Technical notes

1. METHODOLOGY

1.1 Overview

As deprivation can take many different forms, the SIMD combines seven different domains (aspects) of deprivation:

- Employment
- Income
- Health
- Education, Skills and Training
- Geographic Access to Services
- Crime
- Housing

These domains are measured using a number of indicators to form individual relative indices for each particular dimension of deprivation. The indices rank each datazone from 1 being most deprived to 6,505 being least deprived. Each of the seven indices are then combined to form the overall Scottish Index of Multiple Deprivation (SIMD). This provides a measure of relative deprivation at datazone level, so it tells you that one datazone is relatively more deprived than another but not how much more deprived.

The methodology used to construct the SIMD remains fundamentally the same as that used to construct previous versions of the SIMD as published in 2004, 2006 and 2009. It is based on the methodology developed by Oxford University to produce the Scottish Indices of Deprivation in 2003 (SID 2003). The Scottish Government produced the first SIMD in-house in 2004. As the methodology used has remained consistent in each subsequent update, these technical notes provide a summary of how the SIMD is constructed and details of the domains and indicators included in SIMD 2012. Full details of the individual methods for creating the domains and overall index are described in the SIMD 2004 Technical Report.

1.2 Constructing the SIMD

The SIMD 2012 is built up from a total of 38 indicators covering the 7 domains. A list of the indicators included in each domain is provided in. The indicators for each domain were selected on the basis that they are:

- domain-specific and appropriate for the purpose (as direct as possible measures for the given type of deprivation);
- up-to-date;
- capable of being updated on a regular basis;
- statistically robust; and
- measure major features of a given type of deprivation (not conditions just experienced by a very small number of people or areas).

The domains are calculated differently depending on the type of data used in each one. This is explained in more detail in Figure 1 and illustrated visually in Figure 2.

Figure 1: Constructing the SIMD

The Income, Employment, Housing and Crime domains are created by summing counts of people and dividing by the appropriate population denominator (taken from the Census or Small Area Population Estimates (SAPEs).

The **Employment domain** is constructed by counting the number of people claiming relevant benefits, and dividing by the working age population, taken from the 2010 SAPE. The domain score is a simple percentage.

The **Income domain** is constructed by counting the number of people claiming relevant benefits, and dividing by the total population from the 2010 SAPE. Thus the domain score is a simple percentage.

The **Housing domain** is the sum of people in households that are overcrowded or have no central heating, divided by the total household population from the 2001 Census. The domain score is a simple percentage.

The **Crime domain** is a count of selected recorded crimes called SIMD crimes, divided by the 2010 SAPE total population. It is shown as a rate of SIMD crime per 10,000 population rather than a percentage of the population.

The **Health, Education and Access domains** are created by ranking the indicators and transforming to a standard normal distribution. This standardisation process is necessary because the indicators in these domains may be measured in different ways and on different scales. A statistical technique called factor analysis is then used to create a weight for each indicator. Next the indicators are combined to produce a domain score which is then ranked.

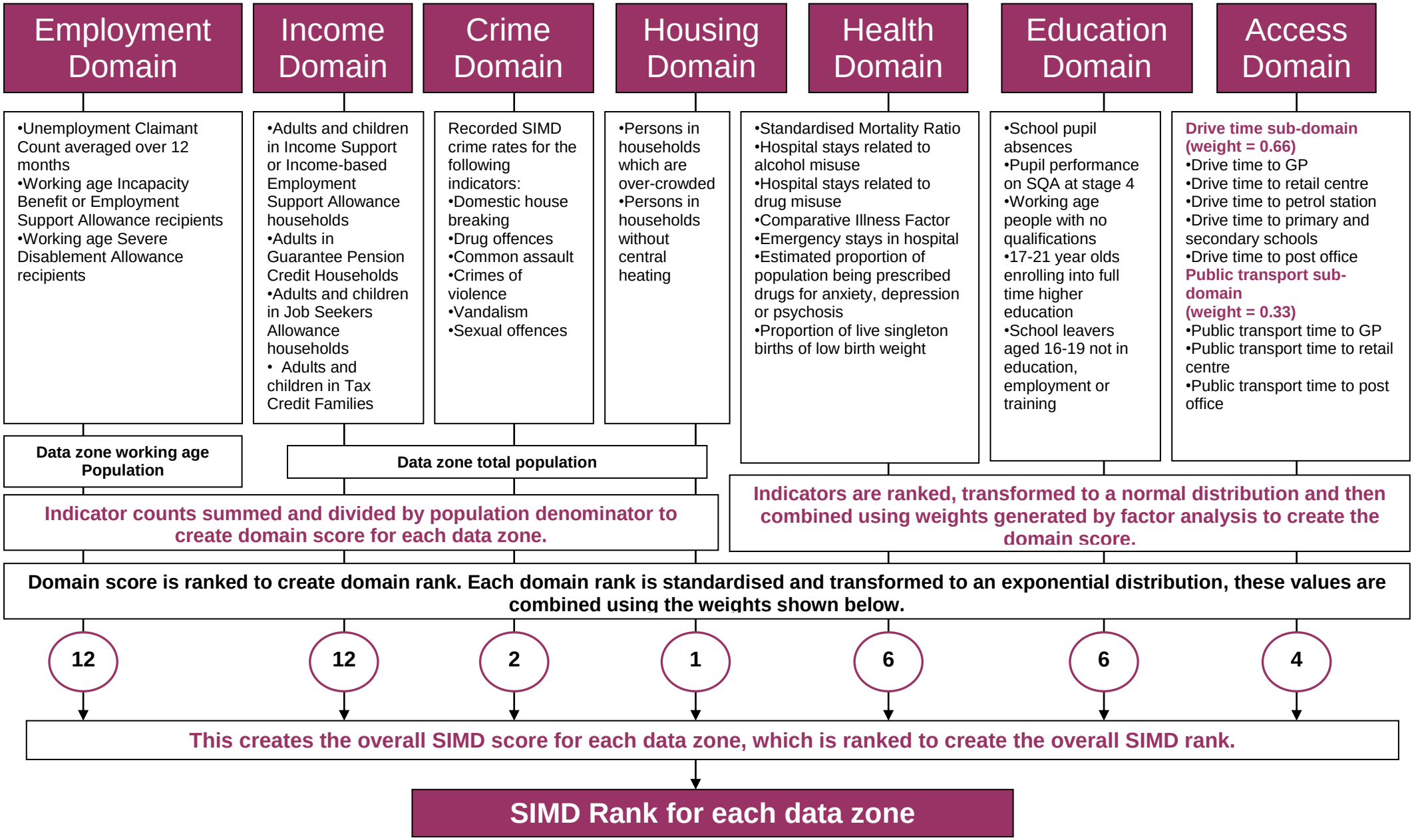
Once the individual domain scores are calculated they are combined to create the overall SIMD. The overall SIMD is a weighted sum of the seven domain scores and different domains are given different weights. The weighting is based on the original research conducted by Oxford University when the original Scottish Indices of Deprivation were first produced and it also takes into consideration how up to date and robust the indicators within each domain are. The weights for each domain are as follows:

Domain	2012 Weight	% of overall SIMD 2012
Employment	12	28%
Income	12	28%
Health	6	14%
Education, Skills and Training	6	14%
Geographic Access to Services	4	9%
Crime	2	5%
Housing	1	2%

Prior to the weighting, the domains are standardised by ranking the scores. The ranks then undergo exponential transformation to avoid high ranks in one domain 'cancelling out' low ranks in another. The resulting scores for the overall SIMD are then ranked from 1 (most deprived) to 6,505 (least deprived) to create the final index.

The flow diagram in Figure 2 summarises the SIMD 2012 methodology.

Figure 2: SIMD 2012 Methodology



1.3 Changes to the SIMD 2012

For the SIMD 2012, changes have been kept to a minimum to ensure consistency with the previous SIMD 2009 publication. The indicators included in each domain have been updated to include the latest data available at the time of release. There has, however, been the need to make some minor changes to the indicators included in SIMD 2012 to reflect welfare reform, changes to the female state pension age and improvements in data quality. Figure 3 summarises the main changes made within each domain. Full details of the indicators included in each domain are provided in section 2.

Figure 3: Summary of changes to SIMD 2012 domains and indicators

Employment domain

There are no overall changes to the indicators included in the employment domain between SIMD 2009 and SIMD 2012 however, due to changes to the benefits system as a result of welfare reform, claimants who would previously have received Incapacity Benefit (IB) may now receive Employment and Support Allowance (ESA). Therefore claimants of ESA are now included in the employment domain however it does not represent any real change to the benefit group being measured as ESA is a new benefit that has replaced IB paid on the grounds of ill-health or disability.

The New Deal programme has also been replaced by DWP's Work Programme and as a result the indicator included in SIMD 2009 measuring New Deal participants has been removed from SIMD 2012. DWP have advised that most participants of the Work Programme will either receive Job Seekers Allowance (JSA) or ESA and therefore will already be counted in the employment domain.

There has been a change to the definition of the working age population as a result of changes to the female state pension age. Previously the working age population included men aged 16 to 64 (inclusive) and women aged 16 to 59 (inclusive). The SIMD 2012 employment domain data relates to August 2011, a time at which the female state pension age was around 60 years and 8 months. The benefits included in the employment domain are only available to the working age population and so DWP benefit data naturally tracks the change in state pension age. However the small area population estimates used as the denominator are only available for single years of age. As a result, a best-fit working age population covering men aged 16 to 64 (inclusive) and women aged 16 to 60 (inclusive) has been used to track the changing female state pension age and ensure consistency over time.

Income domain

There are no overall changes to the indicators included in the income domain between SIMD 2009 and SIMD 2012 however, due to changes to the benefits system as a result of welfare reform, claimants who would previously have received Income Support (IS) may now receive Employment and Support Allowance (ESA). Therefore claimants of ESA are now included in the Income domain however it does not represent any real change to the benefit group being measured as ESA is a new benefit that has replaced IS paid on the grounds of ill-health or disability.

There has been a change to the methodology used to calculate the low income threshold for the indicator measuring '*Number of Adults and Children in Tax Credit Families on low incomes'.* The methodology to produce the low income threshold has been changed to be consistent with the methodology used by HMRC to produce child poverty estimates

as it provides a better count of those in poverty. Based on this new methodology, the low income threshold is £198. Under the previous methodology, the low income threshold would have been £250. Due to this change, the absolute counts of income deprived people are not directly comparable between SIMD 2009 and SIMD 2012. Only the change in rank between the SIMD 2009 and SIMD 2012 income domains, which measures relative change, should be examined. It is possible to analyse change over time for some individual indicators used in the income domain using data available from Scottish Neighbourhood Statistics (www.sns.gov.uk).

Health domain

There has been a change to the methodology for three of the health indicators in terms of reporting the number of 'stays' rather than 'episodes' or 'emergency admissions' to hospital. The SIMD 2012 now uses continuous inpatient stays (CISs) to count the total number of stays in NHS hospitals in Scotland as these generally reflect the patient's experience of their entire stay in hospital. A CIS disregards transfers between hospitals or between specialties within the same hospital. As a CIS may comprise a number of SMR01 (acute hospital) episodes with similar/identical information, a CIS-based analysis avoids double-counting and is considered preferable for these health indicators. As a result of this change, the three hospital-based indicators, and therefore the SIMD 2009 and SIMD 2012 health domains, are not directly comparable.

Education domain

The indicators included in the education domain have remained the same between SIMD 2009 and SIMD 2012.

Access domain

The indicators included in the access domain have remained the same between SIMD 2009 and SIMD 2012. There has, however, been a number of improvements to the methodology for SIMD 2012 which should result in more accurate indicators. Firstly, observed road speeds are now used for the drive time calculations at different times of the day, instead of using an average speed based on the type of road (i.e. A road, Motorway). Secondly, passenger ferry routes were suspended for drive time calculations as private vehicles cannot make use of these services. There has also been a small change to the methodology to impute drive times for a small number of areas where the software could not find a route to the relevant service (GP, post office, retail centre, primary school, secondary school, petrol station).

Crime domain

The indicators included in the crime domain have remained the same between SIMD 2009 and SIMD 2012. However comparability has been affected by the inclusion of an additional crime code under the 'recorded common assault' category with common assault of an emergency worker now included in the SIMD 2012.

Housing domain

The indicators included in the housing domain have remained the same between SIMD 2009 and SIMD 2012.

Despite the changes between SIMD 2009 and SIMD 2012, the 2012 Index is still very strongly correlated with the 2009 Index, with a Pearson's correlation of 0.99 (Table 1). The correlation between the individual domains is also strong, particularly for the four domains with the highest weights (Employment, Income, Health, Education). This suggests that despite the changes the SIMD 2012 is still comparable with SIMD 2009.

Pearson correlation coefficients are shown for each pairwise comparison. A value greater than zero indicates a positive relationship between the pair and a value of less than zero indicates a negative relationship. The closer the coefficient is to 1 or -1, the stronger the relationship between the pair of variables.

Table 1: Pearson's correlations between SIMD 2009 and SIMD 2012 ranks

		SIMD 2012							
		SIMD 2012 Overall	**Income**	**Employment**	**Health**	**Education**	**Access**	**Crime**	**Housing**
SIMD 2009	**SIMD 2009 Overall**	**0.99**	0.95	0.95	0.89	0.91	-0.23	0.71	0.71
	Income	0.97	**0.97**	0.94	0.89	0.89	-0.32	0.71	0.70
	Employment	0.96	0.95	**0.97**	0.89	0.87	-0.31	0.70	0.66
	Health	0.93	0.91	0.92	**0.96**	0.85	-0.35	0.71	0.67
	Education	0.92	0.88	0.87	0.81	**0.96**	-0.28	0.68	0.70
	Access	-0.19	-0.32	-0.30	-0.32	-0.26	**0.90**	-0.48	-0.39
	Crime	0.69	0.69	0.68	0.67	0.65	-0.50	**0.85**	0.56
	Housing	0.71	0.68	0.65	0.63	0.69	-0.38	0.59	**1.00**

2. DOMAINS AND INDICATORS

2.1 Employment Domain

Indicators included in the Employment Domain

SIMD 2009 Employment Indicators	2009 Weight	SIMD 2012 Employment Indicators	2012 Weight	Summary of Change
Working Age Unemployment Claimant Count averaged over 12 months (Source: NOMIS, 2008)	N/A	Working Age Unemployment Claimant Count averaged over 12 months (Source: NOMIS, 2011)	N/A	No change
Working Age Incapacity Benefit recipients (Source: DWP, August 2008)	N/A	Working Age Incapacity Benefit recipients or Employment and Support Allowance recipients (Source: DWP, August 2011)	N/A	Claimants of Employment and Support Allowance (ESA) are now included however it does not represent any real change to the benefit group being measured as ESA is a new benefit that has replaced IB paid on the grounds of ill-health or disability.
Working Age Severe Disablement Allowance recipients (Source: DWP, August 2008)	N/A	Working Age Severe Disablement Allowance recipients (Source: DWP, August 2011)	N/A	No change
Working Age Compulsory New Deal participants — New Deal for the under 25s and New Deal for the 25+ not included in the unemployment claimant count (Source: DWP, August 2008)	N/A			Indicator not included in SIMD 2012 as the New Deal programme has been replaced by DWP's Work Programme. Participants of the Work Programme will be on JSA or ESA and therefore already included in the other employment domain indicators.

Metadata for individual indicators in the Employment Domain

2.1.1 Working Age Unemployment Claimant Count averaged over 12 months

General description of indicator	The Unemployment Claimant Count records the number of people claiming Jobseekers Allowance (JSA) and National Insurance credits at Jobcentre Plus local offices. This is not the official measure of unemployment based on the ILO definition, but is the best measure of unemployment at small area level.
Indicator type	Count
Time period	Jan 2011 – Dec 2011 averaged
Data source	NOMIS (a web-based database of labour market statistics, managed by Durham University on behalf of the Office for National Statistics - www.nomisweb.co.uk)
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The Office for National Statistics provided data averaged over 12 months using the unrounded data behind the NOMIS website.
Key decisions on methodology	The same method was used to calculate the 2012 indicator as was used in 2009.
Comparison with 2009 indicator	This indicator remains the same as in the 2009 employment domain.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is comparable with the SIMD 2009.
Other data quality issues	N/A
Disclosure control	The data publicly available has been adjusted using suppression; any values below 3 are suppressed. Any counts that are shown as zero may have been rounded. Unprotected data were used to construct the domain.
Geo-referencing	
Availability of data	Monthly data zone level counts are available from NOMIS www.nomisweb.co.uk/

2.1.2 Working Age Incapacity Benefit recipients or Employment and Support Allowance recipients

General description of indicator	The number of working age Incapacity Benefit (IB) recipients or Employment and Support Allowance recipients
Indicator type	Count
Time period	August 2011
Data source	DWP Work and Pensions Longitudinal Study (WPLS) which is a 100% data source that is not subject to any sampling error.
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The data were extracted from the WPLS and the domain was constructed at DWP.
Key decisions on methodology	Indicator remains the same as SIMD 2009.
Comparison with 2009 indicator	This indicator remains the same as in the 2009 employment domain.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is comparable with the SIMD 2009.
Other data quality issues	N/A
Disclosure control	For data available publicly all counts have been adjusted using probabilistic rounding to base 5. Any counts that are shown as zero may not be a real zero. Unprotected data were used to construct the domain.
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	Data zone level data are available from Scottish Neighbourhood Statistics (www.sns.gov.uk) and the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp).

2.1.3 Working Age Severe Disablement Allowance recipients

General description of indicator	The number of working age Severe Disablement Allowance (SDA) recipients
Indicator type	Count
Time period	August 2011
Data source	DWP Work and Pensions Longitudinal Study (WPLS) which is a 100% data source that is not subject to any sampling error.
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The data were extracted from the WPLS and the domain constructed at DWP.
Key decisions on methodology	Indicator remains the same as SIMD 2009
Comparison with 2009 indicator	This indicator remains the same as in the 2006 employment domain.
Implications of comparing this indicator with the one used in SIMD 2009	The data for this indicator has not been published.
Other data quality issues	N/A
Disclosure control	N/A
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	Data are not available for this subset. The total number of SDA claimants aged 16 and over is available at data zone level from Scottish Neighbourhood Statistics (www.sns.gov.uk) and the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp). Data are available at data zone level for all working age recipients of both incapacity benefits (incapacity benefit or severe disablement allowance) from the above sources.

2.2 Income Domain

Indicators included in the Income Domain

SIMD 2009 Income Indicators	2009 Weight	SIMD 2012 Income Indicators	2012 Weight	Summary of Change
Number of Adults (aged 16-59) receiving Income Support (Source: Department for Work and Pensions (DWP), August 2008)	N/A	Number of Adults (aged 16-59) receiving Income Support or Income-based Employment and Support Allowance (Source: DWP, August 2011)	N/A	Claimants of Employment and Support Allowance (ESA) are now included however it does not represent any real change to the benefit group being measured as ESA is a new benefit that has replaced IS paid on the grounds of ill-health or disability.
Number of Adults (aged 60 plus) receiving Guaranteed Pension Credit (Source: DWP, August 2008)	N/A	Number of Adults (aged 60 plus) receiving Guaranteed Pension Credit (Source: DWP, August 2011)	N/A	No change
Number of Children (aged 0-15) dependent on a recipient of Income Support (Source: DWP, August 2008)	N/A	Number of Children (aged 0-15) dependent on a recipient of Income Support, Jobseekers Allowance or Employment and Support Allowance (Source: DWP, May 2011)	N/A	Now includes children dependent on a recipient of ESA (as per above reason).
Number of Adults receiving (all) Job Seekers Allowance (Source: DWP, August 2008)	N/A	Number of Adults receiving (all) Job Seekers Allowance (Source: DWP, August 2011)	N/A	No change
Number of Children (aged 0-15) dependent on a recipient of Job Seekers Allowance (all) (Source: DWP, August 2008)	N/A	Number of Children (aged 0-15) dependent on a recipient of Job Seekers Allowance (all) (Source: DWP, May 2011)	N/A	No change
Number of Adults and Children in Tax Credit Families on low incomes (Source: HMRC, August 2008)	N/A	Number of Adults and Children in Tax Credit Families on low incomes (Source: HMRC, August 2010)	N/A	No change to the indicator but the methodology to calculate the low income threshold has changed.

Metadata for individual indicators in the Income Domain

2.2.1 Number of Adults (aged 16-59) receiving Income Support or Income-based Employment and Support Allowance

General description of indicator	The number of people aged 16 to 59 receiving Income Support or Income-based Employment and Support Allowance
Indicator type	Count
Time period	August 2011
Data source	DWP
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The data were extracted from the Work and Pensions Longitudinal Study (WPLS) and the domain constructed at DWP.
Key decisions on methodology	Indicator remains the same as SIMD 2009 – the change in indicator title reflects changes to the benefits system.
Comparison with 2009 indicator	Although the indicator remains the same as the 2009 income domain, there has been a change to the methodology for the low income threshold and therefore the 2012 income domain is no longer directly comparable with the 2009 income domain. The methodology is now consistent with that used by HMRC to produce child poverty estimates as it provides a better count of those in poverty.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is not directly comparable with SIMD 2009. Only the change in rank between the SIMD 2009 and SIMD 2012 income domains, which measures relative change, should be examined.
Other data quality issues	N/A
Disclosure control	The data publicly available has been adjusted using probabilistic rounding to base 5. Any counts that are shown as zero may have been rounded. Unprotected data were used to construct the domain.
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	The data used to construct the domain are not available, however, counts for some individual benefits (income support, job seekers allowance) are available at data zone level on Scottish Neighbourhood Statistics (www.sns.gov.uk) and the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp).

2.2.2 Number of Adults (aged 60 plus) receiving Guaranteed Pension Credit

General description of indicator	The number of adults aged 60 and over receiving Guarantee Pension Credit
Indicator type	Count
Time period	August 2011
Data source	DWP
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The data were extracted from the Work and Pensions Longitudinal Study (WPLS) and the domain constructed at DWP.
Key decisions on methodology	Indicator remains the same as SIMD 2009
Comparison with 2009 indicator	This indicator remains the same as in the 2009 income domain.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is comparable with SIMD 2009.
Other data quality issues	N/A
Disclosure control	The data publicly available has been adjusted using probabilistic rounding to base 5. Any counts that are shown as zero may have been rounded. Unprotected data were used to construct the domain.
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	Data zone level data is available from Scottish Neighbourhood Statistics (www.sns.gov.uk) and the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp).

2.2.3 Number of Children (aged 0-15) dependent on a recipient of Income Support, Jobseekers Allowance or Employment and Support Allowance

General description of indicator	The number of dependants (aged 0 -15) of claimants of Income Support, Jobseekers Allowance or Employment and Support Allowance
Indicator type	Count
Time period	May 2011
Data source	DWP
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	Income Support claimants were taken from 100% Sure Start data set and dependants were matched to claimants from the Child Benefit Scan
Key decisions on methodology	Indicator remains the same as SIMD 2009 – the change in indicator title reflects changes to the benefits system. Accurate data on dependants of Income Support claimants are no longer available. DWP matched claimants of Income Support to Child Benefit claimants to provide a count of dependent children for each claimant.
Comparison with 2009 indicator	This indicator remains the same as the 2009 income domain.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is comparable with SIMD 2009.
Other data quality issues	N/A
Disclosure control	N/A
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	This indicator is not available at data zone level. A limited amount of data on dependants are available at Local Authority level from the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp).

2.2.4 Number of Adults receiving (all) Job Seekers Allowance

General description of indicator	The number of people receiving Job Seekers Allowance (JSA)
Indicator type	Count
Time period	August 2011
Data source	DWP
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The data were extracted from the Work and Pensions Longitudinal Study (WPLS) data set and the domain constructed at DWP.
Key decisions on methodology	Indicator remains the same as SIMD 2009
Comparison with 2009 indicator	This indicator remains the same as in the 2009 income domain.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is comparable with SIMD 2009.
Other data quality issues	N/A
Disclosure control	The data publicly available has been adjusted using probabilistic rounding to base 5. Any counts that are shown as zero may have been rounded. Unprotected data were used to construct the domain.
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	Counts of all Job Seekers Allowance claimants are available at data zones level on Scottish Neighbourhood Statistics (www.sns.gov.uk) and the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp).

2.2.5 Number of Children (aged 0-15) dependent on a recipient of Job Seekers Allowance

General description of indicator	The number of children (aged 0-15) dependent on a claimant of Job Seekers Allowance (JSA)
Indicator type	Count
Time period	May 2011
Data source	DWP
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	JSA claimants taken from 100% Sure Start data set and dependants matched from the Child Benefit Scan
Key decisions on methodology	Indicator remains the same as SIMD 2009 Accurate data on dependants of JSA claimants are no longer available. DWP matched claimants of JSA to Child Benefit claimants to provide a count of dependent children for each claimant. The dependant age range was lowered to 15 as child benefit is only paid out for children aged 16 and over who are in full time further education (or approved training).
Comparison with 2009 indicator	This indicator remains the same as the 2009 income domain.
Implications of comparing this indicator with the one used in SIMD 2009	This indicator is comparable with SIMD 2009. No dependants data is publicly available at data zone level.
Other data quality issues	N/A
Disclosure control	The data publicly available has been adjusted using probabilistic rounding to base 5. Any counts that are shown as zero may have been rounded. Unprotected data were used to construct the domain.
Geo-referencing	See SIMD 2006 technical report Annex B for explanation of geo-referencing of DWP data.
Availability of data	This indicator is not available at data zone level. A limited amount of data on dependants is available at Local Authority level from the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp. This data is from a different source (the WPLS) to the data used to construct the income domain.

2.2.6 Number of Adults and Children in Tax Credit Families on Low Incomes

General description of indicator	The number of adults and children (aged 0 -15) in in-work families claiming Working or Child Tax Credit with an income of less than £198 per week.
Indicator type	Count
Time period	August 2010
Data source	HM Revenue and Customs
Denominator used	N/A
Data source of denominator	N/A
Method of construction of indicator	The data were extracted from the HMRC Tax Credit system and supplied to DWP where the domain was constructed.
Key decisions on methodology	Only those with an income of less than 60% of the median (£198) were included in the indicator as this cut off is used to identify those on low incomes.
Comparison with 2009 indicator	Data for this indicator is not comparable with the SIMD 2009 due to a change in the methodology for calculating the low income threshold.
Implications of comparing this indicator with the one used in SIMD 2009	Due to the change in methodology for calculating the low income threshold, the absolute counts of income deprived people are not directly comparable between SIMD 2009 and SIMD 2012. Only the change in rank between the SIMD 2009 and SIMD 2012 income domains, which measures relative change, should be examined.
Other data quality issues	N/A
Disclosure control	N/A
Geo-referencing	
Availability of data	This indicator is not available at data zone level. A limited amount of data on Child and Working Tax Credits are available on Scottish Neighbourhood Statistics (www.sns.gov.uk) or from the HMRC website (www.hmrc.gov.uk).

2.3 Health Domain

Indicators included in the Health Domain

SIMD 2009 Health Indicators	2009 Weight	SIMD 2012 Health Indicators	2012 Weight	Summary of Change
Standardised mortality ratio (Source: ISD, 2004-2007)	0.08	Standardised mortality ratio (Source: ISD, 2007-2010)	0.09	No change
Hospital episodes related to alcohol use (Source: ISD, 2004-2007)	0.14	Hospital stays (Continuous Inpatient Stays [CIS]) related to alcohol misuse: standardised ratio (Source: ISD, 2007-2010)	0.15	The indicator now measures the number of 'continuous inpatient stays' (CISs) rather than 'episodes' or 'emergency admissions' to hospital. This is preferable as a CIS disregards transfers between hospitals or between specialties within the same hospital and therefore avoids double-counting.
Hospital episodes related to drug use (Source: ISD, 2004-2007)	0.06	Hospital stays (CIS) related to drug misuse: standardised ratio (Source: ISD, 2007-2010)	0.07	The indicator now measures the number of 'continuous inpatient stays' (CISs) rather than 'episodes' or 'emergency admissions' to hospital.
Comparative Illness Factor (Source: DWP, August 2008)	0.32	Comparative Illness Factor: standardised ratio (Source: DWP, August 2011)	0.14	No change in indicator, but name is made more explicit.
Emergency admissions to hospital (Source: ISD, 2004-2007)	0.33	Emergency stays (CIS) in hospital: standardised ratio (Source: ISD, 2007-2010)	0.47	The indicator now measures the number of 'continuous inpatient stays' (CISs) rather than 'episodes' or 'emergency admissions' to hospital.
Proportion of population being prescribed drugs for anxiety, depression or psychosis (Source: ISD, 2007)	0.05	Estimated proportion of population being prescribed drugs for anxiety, depression or psychosis (Source: ISD, 2010)	0.05	No change in indicator, but name is made more explicit.
Proportion of live singleton births of low birth weight (Source: ISD, 2004-2007)	0.02	Proportion of live singleton births of low birth weight (Source: ISD, 2006-2009)*	0.02	No change. *Note – this indicator uses 2006-2009 data rather than the 2007-2010 data used for the other hospital-based indicators. This is due to incompleteness of the 2010 data on the SMR02 (maternity records) dataset used to construct this indicator.

Metadata for individual indicators in the Health Domain

2.3.1 Standardised Mortality Ratio

General description of indicator	Indirectly age-sex standardised ratio for deaths of all ages registered from all causes between 2007 and 2010. Data standardised by 5-year age band and sex.
Indicator type	Indirectly standardised ratio: four-year period
Time period	2007-2010
Data source	National Records of Scotland (NRS – previously GROS)
Denominator used	Expected Events (calculated from indirect standardisation to Scotland)
Data source of denominator	National Records of Scotland 2007-2010 mid-year population estimates and mortality information
Method of construction of indicator	For each data zone, the sum of observed all-cause deaths by sex and 5-year age band was divided by the corresponding sum of expected deaths. For further details, please see methodology section (2.3) of SIMD 2006 technical report.
Key decisions on methodology	Indicator methodology remains the same as SIMD 2009
Comparison with 2009 indicator	This indicator is the same indicator as used in the 2009 index.
Implications of comparing this indicator with the one used in SIMD 2009	Indirectly standardised ratios have limitations for drawing comparisons. For example: * in comparing one data zone between different SIMD releases, if it had a ratio of 100 in SIMD 2009 and 110 in SIMD 2012, you could say that the data zone has got worse **relative to Scotland**. However, you cannot say whether the data zone has actually worsened – only that it has worsened relative to Scotland. * in comparing two data zones for the same SIMD release (eg SIMD 2012), if one data zone had a ratio of 110 and another a ratio of 115, you could say that both data zones are worse than the Scottish average (100), but for statistical reasons you **cannot** say that the data zone with the ratio of 115 is worse than the one with the ratio of 110. The raw data for this indicator for SIMD 2009 and SIMD 2012 have not been published.
Other data quality issues	N/A
Disclosure control	The raw data for this indicator for SIMD 2009 and SIMD 2012 have not been published.
Geo-referencing	All postcodes are validated at source. Data excludes people where no match to a data zone was possible e.g. homeless, incomplete postcode information.
Availability of data	The raw data (numbers) are not published but the ratio is available on the SIMD website (www.scoland.gov.uk/Topics/Statistics/SIMD).

2.3.2 Hospital stays (CIS) related to alcohol misuse: standardised ratio

General description of indicator	Indirectly age-sex standardised ratio of observed to expected stays in acute NHS hospitals in Scotland with a diagnosis of alcohol-related conditions (based on any of 6 possible diagnoses), both sexes, all ages. These figures are based on the continuous inpatient stay (CIS). Individual SMR01 (acute hospital) episodes for each patient are linked together using probability matching to create "linked" patient histories and CISs (continuous stays in hospital regardless of whether or not this involves transfer between hospitals or between specialties within the same hospital).
Indicator type	Indirectly standardised ratio: four-year period
Time period	2007-2010
Data source	NHS Scotland Information Services Division (ISD), Scottish Morbidity Record (SMR)01
Denominator used	Expected stays – calculated by indirect standardisation
Data source of denominator	ISD SMR01, and National Records of Scotland mid-year resident population estimates
Method of construction of indicator	For each data zone, the sum of observed CISs by sex and 5-year age band was divided by the corresponding sum of expected CISs. For further details, please see methodology section (2.3) of SIMD 2006 technical report. Alcohol-related conditions are defined using the *International Classification of Diseases Volume 10 (World Health Organization)* (E244, E512, F10, R780, Y90, Y91, Z714, Z502, Y573, T510, T511, T519, X45, X65, Y15, O354, Q860, P043, Z721, G621, G721, K860, I426, K70, K292, G312).
Key decisions on methodology	The same list of alcohol-related conditions was used as for SIMD 2009. The indicator was improved from counting episodes in SIMD 2009 to stays (CIS) in SIMD 2012.
Comparison with 2009 indicator	This indicator is different from that used in SIMD 2009 (see above) and is therefore not directly comparable with SIMD 2012.
Implications of comparing this indicator with the one used in SIMD 2009	Indirectly standardised ratios have limitations for drawing comparisons. For example: * in comparing one data zone between different SIMD releases, if it had a ratio of 100 in SIMD 2009 and 110 in SIMD 2012, you could say that the data zone has got worse **relative to Scotland**. However, you cannot say whether the data zone has actually worsened – only that it has worsened relative to Scotland. * in comparing two data zones for the same SIMD release (eg SIMD 2012), if one data zone had a ratio of 110 and another a ratio of 115, you could say that both data zones are worse than the Scottish average (100), but for statistical reasons you **cannot** say that the data zone with the ratio of 115 is worse than the one with the ratio of 110.
Other data quality issues	There were 28 data zones with no CISs related to alcohol misuse in the time-period used, and therefore the ratios and ranks will be identical in these cases. Caution is necessary

	when interpreting these figures. Recording of alcohol misuse may vary from hospital to hospital. Where alcohol misuse is suspected but unconfirmed it may not be recorded.
Disclosure control	No
Geo-referencing	All postcodes are validated at source. Data excludes people where no match to a data zone was possible e.g. homeless, incomplete postcode information.
Availability of data	The raw data (numbers) are not published but the ratio is available on the SIMD website (www.scoland.gov.uk/Topics/Statistics/SIMD). Other counts and rates are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk).

2.3.3 Hospital stays (CIS) related to drug misuse: standardised ratio

General description of indicator	Indirectly age-sex standardised ratio of observed to expected stays in acute NHS hospitals in Scotland with a diagnosis of drug misuse conditions (based on any of 6 possible diagnoses), both sexes, all ages. These figures are based on the continuous inpatient stay (CIS). Individual SMR01 (acute hospital) episodes for each patient are linked together using probability matching to create "linked" patient histories and CISs (continuous stays in hospital regardless of whether or not this involves transfer between hospitals or between specialties within the same hospital).
Indicator type	Indirectly standardised ratio: four-year period
Time period	2007-2010
Data source	NHS Scotland Information Services Division (ISD), Scottish Morbidity Record (SMR)01
Denominator used	Expected stays - calculated by age-sex standardisation
Data source of denominator	ISD SMR01, and National Records of Scotland mid-year resident population estimates
Method of construction of indicator	For each data zone, the sum of observed CISs by sex and 5-year age band was divided by the corresponding sum of expected CISs. For further details, please see methodology section (2.3) of SIMD 2006 technical report. Drug-related conditions are defined using *the International Classification of Diseases Volume 10 (World Health Organization)* (F11, F12, F13, F14, F15, F16, F18 and F19).
Key decisions on methodology	The same list of drugs was used as for SIMD 2009. The indicator was improved from counting episodes in SIMD 2009 to stays (CIS) in SIMD 2012.
Comparison with 2009 indicator	This indicator is different from that used in SIMD 2009 (see above) and is therefore not directly comparable with SIMD 2012.
Implications of comparing this indicator with the one used in SIMD 2009	Indirectly standardised ratios have limitations for drawing comparisons. For example: * in comparing one data zone between different SIMD releases, if it had a ratio of 100 in SIMD 2009 and 110 in SIMD 2012, you could say that the data zone has got worse **relative to Scotland**. However, you cannot say whether the data zone has actually worsened – only that it has worsened relative to Scotland. * in comparing two data zones for the same SIMD release (eg SIMD 2012), if one data zone had a ratio of 110 and another a ratio of 115, you could say that both data zones are worse than the Scottish average (100), but for statistical reasons you **cannot** say that the data zone with the ratio of 115 is worse than the one with the ratio of 110.
Other data quality issues	There were 2,126 data zones with no CISs related to drug misuse in the time-period used, and therefore the ratios and ranks will be identical in these cases. Caution is necessary when interpreting the figures. Recording of drug misuse may vary from hospital to hospital. Where drug misuse is

	suspected but unconfirmed it may not be recorded by the hospital. Further, where drug misuse is recorded, it may not be possible to identify which drugs were involved.
Disclosure control	No
Geo-referencing	All postcodes are validated at source. Data excludes people where no match to a data zone was possible e.g. homeless, incomplete postcode information.
Availability of data	The raw data (numbers) are not published but the ratio is available on the SIMD website (www.scoland.gov.uk/Topics/Statistics/SIMD).

2.3.4 Comparative Illness Factor: standardised ratio

General description of indicator	The CIF is a combined count of recipients of the following benefits: Disability Living Allowance (DLA); Employment and Support Allowance (ESA) (not also receiving DLA); Attendance Allowance (AA); Incapacity Benefit (IB) (not also receiving DLA); and Severe Disablement Allowance (SDA).
Indicator type	Indirectly standardised ratio
Time period	August 2011
Data source	Department for Work and Pensions (DWP), Work and Pensions Longitudinal Study (WPLS).
Denominator used	Expected frequency of claiming the selected benefits, calculated during age-sex standardisation (see SIMD 2006 technical report for details)
Data source of denominator	NRS Small Area Population Estimates 2010, DWP and WPLS
Method of construction of indicator	The observed number of benefit recipients was divided by the expected number for each data zone to provide a ratio. For further details of the standardisation method see the SIMD 2006 technical report.
Key decisions on methodology	Indicator remains the same as SIMD 2009 although ESA claimants who would previously have been in receipt of IB are now included. This should have no impact on the indicator in comparison to that used in SIMD 2009.
Comparison with 2009 indicator	This indicator is the same indicator as used in the 2009 index.
Implications of comparing this indicator with the one used in SIMD 2009	The data being used to construct the 2012 CIF will not be published but the CIF will be. Comparisons can be made.
Other data quality issues	N/A
Disclosure control	N/A
Geo-referencing	See SIMD 2006 technical report for explanation of geo-referencing of DWP data.
Availability of data	Combined counts are available on Scottish Neighbourhood Statistics (www.sns.gov.uk) and individual benefits data are available from the DWP tabulation tool (www.dwp.gov.uk/asd/tabtool.asp).

2.3.5 Emergency stays (CIS) in hospital: standardised ratio

General description of indicator	Indirectly age-sex standardised ratio of observed to expected emergency stays in acute NHS hospitals in Scotland, both sexes and all ages. These figures are based on the continuous inpatient stay (CIS). Individual SMR01 (acute hospital) episodes for each patient are linked together using probability matching to create "linked" patient histories and CISs (continuous stays in hospital regardless of whether or not this involves transfer between hospitals or between specialties within the same hospital).
Indicator type	Indirectly standardised ratio: four-year period
Time period	2007-2010
Data source	NHS Scotland Information Services Division (ISD), Scottish Morbidity Record (SMR)01
Denominator used	Expected stays - calculated by age-sex standardisation
Data source of denominator	ISD SMR01, and National Records of Scotland mid-year resident population estimates
Method of construction of indicator	For each data zone, the sum of observed CISs by sex and 5-year age band was divided by the corresponding sum of expected CISs. For further details, please see methodology section (2.3) of SIMD 2006 technical report.
Key decisions on methodology	The indicator was improved from counting episodes in SIMD 2009 to stays (CIS) in SIMD 2012.
Comparison with 2009 indicator	This indicator is different from that used in SIMD 2009 (see above) and is therefore not directly comparable with SIMD 2012.
Implications of comparing this indicator with the one used in SIMD 2009	Indirectly standardised ratios have limitations for drawing comparisons. For example: * in comparing one data zone between different SIMD releases, if it had a ratio of 100 in SIMD 2009 and 110 in SIMD 2012, you could say that the data zone has got worse **relative to Scotland**. However, you cannot say whether the data zone has actually worsened – only that it has worsened relative to Scotland. * in comparing two data zones for the same SIMD release (eg SIMD 2012), if one data zone had a ratio of 110 and another a ratio of 115, you could say that both data zones are worse than the Scottish average (100), but for statistical reasons you **cannot** say that the data zone with the ratio of 115 is worse than the one with the ratio of 110.
Other data quality issues	N/A
Disclosure control	No
Geo-referencing	All postcodes are validated at source. Data excludes people where no match to a data zone was possible e.g. homeless, incomplete postcode information.
Availability of data	The raw data (numbers) are not published but the ratio is available on the SIMD website (www.scoland.gov.uk/Topics/Statistics/SIMD). Other counts and rates are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk).

2.3.6 Estimated proportion of population being prescribed drugs for anxiety, depression or psychosis

General description of indicator	This indicator is the estimated proportion of patients being prescribed anxiolytic, antipsychotic or antidepressant drugs in 2010. This is derived from prescriptions data at practice level (by patient postcode).
Indicator type	Proportion
Time period	2010
Data source	ISD General Practitioner Prescription data, Community Health Index (CHI) extract at September 2010
Denominator used	Data zone population (estimated from the CHI extract)
Data source of denominator	CHI extract at September 2010
Method of construction of indicator	The Prescribing Team within ISD maintains a detailed database of all NHS prescriptions dispensed in the community in Scotland. Anxiolytic, antipsychotic and antidepressant drugs can be identified through the British National Formulary (BNF) Codes 4.1.2 (Anxiolytics), 4.2 (Antipsychotics), and 4.3 (Antidepressants). An average daily quantity (Defined Daily Dose - a World Health Organization standard) for each drug was used to calculate, from the weight of the total prescriptions, an average count of people being prescribed any one of these drugs. The one year of data was treated as a sample from time. If, for example, a person was given a daily prescription by their GP they should appear 365 times within the year. Each prescription would therefore be counted as 1/365 of a person. By summing the whole year one person would be counted. In this way the number of patients being prescribed anxiolytic, antipsychotic or antidepressant drugs for each practice was calculated along with the rate. The number of patients in each data zone being prescribed anxiolytic, antipsychotic or antidepressant drugs was estimated using the practice rates and the population of each practice living in each data zone. The source for this data was an extract from the CHI. The final indicator was calculated by summing the estimated number of patients being prescribed the various drugs and presenting this as a proportion of the data zone population estimated from the CHI extract.
Key decisions on methodology	This is the same indicator as used in SIMD 2009.
Comparison with 2009 indicator	The indicator is the same and so can be compared.
Implications of comparing this indicator with the one used in SIMD 2009	See above.
Other data quality issues	N/A
Disclosure control	N/A
Geo-referencing	All postcodes are validated at source. Data excludes people where no match to a data zone was possible e.g. homeless, incomplete postcode information.
Availability of data	The estimated proportion of patients being prescribed anxiolytic, antipsychotic or antidepressant drugs in 2010 is available on the SIMD website

	(www.scoland.gov.uk/Topics/Statistics/SIMD) and the Scottish Neighbourhood Statistics website (www.sns.gov.uk). Note that it is not possible to back-calculate the number of people being prescribed these drugs from the estimated proportion presented.

2.3.7 Proportion of live singleton births of low birth weight

General description of indicator	Proportion of live singleton births with low birth weight (less than 2,500 grams), where birth figures exclude home births and births at non-NHS hospitals; and a singleton is a baby from a pregnancy resulting in only one live or still birth. No account is taken of gestational age. The year shown refers to the year of discharge from hospital.
Indicator type	Proportion
Time period	2006-2009 (four-year average)
Data source	NHS Scotland Information Services Division (ISD), Scottish Morbidity Record (SMR)02 (maternity records)
Denominator used	All live singleton births
Data source of denominator	ISD SMR02
Method of construction of indicator	For each data zone, the number of low birth weight live singleton births was divided by the total number of live singleton births.
Key decisions on methodology	This is the same indicator as used in SIMD 2009. Note, however, that the data used is for 2006-2009, rather than 2007-2010 as for the other hospital-based indicators in SIMD2012. This is due to incompleteness of the 2010 data in the SMR02 dataset.
Comparison with 2009 indicator	There were 1,465 data zones with no low birth weight babies born in the time-period used, and therefore the ratios and ranks will be identical in these cases. Caution is necessary when interpreting the figures at datazone level due to the effect of small numbers and potential zeros.
Implications of comparing this indicator with the one used in SIMD 2009	See comments above; please take care in drawing conclusions about time trends as the proportions by data zone are generally small and not robust.
Other data quality issues	N/A
Disclosure control	No
Geo-referencing	All postcodes are validated at source. Data excludes births where no match to a data zone was possible e.g. homeless, incomplete postcode information.
Availability of data	The proportion of live singleton births of low birth weight is available on the SIMD website (www.scoland.gov.uk/Topics/Statistics/SIMD) and the Scottish Neighbourhood Statistics website (www.sns.gov.uk).

2.4 Education Skills and Training Domain

Indicators included in the Education Domain

SIMD 2009 Education Indicators	2009 Weight	SIMD 2012 Education Indicators	2012 Weight	Summary of Change
School pupil absences (Source: SG, 2006/7-2007/8)	0.24	School pupil absences (Source: SG, 2009/10-2010/11)	0.23	No change
Pupil performance on SQA at stage 4 (Source: SG, 2005/6-2007/8)	0.25	Pupil performance on SQA at stage 4 (Source: SG, 2008/9-2010/11)	0.23	No change
Working age people with no qualifications (Source: 2001 Census)	0.26	Working age people with no qualifications (Source: 2001 Census)	0.28	No change
17-21 year olds enrolling into higher education (Source: HESA 2005/6-2007/8)	0.15	17-21 year olds enrolling into higher education (Source: HESA 2008/9 – 2010/11)	0.15	No change
People aged 16-19 not in full time education, employment or training (Source: School Leavers 2006/7-2007-8, DWP 2007 and 2008)	0.09	People aged 16-19 not in full time education, employment or training (Source: School Leavers 2009/10-2010-11, DWP 2010 and 2011)	0.11	No change

Metadata for individual indicators in the Education Domain

2.4.1 School pupil absences

General description of indicator	This indicator provides the average absence rate of pupils who attend publicly funded primary, secondary and special schools, for each data zone in Scotland
Indicator type	Percentage of half days absence over a two year period
Time period	School years 2009/10 and 2010/11
Data source	Data are provided to the Scottish Government by the local authorities and managers of mainstream grant-aided schools
Denominator used	Number of half days possible attendance
Data source of denominator	Data are provided to the Scottish Government by the local authorities and managers of mainstream grant-aided schools
Method of construction of indicator	Information is received at pupil level. Data is aggregated over two years, with the intention of reducing the impact of fluctuations from one year to the next due to a small number of pupils per data zone.
Key decisions on methodology	The methodology used by OCS to construct the indicator was the same as that used for SIMD 2009. This is to help maintain consistency and better measure change over time.
Comparison with 2009 indicator	The 2009 and 2012 indicators are comparable.
Implications of comparing this indicator with the one used in SIMD 2009	The 2009 and 2012 indicators are comparable.
Other data quality issues	N/A
Disclosure control	Disclosure control has been applied to the data published on the SIMD website by swapping the data zones for a small percentage of records before producing the aggregate results. This has a negligible effect on the overall trends, but ensures that the confidentiality of individual records are maintained. Unadjusted data were used in the calculation of the SIMD.
Geo-referencing	Pupil home postcode is one of the indicators collected for each pupil in the annual pupil census. Postcodes were known for about 99% of pupils in publicly funded schools. Data used in the formulation of this indicator do not include pupils with a missing or invalid postcode.
Availability of data	Disclosure controlled counts are available on the SIMD website (www.scotland.gov.uk/Topics/Statisics/SIMD). Separate primary and secondary school absence rates are also available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk). National data is published in the Scottish Government statistical publication: http://www.scotland.gov.uk/Topics/Statistics/Browse/School-Education/PubAttendanceAbsence.

2.4.2 Pupil performance at SQA Stage 4

General description of indicator	This indicator provides the average tariff score of S4 pupils who attend publicly funded secondary schools, for each data zone in Scotland. S4 pupils would be expected to sit Standard Grade or equivalent exams.
Indicator type	Average score (three year average)
Time period	School years 2008/09 to 2010/11
Data source	Attainment data from Scottish Qualifications Authority (SQA), pupil numbers from the pupil census.
Denominator used	Total number of pupils in S4, as at September each year
Data source of denominator	Pupil census
Method of construction of indicator	Individual level data zone information was obtained for S4 pupils in Scotland. These data were linked with attainment data from the SQA using the Scottish candidate number to obtain a total tariff score per pupil. The total scores were averaged for each data zone to create average tariff scores. Data are aggregated over three years, with the intention of reducing the impact of fluctuations from one year to the next due to a small number of pupils per data zone.
Key decisions on methodology	Data is based on the last 3 years and includes S4 pupils in secondary schools plus 15 year olds in Special Schools. Data from independent schools have been excluded for a number of reasons. There is a lack of data zone level information and independent schools may choose to sit GCSE's or other English qualifications for which we have no information. The same methodology was used in 2009.
Comparison with 2009 indicator	The 2009 and 2012 indicators are comparable as the methodology remains the same.
Implications of comparing this indicator with the one used in SIMD 2009	N/A
Other data quality issues	N/A
Disclosure control	Disclosure control has been applied to the data published on the SIMD website by swapping the data zones for a small percentage of records before producing the aggregate results. This has a negligible effect on the overall trends, but ensures that the confidentiality of individual records are maintained. Unadjusted data were used in the calculation of the SIMD.
Geo-referencing	Pupil home post code is one of the indicators collected for each pupil in the annual school census. Valid postcodes were submitted for about 99% of S4 pupils in publicly funded secondary schools. Data used in the formulation of this indicator do not include pupils with a missing or invalid postcode.
Availability of data	National data is published in the Scottish Government statistical publication http://www.scotland.gov.uk/Topics/Statistics/Browse/School-Education/PubAttainment however this data only includes S4 pupils and not those in special schools. The data is also available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD).

2.4.3 Working age adults with no qualifications

General description of indicator	The indicator shows the proportion of working age adults (males aged 25-64 and females aged 25-59) that responded in the 2001 Census not to have any of the qualifications listed on the form
Indicator type	Ratio (indirectly standardised)
Time period	2001
Data source	National Records of Scotland (previously General Register Office for Scotland), 2001 Census
Denominator used	Expected number of people with no qualifications (calculated during indirect age-sex standardisation)
Data source of denominator	2001 Census
Method of construction of indicator	The observed number of people with no qualifications was divided by the expected number for each data zone to provide a ratio.
Key decisions on methodology	The official source for data on the proportion of people with no qualifications is the Labour Force Survey (LFS). As the LFS is a survey, reliable data are not available at data zone level. For this reason the only viable source for this indicator at data zone level is the 2001 Census.
Comparison with 2009 indicator	The same data and methodology was used.
Implications of comparing this indicator with the one used in SIMD 2009	As above.
Other data quality issues	
Disclosure control	There has been no disclosure control applied to this indicator
Geo-referencing	No geo-referencing issues
Availability of data	Data are published by NRS

2.4.4 Proportion of 17-21 year olds entering in to full time higher education

General description of indicator	The indicator considers the number of 17-21 entrants to first degree courses domiciled before the start of their course in each data zone and the total number of 17-21 year olds resident in the data zone over the same period. This allows the percentage of 17-21 year olds who enrolled on a first degree course to be established for each data zone.
Indicator type	Percentage (over three years)
Time period	2008/09 to 2010/11
Data source	Higher Education Statistics Agency (HESA), Scottish Further Education Funding Council (SFEFC), now Scottish Funding Council (SFC)
Denominator used	Small Area Population Estimates of 17-21 year olds, adjusted to account for large student populations (see methodology)
Data source of denominator	National Records of Scotland
Method of construction of indicator	The number of 17-21 year olds who entered a first degree programme between 2008/09 and 2010/11 from each data zone was divided by the total population estimate of 17-21 year olds in the data zone in the same time period. This gives a percentage of 17-21 year olds in each data zone that entered a first degree course.
Key decisions on methodology	Actual enrolments to first degree courses using data supplied to HESA was used as the numerator for SIMD 2012. This is same methodology as in SIMD 2009. Study at degree level has been chosen as this level provides the highest gains in future earning potential and reduces double counting of students that progress from HND to degree.
Comparison with 2009 indicator	The 2009 and 2012 indicators are directly comparable.
Implications of comparing this indicator with the one used in SIMD 2009	See above.
Other data quality issues	The count of students relates to home address before study, the denominator population includes students at their term-time address which affects a small number of data zones, e.g. those containing student halls. These data zones were adjusted to take account of large numbers of 17-21 year olds.
Disclosure control	Values of greater than 97% have been suppressed with an asterisk (*) and values of less than 5% have been left blank.
Geo-referencing	Not every postcode could be matched. 99% of Scottish records had a valid postcode.
Availability of data	This data is not published but similar data relating to attendance at higher education institutions are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk). The percentage is available from the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD).

2.4.5. People aged 16-19 not in education, employment or training

General description of indicator	The indicator shows the proportion of 16 to 19 year olds who are not in full-time education, employment or training
Indicator type	Percentage (over 2 years)
Time period	2009/10-2010-11
Data source	DWP Careers Scotland ScotXed
Denominator used	Small Area Population Estimates of 16-19 year olds
Data source of denominator	National Records of Scotland
Method of construction of indicator	DWP took snapshots of all 18 and 19 year olds claiming NEET benefits (i.e. the workless client group - combined count of people on the following benefits: Jobseekers Allowance; Income Support; Employment Support Allowance, Incapacity Benefit (excluding claimants on Severe Disability Allowance unless they are also claiming income support)) at November 2010 and November 2011 and added these figures together. These were then added to the school leavers in negative destinations data supplied by SG Education Analytical Services. The total was divided by 2 to create the numerator. The numerator for each data zone was divided by the 2010 small area population estimates for 16-19 year olds to calculate a rate.
Key decisions on methodology	Data were aggregated over two years, with the intention of reducing the impact of fluctuations from one year to the next due to small numbers per data zone.
Comparison with 2009 indicator	The 2009 and 2012 indicators are comparable.
Implications of comparing this indicator with the one used in SIMD 2009	The 2009 and 2012 indicators are comparable.
Other data quality issues	
Disclosure control	Counts have been adjusted using probabilistic rounding to base 5. Any counts that are shown as zero may not be a real zero. Unrounded data used in calculation of indicator.
Geo-referencing	Data on leavers destinations is matched to data from the pupil census on the basis of combinations of Scottish Candidate Number, School, gender, date of birth and post code (see http://www.scotland.gov.uk/Topics/Statistics/Browse/School-Education/PubDestinationLeavers). Data zones are derived from pupil's home post codes.
Availability of data	The data are not published but the percentage is available on the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD). For further information on leaver destinations, see http://www.scotland.gov.uk/Topics/Statistics/Browse/School-Education/PubDestinationLeavers

2.5 Geographic Access Domain

Indicators included in the Access Domain

SIMD 2009 Access Indicators	2009 Weight	SIMD 2012 Access Indicators	2012 Weight	Summary of Change
Drive time sub-domain (weight in access domain = 2/3)		**Drive time sub-domain (weight in access domain = 2/3)**		
to GP Surgery	0.22	to GP Surgery	0.20	No change to the indicator but improvements have been made to the methodology for calculating the access domain.
to Post Office	0.14	to Post Office	0.15	No change (as above)
to Retail Centre	0.24	to Retail Centre	0.23	No change (as above)
to Primary School	0.09	to Primary School	0.12	No change (as above)
to Secondary School	0.15	to Secondary School	0.16	No change (as above)
to Petrol Station	0.15	to Petrol Station	0.15	Change of data source from Experian Catalist to Ordnance Survey PointX (Catalist data now included within the OS PointX dataset).
Public transport sub-domain (weight in access domain = 1/3)		**Public transport sub-domain (weight in access domain = 1/3)**		
to GP Surgery	0.51	to GP Surgery	0.48	No change
to Post Office	0.25	to Post Office	0.24	No change
to Retail Centre	0.24	to Retail Centre	0.28	No change

The drive time sub-domain scores receive a higher weight in the overall access domain because the data is more robust and consistent across Scotland and the domain takes into account access to 6 services whereas the public transport sub-domain only takes into account 3 different services. As with SIMD 2009, it was not possible to include public transport times to primary and secondary schools as there is no consistent time table information available on school buses.

Several improvements have been made to the methodology and, as a result, the SIMD 2012 access domain is not directly comparable with SIMD 2009. Specific differences are noted in the technical notes for each indicator below, but the main differences are:

- Observed road speeds are now used for the drive time calculations at different times of the day, instead of using an average speed based on the type of road (i.e. A road, Motorway). The observed road speed data is derived from billions of GPS readings from vehicles on the move in Scotland.

- Passenger ferry routes were suspended for drive time calculations as private vehicles cannot make use of these services.

- There has been a small change to the methodology to impute drive times for a small number of areas where the software could not find a route to the relevant service (GP, post office, retail centre, primary school, secondary school, petrol station).

These changes to the methodology should result in more accurate indicators for SIMD 2012.

Detailed information on the background and methodology for the access domain can be accessed at:
http://www.scotland.gov.uk./Topics/Statistics/SIMD/BackgroundMethodology
(NB: change link to redirect to the 2012 methodology paper (produced by GI-SAT)

Metadata for individual indicators in the Access Domain

2.5.1. Drive time sub-domain

- *Average drive time to a primary school*
- *Average drive time to a secondary school*
- *Average drive time to a GP*
- *Average drive time to a post office*
- *Average drive time to a retail centre*
- *Average drive time to a fuel station*

General description of indicator	Population weighted average time taken to reach key services by driving
Indicator type	Population weighted average drive time - minutes
Time period	2011-2012
Data source	• Road network – Ordnance Survey Integrated Transport Network (ITN) & ITIS Road Speed Data (March 2012) • Public Transport timetable/route data (Ferry data) – National Public Transport Data Repository (October 2011) • Service locations: Secondary schools, Primary schools, petrol stations and GP surgeries - PointX (December 2011) Retail centres – CACI Retail (2011) Post Offices – Royal Mail (Q1 2012) • Census output area population weighted grid references – General Register Office for Scotland GROS (2001) • Census output area population figures - General Register Office for Scotland (2001), COA populations are not available for 2012 • Number of pupils per census output area for Primary and Secondary schools – Scottish Government (2009-11)
Denominator used	• 2001 Total population: GP, Petrol Station, Post Office, Retail Centre • 2009-11 average primary school population: Primary school • 2009-11 average secondary school population: Secondary school
Data source of denominator	• Census output areas (COA) population figures - General Register Office for Scotland GROS (2001), COA populations are not available for 2012 • Number of pupils per census output area for Primary and Secondary school – Scottish Government (2009-11)
Method of construction of indicator	See GI-SAT (Geographic Information - Science & Analysis Team) report on construction of the SIMD 2012 geographic access domain
Key decisions on methodology	Geographic Access domain constructed entirely within Scottish Government. Drive times and Public Transport times calculated by GI-SAT using a single software environment (Citilabs 'Accession') to produce more integrated indicator.

	Drive times calculated using OS ITN road grid and ITIS road speed data. Where drive times may include a ferry journey, calculation was schedule-based (same day/times as public transport times) and averaged in order to take account of actual ferry timetable data and variability of services throughout the day. 30 min wait times at ferry terminals were again included where journeys included a ferry trip. Passenger ferry routes were suspended for drive time calculations for SIMD 2012 as private vehicles cannot make use of these services. Census Output Area origins for drive times same as SIMD 2009. Methodology for constructing datazone average drive times from census output area to each service location has changed in SIMD 2012 and is now based on observed road speeds at different times of the day. In SIMD 2009, average road speeds based on the type of road (i.e. A road, Motorway) were used – these did not vary by time of day and did not account for any urban/rural change in road speeds. As a result of this change, road speeds are now generally slower and as a result drive times have generally increased in SIMD 2012. The same data sources as SIMD 2009 were used for the location of Primary Schools, Secondary Schools, GP surgeries, Post offices and Retail centres. The location of petrol stations is now sourced from Ordnance Survey Point X, the same source used to identify the locations of Primary Schools, Secondary Schools and GP surgeries. Post Office locations reflect post office services at a fixed location available for 6 hours or more per week. To relate the services better to their users, primary and secondary school populations were again used to weight primary and secondary school drive times, respectively. Further information is available from the GI-SAT report on geographic access domain methodology.
Comparison with 2009 indicator	The services used are the same as for SIMD 2009, however there have been improvements to the methodology in SIMD 2012 including: • Use of observed road speeds at different times of the day, instead of using an average speed based on the type of road (i.e. A road, Motorway). • Passenger ferry routes suspended for drive time calculations as private vehicles cannot make use of these services. • Imputation of drive times for a small number of areas where the software could not find a route to the relevant service (GP, post office, retail centre, primary school,

	secondary school, petrol station).
Implications of comparing this indicator with the one used in SIMD 2009	The improvements to the methodology (as outlined above) and differences in road network may result in drive times not being directly comparable to SIMD 2009.
Other data quality issues	Drive times have been imputed for the following 8 datazones (for one or more services) as the software failed to identify a journey time for one or more output areas located within the datazone. Following a review of the output areas affected, the maximum journey time was imputed given their remote locations. S01000755 – Colonsay, Highland (Secondary Schools only) S01000831 – Coll, Argyll & Bute (GPs, Retail, and Secondary Schools only) S01003739 – Eigg, Highland (Secondary Schools only) S01003746 – Knoydart, Highland (GPs, Fuel Stations, Retail, and Secondary Schools) S01004969 - North Ronaldsay, Orkney Islands (Fuel and Retail only), Sanday (Retail and Secondary Schools only) S01004970 – Eday, Orkney Islands (Retail and Secondary Schools only), Westray (Secondary Schools only) S01005492 - Fair Isle, Shetland Islands (GPs, Fuel, Retail, and Secondary Schools) S01005516 – Bruray, Shetland Islands (Primary Schools only) The software failed to identify a connection from at least one output area to a service location for another 8 datazones. Following a review of the location of these output areas, it was not considered appropriate to impute the maximum drive time as the journey time is likely to be less than 180 minutes. The drive time for the affected datazone is therefore calculated based on the average drive times for the output areas (within the datazone) where the software did make a connection. The datazones are population weighted (and therefore exclude the population of the excluded output area). This applies to the following datazones: S01002350 Eilean SIar S01003744 Highland S01003846 Highland S01004409 North Ayrshire S01004971 Orkney Islands S01005147 Perth & Kinross S01005519 Shetland Islands S01005516 Shetland Islands In SIMD 2009, if the software failed to identify a connection from an output area to a service location, then the output area would have been excluded from the calculation for its respective datazone.
Disclosure control	No disclosure control was applied to the drive time data.
Geo-referencing	There are no geo-referencing issues – all service locations were geo-referenced.

Availability of data	Data are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD)

2.5.2 Public transport sub-domain

- *Public transport travel time to a retail centre*
- *Public transport travel time to a GP*
- *Public transport travel time to a post office*

General description of indicator	Population weighted average travel times to selected services using public transport (bus, train, underground, ferries) and/or walking.
Indicator type	Population weighted average public transport travel time - minutes
Time period	2011-2012
Data sources	• Service locations: GP surgeries – PointX (December 2011) Retail centres – CACI Retail (2011) Post Offices – Royal Mail (Q1 2012) • Census output area population weighted grid references – General Register Office for Scotland (2001) • Census output areas population figures - General Register Office for Scotland (2001) • Public transport network stops/timetable data (Bus, Coach, Ferry, Metro, Train) – National Public Transport Data Repository (October 2011) • Road Network – Ordnance Survey Integrated Transport Network (ITN) & ITIS Road Speed Data (March 2012)
Denominator used	2001 Total population
Data source of denominator	Census output areas (COA) population figures - General Register Office for Scotland (2001), COA populations are not available for 2012
Method of construction of indicator	See GI-SAT (Geographic Information - Science & Analysis Team) report on construction of the SIMD 2012 geographic access domain
Key decisions on methodology	Geographic Access domain constructed entirely within Scottish Government. Drive times and Public Transport times calculated by GI-SAT using a single software environment (Citilabs 'Accession') to produce more integrated indicator. As in SIMD 2009, average public transport travel time calculated at COA level from 4 trips (2 outbound/2 inbound) throughout the day in order to reflect changes in public transport availability throughout the day. Outbound times calculated for Tuesday (7am - 11am) & (12noon - 4pm). Inbound times calculated for (12noon – 4pm) & (5pm – 9pm). 3 hour maximum journey time cut off applied to all trips. 20 min wait times at ferry terminals were included where journeys included a ferry trip. Census Output Area origins for public transport times same as SIMD 2009. Methodology for constructing datazone average public transport times from census output area calculated drive times is the same as SIMD 2009. The same data sources as SIMD 2009 were used for the

	location of GP surgeries, Post offices and Retail centres. Post Office locations reflect post office services at a fixed location available for 6 hours or more per week. Further information is available from the GI-SAT report on geographic access domain methodology.
Comparison with 2009 indicator	The services used are the same as for SIMD 2009.
Implications of comparing this indicator with the one used in SIMD 2009	
Other data quality issues	For some data zones where a public transport time could not be calculated for all COA areas within the data zone travel times were estimated using drive times.
Disclosure control	No disclosure control has been applied to the public transport indicators.
Geo-referencing	There are no geo-referencing issues – all service locations were geo-referenced.
Availability of data	Data are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD)

2.6 SIMD Crime Domain

Indicators included in the Crime Domain

SIMD 2009 Crime Indicators	2009 Weight	SIMD 2012 Crime Indicators	2012 Weight	Summary of Change
Recorded Crimes of Violence (Source: Police Forces, 2007-08)	N/A	Recorded Crimes of Violence (Source: Police Forces, 2010-11)	N/A	No change
Recorded Crimes of Indecency (Source: Police Forces, 2007-08)	N/A	Recorded Sexual Offences (Source: Police Forces, 2010-11)	N/A	The Sexual Offences (Scotland) Act 2009 came into force on 1 December 2010 resulting in some crimes that would previously have been classified as either Breach of the peace etc. or Other miscellaneous offences being classified as Sexual offences.
Recorded Domestic housebreaking (Source: Police Forces, 2007-08)	N/A	Recorded Domestic housebreaking (Source: Police Forces, 2010-11)	N/A	No change
Recorded Vandalism (Source: Police Forces, 2007-08)	N/A	Recorded Vandalism (Source: Police Forces, 2010-11)	N/A	No change
Recorded Drugs Offences (Source: Police Forces, 2007-08)	N/A	Recorded Drugs Offences (Source: Police Forces, 2010-11)	N/A	No change
Recorded Minor Assault (Source: Police Forces, 2007-08)	N/A	Recorded Common Assault (Source: Police Forces, 2010-11)	N/A	Comparability has been affected by the inclusion of an additional crimecode, Common assault of an emergency worker in SIMD 2012.

Issues in the construction of the Crime Domain

Consistency with published sources

The chosen methodology involves calculating a rate of total SIMD crime (by summing the crimes included in the indicators) per 10,000 of population. Total SIMD crimes are based on geo-referenced data provided by police forces grossed up to local authority level based on the 2010-11 recorded crime totals held by the Scottish Government Justice Analytical Services Division.

Police station bias

In order to reduce bias against areas that contain a police station, crimes that have been identified as being recorded within 50 metres of the centre of a police station have been

excluded.

Weighting of crime types

There is no official methodology to differentiate between the severity of different types of crimes, therefore, we have not applied weights and have added SIMD crimes together for each data zone and divided by the total population.

Crimes excluded from the crime domain

The SIMD crime domain does not include all types of crime or offence recorded by the police. Certain crimes have been excluded because of data quality issues, or because they are less meaningful in terms of deprivation at a neighbourhood level.

For example, some crime types were excluded because they are directed at businesses and/or concentrated in centres of retail activity rather than neighbourhoods – examples include shoplifting and non-domestic housebreaking. Other crime types are harder to locate geographically – examples include fraud and speeding offences.

Other crimes might be thought suitable for exclusion, but where such crimes formed part of a recognised group (e.g. violence, vandalism) and accounted for very small numbers, they were not explicitly excluded.

Geographical coverage

Police forces were requested to provide all available geographical/address information, in particular postcodes for each crime recorded. Where possible, forces provided postcodes plus map references and address details. The exact postcode is not necessarily required to geo-reference a crime as long as there is sufficient information to allocate the crime to a data zone. Where a force could only provide address details, the Scottish Government imputed postcodes and/or map references so that data zones could be identified for the majority of the crimes.

Population denominators

There may be some bias in data zones that fall in town centres, where the resident population may be small compared with the daytime or night-time populations. Day and night populations are not available at the small area level and so total resident population was used for the construction of these indicators. Also special events such as music festivals or sporting events may occur in an area with the accompanying temporary increase in population, which is not reflected in the small area resident population estimates. Such changes to the population of a data zone should be considered when comparing SIMD crime rates in different areas.

Metadata for individual indicators in the Crime Domain

2.6.1 ***Recorded SIMD Crime Rate:***

Recorded Crimes of Violence
Recorded Sexual Offences
Recorded Domestic housebreaking
Recorded Vandalism
Recorded Drugs Offences
Recorded Common Assault

General description of indicator	Recorded SIMD crime rate of selected crimes of violence, sexual offences, domestic housebreaking, vandalism, drug offences and common assault. The overall indicator is a sum of each SIMD crime divided by the total population.
Indicator type	Rate per 10,000 population
Time period	2010-11
Data source	Scottish Police Forces: Central, Dumfries & Galloway, Fife, Grampian, Lothian & Borders, Northern, Strathclyde and Tayside.
Denominator used	Total Population 2010
Data source of denominator	National Records of Scotland 2010 mid year population estimates
Method of construction of indicator	As with SIMD 2009, crimes happening within 50 metres of a police station were removed from the data. This was to ensure that crimes recorded as happening in a police station did not mask the level of crime happening in the neighbourhood of the police station. The total SIMD crime rate was constructed by summing the selected crime counts and dividing the total by the total data zone population.
Key decisions on methodology	The indicators remain the same as those used in SIMD 2009 covering the financial year period. Police forces also supplied data for 2008-09 and 2009-10 however given the volume of geo-referencing required, it has only been possible to include one year (2010-11) of crime data in SIMD 2012. Data for the other years will be published on Scottish Neighbourhood Statistics (www.sns.gov.uk) at a later date.
Comparison with 2009 indicator	The 2009 and 2012 indicators are comparable.
Implications of comparing this indicator with the one used in SIMD 2009	The 2009 and 2012 indicators are comparable.
Other data quality issues	When looking at crime domain ranks and rates of SIMD crimes, the type of area and resident population should be considered. Some areas such as town centres, areas around football stadia, or music festivals will see large numbers of people in an area at a particular time of day or day of the week or year and an associate increase in crime.
Disclosure control	Hierarchical disclosure control has been applied to the published data after calculation of the crime domain. Data zones with total SIMD crime count of 5 or less were

	suppressed along with secondary suppressions.
Geo-referencing	There was a lack of full address information for some crimes/ offences. In these cases, partial addresses were matched to postcodes or data zone using MatchCode. Crimes that could not be geo-referenced were allocated to a data zone within the police force based on the information provided. The remaining SIMD crime count was grossed up to the published LA total.
Availability of data	Data are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and on the SIMD website (http://www.scotland.gov.uk/Topics/Statistics/SIMD)

SIMD Crime Codes

The Crime Domain consists of categories of recorded crimes or offences which are grouped into five indicators. Certain crimes which form part of recognised groups, such as violence, and account for very small numbers, are included for ease of comparison with published totals, even though they may not seem entirely relevant to SIMD.

	SGJD Crime Code	Crime/Offence name
Crimes of Violence	1/000	Murder
	2/000	Attempted murder
	3/001	Culpable homicide (common law)
	3/002	Causing death by dangerous driving
	3/003	Death by careless driving under the influence of drink or drugs
	3/004	Causing death by careless driving
	3/005	Illegal driver, disqualified/unlicensed etc involved in fatal accident
	3/006	Corporate homicide
	4/000	Serious assault
	6/000	Robbery and assault with intent to rob
	7/000	Threats and extortion
	8/001	Cruelty to and unnatural treatment of children
	8/002	Child stealing (plagium)
	8/003	Exposing child under 7 to risk of burning
	9/000	Abortion
	10/000	Concealment of pregnancy
	11/001	Possess a firearm with intent to endanger life, commit crime etc.
	11/002	Abduction
	11/003	Ill treatment of mental patients
	11/004	Cruel and unnatural treatment of an adult
	11/005	Drugging
	11/006	Chemical weapon offences
	11/007	Female genital mutilation
Sexual Offences	13/001	Illegal homosexual acts
	13/002 and 18/021	Bestiality (Change to crime code only)
	13/003	Assault to commit unnatural crimes
	14/000	Rape (Offence prior to 1 December 2010)
	14/001	Rape of male (16+)
	14/002	Rape of female (16+)
	14/003	Rape of older male child (13-15 years)
	14/004	Rape of older female child (13-15 years)
	14/005	Rape of young male child (Under 13)
	14/006	Rape of young female child (Under 13)
	15/000	Attempted rape (Offence prior to 1 December 2010)
	15/001	Attempted rape male (16+)
	15/002	Attempted rape female (16+)
	15/003	Attempted rape older male child (13-15)
	15/004	Attempted rape older female child (13-15)
	15/005	Attempted rape young male child (under 13)
	15/006	Attempted rape young female child (under 13)
Crimes of Dishonesty ***(House-breaking)***	19/004	Theft by housebreaking domestic property (dwelling)
	19/005	Theft by housebreaking domestic property (non-dwelling)
	19/007	Housebreaking with intent to steal domestic property (dwelling)
	19/008	Housebreaking with intent to steal domestic property (non-dwelling)
	19/010	Attempted housebreaking with intent to steal domestic property (dwelling)
	19/011	Attempted housebreaking with intent to steal domestic property (non-dwelling)

Vandalism	32/001	Fire-raising excluding muirburn
	32/003	Muirburn
	33/001	Vandalism, reckless damage and malicious mischief
	33/002	Reckless conduct with firearms
	33/003	Flying aircraft to the danger of life or property
	33/004	Endangering rail passengers
	33/005	Reckless driving at common law
	33/006	Culpable neglect of duty
	33/007	Endangering ship by breach of duty, obtain ship by misrepresentation
	33/010	Computer Misuse Act 1990
	33/011	Culpable and reckless conduct (not with firearms)
	33/012	Vandalism
	33/013	Reckless damage
	33/014	Malicious mischief
Drug Offences	44/001	Illegal importation of drugs
	44/002	Production, manufacture or cultivation of drugs
	44/003	Supply, possession with intent to supply etc of drugs
	44/004	Possession of drugs
	44/005	Drugs, money-laundering offences
	44/099	Drugs, other offences
Common Assault	47/001	Common assault
	47/006	Common assault of an emergency worker

2.7 Housing Domain

Indicators included in the Housing Domain

SIMD 2009 Housing Indicators	2009 Weight	SIMD 2012 Housing Indicators	2012 Weight	Summary of Change
Persons in households that are overcrowded (Source: 2001 Census)	N/A	Persons in households that are overcrowded (Source: 2001 Census)	N/A	No change
Persons in households without central heating (Source: 2001 Census)	N/A	Persons in households without central heating (Source: 2001 Census)	N/A	No change

The SIMD 2012 housing domain remains unchanged from the SIMD 2004, 2006 and 2009, which used 2001 Census data. Suitable housing data to replace Census indicators have not yet been developed. The housing domain has been retained, as it is considered a relevant aspect of multiple deprivation. The housing domain will be updated in future indices to include 2011 Census data, or a suitable alternative if available.

The housing domain is constructed by simply summing the two indicators together. There is a chance of some overlap between indicators, however, this has been accepted as it was thought that people living in a household with both attributes are more deprived than those with only one.

Metadata for individual indicators in the Housing Domain

2.7.1. Persons in households that are overcrowded

General description of indicator	This indicator provides a measure of material living standards and gives the proportion of household population that live in overcrowded housing based on the occupancy rating. This compares the actual number of rooms in the house to the number of rooms which are required by the household, based on the relationships between them and their ages. Overcrowding is defined to mean households with an occupancy rating of -1 or -2 i.e. that there is either 1 or 2 rooms too few in the household.
Indicator type	Percentage of household population
Time period	2001
Data source	National Records of Scotland, 2001 Census
Denominator used	2001 Census population of people living in households
Data source of denominator	National Records of Scotland, 2001 Census
Method of construction of indicator	The indicator is a simple proportion of the number of people living in overcrowded households, divided by the 2001 household population.
Key decisions on methodology	The indicator is identical to the indicator used in the 2004, 2006 and 2009 SIMD but the indicator has still been retained in the housing domain as the best available.
Comparison with 2009 indicator	The indicator is identical to the indicator used in the 2004, 2006 and 2009 SIMD.
Implications of comparing this indicator with the one used in SIMD 2009	Not applicable – see above.
Other data quality issues	There has been some criticism that the Census measure of overcrowding (the occupancy rating) is not as sophisticated as the 'bedroom standard' which is generally used to assess overcrowding, and tends to overstate. For example, on the Census definition a one person household can have an occupancy rating of -1.
Disclosure control	No disclosure control has been applied to this indicator.
Geo-referencing	No geo-referencing issues
Availability of data	The data are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and on the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD) The Scottish Census Results Online (www.scrol.gov.uk) also contains overcrowding cross-tabulations.

2.7.2. Persons in households without central heating

General description of indicator	This indicator provides a measure of material living standards and gives the proportion of household population that live in a house that is centrally heated. A household's accommodation is described as 'with central heating' if it has central heating in some or all rooms (whether used or not). Central heating includes gas, oil or solid fuel central heating, night storage heaters, warm air heating and under-floor heating.
Indicator type	Percentage of household population
Time period	2001
Data source	National Records of Scotland, 2001 Census
Denominator used	2001 Census population of people living in households
Data source of denominator	National Records of Scotland, 2001 Census
Method of construction of indicator	The indicator is a simple proportion of the number of people living in households without central heating, divided by the 2001 household population.
Key decisions on methodology	The indicator is identical to the indicator used in the 2004, 2006 and 2009 SIMD but the indicator has still been retained in the housing domain as the best available.
Comparison with 2009 indicator	The indicator is identical to the indicator used in the 2004, 2006 and 2009 SIMD.
Implications of comparing this indicator with the one used in SIMD 2009	Not applicable – see above.
Other data quality issues	The census question on central heating does not distinguish between whole and partial house central heating.
Disclosure control	No disclosure control has been applied to this indicator.
Geo-referencing	No geo-referencing issues
Availability of data	The data are available on the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and on the SIMD website (www.scotland.gov.uk/Topics/Statistics/SIMD) The Scottish Census Results Online (www.scrol.gov.uk) also contains central heating cross-tabulations.