

Description of Indicators



Introduction

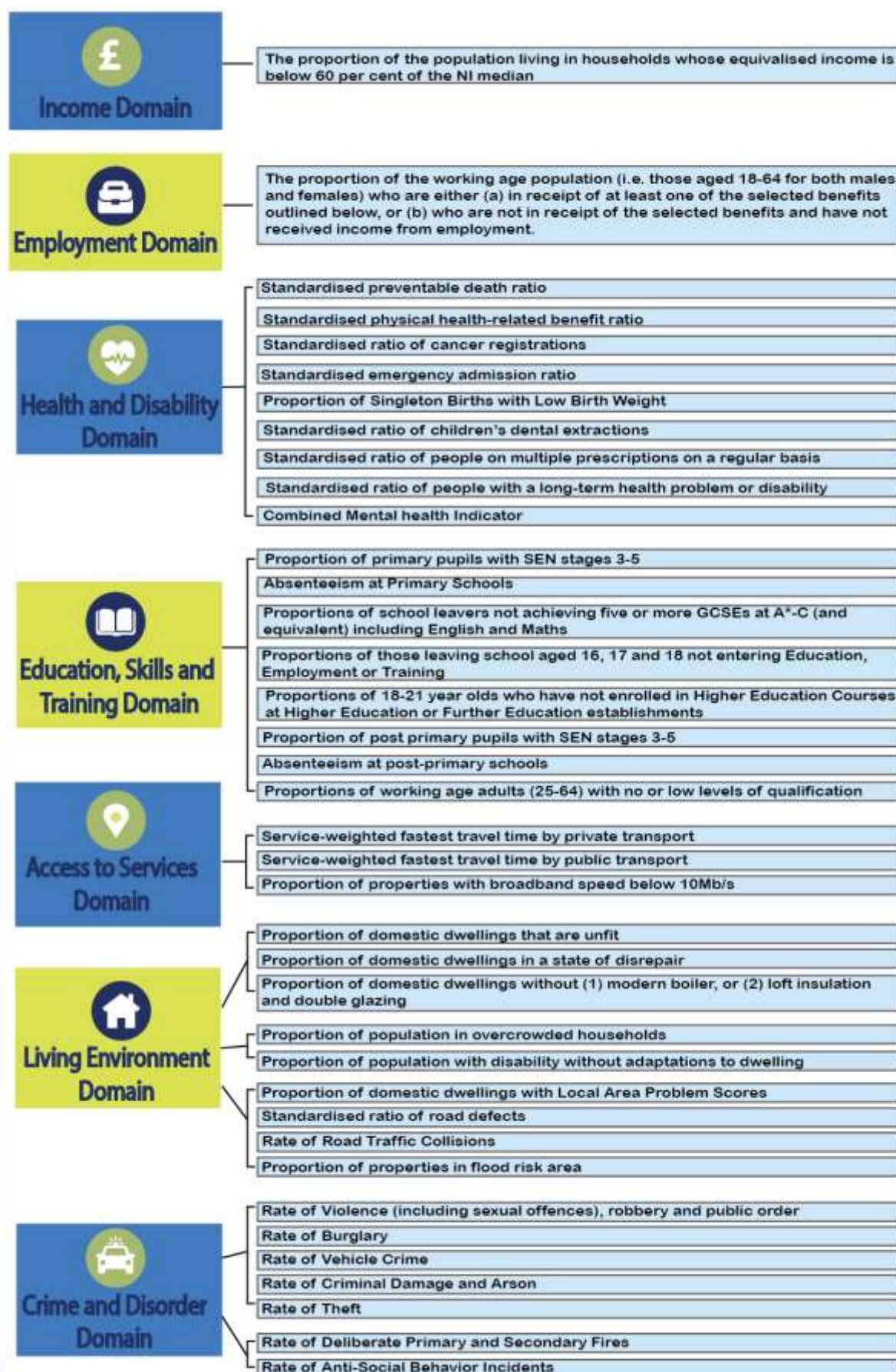
The Northern Ireland Multiple Deprivation Measures (NIMDM 2017) identify small area concentrations of deprivation across Northern Ireland. These measures have updated and replaced the NIMDM 2010 as the official measure of spatial deprivation in Northern Ireland.

The NIMDM 2017 is constructed from 38 different indicators relating to 7 types or 'domains' of deprivation: Income Deprivation, Employment Deprivation, Health Deprivation and Disability, Education, Skills and Training Deprivation, Access to Services, Living Environment and Crime & Disorder.

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Northern Ireland Multiple Deprivation Measure 2017



Northern Ireland Multiple Deprivation Measures 2017

The Northern Ireland Multiple Deprivation Measures (NIMDM 2017) identify small area concentrations of a number of types of deprivation. These types, or 'domains', of deprivation are combined to form the multiple deprivation measure with the following weights:

Income 25%		Employment 25%		
Health 15%	Education 15%	Access 10%	Living Environment 5%	Crime 5%

Results are provided for 7 domains and the overall multiple deprivation measure in the form of ranks. Areas are ordered from most deprived (rank 1) to least deprived (rank 890).

A full explanation of the background to the NIMDM 2017, the consultation process, analysis of the results and technical details can be found on the Deprivation section of the NISRA website.

<https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>

The NIMDM 2017 is an update of the NIMDM 2010, with indicators revised only where there is a strong rationale (and supporting data) to do so. This update also includes a consideration of any urban/rural bias and any amendments as a result of considering the 36 recommendations arising from the 2010 work.

The NIMDM 2017 is a *relative measure* of deprivation, meaning that it is possible to say that one area is more or less deprived than another but it is not possible to say by how much.

Where users wish to compare areas in terms of levels of deprivation they are advised to compare on the basis of the income and employment deprivation domain scores, as these can be interpreted as the percentage of the relevant population that is deprived.

Recommendations

Consideration has been given to each of the 36 recommendations that arose as part of the NIMDM 2010. Positive action has been taken in respect of 17 recommendations which it is considered will improve the updated measures. 6 recommendations cannot be advanced at present due to data availability and/or quality issues and will be carried over to the next update. One recommendation was considered out of scope for this update, and a further 9 recommendations were rejected by the domain expert groups as not aligning with the agreed indicator principles. The remaining 3 recommendations will be addressed after the initial dissemination phase of the project.

Comparison with similar measures

As a direct measure of multiple deprivation does not exist, it is not possible to correlate the NIMDM 2017 outputs to another source by way of a consistency check. That being said, high correlations exist between the indicators within domains, giving an indication that they are consistent measures of deprivation.

Consistency of Methodology

The combination of indicators into domains, and domains into the overall Multiple Deprivation Measure follows a methodology developed by the Social Disadvantage Research Centre in the University of Oxford. Similar methodology is used to produce the English, Welsh and Scottish measures of deprivation. Details of the methodology are available in the accompanying technical report.

Quality Assurance and Peer Review

The work to produce the updated measures was managed under the leadership of NISRA's Director of Analysis and overseen by a formal Steering Group. Its wide membership included representatives from Non-Departmental Public Bodies, the voluntary and community sector, District Councils, and each Government Department. The Steering Group was responsible for all key decisions associated with the update and met at key stages throughout the project. Details of the meetings are made publically available on the Deprivation section of the NISRA website.

The Steering group was supported by seven Domain Expert Groups (i.e. Income & Employment, Health, Education, Living Environment, Crime and Disorder, Proximity to Services and Urban/ Rural considerations). Their role was to support the NISRA team in terms of securing access to essential data, advancing the 36 recommendations that arose from the NIMDM 2010 work and bringing forward recommendations to the Steering Group.

Accessibility and Clarity

The NIMDM 2017 results and accompanying reports are available from the NISRA and NINIS websites. Interactive maps displaying the results of the NIMDM 2017 at various geographies and area profile reports providing a summary of deprivation for each area in NI are also provided. A series of spreadsheets containing the results and metadata are also available from NISRA and the open data portal.

A series of dissemination and information events will take place after publication of the results; the NINIS website also contains guidance on how to use the measures.

Comparability

The NIMDM 2017 results are produced as ranks allowing Super Output Areas across Northern Ireland to be compared with each other within domains.

It is **not** possible to compare ranks for the Multiple Deprivation Measure or the 7 individual domains with the NIMDM 2010 to make a judgement on whether an area has become more or less deprived over time.

It is **not** possible to compare the ranks for the NI measure to similar measures in England, Scotland and Wales due to difference in reference years, different component indicators and geographical units.



INCOME DEPRIVATION DOMAIN

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

Proportion of the population living in households whose equivalised income is below 60% of the NI median (2015/16, DfC)

Description	Proportion of people living in relative poverty
Type of indicator	Rate
Time period	April 2015 to March 2016
Data source	Database for Income Modelling and Estimation (DIME), Department for Communities (DfC)
Numerator	The number of living in households whose equivalised income is below 60% of the NI median
Denominator	Total Population
Data source of denominator	Small area population estimate 2016, NISRA
Key decisions on methodology	<p>This indicator replaced the 2010 indicator 'the proportion of the population living in low income households'. Due to new data becoming available, it is now possible to measure household income rather than use receipt of income related benefits as a proxy for low incomes.</p> <p>This indicator is closely aligned to the definition of relative poverty, except it uses the NI median income from the dataset based on around 700 thousand households rather than the UK median income from a UK wide survey of 20 thousand households. Household incomes are equivalised to reflect different household sizes.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent. More than

98% of records are successfully assigned to geographies, the small number of records without spatial references were proportionally distributed.

Availability of data

Source data are not publically available.



Employment Deprivation Domain

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

Proportion of working age population who are in receipt of at least one employment related benefit, and individuals who are not in receipt of the selected benefits, nor have received income from employment (2015/16, DfC)

Description	Proportion of working age population who are in receipt of at least one employment related benefit, and individuals who are not in receipt of the selected benefits, nor have received income from employment.
Type of indicator	Rate of the working age population
Time period	April 2015 to March 2016
Data source	Department for Communities
Numerator	<p>The number of the working age population (aged 18-64 for both males and females) who are in receipt of at least one of the selected benefits below and individuals who are not in receipt of the selected benefits, nor have received income from employment.</p> <p>The selected benefits are Job Seeker's Allowance, Incapacity Benefit, Severe Disablement Allowance, Carer's Allowance, and Employment and Support Allowance.</p>
Denominator	Working age population (18-64)
Data source of denominator	Small area population estimate 2016, NISRA
Key decisions on methodology	<p>The indicator follows the 2010 indicator closely with all the benefits remaining the same with the addition of individuals who are not in receipt of the selected benefits, nor have received income from employment as a measure of hidden unemployment. This improvement was one of the recommendations from NIMDM 2010.</p> <p>Steps 2 Success (S2S) was introduced in October 2014,</p>

replacing the previous Steps to Work (StW) programme. StW was included in 2010 to capture those not claiming Jobseeker's Allowance (JSA), but who were actively seeking employment. However, 99% of those who are in the current S2S programme are claiming JSA and therefore will already be included in the domain. Therefore, S2S participants will not be included in this domain.

Quality Assurance

NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.

Geo-referencing

The quality of address information is excellent. More than 98% of records were successfully assigned to geographies, the small number of records without spatial references were proportionally distributed.

Availability of data

Benefit data are available from the Northern Ireland Neighbourhood Information Service (<http://www.ninis.nisra.gov.uk>).



Health Deprivation and Disability Domain

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.

Standardised Preventable Death Rate (excluding suicide) (2012 to 2016, GRO)

Description	Standardised death rate in Northern Ireland (over a five year period) due to preventable causes
Type of indicator	Age and sex standardised ratio
Time period	2012 to 2016
Data source	General Register Office for Northern Ireland (GRO)
Numerator	Observed number of preventable deaths
Denominator	Expected number of preventable deaths
Data source of denominator	Expected number of preventable deaths was calculated by applying NI-level age-sex specific rates to small area population estimates
Key decisions on methodology	The various causes of death and associated age bands considered to be preventable by broad public health interventions are defined by the Office for National Statistics (ONS). Suicides have been excluded and counted separately in the mental health indicator.
Quality Assurance	Information supplied at death registration is of high quality since wilfully supplying false information may render the informant liable to prosecution for perjury. Validation checks are incorporated in the registration system upon entering the information, which greatly reduces the risk of errors when registering events. See also the Northern Ireland Death Statistics Quality Assessment .
Geo-referencing	The quality of address information is excellent. All 100% of records were successfully assigned to geographies.
Availability of data	Cause of death statistics are published by NISRA at: https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/cause-death .

Standardised physical health-related benefit ratio (2016, DfC)

Description	Indirectly age and sex standardised ratio of non-overlapping count of (1) Income Support claimants in receipt of disability premium, (2) State Pension Credit claimants in receipt of severe disability premium, (a) Attendance Allowance, (b) Severe Disablement Allowance, (c) Disability Living Allowance – physical health, (d) Incapacity Benefit, and (b) Employment and Support Allowance.
Type of indicator	Age and sex standardised ratio
Time period	January 2016 to December 2016
Data source	Department for Communities (DfC)
Numerator	Observed non-overlapping claimant count
Denominator	Expected non-overlapping claimant count
Data source of denominator	Expected number of claimant counts was calculated by applying NI-level age-sex specific claimant rates to small area population estimates.
Key decisions on methodology	<p>The definition of this indicator follows the 2010 indicator closely (previously called ‘ Comparative illness and disability ratio’)</p> <p>The indicator does not include people who are in receipt of Disability Living Allowance (DLA) for mental health reasons and no other health-related benefits</p>
Quality Assurance	A number of checks and validation rules are applied by both the Department for Work and Pensions (DWP) and DfC when extracts of benefits data are taken. These include: checking content (variable list and number of records), cleaning addresses, checking birth dates and comparing with previously supplied data to a process map outlining the Quality Procedures.
Geo-referencing	The quality of address information is excellent. Nearly 99% of records were successfully assigned to geographies.
Availability of data	Benefits Statistics are published by the Department for Communities at: https://www.communities-ni.gov.uk/articles/benefits-statistics-summary

Standardised ratio of cancer registrations (excluding non-melanoma skin cancers) (2011-2015, NICR)

Description	Indirectly age and sex standardised ratio of people registered as having cancer, excluding non-melanoma skin cancers.
Type of indicator	Age and sex standardised ratio
Time period	2011 to 2015
Data source	Northern Ireland Cancer Registry (NICR)
Numerator	Observed cancer incidence
Denominator	Expected cancer incidence
Data source of denominator	Expected number of cancer registrations was calculated by applying NI-level age-sex specific claimant rates to small area population estimates
Key decisions on methodology	The definition of this indicator follows the 2010 indicator closely.
Quality Assurance	NICR provides data quality indicators to the United Kingdom & Ireland Association of Cancer Registries (UKIACR) annually on timeliness, quality and completeness of data. Further detail can be found here .
Geo-referencing	Over 99% of the provided data was attributed to a statistical geography; the remaining cases were proportionately distributed over all areas.
Availability of data	Official statistics on the incidence, prevalence, survival and mortality of cancer are published by NICR at: http://www.qub.ac.uk/research-centres/nicr/CancerInformation/official-statistics/

Standardised Emergency Admission Rate (2015/16, DoH)

Description	Indirectly age and sex standardised ratio of emergency admissions resulting in a stay of four nights or more.
Type of indicator	Age and sex standardised ratio
Time period	2015/16
Data source	Department of Health (DoH)
Numerator	Observed emergency admissions
Denominator	Expected emergency admissions
Data source of Denominator	Expected number of cancer registrations was calculated by applying NI-level age-sex specific emergency admissions rates to small area population estimates
Key decisions on methodology	Only emergency admissions resulting in a stay of four nights or more were included as a measure of severity and to reduce the potential influence of proximity.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	DoH supplied data at Small Area level; 0.6% of admissions could not be allocated to Small Areas, and have been proportionally distributed over the known Small Areas.
Availability of data	Hospital activity statistics are published by DoH at: https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/hospital-activity-statistics

Proportion of singleton births with low birth weight (2012 to 2016, Child Health System)

Description	Proportion of singleton births of low birth weight. Low birth weight is defined as a birth weight of less than 2.5 kilograms.
Type of indicator	Proportion
Time period	2012 to 2016
Data source	Child Health System, Department of Health
Numerator	Number of low birth weight (singleton) births
Denominator	Number of (singleton) births
Data source of denominator	Child Health System, Department of Health
Key decisions on methodology	Low birth weight is defined as a birth weight of less than 2.5 kilograms following DoH guidelines, regardless of the gestation period. Multiples have been excluded as they naturally tend to be of lower weight.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	DoH supplied data at Super Output Area level; 1.2% of all births and 1.1% of low birth weight births could not be allocated to Super Output Areas, and have been proportionally distributed over the known Super Output Areas.
Availability of data	Source data are not publicly available.

Standardised ratio of Children's Dental Extractions (2013/14 and 2015/16, BSO and DoH)

Description	Indirectly age and sex standardised ratio of dental extractions for children aged 0-15.
Type of indicator	Age and sex standardised ratio
Time period	2013/14 and 2015/16
Data source	Business Services Organisation (BSO) and Department of Health (DoH)
Numerator	Observed number of extractions
Denominator	Expected number of extractions
Data source of denominator	Expected number of teeth extractions were calculated by applying NI-level age-sex specific extraction rates to small area population estimates
Key decisions on methodology	The age-sex standardized ratio has replaced the rate used in NIMDM 2010 (extracted teeth per child). Furthermore, teeth extracted by orthodontists were excluded from the BSO data, as this could be done for cosmetic rather than medical reasons.
Quality Assurance	The BSO data count the number of teeth extracted. The DoH data count the number of children undergoing extractions in hospitals. On advice from DoH these counts were multiplied by 4.68 teeth, the average number extracted per procedure in hospitals. This has slightly changed from an average 4.9 teeth used in NIMDM 2010.
Geo-referencing	The quality of address information is excellent, with 99.3% of BSO data and 99.7% of DoH data successfully assigned to geographies. The remaining records were proportionally distributed.
Availability of data	This data is not available.

Standardised proportion of people on multiple prescriptions on a regular basis (2015/16, BSO)

Description	Standardised proportion of people on multiple prescriptions on a regular basis
Type of indicator	Age and sex standardised ratio
Time period	2015/16
Data source	Business Services Organisation (BSO)
Numerator	Observed number of people on multiple prescriptions on a regular basis
Denominator	Expected number of people on multiple prescriptions on a regular basis
Data source of denominator	Expected number of people on multiple prescriptions on a regular basis were calculated by applying NI-level age-sex specific rates to small area population estimates
Key decisions on methodology	<p>This is a new indicator.</p> <p>Following advice from BSO the indicator is defined as people receiving 5 or more prescriptions, 3 out of 4 quarters in the year including the first and last. Residents of residential care and nursing homes have been excluded from both the numerator and the denominator.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, with 99.5% of data successfully assigned to geographies. The remaining records were proportionally distributed.
Availability of data	Pharmaceutical Statistics are published by BSO at: http://www.hscbusiness.hscni.net/services/1806.htm

Standardised proportion of people with a long term health problem or disability (excluding mental health) (2011, Census)

Description	Standardised proportion of people with a long term health problem or disability (Excluding mental health)
Type of indicator	Age and sex standardised ratio
Time period	2011
Data source	Census
Numerator	Observed number of people with a long term physical health problem or disability
Denominator	Expected number of people with a long term physical health problem or disability
Data source of denominator	Expected numbers were calculated by applying NI-level age-sex specific rates to small area population estimates
Key decisions on methodology	<p>This is a new indicator.</p> <p>People with mental health problems only have been removed from this indicator and added to the combined mental health indicator.</p>
Quality Assurance	Although the data are from the 2011 Census, the age-sex specific proportions of people with a long-term health problem or disability are similar to those reporting limiting long-term illness in the 2001 Census, suggesting that such figures are not prone to change in the short term.
Geo-referencing	The quality of address information is excellent.
Availability of data	Census statistics are published by NISRA and are available at: https://www.nisra.gov.uk/statistics/2011-census/results

Mental Health Indicator

Description	<p>A combined measure of five indicators:</p> <ol style="list-style-type: none">Proportion of the population in receipt of prescriptions for mood and anxiety disordersStandardised suicide rateStandardised rate of mental health inpatient staysStandardised mental health related benefit ratioStandardised proportion of people with a long term emotional, psychological or mental health condition
Type of indicator	Age and sex standardised ratio for all 5 data sources
Time period	<ol style="list-style-type: none">2015/162007 to 20162011/12 to 2015/1620162011
Data source	<ol style="list-style-type: none">Business Services Organisation (BSO)General Register Office (GRO)Department of Health (DoH)Department for Communities (DfC)Census
Numerator	<ol style="list-style-type: none">Number of people receiving a prescription relating to mood and anxiety disorders.Number of suicidesNumber of relevant inpatient staysNumber of people on mental health related benefitsNumber of people with an emotional, psychological or mental health condition
Denominator	<ol style="list-style-type: none">Expected number of people receiving a prescription relating to mood and anxiety disordersExpected number of suicidesExpected number of relevant inpatient staysExpected number of people on mental health related benefitsExpected number of people with an emotional, psychological or mental health condition
Data source of denominator	Expected numbers are calculated by applying NI-level age-sex specific rates to small area population estimates
Key decisions on methodology	Indicator includes people in receipt of health benefits for mental health reasons and people with a long term emotional, psychological or mental health condition as

indicated in the 2011 Census.

Factor analysis is used to combine the rankings of each indicator to strengthen the measurement of mental health deprivation.

Quality Assurance

NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.

Geo-referencing

i. The quality of prescribing address information is excellent with 99.4% of records assigned to a geographical areas. Proportional apportionment was used to assign the remaining records based on the GP practice of successfully geo-coded records.

ii. The quality of suicide address information is excellent. All records were successfully assigned to geographies and, the small number of records without spatial references were proportionally distributed.

iii. DoH supplied counts of mental health inpatient stays by Super Output Area level; the 3.7% of data without geographical references were proportionally distributed.

iv. Benefit address information is excellent. More than 98% of records were successfully assigned to geographies and, the small number of records without spatial references were proportionally distributed.

v. Census address information is excellent. More than 98% of records were successfully assigned to geographies and, the small number of records without spatial references were proportionally distributed.

Availability of data

i. Pharmaceutical Statistics are published by BSO at: <http://www.hscbusiness.hscni.net/services/1806.htm>

ii. Suicide statistics are published by NISRA at: <https://www.nisra.gov.uk/statistics/cause-death/suicide-deaths>

iii. Hospital activity statistics are published by DoH at: <https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/hospital-activity-statistics>

iv. Benefits Statistics are published by the Department for Communities at: <https://www.communities-ni.gov.uk/articles/benefits-statistics-summary>

v. Census statistics are published by NISRA and are available at: <https://www.nisra.gov.uk/statistics/2011-census/results>



Education, Skills and Training Deprivation Domain

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.

Proportions of pupils attending special schools or attending primary school with Special Educational Needs stage 3-5 (2014/15 to 2015/16, DE)

Description	Proportions of pupils of primary school age attending special schools, or attending primary schools with Special Educational Needs stage 3-5
Type of indicator	Proportion
Time period	2014/15 and 2015/16 academic years
Data source	Department of Education (DE)
Numerator	Number of pupils in primary schools and special schools with Special Educational Needs stage 3, 4 or 5.
Denominator	Total number of pupils in primary schools and pupils of primary school age at special schools.
Data source of denominator	School Census, Department of Education
Key decisions on methodology	This indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, with 99.8% of records successfully assigned to geographies. The unassigned pupils were apportioned to a Small Area based on their school and the Small Areas where other pupils in that school lived.
Availability of data	School enrolment statistics are published by the Department of Education at: https://www.education-ni.gov.uk/articles/school-enrolments-school-level-data

Absenteeism at primary schools (2014/15 to 2015/16, DE)

Description	Proportion of total recorded absences over total possible attendances. All absences, authorised and unauthorised, are included.
Type of indicator	Proportion
Time period	2014/15 and 2015/16 academic years
Data source	School Census, Department of Education
Numerator	Sum of recorded absences for all primary school pupils
Denominator	Sum of possible attendances
Data source of denominator	School Census, Department of Education
Key decisions on methodology	This indicator follows the 2010 indicator closely. All absences, authorised and unauthorised, are included.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, with 99.6% of records successfully assigned to geographies. The unassigned pupils were apportioned to a Small Area based on their school and the Small Areas where other pupils of that school lived.
Availability of data	Pupil attendance statistics are published by the Department of Education, and are available at: https://www.education-ni.gov.uk/articles/pupil-attendance

Proportions of school leavers not achieving 5 or more GCSEs at A*- C (and equivalent) incl. English and Maths (2013/14 to 2015/16, DE)

Description	Proportions of school leavers not achieving 5 or more GCSEs at A*- C (and equivalent) including English and Maths
Type of indicator	Proportion
Time period	2013/14 to 2015/16 academic years
Data source	School Leavers Survey, Department of Education (DE)
Numerator	Number of school leavers not achieving 5 or more GCSEs at A*-C (and equivalent) including English and Maths
Denominator	Number of school leavers
Data source of denominator	School Leavers Survey, Department of Education
Key decisions on methodology	Following advice from DE this indicator has been updated from 'GCSE and equivalent point scores' in 2010 to the 'proportion of school leavers not achieving 5 or more GCSEs A *-C (and equivalent) including English and Maths', as used in the Programme for Government.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent. More than 99.5% of records were successfully assigned to geographies. The unassigned pupils were apportioned to a Small Area based on their school and the Small Areas where other pupils in that school lived.
Availability of data	School leavers statistics are published by the Department of Education, and are available at: https://www.education-ni.gov.uk/articles/school-leavers

Proportions of those leaving school ages 16, 17 and 18 and not entering Education, Employment or Training (2013/14 to 2014/15, DE)

Description	Proportions of 16, 17 and 18 year olds leaving school and not entering Education, Employment or Training
Type of indicator	Proportion
Time period	2011/12 to 2014/15 academic years
Data source	School Leavers Survey, Department of Education
Numerator	Number of school leavers not entering Education, Employment or Training
Denominator	Total number of school leavers
Data source of denominator	School Leavers Survey, Department of Education
Key decisions on methodology	This indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent. More than 99.2% of records were successfully assigned to geographies, remaining records were proportionally apportioned.
Availability of data	School leavers' statistics are published by the Department of Education, and are available at: https://www.education-ni.gov.uk/articles/school-leavers .

Proportions of 18-21 year olds not enrolled in Higher Education courses (2012/13 to 2015/16, DfE)

Description	Proportion of 18-21 year olds who have not enrolled in Higher Education courses at Higher Education or Further Education establishments
Type of indicator	Proportion
Time period	2012/13 to 2015/16 academic years
Data source	Higher Education Statistics Agency, Consolidated Data Return and Further Education Statistical Record; Department for Economy (DfE)
Numerator	Number of 18-21 year olds not enrolling in Higher Education courses at Higher Education or Further Education establishments
Denominator	Total number of 18-21 year olds
Data source of denominator	Small Area Population Estimates, NISRA Higher Education Statistics Agency, Consolidated Data Return and Further Education Statistical Record; Department for Economy (DfE)
Key decisions on methodology	This indicator is similar to that used in NIMDM 2010. NI domiciled student enrolled in the UK were captured at their home address, not term-time address. Adjustments were made to the population, by moving students from their term-time address to their home address. NI-domiciled students enrolled in Higher Education courses outside the UK have not been captured in either numerator or denominator.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent. More than 99.8% of records were successfully assigned to geographies. Consequently the unassigned records were apportioned to a Small Area.
Availability of data	Higher education statistics are published by the Department for the Economy at: https://www.economy-ni.gov.uk/articles/higher-education-enrolments & https://www.economy-ni.gov.uk/articles/further-education-enrolments

Proportions of pupils attending special schools or who are attending post-primary schools with special educational needs stages 3-5 (2014/15 to 2015/16, DE)

Description	Proportion of pupils of post-primary school age attending special schools, or attending post-primary school with Special Educational Needs stage 3-5
Type of indicator	Proportion
Time period	2014/15 to 2015/16
Data source	Department of Education
Numerator	Number of pupils of post-primary school age in special schools and pupils in post-primary schools with Special Educational Needs stage 3, 4 or 5.
Denominator	Total number of pupils in post-primary schools and pupils of post-primary school age in special schools.
Data source of denominator	School Census, Department of Education
Key decisions on methodology	This indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, with 99.6% of records were successfully assigned to geographies. The unassigned pupils were apportioned to a Small Area based on their school and the Small Areas where other pupils in that school lived.
Availability of data	School enrolment statistics are published by the Department of Education at: https://www.education-ni.gov.uk/articles/school-enrolments-school-level-data

Absenteeism at post-primary schools (2014/15 to 2015/16, DE)

Description	Proportion of total recorded absences over total possible attendances.
Type of indicator	Proportion
Time period	2014/15 to 2015/16
Data source	School Census, Department of Education
Numerator	Sum of absenteeism rates for all post-primary school pupils
Denominator	Number of possible attendances for all post-primary school pupils
Data source of denominator	School Census, Department of Education
Key decisions on methodology	The indicator follows the 2010 indicator closely. Both authorised and unauthorised absences are included due to inconsistencies in recording of absences across schools.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, with 99.5% of records successfully assigned to geographies. The unassigned pupils were apportioned to a Small Area based on their school and the Small Areas where other pupils in that school lived.
Availability of data	Pupil attendance statistics are published by the Department of Education, and are available at: https://www.education-ni.gov.uk/articles/pupil-attendance

Proportions of working age adults (25-64) with no or low levels of qualification (2011, Census)

Description	Proportion of working age adults (25-64) with no or low levels of qualification.
Type of indicator	Proportion
Time period	2011
Data source	Census 2011, NISRA
Numerator	All persons aged 25-64 with no or low levels of qualification.
Denominator	All persons aged 25-64
Data source of denominator	Census 2011, NISRA
Key decisions on methodology	<p>This indicator follows the 2010 indicator closely. The upper limit of working age has been changed from 59 to 64 to reflect changes in pensionable age.</p> <p>The indicator has been age and sex standardised.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The data were downloaded from NINIS at Small Area level so geo-referencing was not required.
Availability of data	Census statistics are available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).



Access to Services Domain

The purpose of the Access 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.

Service-weighted fastest travel time by private transport (2016, DfI)

Description	Fastest travel time by private transport to the following services		
	A&E hospital (DoH)	Pharmacists (BSO)	Opticians (BSO)
	Post Office (Post Office Ltd)	GP premises (BSO)	Dentists (BSO)
	Job Centre or Jobs and Benefits Office (DfE)	Financial Services (IDBR)	Council Leisure Centre (DfC)
	Supermarket / Food Store (IDBR)	Large Service Centre (DfC)	Other general services (IDBR)
	Primary Schools (DfE)	Post-Primary Schools (DfE)	Crèche/ Day Nursery (Family Support NI)
	Libraries (DfC)		
Type of indicator	Road travel time in minutes		
Time period	2016		
Data source	Department for Infrastructure (DfI)		
Numerator	N/A		
Denominator	N/A		
Data source of denominator	N/A		

Key decisions on methodology	<p>This indicator follows the 2010 indicator closely. The private transport travel time is calculated from the centroid of each postcode to the exact location of each service. For each service and statistical geography, a population-weighted average travel time is derived. To create the overall indicator, each service has been given a weight based on the number of locations, with A&E receiving a double weight.</p> <p>Four new services have been added; Crèche/ Day Nurseries, Primary schools, post- primary schools and libraries (including mobile libraries).</p>
Quality Assurance	<p>NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.</p>
Geo-referencing	<p>Geo-coding of location data is excellent. There were no issues.</p>
Availability of data	<p>Source data are not publicly available</p>

Service-weighted fastest travel time by public transport (2016, DfI)

Description	Fastest travel time by public transport to the following services		
	Libraries (DfC)	Pharmacists (BSO)	Opticians (BSO)
	Post Office (Post Office Ltd)	GP premises (BSO)	Dentists (BSO)
	Job Centre or Jobs and Benefits Office (DfE)	Financial Services (IDBR)	Council Leisure Centre (DfC)
	Supermarket / Food Store (IDBR)	Large Service Centre (DfC)	Other general services (IDBR)
	Crèche/ Day Nursery (Family Support NI)		
Type of indicator	Travel time in minutes		
Time period	2016		
Data source	Department for Infrastructure (DfI)		
Numerator	Not applicable		
Denominator	Not applicable		
Data source of denominator	Not applicable		
Key decisions on methodology	<p>This is a new indicator. The public transport travel time is calculated from the centroid of each postcode to the exact location of each service. For each service and statistical geography, a population-weighted average travel time is derived. To create the overall indicator, each service has been given a weight based on the number of locations.</p> <p>The same services are used as with private transport times with the exception of A&Es, schools and petrol stations.</p>		

The indicator is based on journeys made between 8am and 10am and includes journeys made by bus, train and ferry. It also includes a maximum 20 minute walk to the nearest bus stop or train station, as well as set walking or waiting times between buses etc.

Postcodes from which certain or all services cannot be reached within the set parameters, are given the longest public travel time of any postcode to that service, plus its private travel time.

Quality Assurance

NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.

Geo-referencing

Geo-coding of location data is excellent. There were no issues.

Availability of data

Source data are not publicly available.

Proportion of properties with broadband speed below 10mb/s (2015, Ofcom)

Description	Proportion of properties with broadband speed below 10mb/s
Type of indicator	Proportion
Time period	2015
Data source	Ofcom
Numerator	Number of connections with broadband speed below 10mb/s
Denominator	Total number of connections
Data source of denominator	Ofcom
Key decisions on methodology	<p>This is a new indicator.</p> <p>The threshold of 10Mbit/s was set as it reflects a minimum requirement for an acceptable service for households. In areas where all connections have broadband speed above 10mb/s, ranking was based on the 30mb/s threshold.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Data are provided by postcode, which can be attributed to other geographies. There were no issues.
Availability of data	Broadband speed data are published by Ofcom at https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2016/downloads



Living Environment Domain

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.

Sub-Domain: Housing Quality

Proportion of domestic dwellings that are unfit (2016, NIHE)

Description	Proportion of domestic dwellings that are unfit
Type of indicator	Proportion
Time period	2016
Data source	House Condition Survey, Northern Ireland Housing Executive (NIHE)
Numerator	Modelled number of domestic dwellings that are unfit
Denominator	Number of domestic dwellings
Data source of denominator	Assessment Office database, Land and Property Services (LPS)
Key decisions on methodology	<p>This is a new indicator, which replaced the Decent Home Standard indicator from 2010 due to data availability issues.</p> <p>Northern Ireland House Condition Survey 2016 sample size is 3,000. The probability of a dwelling being unfit was estimated as a function of the type, age and settlement type. Estimated probabilities were then applied to the housing stock in an area, creating a modelled number of unfit dwellings.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Geo-coding of location data is excellent. There were no issues.
Availability of data	Data are currently not available. NIHE will publish final results of the Housing Conditions Survey in 2018.

Proportion of domestic dwellings in a state of disrepair (2016, NIHE)

Description	Proportion of domestic dwellings in a state of disrepair
Type of indicator	Proportion
Time period	2016
Data source	House Condition Survey, Northern Ireland Housing Executive
Numerator	Modelled number of domestic dwellings in a state of disrepair
Denominator	Number of domestic dwellings
Data source of denominator	Assessment Office database, Land and Property Services (LPS)
Key decisions on methodology	This is a new indicator, which replaced the Housing Health and Safety Rating System indicator from 2010 due to data availability issues. Northern Ireland House Condition Survey 2016 sample size is 3,000.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Geo-coding of location data is excellent. There were no issues.
Availability of data	Data are currently not available. NIHE will publish final results of the Housing Conditions Survey in 2018.

Proportion of domestic dwellings without (1) modern boiler, or (2) loft insulation and double glazing (2016, NIHE)

Description	Proportion of domestic dwellings without (1) modern boiler, or (2) loft insulation and double glazing
Type of indicator	Proportion
Time period	2016
Data source	House Condition Survey, Northern Ireland Housing Executive
Numerator	Modelled number of domestic dwellings without (1) modern boiler, or (2) loft insulation and double glazing
Denominator	Number of domestic dwellings
Data source of denominator	Assessment Office database, Land and Property Services (LPS)
Key decisions on methodology	This is a new indicator.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Geo-coding of location data is excellent. There were no issues.
Availability of data	Data are currently not available. NIHE will publish final results of the Housing Conditions Survey in 2018.

Sub-Domain: Housing Access

Household overcrowding (2011, Census)

Description	Proportion of usual residents in households with more than 1 person per room
Type of indicator	Proportion
Time period	2011
Data source	Census
Numerator	Usual residents in households with more than 1 person per room
Denominator	All usual residents in households
Data source of denominator	Census
Key decisions on methodology	<p>This indicator was included in NIMDM05 but dropped in NIMDM 2010 as it was felt it was out of date.</p> <p>Expert group felt that although it is from 2011 Census it is still a good measure of current overcrowding.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information was excellent. More than 98% of records were successfully assigned to geographies, the small number of records without spatial references were proportionally distributed.
Availability of data	Census statistics are available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Proportion of population with disability without adaptations to dwelling (2011, Census)

Description	Proportion of usual residents with long-term conditions that live in households that are not adapted for those conditions
Type of indicator	Proportion
Time period	2011
Data source	Census
Numerator	All usual residents with long-term conditions that live in households that are not adapted for those conditions
Denominator	All usual residents in households with long-term conditions
Data source of denominator	Census
Key decisions on methodology	Peoples conditions were aligned to adaptations specific to their needs.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent - apportionment was not required.
Availability of data	Census statistics are available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Sub-Domain: Outdoor Physical Environment

Proportion of domestic dwellings with Local Area Problem Score (2016, NIHE)

Description	SOA level Local Area Problem Score, modelled from the NI House Condition Survey 2016.
Type of indicator	Proportion
Time period	2016
Data source	House Condition Survey, Northern Ireland Housing Executive
Numerator	Modelled number of properties
Denominator	Number of domestic dwellings
Data source of denominator	Assessment Office database, Land and Property Services (LPS)
Key decisions on methodology	The Local Area Problem Score results from the House Conditions Survey were modelled as a function of housing age, type and settlement band. The results of the model were applied to the Land and Property Services Assessment Office database which contained information on housing characteristics. The results were aggregated to Super Output Area level.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Geo-coding of location data is excellent. There were no issues.
Availability of data	Data are currently not available. NIHE will publish final results of the Housing Conditions Survey in 2018.

Standardised rate of road defects (2014/15 and 2015/16, DfI)

Description	Standardised rate of road defects
Type of indicator	Proportion
Time period	2014/15 and 2015/16
Data source	Department for Infrastructure
Numerator	Observed number of defects
Denominator	Expected number of defects
Data source of denominator	Department for Infrastructure
Key decisions on methodology	The rate of defects per kilometre is derived for each road type, except for motorways. These rates are applied to the length and type of roads in an area to get an expected number of defects. Roads that have not had any defects in the past two years have been excluded from the analysis.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Defects that were geo-referenced more than 5 metres from roads were excluded.
Availability of data	Data are available on the Open Data Portal at https://www.opendatani.gov.uk/dataset/surface-defects

Road traffic Collisions (2006 to 2015, PSNI)

Description	The number of road traffic collisions, resulting in an injury, which are reported to the PSNI, divided by the at-risk population
Type of indicator	Proportion
Time period	2014/15 and 2015/16
Data source	Police Service for Northern Ireland
Numerator	Number of Road Traffic Collisions reported to the PSNI
Denominator	At risk population
Data source of denominator	Total populations are taken from Small Area Population Estimates. The non-resident workplace population is taken from the 2011 Census.
Key decisions on methodology	This is a new indicator. Similar indicators in the other UK countries were considered. England looked only at collisions which caused injury or death to pedestrians or cyclists. Numbers in NI are small but weighting was considered and there was no significant difference to the results. Weighting the severity of injury was also investigated and again there was no significant difference. Only collisions resulting in a casualty and being reported to the PSNI are included.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Geo-coding of location data is excellent. There are no issues.
Availability of data	Collision data available on Open Data Portal at: https://www.opendatani.gov.uk/dataset/police-recorded-injury-road-traffic-collision-statistics-northern-ireland-2016

Flood Risk: Proportion of properties in flood risk area (2013, River Agency)

Description	Proportion of properties in flood risk area
Type of indicator	Proportion
Time period	2013
Data source	Department for Infrastructure
Numerator	Number of properties in a flood risk area
Denominator	Total domestic properties
Data source of denominator	Land and Property Services (LPS)
Key decisions on methodology	For areas where none of the properties was in a flood risk area, rankings are based on the proximity to a flood risk area.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	Geo-coding of location data is excellent. There were no issues.
Availability of data	Data are available from River Agency NI at http://www.infrastructure-ni.gov.uk/articles/what-flood-maps-ni



Crime and Disorder Domain

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

Sub-Domain: Crime

Rate of Violence, sexual offence, robbery and public order (2011/12 to 2015/16, PSNI)

Description	Violence, robbery and public order rate.
Type of indicator	Rate
Time period	2011/12 to 2015/16
Data source	Police Service of Northern Ireland
Numerator	Number of violence, sexual offences, robbery and public order offences
Denominator	At risk population. This consists of total population plus non-resident workplace population.
Data source of denominator	Total populations are taken from Small Area Population. The non-resident workplace population is taken from the 2011 Census (the most up to date data available).
Key decisions on methodology	<p>The indicator follows the 2010 indicator closely.</p> <p>Since the NIMDM 2010, the PSNI has changed the categorisation of crimes to align with those used in England and Wales. It is expected that the impact of this change was minimal for the purpose of the Crime and Disorder Domain.</p>
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, the small number of records without spatial references were proportionally distributed.
Availability of data	Data available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Rate of Burglary (2011/12 to 2015/16, PSNI)

Description	Burglary rate. The number of burglary offences is divided by the at-risk population.
Type of indicator	Rate
Time period	2011/12 to 2015/16
Data source	Police Service of Northern Ireland
Numerator	Number of burglary offences
Denominator	At-risk population
Data source of denominator	Total populations are taken from Small Area Population. The non-resident workplace population is taken from the 2011 Census (the most up to date data available).
Key decisions on methodology	The indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent. More than 98% of records were successfully assigned to geographies, the small number of records without spatial references were proportionally distributed.
Availability of data	Data available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Rate of Vehicle Crime (2011/12 to 2015/16, PSNI)

Description	Vehicle crime rate. The number of vehicle crimes is divided by the at-risk population
Type of indicator	Rate
Time period	2011/12 to 2014/15
Data source	Police Service of Northern Ireland
Numerator	Number of vehicle crime offences
Denominator	At risk population. This consists of total population plus non-resident workplace population.
Data source of denominator	Total populations are taken from Small Area Population Estimates 2011 to 2014. The non-resident workplace population is taken from the 2011 Census (the most up to date data available).
Key decisions on methodology	The indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information was excellent, the small number of records without spatial references were proportionally distributed.
Availability of data	Data available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Rate of Criminal Damage and Arson (2011/12 to 2015/16, PSNI)

Description	The number of criminal damage offences and arson is divided by the at-risk population, which is the total population plus the non-resident workplace population.
Type of indicator	Rate
Time period	2011/12 to 2015/16
Data source	Police Service of Northern Ireland
Numerator	Number of criminal damage and arson offences
Denominator	At risk population
Data source of denominator	Total populations are taken from Small Area Population Estimates. The non-resident workplace population is taken from the 2011 Census (the most up to date data available).
Key decisions on methodology	The indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, the small number of records without spatial references were proportionally distributed.
Availability of data	Data available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Rate of Theft (2011/12 to 2015/16, PSNI)

Description	The number of thefts divided by the at-risk population, which is the total population plus the non-resident workplace population.
Type of indicator	Rate
Time period	2011/12 to 2015/16
Data source	Police Service of Northern Ireland
Numerator	Number of thefts
Denominator	At risk population
Data source of denominator	Total populations are taken from Small Area Population Estimates. The non-resident workplace population is taken from the 2011 Census (the most up to date data available).
Key decisions on methodology	The indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, the small number of records without spatial references were proportionally distributed.
Availability of data	Data available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).

Sub-Domain: Disorder

Rate of Deliberate Primary and Secondary Fires (2011/12 to 2015/16, NIFRS)

Description	Deliberate primary and secondary fires rate
Type of indicator	Rate
Time period	2011/12 to 2015/16
Data source	Northern Ireland Fire and Rescue Service (NIFRS)
Numerator	Number of deliberate primary and secondary fires
Denominator	At risk population
Data source of denominator	Total populations are taken from Small Area Population Estimates.
Key decisions on methodology	The indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, the small number of records without spatial references were proportionally distributed.
Availability of data	Source data are not publicly available.

Rate of Anti-Social Behaviour Incidents (2011/12 to 2015/16, PSNI)

Description	Anti-social behaviour rate. The number of anti-social behaviour offences is divided by the at-risk population
Type of indicator	Rate
Time period	2011/12 to 2015/16
Data source	Police Service of Northern Ireland
Numerator	Number of anti-social behaviour incidents
Denominator	At risk population
Data source of denominator	Total populations are taken from Small Area Population Estimates. The non-resident workplace population is taken from the 2011 Census.
Key decisions on methodology	The indicator follows the 2010 indicator closely.
Quality Assurance	NISRA has worked closely with the data supplier to ensure an accurate description and high quality indicators.
Geo-referencing	The quality of address information is excellent, the small number of records without spatial references were proportionally distributed.
Availability of data	Data are available from the Northern Ireland Neighbourhood Information Service (http://www.ninis.nisra.gov.uk).