

NI Multiple Deprivation Measure 2017: Blueprint Document

July 2017



Department of
Finance

An Roinn
Airgeadais



Northern Ireland
Statistics and Research Agency

Gníomhaireacht Thuaisceart Éireann
um Staitisticí agus Taighde

A National Statistics Publication

Contents

Executive Summary.....	3
1 INTRODUCTION.....	4
2 PURPOSE OF THIS DOCUMENT.....	4
3 SCOPE OF THE 2017 UPDATE.....	5
4 CRITERIA FOR INDICATORS.....	6
5 OVERVIEW OF CONSULTATION PROCESS.....	7
6 INCOME DEPRIVATION DOMAIN.....	10
7 EMPLOYMENT DEPRIVATION DOMAIN.....	13
8 HEALTH DEPRIVATION AND DISABILITY DOMAIN.....	16
9 EDUCATION, SKILLS AND TRAINING DEPRIVATION DOMAIN.....	21
10 ACCESS TO SERVICES DOMAIN.....	26
11 LIVING ENVIRONMENT DOMAIN.....	31
12 CRIME AND DISORDER DOMAIN.....	35
13 DOMAIN WEIGHTS.....	39
14 OTHER COMMENTS.....	40
Annex A: Consultation respondents.....	43
Annex B: Indicator Summary.....	44
Glossary.....	46

Executive Summary

- i. As part of its work to update the current Northern Ireland Multiple Deprivation Measure (NIMDM 2010), NISRA consulted users about the proposed indicators to be included in the updated measures, referred to as NIMDM 2017.
- ii. The consultation document was downloaded 167 times, around 60 people attended the information sessions, and 28 written responses were received from a range of organisations. The responses were analysed and discussed with domain expert groups and the Steering Group, resulting in a final set of indicators for the forthcoming NIMDM 2017.
- iii. Following consultation responses, two proposed indicators have been removed from the Health Deprivation and Disability Domain, one indicator has been added to the Crime and Disorder Domain, and one service has been added to the travel time indicators in the Access to Services Domain. This blueprint contains further clarification on the indicators and the method of combining.
- iv. The consultation also collected views on the domain weights. The Steering Group considered these views, but found insufficient basis for changing the weights used in the most recent two Multiple Deprivation Measures.

1 INTRODUCTION

- 1.1 The Northern Ireland Statistics and Research Agency (NISRA) has been commissioned by the Statistics Co-ordinating Group (SCG) of the Northern Ireland Civil Service, which comprises senior policy officials from Government Departments, to undertake an update of the current Northern Ireland Multiple Deprivation Measure (NIMDM 2010).
- 1.2 The aim of the work is to (i) provide an updated measure of relative deprivation on a spatial basis, taking account of multiple dimensions that are widely accepted to be important and (ii) advance the understanding of deprivation in Northern Ireland and how the measures might best be used.
- 1.3 The updated measure of relative spatial deprivation relates to large concentrations of people who, when comparing their positions across the multiple dimensions in question, are considered to be relatively worse off than those living in other areas of Northern Ireland. As such, they will be hugely important to a wide variety of interested parties and users and will continue to play a pivotal role in both informing the targeting of resources to the most deprived areas in Northern Ireland and the monitoring of the spatial impact of policy interventions.
- 1.4 The current aim is to publish the updated measures later this year, which will be referred to as NIMDM 2017 throughout this document.

2 PURPOSE OF THIS DOCUMENT

- 2.1 This blueprint document follows the publication of the [consultation document](#), which included proposals for the NIMDM 2017. Based on the responses received during the consultation period and further discussions with the domain expert groups and the Steering Group, this document outlines the process by which a final decision on the forthcoming NIMDM 2017 indicators was made.

-
- 2.2 The purpose of this document is to:
- Outline the scope of the update that NISRA has been commissioned to undertake;
 - Present the criteria that individual domain indicators need to meet in order to be considered for inclusion in the updated measures;
 - Provide an overview of the consultation process; and
 - Present the final decision on selected indicators to be included in the NIMDM 2017.
- 2.3 It seeks to address the main points that emerged from the consultation and, importantly, should be read in conjunction with the [supporting document](#) detailing responses to all of the points that arose.
- 2.4 The decisions presented in the document have been arrived at through detailed discussions with each of the domain expert groups and have been endorsed by the Deprivation Steering Group. Both the deprivation team and the Steering Group very much appreciate the time that respondents have taken to consider the material presented and to share their views and valuable experience.
- 2.5 At the outset it is acknowledged that it hasn't been possible to accommodate and respond positively to every suggestion/ request for a variety of reasons (most notably the lack of availability of suitable data to develop indicators that meet the agreed criteria). However, in recognition of this, the Steering Group has commissioned the deprivation team with bringing forward a set of recommendations that should be considered in any future update of the deprivation measures.

3 SCOPE OF THE 2017 UPDATE

- 3.1 As previously outlined, NISRA has been commissioned by SCG to undertake an update of the current Northern Ireland Multiple Deprivation Measure (NIMDM 2010), with the aim of releasing the NIMDM 2017 results later this year. Any significant revisions to the methodology are outside of the scope of this update.

3.2 While the seven domains that were used in 2010 will remain, the update has considered the appropriateness (or otherwise) of the current indicators that were incorporated within these domains and the datasets upon which they are based. Indicators must conform to the criteria outlined in Section 4 and will only be revised where there is a strong rationale (and supporting data) to support the revision. This update also includes a consideration of any urban/rural bias and any amendments as a result of considering the 36 recommendations that arose from the 2010 work.

4 CRITERIA FOR INDICATORS

4.1 Each of the seven domains (i.e. Income, Employment, Health & disability, Education, skills & training, Access to services, Living environment and Crime & disorder) consists of one or more indicators that are considered to encapsulate that particular type of deprivation. In order to be considered for inclusion, each indicator should conform to the following six criteria:

- a) It should be specific to one of the seven domains of deprivation thus avoiding double counting and attaching undue weight to any particular indicator.
- b) It should represent major features of that form of deprivation rather than deprivation affecting a small number of people or particular types of area in Northern Ireland. This allows the degree of deprivation to be identified as opposed to a simple 'present/ not present' approach.
- c) It should be available for all of Northern Ireland, collected in a consistent form and be free from spatially bias characteristics.
- d) It should represent either a direct measure or a good proxy of that form of deprivation.
- e) It should be statistically robust at the small area level, facilitating the identification of 'pockets' of deprivation.
- f) It should be as up to date as possible.

4.2 These criteria – unchanged from NIMDM 2005 and NIMDM 2010 – were highlighted in the consultation document and have been used by the deprivation team and the domain expert groups to assess the suitability of the proposed indicators and additional indicators raised during the consultation.

5 OVERVIEW OF CONSULTATION PROCESS

5.1 The consultation was launched on 21 November 2016 with the publication of the [consultation document](#), which set out the proposals for the updated Multiple Deprivation Measure (NIMDM 2017). On this day, an email was sent to almost 600 addresses supplied by The Executive Office and known users of deprivation statistics. Given the strategic importance of the update, all key stakeholders were actively encouraged to engage in the consultation so that their views might be considered. Furthermore, notes on the launch were posted on the NISRA [Twitter](#) and [Facebook](#) pages.

5.2 Four public information sessions were held at the locations detailed below in order to outline the proposals and facilitate the completion of consultation responses. A further event, organised for Monday 28th November in Newry, was unfortunately cancelled as only four people (only one of whom was a non civil servant) had registered to attend.

<u>Location</u>	<u>Date</u>	<u>Registrations</u>	<u>Attended</u>
Limavady	Thursday 8th December 2016	11	8
Cookstown	Monday 12th December 2016	7	5
Enniskillen	Thursday 15th December 2016	13	12
Belfast	Monday 19th December 2016	45	35

5.3 At the start of each information session, it was stressed that any comments would not be regarded as a consultation response: attendees were encouraged to put their comments in writing through the online response form or the [Consultation Questionnaire](#).

-
- 5.4 The consultation period ran from 21 November 2016 through to midnight on 15 January 2017. In the week before the closing date, reminders were posted on [Facebook](#) and [Twitter](#), and also emailed to the 600 addresses that were used at the launch of the consultation. During the consultation period, the consultation document was downloaded 167 times.
- 5.5 In total, 28 responses were received (see Annex A). The online portal was used by 16 respondents, and three completed questionnaires were returned by email. A further nine letters were received by email – while these did not follow the structure of the questionnaire, it was possible to extract responses to the specific questions and they were considered as valid responses. The respondents included 13 community or voluntary organisations, seven Local Government organisations, and five Statutory Bodies. This mix of organisations ensured that wide views on the proposals were represented.
- 5.6 Four respondents did not provide further information, whether they were content or discontent with the proposals or how the recommendations were addressed. One respondent was approached by email, asking for further clarification, but no reply was received; the remaining three respondents did not give permission to be contacted to discuss their responses. In broad terms, two out of these four respondents were discontent with the response to recommendations and proposed indicators, but as no detail was provided, this could not be addressed in this document.
- 5.7 In order to support transparency in the decisions taken by the Deprivation Steering Group, all responses to the consultation are made public on the [Deprivation web site](#). None of the responses were deleted or modified in accordance with the [Moderation Policy](#).
- 5.8 The responses to the consultation have been discussed by the seven Domain Expert Groups, resulting in final recommendations being put to the Steering Group, which met on 5th April 2017 to discuss these recommendations.

5.9 Sections 6 through to 12 that follow constitute the main body of this blueprint document. For ease of readership, a separate section has been included for each of the seven domains. In terms of structure, each section will present:

- the proposed indicator(s) for inclusion;
- a summary of the comments received through the public consultation;
- the final indicator(s) that will be included in the NIMDM 2017; and (if applicable)
- the method of combining the various indicator and sub-domain data within domains.

5.10 Within certain Domains (e.g. Education, Skills and Training; Living Environment; Crime and Disorder), natural groupings of indicators have been combined to form a sub-domain. In such instances, results will typically be released for the domain as a whole and for each of the sub-domains within it.

6 INCOME DEPRIVATION DOMAIN

Purpose of the Domain

- 6.1 The purpose of the Income Deprivation Domain is to identify the proportion of the population on low income at the small area level.

Proposed Indicators for NIMDM 2017

- 6.2 It was proposed that the Income Domain consists of one indicator:

The proportion of the population living in households whose equivalised income is below 60 per cent of the NI median
(2014/15; Source: DfC)

- 6.3 Since the publication of the consultation document, further reassurances were provided by the Department for Communities (DfC) on the availability of, and access to, data. The following sources of income will be included:

- employment;
- self-assessment (including self-employment and investment);
- work-related pension schemes;
- social security benefits; and
- Tax credits.

- 6.4 The proposed indicator is strongly aligned to the definition of relative poverty¹, as used in the Programme for Government (PfG), except that it will use the NI median income from the dataset of around 700,000 NI households rather than the UK median income from a UK wide survey of 20,000 households. Household incomes will be equivalised² to take into account variations in the size and composition of the households in which individuals live.

¹ See <https://www.communities-ni.gov.uk/sites/default/files/publications/communities/ni-poverty-bulletin-201415.pdf#page=5>

² See <https://www.communities-ni.gov.uk/sites/default/files/publications/communities/hbai-2014-15-quality-methodology-information-report.pdf#page=12>

Consultation Responses

- 6.5 On the whole, 19 respondents were content with the proposals, a further three were discontent and the remaining six had no strong view. In general, respondents welcomed the new indicator, replacing the reliance on an indicator that was purely based on whether or not someone in a household was in receipt of one or more specific benefits.
- 6.6 Several respondents queried if housing costs, such as rent, mortgage interest payments and domestic rates, can be taken into consideration. Unfortunately this won't be possible as household costs of this nature, which accord with the agreed deprivation indicator criteria, are not currently available at a low enough geographical level to support the current deprivation update.
- 6.7 Other respondents asked if other household costs could be considered, moving to a more needs-based approach. Again this unfortunately won't be possible in this update as household cost information, which accords with the agreed deprivation indicator criteria, is not currently available at a low enough geographical level to support the deprivation work. Need is however indirectly captured to a degree through the equivalisation of household income, where larger households require a higher income to enjoy the same living standard. Research into minimum income standards for Northern Ireland³ concluded that the threshold of 60 per cent of median income is *'effective in defining a group of people all of whom have too little to attain a minimum acceptable living standard as defined by members of the public in Northern Ireland'*.
- 6.8 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

³ See page 20 of https://www.jrf.org.uk/file/39723/download?token=9kXO_teW&filetype=full-report

Final Indicators for NIMDM 2017

6.9 The final indicator that will be used in the Income Deprivation Domain is unchanged from that proposed in the consultation document:

The proportion of the population living in households whose equivalised income is below 60 per cent of the NI median
(2014/15; Source: DfC)

6.10 Supporting information will also be produced in respect of income deprivation affecting children (i.e. those aged 15 and under) and older people (i.e. those aged 65 and over) showing:

- the proportion of the population aged 15 and under living in the households identified above; and
- the proportion of the population aged 65 and over living in the households identified above.

7 EMPLOYMENT DEPRIVATION DOMAIN

Purpose of the Domain

- 7.1 The purpose of the Employment Deprivation Domain is to identify the proportion of the working age population excluded from work at the small area level.

Proposed Indicators for NIMDM 2017

- 7.2 It was proposed that the Employment Deprivation Domain consists of one indicator, namely, the proportion of the working age population (i.e. those aged 18-64 for both males and females) in receipt of at least one of the selected benefits outlined below. The proposal also outlined plans to work with colleagues in Department for Communities to source suitable information on hidden unemployment that could be incorporated into this indicator.

- 7.3 The selected benefits were:

Job Seeker's Allowance.

(2014/15; Source: DfC)

Incapacity Benefit.

(2014/15; Source: DfC)

Severe Disablement Allowance.

(2014/15; Source: DfC)

Carer's Allowance.

(2014/15; Source: DfC)

Employment and Support Allowance.

(2014/15; Source: DfC)

- 7.4 Since the publication of the consultation document, further reassurances were provided by the Department for Communities (DfC) on the availability of, and access to, information that would enable hidden unemployment (i.e. those who are not in receipt of any of the above selected benefits and have not received income from employment) to be captured. The eligibility age for working age benefits has changed in line with the pension age at the time of claim. This is reflected by assuming working age to be all persons aged 18-64.

Consultation Responses

- 7.5 On the whole, 14 respondents were content with the proposals, a further nine were discontent and the remaining five had no strong view.
- 7.6 Four respondents highlighted that the proposed indicator does not capture qualitative aspects of employment, including people who (i) are overqualified for the jobs they are in, (ii) are on zero-hours contracts, or (iii) would like to work more hours. The importance of these labour market dynamics has been recognised in the context of the draft Programme for Government (see [Good Jobs in Northern Ireland](#)) and while work has been initiated on the development of an appropriate population based 'better job' indicator, it is currently not clear when the information might be available and at what geographical level (for the Deprivation work, ideally the information would have to be available at the Small area and Super Output Area levels). In the absence of this, the employment domain expert group were unable to identify any appropriate information source that would enable the measurement of such employment experiences at a low enough geographical level to support the current deprivation update. On a more positive note, while such working conditions could result in some of those concerned experiencing lower levels of income, the relativities of this between areas would be reflected in the Income Deprivation Domain.
- 7.7 Three respondents expressed concern that migration was not considered. Their argument was that those people who have left an area due to the lack of employment opportunities are not counted in that area. The migration data that are currently available for either movements within Northern Ireland or movements to somewhere outside Northern Ireland do not record either the reason for migrating or the employment status of the migrants before or after their move. As such, it is not possible to quantify the extent to which the lack of employment opportunities in an area motivated those who decided to move. Against this background, and given that including all migration of the (working age) population would result in an over-representation of this phenomenon, the employment domain expert group concluded that migration due to the lack of employment opportunities could not be robustly captured and hence reflected in this domain.

- 7.8 The Joseph Rowntree Foundation⁴ found that, based on the 2001 Census, deprived areas in England and Scotland *‘did not have markedly higher population turnover than non-deprived areas’*. Their finding that *‘the highest [population] turnover was in areas with concentrations of young adults’* did also apply to Northern Ireland. Population decline was one of the recommendations, which was raised in the consultation document⁵, although not specifically linked to employment deprivation. Further discussion on this issue can be found in Section 14 (*Other Comments*).
- 7.9 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

Final Indicators for NIMDM 2017

- 7.10 The final indicator that will be used in the Employment Domain is unchanged from that proposed in the consultation document: the proportion of the working age population (i.e. those aged 18-64 for both males and females) who are either (a) in receipt of at least one of the selected benefits outlined below, or (b) who are not in receipt of the selected benefits and have not received income from employment.
- 7.11 The selected benefits were:
- Job Seeker’s Allowance.
(2014/15; Source: DfC)
 - Incapacity Benefit.
(2014/15; Source: DfC)
 - Severe Disablement Allowance.
(2014/15; Source: DfC)
 - Carer’s Allowance.
(2014/15; Source: DfC)
 - Employment and Support Allowance.
(2014/15; Source: DfC)

⁴ See <https://www.jrf.org.uk/report/population-turnover-and-area-deprivation>

⁵ Recommendation 16b, see https://www.nisra.gov.uk/files/publications/NIMDM17-consultation_0.pdf#page=52

8 HEALTH DEPRIVATION AND DISABILITY DOMAIN

Purpose of the Domain

- 8.1 The purpose of the Health Deprivation and Disability Domain is to identify rates of premature deaths, and proportions of the population's quality of life impaired by poor health or disability at the small area level.

Proposed Indicators for NIMDM 2017

It was proposed that the Health Deprivation and Disability Domain consists of 11 indicators, including one combined mental health indicator, as detailed below:

Standardised Potential Years of Life Lost
(2012 to 2016; Source: GRO)

Standardized preventable death rate
(2012 to 2016; Source: GRO)

Standardised physical health-related benefit ratio⁶ (formerly Comparative Illness and Disability Ratio)
(2015/16; Source: DfC)

People registered as having cancer (excluding non-melanoma skin cancers)
(2011 to 2015; Source: Northern Ireland Cancer Registry)

Standardised emergency admission rate
(2015/16; Source: DoH)

Proportion of Singleton Births with Low Birth Weight
(2012 to 2016; Source: Child Health System)

Children's Dental Extractions
(2013/14 to 2015/16; Source: BSO and DoH)

Standardised Proportion of people on multiple prescriptions on a regular basis
(2015/16; Source: BSO)

⁶ This ratio is based on a non-overlapping count of recipients of the following benefits: Income Support (in receipt of disability premium), State Pension Credit (disability premium), Attendance Allowance, Severe Disablement Allowance, Disability Living Allowance, Incapacity Benefit and Employment and Support Allowance.

Standardised proportion of people with a long-term health problem or disability
(2011; Source: Census)

Standardised drug or alcohol related deaths
(2009 to 2013; Source: DoH)

Combined Mental Health Indicator

Proportion of population in receipt of prescriptions for mood and anxiety disorders
(2015/16; Source: BSO)

Standardized suicide rate
(2007 to 2016; Source: GRO)

Standardised rate of mental health inpatient stays
(2011/12 to 2015/16; Source: DoH)

Standardised mental health related benefit ratio
(2015/16; Source: DfC)

Consultation Responses

- 8.2 On the whole, 16 respondents were content with the proposals, a further eight were discontent and the remaining four had no strong view.
- 8.3 Four respondents expressed their concern about the proposed use of 2011 Census data for not being 'up to date' (criterion f). By contrast, two respondents welcomed the inclusion of that specific indicator. Having reflected on this, the domain expert group felt that the 2011 Census data are, in reality, less out of date than perhaps perceived: compared to the other proposed indicators, the information is only four to five years older than the benefit or prescription data, but less so for those indicators that require a longer time period to become sufficiently robust. The group also felt that the currency of the 2011 Census data was considerably offset by its relative strength in terms of its coverage of the whole population and the fact that it may include people who are not captured in the other indicators. In addition, comparing the comparison of age-sex specific proportions of people with a long-term health problem or disability according to the 2011 Census to those reporting limiting long-term illness in the 2001 Census, suggests that the figures are not prone to significant change and, as such, the

Health Deprivation and Disability Domain

2011 figures are likely to be fairly representative. Against this background, the domain expert group concluded that the standardised proportion of people with a long-term health problem or disability based on the 2011 Census should remain as an indicator in the Health Deprivation and Disability Domain.

- 8.4 Six respondents proposed the inclusion of indicators on the provision of health care, such as home care and meals on wheels. Whilst the domain expert group recognised both the value and importance of such services, particularly in rural areas, it felt that the delivery of such services captured how current policy is seeking to address health needs in an area rather than providing a direct measurement of poor health or disability. Accordingly, the domain expert concluded that such an indicator fails the criterion of being a direct measure of health deprivation (criterion d) and, as such, should not be included.
- 8.5 Prompted by other responses to the consultation, the expert group reconsidered the inclusion of a separate indicator relating to drug and alcohol related deaths, and decided to remove this indicator as health issues related to drug and alcohol misuse will be picked up within other indicators (e.g. preventable mortality). The domain expert group also reflected on the overlap between the potential years of life lost indicator and the preventable mortality indicator. In view of the risk of double counting, the group opted in favour of the preventable mortality indicator, which is in keeping with the thrust of the draft Programme for Government.
- 8.6 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

Final Indicators for NIMDM 2017

- 8.7 The final indicators that will be used in the Health Deprivation and Disability Domain are as follows:
- Standardized preventable death rate (excluding Suicides)
(2012 to 2016; Source: GRO)

Health Deprivation and Disability Domain

Standardised physical health-related benefit ratio⁷ (formerly Comparative Illness and Disability Ratio)

(2015/16; Source: DfC)

People registered as having cancer (excluding non-melanoma skin cancers)

(2011 to 2015; Source: Northern Ireland Cancer Registry)

Standardised emergency admission rate

(2015/16; Source: DoH)

Proportion of Singleton Births with Low Birth Weight

(2012 to 2016; Source: Child Health System)

Children's Dental Extractions

(2013/14 to 2015/16; Source: BSO and DoH)

Standardised Proportion of people on multiple prescriptions on a regular basis

(2016; Source: BSO)

Standardised proportion of people with a long-term health problem or disability (Excluding Mental Health problems)

(2011; Source: Census)

Combined Mental Health Indicator

Proportion of population in receipt of prescriptions for mood and anxiety disorders

(2016; Source: BSO)

Standardized suicide rate

(2007 to 2016; Source: GRO)

Standardised rate of mental health inpatient stays

(2011/12 to 2015/16; Source: DoH)

Standardised mental health related benefit ratio

(2015/16; Source: DfC)

Standardised proportion of people with Mental Health problems

(2011; Source: Census)

⁷ This ratio is based on a non-overlapping count of recipients of the following benefits: Income Support (in receipt of disability premium), State Pension Credit (disability premium), Attendance Allowance, Severe Disablement Allowance, Disability Living Allowance, Incapacity Benefit and Employment and Support Allowance.

Combination of indicators

- 8.8 The domain will comprise of nine indicators, each relating to a different type of health deprivation or disability. The aim of the domain is not to create a count of health deprived or disabled people, as in the income and employment domain, as clearly one person could be captured in multiple indicators. Instead the analysis supposes that there is an underlying factor to which each of the imperfect measures is related. Factor analysis will therefore be used to determine the weights for each of the indicators in the Health Deprivation and Disability Domain. The four mental health measures will also be combined using factor analysis to form a single indicator.
- 8.9 All indicators will be ranked and their ranks transformed to a standard normal distribution. The transformed ranks will be combined, through weights determined by factor analysis, to provide an overall rank. The resulting scores are ranked to form the Health Deprivation and Disability Rank.

9 EDUCATION, SKILLS AND TRAINING DEPRIVATION DOMAIN

Purpose of the Domain

- 9.1 The purpose of the Education, Skills and Training Deprivation Domain is to identify the prevalence of poor educational outcomes for children and low levels of qualifications for working age adults at the small area level.

Proposed Indicators for NIMDM 2017

- 9.2 It was proposed that the Education, Skills and Training Deprivation Domain consists of eight indicators grouped in three sub-domains:

Sub-Domain: Primary School

Proportions of pupils attending Special Schools or attending primary school with Special Education Needs Stages 3-5
(2014/15 to 2015/16; Source: School Census, DE)

Absenteeism at Primary Schools
(2014/15 to 2015/16; Source: DE)

Sub-Domain: Post-Primary

Proportions of school leavers achieving 5 or more GCSEs at A*-C (and equivalent) including GCSE English and maths
(2013/14 to 2015/16; Source: School Leavers Survey, DE)

Proportions of those leaving school aged 16, 17 and 18 and not entering Further Education, Employment or Training
(2013/14 to 2014/15; Source: School Leavers Survey, DE)

Proportions of 18-21 year olds who have enrolled in Higher Education Courses at Higher Education or Further Education establishments
(2012/13 to 2015/16; Source: HESA and FESR, DfE)

Education, Skills and Training Deprivation Domain

Proportions of pupils attending Special Schools or who are attending post-primary schools with Special Education Needs Stages 3-5
(2014/15 to 2015/16; Source: School Census, DE)

Absenteeism at post-primary schools
(2014/15 to 2015/16; Source: DE)

Sub-Domain: Working Age Adults

Proportions of working age adults (25-64) with no or low levels of qualification
(2011; Source: NISRA)

Consultation Responses

- 9.3 On the whole, 15 respondents were content with the proposals, a further six were discontent and the remaining seven had no strong view.
- 9.4 Five respondents proposed that consideration is given to the inclusion of an 'early years' or 'pre-school' indicator. Unfortunately, the deprivation team and the domain expert group were unable to identify suitably robust information at the small area level that meets the agreed indicator criteria. Having said that, the current PfG aims to develop an indicator relating to children's stage of development in their immediate pre-school year, so these data may become available for consideration in future updates. The impact of attainment in the early years is arguably indirectly captured to a degree by the other indicators in the education, skills and training deprivation domain.
- 9.5 Several respondents expressed their disappointment that the provision (and hence coverage) of Key Stage data has been impacted by industrial action resulting in a limited number of returns being made to CCEA since 2013/14. This disappointment is of course shared by the domain expert group, who concluded that the levels of coverage were insufficient to support the robust small area analyses required for NIMDM 2017.

- 9.6 Three respondents queried the use of Special Educational Needs (SEN) and, in particular, the incorporation of only SEN stages 3-5. Reflecting on this, the domain expert group remained firmly of the view that only stages 3-5 should be included. SEN stages 1-2 relate to pupils whose needs are determined within the school without any external specialist assessment/support. As a consequence, inconsistencies can arise across schools (as evidenced by the relatively weak correlation across schools between the proportion of pupils at SEN stages 1-2) thus skewing the results. As SEN stages 3-5 require an external specialist assessment, there is less likelihood of such inconsistencies arising across schools. In addition, such assessments relate to greater special educational needs, which arguably have a stronger link/association with deprivation.
- 9.7 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

Final Indicators for NIMDM 2017

- 9.8 The final indicators that will be used in the Education, Skills and Training Deprivation Domain are unchanged from those proposed in the consultation document. The definitions of two indicators have been inverted so that they describe deprivation and are positively correlated with the other indicators. They are (a) school leavers who achieved less than five GCSEs rather than five or more, and (b) 18-21 year olds not enrolled in Higher Education Courses.

Combination of indicators

- 9.9 In the NIMDM 2010, the three sub-domains were given equal weights, with the indicators within the primary and post-primary sub-domains determined by factor analysis. In the primary sub domain weights of 0.10 and 0.72 emerged for Special Educational Needs and absenteeism respectively, whilst the Key Stage 2 indicator received a weight of 0.19.

Education, Skills and Training Deprivation Domain

- 9.10 Due to the absence of Key Stage 2 data, the primary sub-domain in this update will contain only two indicators and, as such, the data driven method of using Factor Analysis to determine the weights isn't an option as the method requires at least three indicators.
- 9.11 There are two solutions to this issue. First, weights for the indicators in the primary school sub-domain could be arbitrarily set rather – on a proportional basis to NIMDM 2010, weights in the region of 0.12 and 0.88 for Special Educational Needs and absenteeism respectively would seem appropriate. While this option would preserve the existence of three sub-domains, the policy of assigning equal weights for each sub-domain may need to be reconsidered given the impact on the primary sub-domain of losing key stage 2 data.
- 9.12 As an alternative solution, indicators from the primary and post-primary sub-domains can be combined into one sub-domain. This was done in the NIMDM 2005 and the recent English Index of Multiple Deprivation. In both the Welsh and Scottish Index of Multiple Deprivation, there are no sub-domains in which primary, post-primary and working age indicators are combined. The advantage of this approach would be that all weights will originate from data-driven methods as opposed to being arbitrarily chosen. Under this option, it is likely that post-primary indicators will receive higher weights to the detriment of primary school and working age indicators due to the number of indicators involved.
- 9.13 The Steering Group, supported by the domain expert group, decided that (in the circumstances) the indicators from all three sub-domains should be combined, thus facilitating the use of data driven methods. Under this approach, all of the relevant indicators will be ranked and their ranks transformed to a standard normal distribution. The transformed ranks will then be combined with weights determined by factor analysis.

Proportions of pupils attending Special Schools or attending primary school with Special Education Needs Stages 3-5

(2014/15 to 2015/16; Source: School Census, DE)

Absenteeism at Primary Schools

(2014/15 to 2015/16; Source: DE)

Proportions of school leavers achieving less than five GCSEs at A*-C (and equivalent) including GCSE English and maths

(2013/14 to 2015/16; Source: School Leavers Survey, DE)

Education, Skills and Training Deprivation Domain

Proportions of those leaving school aged 16, 17 and 18 not entering Further Education, Employment or Training

(2011/12 to 2015/16; Source: School Leavers Survey, DE)

Proportions of 18-21 year olds who have not enrolled in Higher Education Courses at Higher Education or Further Education establishments

(2012/13 to 2015/16; Source: HESA and FESR, DfE)

Proportions of pupils attending Special Schools or who are attending post-primary schools with Special Education Needs Stages 3-5

(2014/15 to 2015/16; Source: School Census, DE)

Absenteeism at post-primary schools

(2014/15 to 2015/16; Source: DE)

Proportions of working age adults (25-64) with no or low levels of qualification

(2011; Source: NISRA)

10 ACCESS TO SERVICES DOMAIN

Purpose of the Domain

- 10.1 The purpose of the Access to Services Domain – formerly known as the Proximity to Services Domain – is to measure the extent to which people have poor physical and online access to key services at the small area level.

Proposed Indicators for NIMDM 2017

- 10.2 It was proposed that the Access to Services Domain consists of three indicators:

Service-weighted fastest travel time by private transport
(2016; Source: DfI)

Service-weighted fastest travel time by public transport
(2016; Source: DfI)

Proportion of properties with broadband speed below 10Mb/s
(2015; Source: Ofcom)

- 10.3 The proposed services to be included in the public and private transport travel time indicators are as follows:

Accident and Emergency hospital
(2016; Source: DoH)

Job Centre or Jobs and Benefits Office
(2016; Source: DfE)

Post Office
(2016; Source: Post Office Ltd)

Supermarket / Food Store
(2016; Source: IDBR)

Primary Schools
(2016; Source: DfE)

Post-Primary Schools
(2016; Source: DfE)

Council Leisure Centre
(2016; Source: DfC)

Financial Services
(2016; Source: IDBR)

GP premises
(2016; Source: BSO)

Dentists
(2016; Source: BSO)

Pharmacists
(2016; Source: BSO)

Opticians
(2016; Source BSO)

Libraries
(2016; Source: DfC)

Large Service Centre
(2016; Source: DfC)

Other general services
(2016; Source: IDBR)

Consultation Responses

- 10.4 On the whole, 12 respondents were content with the proposals, a further 11 were discontent and the remaining 5 had no strong view.
- 10.5 Eight respondents requested the inclusion of childcare provision. The consultation document⁸ reflected on this, and initially argued that given (i) the widespread availability of childminders and (ii) the absence of information on available places and non-registered childcare provision (e.g. provided by family/ friends), it should not be included. However, following the consultation responses, this issue was re-examined and discussed with the domain expert group and it was concluded that crèches and day nurseries should be included as an additional service.
- 10.6 Public transport travel times were widely welcomed as an improvement. Several respondents mentioned issues with the frequency and timing of public transport, in particular with reference to (medical) appointment times and opening times generally. The Scottish and Welsh indices of deprivation⁹ mitigated this issue by using the average travel time from four and six trips respectively. Other comments included the distance to public transport access points such as bus stops.
- 10.7 The public transport model that will be used is based on time tables and assumptions on departure/arrival times of a journey, changeover time, walking speed, and maximum walking/travel time. While every care will be taken in terms of setting the parameters within the model in order to try and represent the reality on the ground, it will not be viable to capture all eventualities. Having said that, it is expected that, despite these shortcomings, the service-weighted average travel time will be reflective of the ranking of areas according to their accessibility by public transport.

⁸ Recommendation 13b, see https://www.nisra.gov.uk/files/publications/NIMDM17-consultation_0.pdf#page=37

⁹ See <http://www.gov.scot/Resource/0050/00504822.pdf#page=57> (Scotland) and <http://gov.wales/docs/statistics/2014/141218-wimd-2014-technical-en.pdf#page=56> (Wales)

- 10.8 Four respondents raised the issue of ‘barriers’ to cross-community movement, which could lengthen travel times. This was addressed in the consultation document¹⁰. Clearly it would be important to take account of all barriers which effectively increase distance to services for whatever reason (e.g. peace lines). However, there are practical problems which make this impossible to achieve in a consistent, coherent way that would satisfy the agreed indicator criteria. For example, it is difficult to be precise about the exact number, location and ‘severity’ of interface barriers, partly due to the invisibility of some, and partly because there is uncertainty about the status/continuity of some barriers, which may be affected by what is happening socially and/or politically at any given time. In addition, there is no way of knowing how many members of an interface community actually decide not to use the nearest service if it is in the wrong territory and regularly make a longer journey to a ‘safe’ service.’ Finally some of the interfaces may actually span the geographical unit of analysis, creating challenges for the relative ranking that would be assigned to areas (e.g. Super Output Areas).
- 10.9 The addition of an indicator on broadband speeds was welcomed by many, though with some comments. The choice of the threshold of 10 MB/s was criticised for being different from the 30 MB/s in the draft Programme for Government, and for becoming quickly irrelevant due to schemes such as the Broadband Improvement Project and the Superfast Extension Programme. There are two considerations to selecting a suitable threshold. First, deprivation is concerned with minimum requirement not being met. Ofcom stated that a connection speed of 10Mbit/s is required to deliver an acceptable broadband user experience for a typical household¹¹. Secondly, indicator criterion b stipulates that the indicator should represent a major feature of that form of deprivation rather than deprivation affecting a small number of people or particular types of area in Northern Ireland, to enable ranking of all small geographical areas. There will be many areas where all households are unable to reach the connection speed if the threshold is set higher.
- 10.10 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

¹⁰ Recommendation 13a, see https://www.nisra.gov.uk/files/publications/NIMDM17-consultation_0.pdf#page=36

¹¹ See https://www.ofcom.org.uk/_data/assets/pdf_file/0024/26826/cmr_uk_2016.pdf#page=142

Final Indicators for NIMDM 2017

10.11 The final indicators that will be used in the Access to Services Domain are unchanged from those proposed in the consultation document:

Service-weighted fastest travel time by private transport
(2016; Source: DfI)

Service-weighted fastest travel time by public transport
(2016; Source: DfI)

Proportion of properties with broadband speed below 10Mb/s
(2016; Source: Ofcom)

10.12 The services to be included in the public and private transport travel time indicators includes one addition to the original proposals, i.e. day nursery and crèche:

Accident and Emergency hospital
(2016; Source: DoH)

Job Centre or Jobs and Benefits Office
(2016; Source: DfE)

Post Office
(2016; Source: Post Office Ltd)

Supermarket / Food Store
(2016; Source: IDBR)

Primary Schools
(2016; Source: DfE)

Post-Primary Schools
(2016; Source: DfE)

Council Leisure Centre
(2016; Source: DfC)

Large Service Centres¹²
(2016; Source: NISRA)

GP premises
(2016; Source: BSO)

Dentists
(2016; Source: BSO)

Pharmacists
(2016; Source: BSO)

Opticians
(2016; Source BSO)

Libraries
(2016; Source: DfC)

Day nurseries and Crèches
(2017; Source: Family Support NI)

Financial Services
(2016; Source: IDBR)

Other general services:
Restaurants, pubs, filling stations, and
health & beauty establishments
(2016; Source: IDBR)

¹²

https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/NIMDM_2010_description_of_indicators_domains_and_the_multiple_deprivation_measure.pdf#page=60

Combination of indicators

10.13 Travel times to each of the services will be adjusted to take into account the average travel time that would be anticipated, given the number of locations at which the service is available. This technique prevents the less commonly available services from dominating the final result due to larger travel times. The Accident and Emergency indicator will be double weighted in line with previous analysis.

The three indicators will be ranked and their ranks transformed to an exponential distribution. Following discussion with the Steering Group and Domain Expert Group, each indicator will have an equal weight in the absence of a robust rationale for differing rates.

11 LIVING ENVIRONMENT DOMAIN

Purpose of the Domain

- 11.1 The purpose of the Living Environment Domain is to identify, at the small area level, the prevalence of shortcomings in the quality of housing, access to suitable housing, and the outdoor physical environment.

Proposed Indicators for NIMDM 2017

- 11.2 It was proposed that the Living Environment Domain consists of nine indicators, grouped into three sub-domains:

Sub-Domain: Housing quality

Proportion of domestic dwellings that are unfit
(2016; Source: NIHE, modelled NI House Conditions Survey)

Proportion of domestic dwellings in a state of disrepair
(2016; Source: NIHE, modelled NI House Conditions Survey)

Proportion of domestic dwellings without (1) modern boiler, or (2) loft insulation and double glazing.
(2016; Source: NIHE, modelled NI House Conditions Survey)

Sub-Domain: Housing Access

Household overcrowding
(2011; Source: 2011 Census)

Proportion of population with disability without adaptations to dwelling
(2011; Source: 2011 Census)

Sub-Domain: Outdoor physical environment

Proportion of domestic dwellings with Local Area Problem Scores
(2016; Source: NIHE, modelled NI House Conditions Survey)

Standardised rate of road defects
(2014/15 and 2015/16; Source: DfI)

Road Traffic Collisions
(2006 to 2015; Source: PSNI)

Flood risk: proportion of properties in flood risk area
(2013; Source: Rivers Agency)

Consultation Responses

- 11.3 On the whole, 11 respondents were content with the proposals, a further 11 were discontent and the remaining six had no strong view.
- 11.4 The most prevalent comment related to the absence of an indicator on vacant, derelict or boarded-up buildings. The Land & Property Service, which maintains a database of domestic and non-domestic buildings, does not record the state of these buildings. However, vacant sites and vacant/boarded-up buildings are one of the possible local area problems that are captured by the Housing Conditions Survey and included in the outdoor physical environment sub-domain.
- 11.5 Three respondents called for the inclusion of 'green spaces'. The domain expert group felt that considerable effort and time would be required to define, identify and agree a comprehensive list of accessible 'green spaces'. The group felt that the detailed work required, which would require the full cooperation of each district council, could not be completed within the timescales of the current update. The group also had reservations that the collection of such information may not enable all areas (e.g. SOAs) to be ranked, for example, should some areas have no such 'green spaces'. In addition, perceptions of green spaces may well differ between urban and rural areas. Even then, it may be more appropriate to capture the proximity to green spaces in the Access to Services Domain, rather than a present/absent dichotomy that fails criteria b.
- 11.6 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

Final Indicators for NIMDM 2017

- 11.7 The final indicators that will be used in the Living Environment Domain are unchanged from those proposed in the consultation document:

Sub-Domain: Housing quality

Proportion of domestic dwellings that are unfit
(2016; Source: NIHE, modelled NI House Conditions Survey)

Proportion of domestic dwellings in a state of disrepair
(2016; Source: NIHE, modelled NI House Conditions Survey)

Proportion of domestic dwellings without (1) modern boiler, or (2) loft insulation and double glazing.
(2016; Source: NIHE, modelled NI House Conditions Survey)

Sub-Domain: Housing Access

Proportion of population in overcrowded households
(2011; Source: 2011 Census)

Proportion of population with disability without adaptations to dwelling
(2011; Source: 2011 Census)

Sub-Domain: Outdoor physical environment

Proportion of domestic dwellings with Local Area Problem Scores
(2016; Source: NIHE, modelled NI House Conditions Survey)

Standardised rate of road defects
(2014/15 to 2016/17; Source: DfI)

Road Traffic Collisions
(2006 to 2015; Source: PSNI)

Proportion of properties in flood risk area
(2013; Source: Rivers Agency)

Combination of indicators

- 11.8 The method of combining indicators and sub-domains is identical to that used in NIMDM 2010. Indicators will be ranked and transformed to a normal distribution. Within each sub-domain, indicators will receive equal weights to produce a sub-domain score. There was no strong rationale for different weights from the consultation responses and discussions with the Domain Expert Group. Factor analysis could not be used, as either the number of indicators per sub-domain was too small, or the indicators were not positively correlated.
- 11.9 The resulting sub-domain scores will be ranked and transformed to an exponential distribution and combined with equal weights. Again, there was no strong rationale for different weights from the consultation responses and discussions with the Domain Expert Group. The deprivation team aims to publish individual indicators that will allow users to select and weigh indicators for their specific purposes.

12 CRIME AND DISORDER DOMAIN

Purpose of the Domain

- 12.1 The purpose of the Crime and Disorder Domain is to identify the rate of crime and disorder at the small area level.

Proposed Indicators for NIMDM 2017

- 12.2 It was proposed in the consultation document that the Crime and Disorder Domain will consist of six indicators, grouped into two sub-domains:

Sub-Domain: Crime

Violence (including sexual offences), robbery and public order
(2011/12 to 2015/16; Source PSNI)

Burglary
(2011/12 to 2015/16; Source PSNI)

Vehicle Crime
(2011/12 to 2015/16; Source PSNI)

Criminal Damage and Arson
(2011/12 to 2015/16; Source PSNI)

Sub-Domain: Disorder

Deliberate Primary and Secondary Fires
(2011/12 to 2015/16; Source: NIFRS)

Anti-Social Behaviour Incidents
(2011/12 to 2015/16; Source: PSNI)

Consultation Responses

- 12.3 On the whole, 15 respondents were content with the proposals, a further three were discontent and the remaining 10 had no strong view.

- 12.4 Two respondents requested the inclusion of theft as an additional indicator in the crime sub-domain. The three crime categories that cover theft are bicycle theft, theft from the person (without the use or threat of physical force) and other theft (Including theft by an employee, blackmail and making off without payment). English and Welsh deprivation measures already include theft as an indicator in their crime / community safety domains. After discussion with the domain expert group, it was decided to include theft as the fifth indicator in the crime sub-domain.
- 12.5 Another two respondents suggested that domestic violence and hate crimes should be included as separate indicators. Although the research team would support this suggestion given the impact these crimes cause and the extent of repeat victimisation, the level of underreporting means that specific indicators constructed from police data alone would not be sufficiently robust to warrant inclusion. Unfortunately there are no alternative datasets collected consistently across Northern Ireland that could be incorporated to strengthen the police data and therefore it is proposed that domestic violence offences are retained within the violence category of police recorded crime data. Similarly, hate crimes are a subset of offences reported in the other indicators.
- 12.6 Detailed responses to the remaining issues raised during the consultation are available at <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>.

Final Indicators for NIMDM 2017

- 12.7 The final indicators that will be used in the Crime and Disorder Domain are unchanged from those proposed in the consultation document:

Sub-Domain: Crime

Violence (including sexual offences), robbery and public order
(2012 to 2016; Source PSNI)

Burglary
(2012 to 2016; Source PSNI)

Theft
(2012 to 2016; Source PSNI)

Vehicle Crime
(2012 to 2016; Source PSNI)

Criminal Damage and Arson
(2012 to 2016; Source PSNI)

Sub-Domain: Disorder

Deliberate Primary and Secondary Fires
(April 2011 to March 2016; Source: NIFRS)

Anti-Social Behaviour Incidents
(2012 to 2016; Source: PSNI)

Combination of indicators

- 12.8 Each of the indicators within the Crime and Disorder Domain will be converted to rates of the at risk population before ranking and standardising to a normal distribution.
- 12.9 In NIMDM 2005 and NIMDM 2010, the standardised values of the indicators in the Crime sub-domain were combined with equal weights. One respondent argued that a higher weighting should be given to violence (including sexual offences), robbery and public order, but did not stipulate by how much, nor which of the other indicators in the crime sub-domain should receive lower weights. In the English and Welsh deprivation measures, factor analysis is used to determine the weights of indicators in their equivalent domains. In contrast, the Scottish deprivation measure¹³ used equal weights as there was no '*official methodology to differentiate between the severity of different types of crimes*'. The Steering Group, supported by the domain expert group, opted in favour of using factor analysis as a data-driven method to determine the weight of indicators. It is expected that indicator data will be made available as part of the final deprivation report, which will allow users to apply their own weights.

¹³ See <http://www.gov.scot/Resource/0050/00504822.pdf#page=58>

12.10 The two indicators in the Disorder sub-domain will be combined with a 60 per cent weight for Anti-Social Behaviour Incidents and a 40 per cent weight for Deliberate Primary and Secondary Fires. This is unchanged from the approach used in the NIMDM 2010. As outlined earlier, it is not possible to use factor analysis to determine weights, as it requires at least three indicators.

12.11 The Crime and Disorder sub-domain scores will be ranked and transformed to an exponential distribution. The values for each sub-domain will be combined in a 60:40 ratio for crime and disorder respectively, akin to the approach used in NIMDM 2005 and NIMDM 2010. There was no strong rationale for different weights from the consultation responses and discussions with the Domain Expert Group.

13 DOMAIN WEIGHTS

- 13.1 The weights used when combining the individual domains of deprivation into the overall multiple deprivation measure were identical in the 2001, 2005 and 2010 Measures: Income and Employment (25 per cent each), Health and Education (15 per cent each), Proximity to Services (10 per cent), and Living Environment and Crime & Disorder (5 per cent each).
- 13.2 The weights were originally set in the 2001 Multiple Deprivation Measure¹⁴, largely based on theoretical considerations that (a) income and employment domains should carry more weight than the other domains, and (b) the domains with the most robust indicators should be given greater weight. In England and Wales, deprivation measures released around that time also allocated 25 per cent weight to both income and employment domains, whilst Scotland used 30 per cent. Since then, these weights have been slightly reduced with the introduction of additional domains, but still remain at least double those for health and education.
- 13.3 The consultations invited consultees to share their views on the appropriateness (or otherwise) of continuing to use these weights in NIMDM 2017, by asking '*whether they still reflect current priorities*'.
- 13.4 The responses to the consultation were very mixed and in some cases represented opposing views. In several cases, respondents indicated that certain domains should received a higher or lower weight, without indicating which other domain weights should be adjusted.
- 13.5 Two respondents specifically agreed with income and employment carrying more weight, whereas four others thought that the combined weight of 50 per cent was too high. Eight respondents, representing rural areas, asked for higher weight for the Access to Services Domain. Others wanted a higher weight for the Living Environment Domain, arguing that the current 5 per cent does not make much difference for the Multiple Deprivation Measure, particularly since additional indicators in this domain are expected to strengthen its

¹⁴ See

https://www.nisra.gov.uk/files/publications/Measures%20of%20Deprivation%20for%20Northern%20Ireland%20%2828th%20June%29_1.pdf#page=44

robustness. However, this argument can also be applied to the Income deprivation domain, where household income data is expected to bring considerable added value over and above the benefit-based indicator used in NIMDM 2010.

13.6 Seven respondents raised the option of equal weights for all domains. This would reduce the dominance of the income and employment domains, but also triple the impact of the living environment and crime & disorder domains. From discussions held with users during consultation information events, this view is motivated, to a degree, by the fact that most (if not all) funding is allocated on the basis of the Multiple Deprivation Measure. It would encourage users to think more carefully about the different domains. The deprivation team recognises this concern, and could seek to reaffirm the importance of considering individual domain measures in conjunction with the MDM in certain circumstances in order to decide which measures are most applicable. However, the team is also aware of the user demand for an overarching measure and the confusion that the coexistence of several measures could cause.

13.7 These views were brought to the Steering Group. Its members acknowledged the various preferences for the domain weights that had emerged through the consultation, noting that the comments should be considered in the context of the improvements being brought to a number of indicators within the domains. After a considered and lengthy discussion the Steering Group concluded that, on balance, the consultation responses had not provided a robust rationale for changing the domain weights from those that had been deployed in the 2010 measures. The Steering Group was instead in favour of educating users in how to work with domains for particular policy needs.

14 OTHER COMMENTS

14.1 There were a further five recommendations from the NIMDM 2010 that were not specific to a domain. This section will discuss comments made in reference to the other recommendations.

Alternative methodological approaches

14.2 A full review of the methodology was deemed out of scope for this update. There are a number of reasons why the update is important at this time. Firstly, the current measures were largely based on information relating to 2008 and a variety of new or updated information sources will now be available, not least the new population data from the 2011 Census. Secondly, the updated information will be pivotal to the 11 new Local Government Districts in the discharge of the new responsibilities that will transfer to them in respect of Neighbourhood Renewal and Community Planning. Finally, England, Wales and Scotland have conducted their update and published their results in recent years. As such, the current update will help ensure that Northern Ireland can continue to be considered on a more comparable footing with the other territories of the United Kingdom. In addition, a full methodological review, with a delayed release date for the results, was considered undesirable.

Additional Domains – Population Decline

14.3 Four respondents welcomed the forthcoming investigation into the potential association between deprivation and population decline, including two respondents who wanted migration to be considered in the employment deprivation domain (see Section 7.7). It is of particular importance to rural areas which may be experiencing emigration to areas offering more and/or better employment possibilities and/or shorter commuting distances. This does not apply in an urban setting with its proximity to labour markets. Also, population decline in urban areas may be linked to regeneration or gentrification. The different interactions between population decline and deprivation in urban and rural areas conflicts with criterion c (*'free from spatially bias characteristics'*).

- 14.4 The Scottish Government found that it is not possible to create a population domain because the proposed population indicators were not strongly correlated¹⁵. That said, the NIMDM does capture the effects of migration and/or population decline through other indicators. Emigrants are generally better educated and in better health than those left behind; population decline can reduce inward investment and reduce employment opportunities, local services may close leading to longer travel times.
- 14.5 For these reasons, the NIMDM 2017 will not introduce a new domain on population decline. However, its release will be accompanied by the publication of population relevant indicators from NISRA's Population Estimates¹⁶. This will allow users to tailor the use of deprivation and population information for their own purposes, for example, when targeting rural areas with declining populations.

Other comments

- 14.6 There were no comments made regarding the recommendations on time trend indicator data and urban-rural deprivation, hence it is assumed that these recommendations were satisfactory addressed. One respondent specifically welcomed the commitment to create a child-specific multiple deprivation measure. Another respondent queried if an older person multiple deprivation measure can be developed along the same lines. The methodology for both these additional measures will be pursued after the main publication.

¹⁵ See <http://www.gov.scot/Publications/2010/07/30101940/9>

¹⁶ See <https://www.nisra.gov.uk/statistics/population/mid-year-population-estimates>

Annex A: Consultation respondents

Organisation/Individual	Sector
Age NI	Charity / Community / Voluntary
Anonymous (organisation)	Charity / Community / Voluntary
Anonymous (individual)	Other
Anonymous (MLA)	Central government
Armagh, Banbridge & Craigavon Borough Council	Local government
Belfast City Council	Local government
CCEA	Statutory body
College of Occupational Therapists	Other
Community Relations Council	Charity / Community / Voluntary
Consumer Council	Statutory body
Derry City & Strabane District Council	Local government
Derrygannon community hall	Charity / Community / Voluntary
Derrygannon Rainbow afterschool club	Charity / Community / Voluntary
Donagh Delelopment Association	Charity / Community / Voluntary
Equality Commission	Statutory body
Erne East Community Partnership Ltd	Charity / Community / Voluntary
Fermanagh & Omagh District Council	Local government
Fermanagh Rural Community Network	Charity / Community / Voluntary
Mid Ulster District Council	Local government
Naíscoil an Traonaigh	Charity / Community / Voluntary
Newry, Mourne & Down District Council	Local government
NI Rural Development Council	Charity / Community / Voluntary
Northern Ireland Local Government Association	Local government
Roslea Community Association	Charity / Community / Voluntary
Rural Community Network	Charity / Community / Voluntary
South Eastern Health and Social Care Trust	Statutory body
South Eastern Regional College	Statutory body
St. Peters Immaculata Youth Club	Charity / Community / Voluntary

Annex B: Indicator Summary

Income Domain

The proportion of the population living in households whose equivalised income is below 60 per cent of the NI median before housing costs

Employment Domain

The proportion of the working age population who are in receipt of at least one of the following benefits:
Job seekers Allowance, Incapacity Benefit, Severe Disablement Allowance, Carer's Allowance, Employment and Support Allowance

Or not in receipt of any of these benefits and have not made tax contributions or self-assessment (hidden unemployment)

Health and Disability Domain

Standardised Preventable Death Rate (excluding suicides)
 Standardised physical health related benefit rate (formally Comparative Illness and Disability Ratio)
 People registered as having cancer (excluding non-melanoma skin cancers)
 Standardised Emergency Admission Rate
 Proportion of singleton births with low birth weight
 Children's Dental Extractions
 Standardised proportion of people on multiple prescriptions on a regular basis
 Standardised proportion of people with a Long-term Health Problem or Disability (excluding mental health problems)

A combined mental health indicator:

- Proportion of population in receipt of prescriptions for mood and anxiety disorders
- Standardised suicide rates
- Standardised rate of mental health inpatient stays
- Standardised mental health related benefit rates
- Standardised proportion of people with a Long-term Mental Health Problem

Combined mental health indicator

Education Domain

Proportions of pupils attending Special Educational Needs Schools or attending primary school with Special Education Needs Stages 3-5
 Absenteeism at primary schools (all absences)
 Proportions of school leavers achieving 5 or more GCSEs at A*-C (and equivalent) inc GCSE English and maths
 Proportions of those leaving school aged 16, 17 and 18 and not entering Further Education, Employment or Training
 Proportions of 18-21 year olds who have not enrolled in Higher Education Courses at Higher Education or Further Education establishments
 Proportions of pupils attending Special Education Needs Schools or who are attending post-primary school with Special Education Needs Stages 3-5
 Absenteeism at post-primary schools (all absences)
 Proportions of working age adults (25-59) with no or low levels of qualification

Access to Services Domain	Service-weighted fastest travel time by private transport																
	Service-weighted fastest travel time by public transport																
	Proportion of properties with broadband speed below 10Mbps																
	The proposed services to be included in the public and private transport travel time indicators are as follows:																
	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Job Centre or Jobs and Benefits Office</td> <td style="width: 50%;">GP premises</td> </tr> <tr> <td>Post Office</td> <td>Dentists</td> </tr> <tr> <td>Supermarket / Food Store</td> <td>Pharmacists</td> </tr> <tr> <td>Accident and Emergency hospital</td> <td>Primary Schools</td> </tr> <tr> <td>Libraries</td> <td>Post Primary Schools</td> </tr> <tr> <td>Opticians</td> <td>Crèches and day</td> </tr> <tr> <td>Council Leisure Centre</td> <td>Large Service Centre</td> </tr> <tr> <td>Financial Services</td> <td>Other general services</td> </tr> </table>	Job Centre or Jobs and Benefits Office	GP premises	Post Office	Dentists	Supermarket / Food Store	Pharmacists	Accident and Emergency hospital	Primary Schools	Libraries	Post Primary Schools	Opticians	Crèches and day	Council Leisure Centre	Large Service Centre	Financial Services	Other general services
Job Centre or Jobs and Benefits Office	GP premises																
Post Office	Dentists																
Supermarket / Food Store	Pharmacists																
Accident and Emergency hospital	Primary Schools																
Libraries	Post Primary Schools																
Opticians	Crèches and day																
Council Leisure Centre	Large Service Centre																
Financial Services	Other general services																

Living Environment	Proportion of domestic dwellings that are unfit	}	Housing Quality sub-domain
	Proportion of domestic dwellings in a state of disrepair		
	Proportion of domestic dwellings without (1) modern boiler or (2) loft insulation and double glazing		
	Household overcrowding	}	Housing Access sub-domain
	Proportion of population with disability without adaptations to dwelling		
	Proportion of domestic dwellings with Local Area Problem Scores	}	Outdoor Physical Environment sub-domain
	Standardised rate of road defects		
	Road Traffic Collisions		
	Flood risk: proportion of properties in flood risk area		

Crime and Disorder Domain	Violence, (sexual offences), robbery and public order	}	Crime sub-domain
	Burglary		
	Theft		
	Vehicle Crime		
	Criminal Damage and Arson		
	Deliberate Primary and Secondary Fires	}	Disorder sub-domain
	Anti-Social Behaviour Incidents		

Glossary

BSO	Business Services Organisation
CCEA	Council for the Curriculum, Examinations and Assessment
DE	Department of Education
DfC	Department for Communities
DfE	Department for the Economy
DfI	Department for Infrastructure
DoH	Department of Health
FESR	Further Education Statistical Record
GCSE	General Certificate of Secondary Education
GP	General Practitioner
GRO	General Register Office
HESA	Higher Education Statistics Agency
HMRC	Her Majesty's Revenue and Customs
IDBR	Inter- Departmental Business Register
NIFRS	Northern Ireland Fire and Rescue Service
NIHE	Northern Ireland Housing Executive
NIMDM	Northern Ireland Multiple Deprivation Measure
NISRA	Northern Ireland Statistics and Research Agency
OFCOM	Office of Communications
PSNI	Police Service of Northern Ireland
SCG	Statistics Co-ordinating Group
SEN	Special Educational Needs
SOA	Super Output Area