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Welsh Index of Multiple Deprivation 2014

Executive summary

Revised

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Produced by Knowledge and Analytical Services, Welsh Government
26 November 2014
Revised 12 August 2015

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Welsh Index of Multiple Deprivation (WIMD) 2014

Executive Summary

1 Introduction 2

2 WIMD Construction 3

3 Overall Index – Key Results (r) 3

4 Individual Domains – Key Results (r) 7

5 Definitions 9

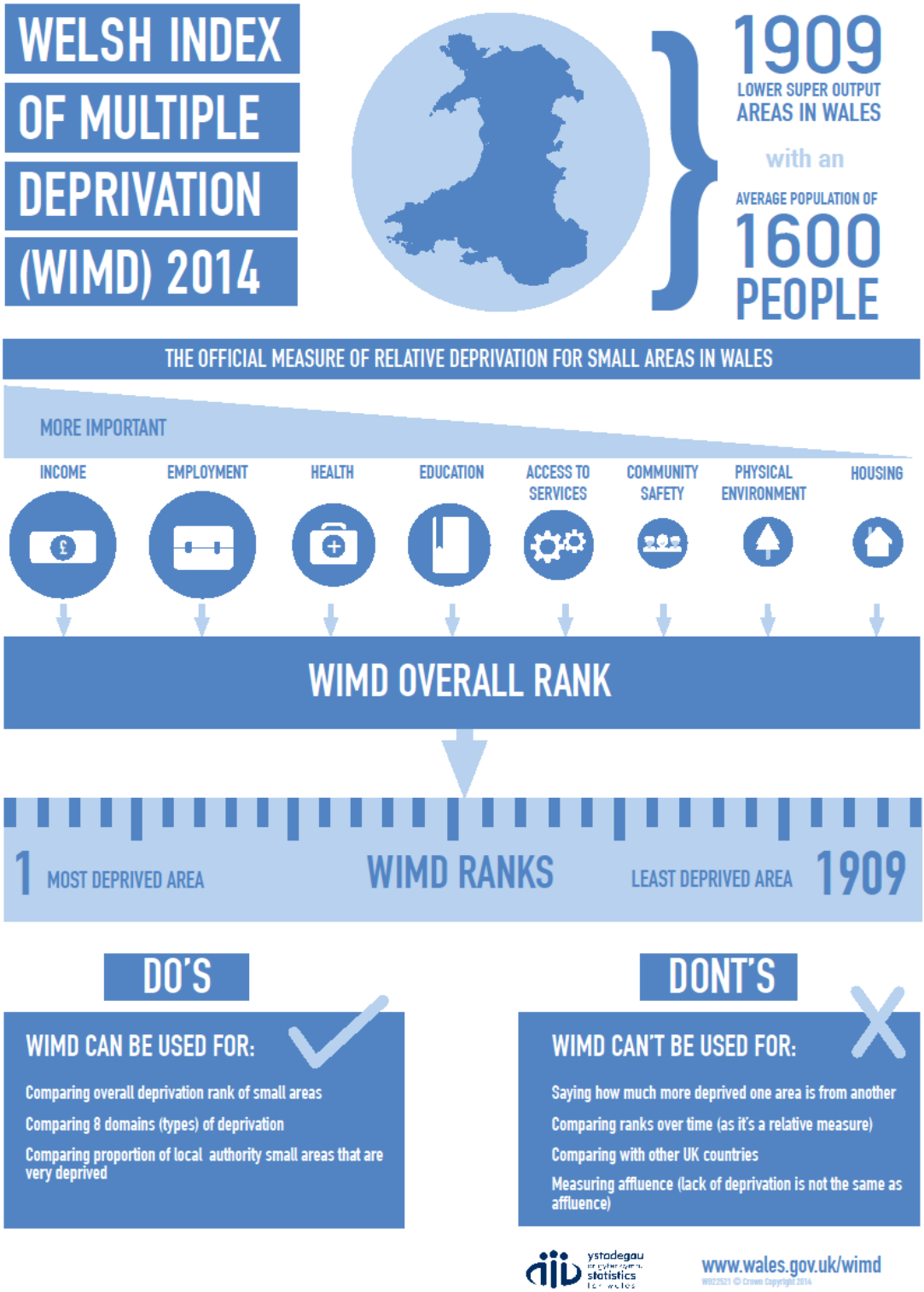
6 Uses and Limitations 10

7 Further Information 12

Note
(r) Chapters 2 and 3 were revised on 12 August 2015 following provision of revised data by the Department for Work and Pensions (DWP). For more information on the effect of these revisions on WIMD 2014 please see the Information Note.

1 Introduction

WIMD is the Welsh Government's official measure of relative deprivation for small areas in Wales. It is designed to identify those small areas where there are the highest concentrations of several different types of deprivation. As such, WIMD is a measure of multiple deprivation that is both an area-based measure and a measure of relative deprivation. These key terms are defined more fully in section 5.



2 WIMD Construction

An index is a group of separate measurements which are combined into a single number. They are designed to show changes in a complicated variable like industrial output, prices or in this case deprivation. An index then allows comparisons between different values – in the case of WIMD, the comparison is between small areas (see below).

WIMD ranks all small areas in Wales from 1 (most deprived) to 1,909 (least deprived).

The Index has three main components:

- the Index itself, which is a set of ranks;
- the ranks of the eight types of deprivation, or domains, from which the overall Index is constructed; and
- the underlying indicators, which are directly measurable, and which are combined to create the domain ranks. Many, but not all, of the indicators are produced as rates. The units depend on what is being measured.

All of these components are calculated for each of the LSOAs in Wales. The overall 2014 WIMD ranks and the ranks of the eight domains of deprivation are published on the StatsWales website. Where available, the underlying indicator data is now published annually on StatsWales.

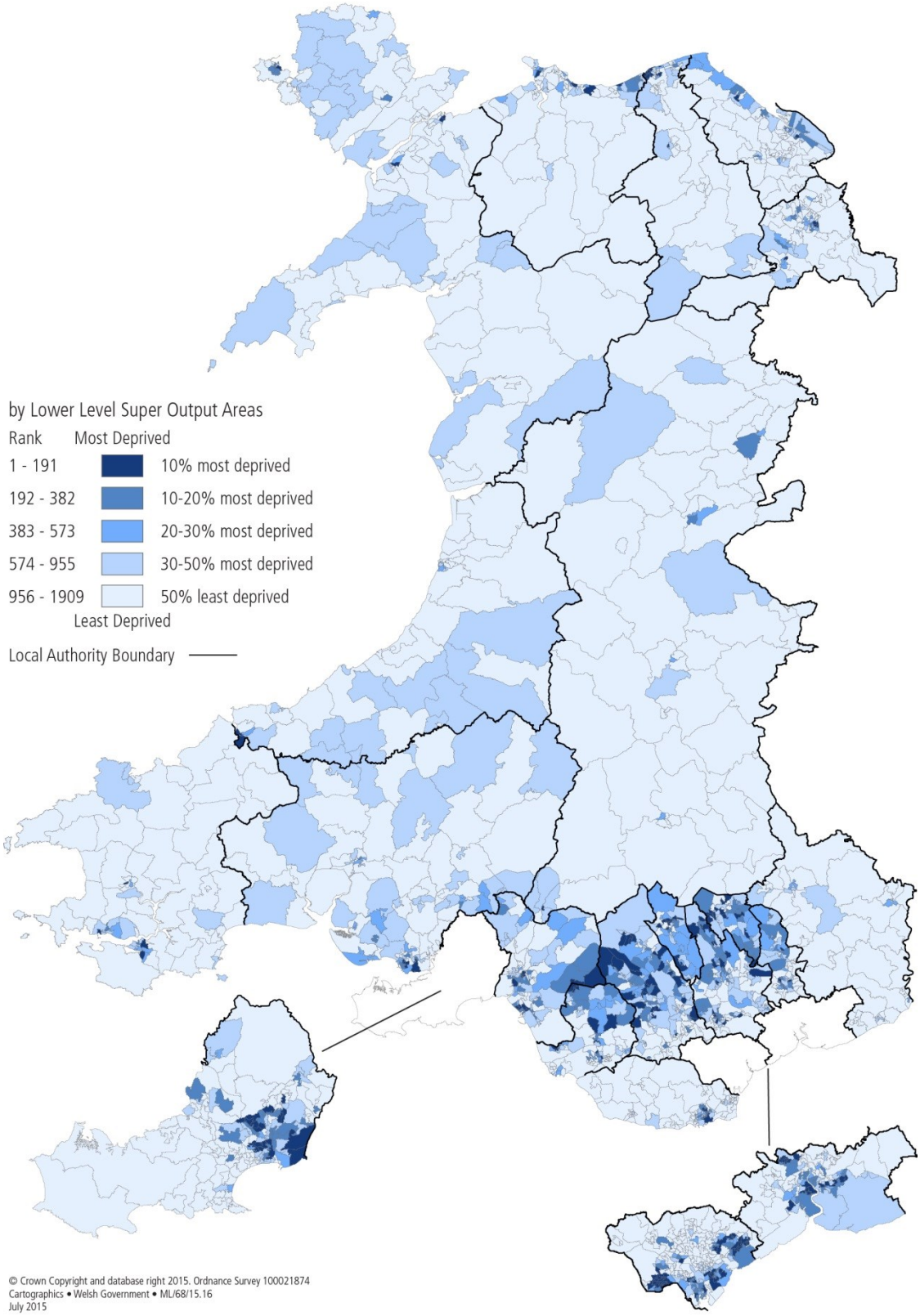
The overall methodology used within WIMD 2014 is the same as used for WIMD 2011. The domains have also stayed the same. There have been a small number of changes to individual indicators (or the inclusion of new indicators) within the Education, Access to Services, Community Safety, Income and Physical Environment and Housing domains; as well as some technical changes to some of the individual domains. Further information is provided in the WIMD 2014 Publication and WIMD 2014 Technical Report.

3 Overall Index – Key Results (r)

- In WIMD 2014, there were pockets of high relative deprivation in the South Wales valleys and large cities, and in some North Wales coastal and border towns.
- The overall picture is similar to that of WIMD 2011, with six of the ten most deprived LSOAs from WIMD 2011 remaining in the ten most deprived areas in WIMD 2014.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales was Blaenau Gwent (23.4 per cent), while Monmouthshire had no LSOAs in the most deprived 10 per cent.

Welsh Index of Multiple Deprivation 2014

Welsh Index of Multiple Deprivation



Note

This map was revised on 12 August 2015 following provision of revised data by the Department for Work and Pensions (DWP).

The table below lists the ten most deprived LSOAs in Wales, as determined by the 2014 Index, together with four LSOAs that were ranked between 1 and 10 in WIMD 2011, but have moved out of that group in 2014.

Note that WIMD does not measure the level of deprivation in a small area, but rather whether an area is more or less deprived relative to all other small areas in Wales. It is not possible to determine from a change in rank alone whether deprivation has improved or not in an area – the underlying indicators must be used for this.

Table 1: WIMD 2014 overall most deprived LSOAs in Wales (r)

LSOA	Local Authority	LSOA Name	WIMD 2011 Rank	WIMD 2014 Rank
W01001421	Caerphilly	St. James 3	2	1
W01000240	Denbighshire	Rhyl West 2	1	2
W01000413	Wrexham	Queensway 1	9	3
W01001874	Cardiff	Splott 6	36	4
W01001274	Rhondda Cynon Taf	Tylorstown 1	10	5
W01000991	Bridgend	Caerau (Bridgend) 1	8	6
W01001428	Caerphilly	Twyn Carno 1	3	7
W01001303	Merthyr Tydfil	Merthyr Vale 2	17	8
W01001222	Rhondda Cynon Taf	Pen-y-waun 2	15	9
W01001662	Newport	Pillgwenlly 4	27	10
W01001308	Merthyr Tydfil	Penydarren 1	4	14
W01001209	Rhondda Cynon Taf	Penrhiwceiber 1	5	15
W01000862	Swansea	Townhill 1	6	29
W01000239	Denbighshire	Rhyl West 1	7	11

Note: (r) Some figures in this table were revised 12 August 2015 following provision of revised data by the Department for Work and Pensions (DWP).

- St. James 3, Caerphilly is the most deprived small area in Wales (it was ranked 2 in WIMD 2011).
- Six of the ten most deprived areas in WIMD 2011 remain in the most deprived ten areas in WIMD 2011.
- Four areas have moved out of the most deprived ten areas since WIMD 2011. All ten of the most deprived areas in WIMD 2014 are in Communities First areas.

One way of considering WIMD data at the local authority level is to look at the proportion of LSOAs within the local authority that are in the most deprived 10 per cent (or 20 per cent etc.) of all LSOAs in Wales. This method can be seen as identifying the concentration of the most deprived areas in a local authority, rather than an average level of deprivation.

The table overleaf shows, for the WIMD 2014 overall Index, the percentage of small areas (LSOAs) in each local authority which were in the most deprived 10 per cent of Wales (ranks 1-191), 20 per cent (ranks 1-382), 30 per cent (ranks 1-573) and 50 per cent (ranks 1-955) LSOAs in Wales.

Table 2 WIMD 2014 Overall deprived LSOAs, by local authority (r)

Local authority	Number of LSOAs in local authority	% LSOAs in most-deprived 10% ranks 1-191	% LSOAs in most-deprived 20% ranks 1-382	% LSOAs in most-deprived 30% ranks 1-573	% LSOAs in most-deprived 50% ranks 1-955
Isle of Anglesey	44	2.3	15.9	18.2	45.5
Gwynedd	73	4.1	4.1	5.5	34.2
Conwy	71	5.6	14.1	23.9	42.3
Denbighshire	58	13.8	15.5	20.7	46.6
Flintshire	92	2.2	12.0	19.6	34.8
Wrexham	85	5.9	12.9	27.1	43.5
Powys	79	1.3	3.8	11.4	20.3
Ceredigion	46	2.2	2.2	6.5	39.1
Pembrokeshire	71	5.6	8.5	15.5	36.6
Carmarthenshire	112	4.5	10.7	22.3	52.7
Swansea	148	12.2	25.0	28.4	48.6
Neath Port Talbot	91	13.2	29.7	40.7	67.0
Bridgend	88	10.2	22.7	42.0	56.8
Vale of Glamorgan	79	5.1	15.2	19.0	36.7
Rhondda Cynon Taf	154	16.9	29.9	47.4	72.1
Merthyr Tydfil	36	22.2	30.6	61.1	80.6
Caerphilly	110	12.7	28.2	39.1	67.3
Blaenau Gwent	47	23.4	46.8	66.0	85.1
Torfaen	60	5.0	25.0	40.0	56.7
Monmouthshire	56	0.0	0.0	7.1	21.4
Newport	95	14.7	30.5	38.9	56.8
Cardiff	214	17.8	27.6	36.4	46.3
Wales	**1,909**	**10.0**	**20.0**	**30.0**	**50.0**

Note: (r) Some figures in this table were revised on 12 August 2015 following provision of revised data by the Department for Work and Pensions (DWP).

- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales was Blaenau Gwent (23.4 per cent).
- Monmouthshire had none of its LSOAs in the most deprived 10 per cent.
- Only 20.3 per cent of the LSOAs in Powys were in the most deprived 50 per cent in Wales.
- Blaenau Gwent had the highest percentage of LSOAs in the most deprived 50 per cent in Wales (85.1 per cent). The next highest is Merthyr Tydfil, with 80.6 per cent of its LSOAs in the most deprived half of Wales.
- In general, the valleys and urban local authorities have higher concentrations of deprivation. This is discussed further in the Statistical Article 'Welsh Index of Multiple Deprivation: a guide to analysing deprivation in rural areas' published as part of the WIMD 2014 package.

4 Individual Domains – Key Results

Income domain

- In the WIMD 2014 income domain, there were pockets of high deprivation in the South Wales valleys and large cities, and in some North Wales coastal towns.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales for the income domain was Newport (20.0 per cent). Powys and Monmouthshire had no LSOAs in the most deprived 10 per cent.
- The overall patterns of income deprivation in WIMD 2014 are similar to those for WIMD 2011.
- 21.7 per cent of people who are income deprived are in the most deprived 10 per cent of small areas for the income domain (the LSOAs ranked 1-191). Around half of those people who are income deprived are in the most deprived 30 per cent of LSOAs for the income domain.

Employment domain

- In the WIMD 2014 employment domain, there were pockets of high deprivation in the South Wales valleys and large cities, and in some North Wales coastal towns.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales for the employment domain was Merthyr Tydfil (25.0 per cent). Monmouthshire had no LSOAs in the most deprived 10 per cent.
- The overall patterns of employment deprivation in WIMD 2014 are similar to those for WIMD 2011.
- 20.1 per cent of people who are employment deprived are in the most deprived 10 per cent of small areas for the employment domain (the LSOAs ranked 1-191).
- Just under half of those people who are employment deprived are in the most deprived 30 per cent of LSOAs for the employment domain.

Health domain

- In the WIMD 2014 health domain, there were pockets of high deprivation in the South Wales valleys and large cities, and in some North Wales coastal and border towns.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales for the health domain was Merthyr Tydfil. The Isle of Anglesey, Ceredigion and Monmouthshire had no LSOAs in the most deprived 10 per cent.
- The overall patterns of health deprivation in WIMD 2014 are similar to those for WIMD 2011.

Education domain

- The overall patterns for the WIMD 2014 education domain are largely similar to those in WIMD 2011.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales for the education domain was Blaenau Gwent (27.7 per cent). Powys, Ceredigion and Monmouthshire had no LSOAs in the most deprived 10 per cent.

Access to Services domain

- In WIMD 2014, for the first time, average travel times using private transport have been incorporated alongside public transport. There have also been some changes in the services considered.
- In the WIMD 2014 access to services domain, high deprivation was widespread across rural areas of Wales. There were also some deprived pockets near large urban areas.
- The local authorities with the highest proportion of LSOAs in the most deprived 10 per cent were Powys (46.8 per cent) and Ceredigion (43.5 per cent). Blaenau Gwent, Bridgend, Caerphilly, Cardiff and Torfaen had no LSOAs in the most deprived 10%.
- Despite a significant change in methodology, the overall patterns of access to services deprivation in WIMD 2014 are similar to those for WIMD 2011.

Community Safety domain

- In the WIMD 2014 community safety domain, there were pockets of high deprivation in the South Wales valleys, South Wales large cities, and North Wales coastal and border towns.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales for the community safety domain was Blaenau Gwent. Powys had the lowest proportion of LSOAs in the most deprived 10 per cent.
- The overall patterns of community safety deprivation in WIMD 2014 are similar to those for WIMD 2011.

Physical Environment domain

- In the WIMD 2014 physical environment domain, there were concentrations of physical environment deprivation in cities and industrial areas in South Wales. The most prominent pockets of physical environment deprivation in North Wales were in Dolgellau (primarily due to high flood risk values) and Deeside (due to a combination of factors which varied at the LSOA level).
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales for the physical environment domain was Flintshire (34.8 per cent). Isle of Anglesey, Conwy, Ceredigion, Merthyr Tydfil and Monmouthshire had no LSOAs in the most deprived 10 per cent.
- The overall patterns of physical environment deprivation in WIMD 2014 are broadly similar to those for WIMD 2011.
- Technical changes/improvements were made to the Air Quality indicators (eg pollutants included), and improvements were also made to the methods for the other indicators.

Housing domain

- In the WIMD 2014 housing domain, there were pockets of high housing deprivation in urban areas such as the large South Wales cities, and in more rural areas such as the North West.
- The local authority with the highest proportion of LSOAs in the most deprived 10 per cent in Wales was Cardiff (36.9 per cent). Monmouthshire and Caerphilly had no LSOAs in the most deprived 10 per cent.
- The changes in deprivation in more rural areas between WIMD 2011 and WIMD 2014 are mainly due to central heating:
  a) there has been a decrease in the proportion of people living in households with no central heating.
  b) the weight of the central heating indicator has been reduced (from ½ to ⅓).

5 Definitions

Deprivation is the lack of access to opportunities and resources which we might expect in our society. The domains listed above relate to both material and social aspects of deprivation. Material deprivation is having insufficient physical resources - food, shelter, and clothing – necessary to sustain a certain standard of life. Social deprivation refers to the ability of an individual to participate in the normal social life of the community.

Multiple Deprivation refers to more than one type of deprivation. An area is multiply deprived if, for more than one of these domains, the area has a concentration of people experiencing that type of deprivation. Generally speaking, the greater the number of domains for which there are high concentrations of deprivation then the greater the overall deprivation in an area. This does not necessarily mean that the

same people suffer multiple types of deprivation in the area, although we would expect there to be significant overlap.

Area-based measure*:* WIMD is calculated for all Lower layer Super Output Areas (LSOAs) in Wales. Following the 2011 Census, 1,909 LSOAs were defined in Wales and they have an average population of 1,600 people.

Relative measure**:** The Index provides a way of identifying areas in the order of least to most deprived. It does not provide a measure of the level of deprivation in an area but rather whether an area is more or less deprived relative to all other areas in Wales; so we can know which areas are more (or less) deprived than others, but not by how much.

Index**:** An index is a group of separate measurements which are combined into a single number. They are designed to show changes in a complicated variable like industrial output, prices or in this case deprivation. An index then allows comparisons between different values – in the case of WIMD, the comparison is between LSOAs.

6 Uses and Limitations

Understanding how disadvantaged people are distributed through Wales by carrying out the following type of analysis is important when developing area-based policies, programmes and funding.

WIMD can be used for:

- identifying areas of greatest deprivation using the ranks. For example, the most deprived 10 per cent of areas in Wales are those ranked 1-191 (inclusive). However, not all deprived people live in the most deprived places;
- comparing overall deprivation ranks for each small area or a group of them (like those in a Local Authority), so that they can be put in order from the most to the least deprived;
- comparing ranks among the separate domains of deprivation for the small areas;
- comparing two or more local authorities (or other groups of aggregated small areas) by looking at the proportion of the small areas in the Local Authority in the most deprived (say) ten per cent in all of Wales; and
- by using the underlying indicator data (although not the WIMD rankings themselves) it is possible to analyse change over time (published on StatsWales).

It is important to remember that WIMD is not the only way to measure deprivation. WIMD has been developed for a particular purpose which is; to measure concentrations of deprivation at a small area level.

Deprived individuals: There can be individuals in deprived areas that would not be considered deprived; and there can also be individuals that would be considered deprived in the least deprived areas. Around 1 in 5 of the people in income benefit households live in the most deprived 10 per cent of areas in Wales. This means that although it is true to say that deprivation is much more concentrated in some areas than others, 4 out of 5 people in income benefit households live outside these areas. This is important to remember when targeting resources, as targeting those 'most deprived' areas leads to some households in those areas who may not be deprived being included and many deprived households living in less deprived areas missing out.

Individuals who are deprived in several ways: WIMD does not identify individuals who are deprived in several ways, rather, it identifies areas where there are concentrations of several different types of deprivation. At present, we are not able to link the data included in the Index at an individual person level in order to understand the extent of multiple deprivation for individuals.

Absolute deprivation: WIMD doesn't give a measure of the amount of deprivation in an area, for example it does not allow for statements such as "area A is twice as deprived as area B". The ranks can only be used to say "area A is more deprived than area B". This also means that even if an area's rank remains the same in successive WIMD publications, the level of deprivation in that area could have gone up or down but not enough to affect the comparison with other areas. However, the analysis of the individual indicators within WIMD does allow for such comparisons between areas and over time.

Affluence: It is important to remember that a lack of deprivation is not the same as affluence. The least deprived area is not necessarily the most affluent area in Wales. This also means that the ability of WIMD to discriminate effectively between areas is strongest for the most deprived areas and extreme care should be taken in drawing conclusions about the differences between less deprived areas.

Deprivation across the UK: Ranks are not comparable with the Indices of Multiple Deprivation (IMD) from the other UK countries. Further information on the issue of comparing IMDs across the UK can be found on the Neighbourhood Statistics website.

Comparisons over time: As the WIMD is a relative index, it's important not to compare ranks from one edition of WIMD to another. WIMD indicator data is published annually on StatsWales, where possible, in order to allow comparison over time.

7 Further Information

A package of products is available relating to WIMD 2014. These products can be accessed via www.wales.gov.uk/wimd

Main Publication

- Welsh Index of Multiple Deprivation (WIMD) 2014
- Welsh Index of Multiple Deprivation (WIMD) 2014 – Executive Summary

Guidance materials

- Welsh Index of Multiple Deprivation (WIMD) 2014 – Guidance on use
- WIMD 2014 Infographic (How WIMD is Constructed)
- WIMD 2014 Frequently asked questions

Data

- Spreadsheet – Overall and domain ranks for each LSOA
- StatsWales Data Cubes
    - WIMD 2014 Index
    - WIMD 2014 Local Authority analysis
    - WIMD Annual Indicator data: LSOA cube

WIMD Interactive Tool

- Tool to allow users to allow users to view results for a selection of areas

Technical Information

- Welsh Index of Multiple Deprivation (WIMD) 2014 – Technical Report
- Data Quality Report

Deprivation in Rural Areas

- Statistical Article - WIMD 2014: A guide to analysing deprivation in Rural Areas
- Technical Papers:
    - Exploration of unemployment in Wales by settlement type for small areas – Summary
    - Exploration of unemployment in Wales by settlement type for small areas

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