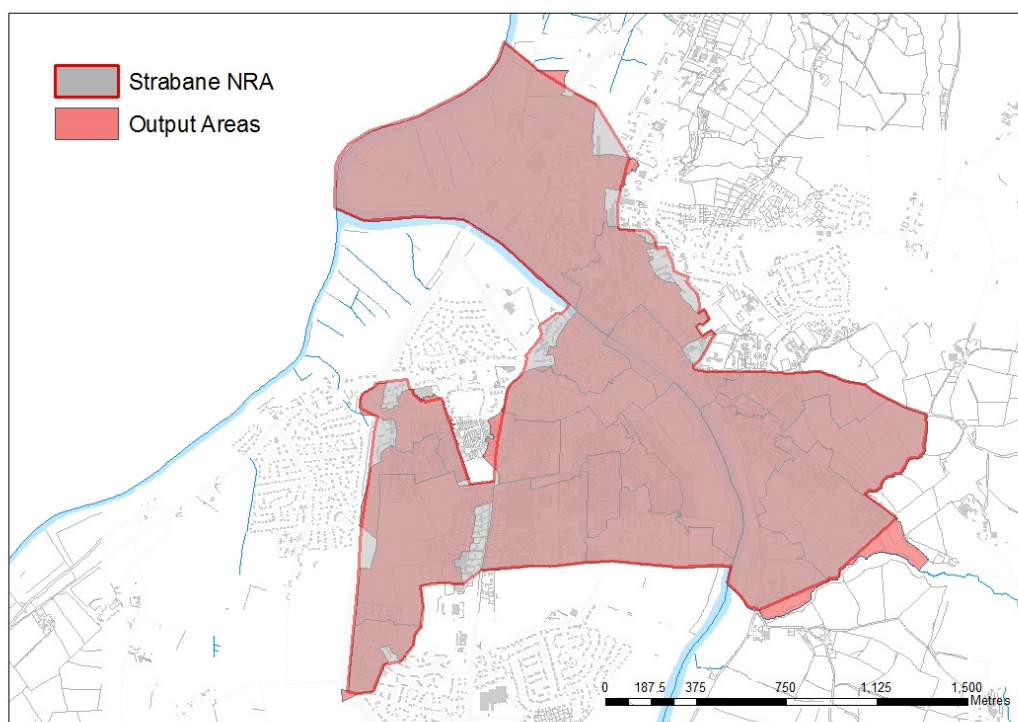
The Neighbourhood Renewal Strategy has been in place since 2003 and aims to decrease the levels of disadvantage in the most deprived urban areas in Northern Ireland. As such, 36 areas were designated as Neighbourhood Renewal Areas for the focus of urban regeneration policies.

Current levels of deprivation in Neighbourhood Renewal Areas (NRA), as well as the change in levels of deprivation, are therefore of interest to those working within urban regeneration.

When presenting statistical information for NRAs, Census Output Areas or aggregations of Census Output Area results are used. Although Census Output Areas or aggregations of Census Output Areas are not coterminous with NRAs, they are good approximations of NRAs.

For example, the map below shows the Strabane NRA boundary and the 19 Census Output Areas at which statistical information is presented. Small areas that are not included in the statistical results are shown as grey, while areas that are not in Strabane NRA but are included in the statistical analysis are shown as red.

Map 1: Strabane Neighbourhood Renewal Area



To assess whether concentrations of deprivation exist in NRAs it is advised that the Census Output Area measures are used. The following domains of deprivation; Income, Employment, Proximity to Services and Crime and Disorder, as well as the Multiple Deprivation Measure, can be examined at the Census Output Area level.

Strabane Neighbourhood Renewal Area: Census Output Area Deprivation Ranks
(ordered by MDM rank)

		MDM Rank	Income Rank	Employment Rank	Crime & Disorder Rank	Proximity to Services Rank
95ZZ060003	East	46	14	249	2624	1677
95ZZ060001	East	85	77	69	3603	460
95ZZ060006	East	107	52	192	1939	3419
95ZZ060005	East	118	150	34	2436	2767
95ZZ060002	East	129	188	62	3465	573
95ZZ100003	North	204	406	58	3225	110
95ZZ160008	West 2	205	177	60	2623	682
95ZZ020003	Ballycolman	254	164	275	2345	1313
95ZZ020001	Ballycolman	273	221	166	3334	2324
95ZZ160004	West 2	323	297	212	3085	1939
95ZZ020004	Ballycolman	380	454	255	2874	2762
95ZZ020002	Ballycolman	415	359	579	2720	3497
95ZZ020005	Ballycolman	423	293	540	2700	3886
95ZZ060004	East	682	923	312	3402	2558
95ZZ140008	South 1	734	590	678	3037	2060
95ZZ140002	South 1	849	410	951	2481	3703
95ZZ020006	Ballycolman	986	1251	361	2493	3957
95ZZ160003	West 1	1340	1196	1032	2245	3139
95ZZ100007	North	1402	1420	1623	3888	146

The table above shows the Multiple Deprivation Measure Ranks for the 19 Cesus Output Areas within Strabane NRA. From the table it can be seen that within Strabane NRA the Multiple Deprivation Measure ranks range from the 46th most deprived area in NI (a Census Output Area within East Super Output Area), to 1402nd most deprived area in NI (a Census Output Area within North Super Output Area).

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