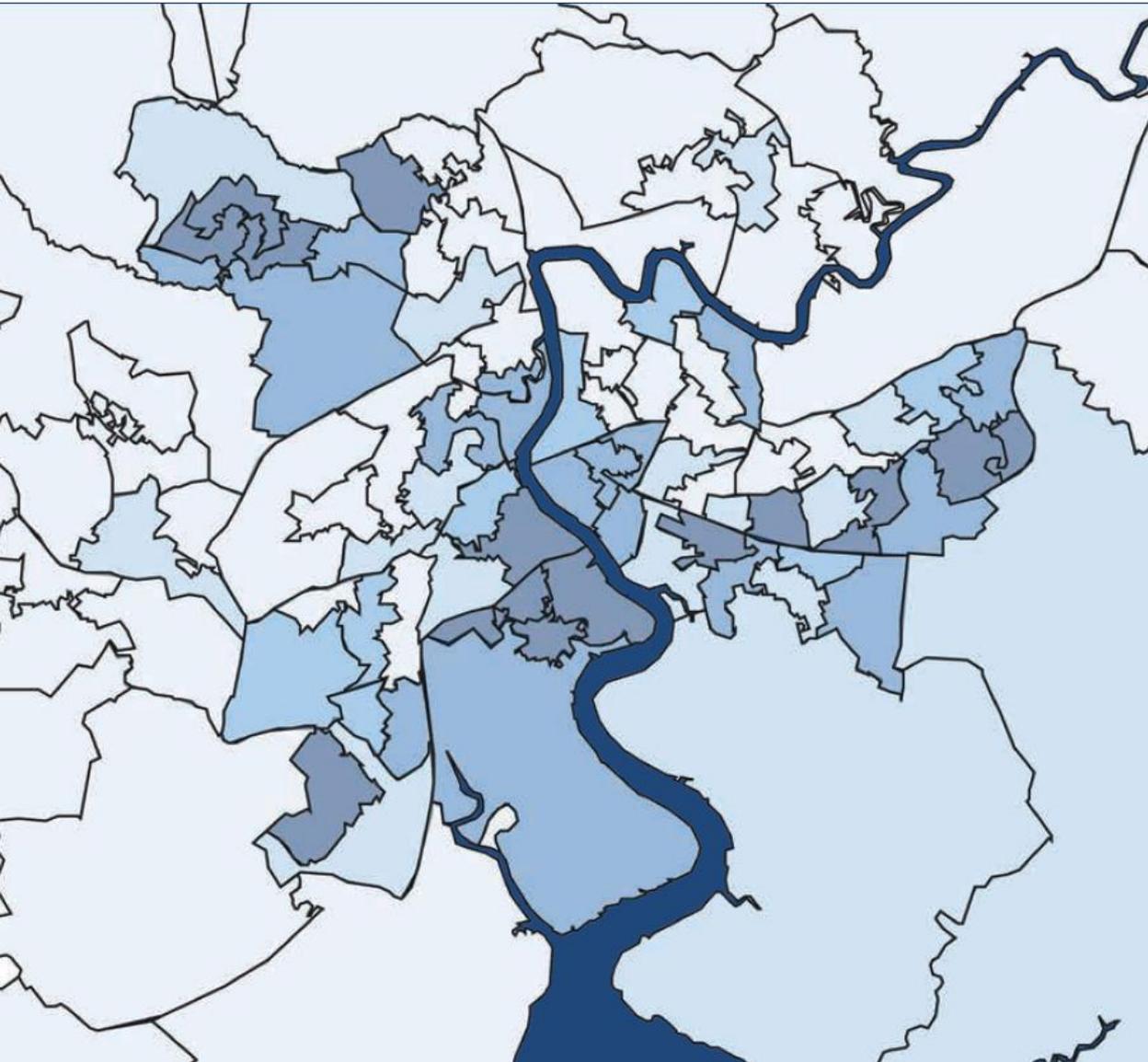




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Welsh Government



# MALIC 2019

**Mynegai  
Amddifadedd  
Lluosog Cymru**

# WIMD 2019

**Welsh Index of  
Multiple  
Deprivation**



# Braslun

- Cefndir i MALIC
- MALIC 2019
- Y maes tai
- *Modelau stoc tai BRE*
- Canlyniadau y maes tai
- Dysgu mwy

# Outline

- WIMD background
- WIMD 2019
- The housing domain
- *BRE Housing stock models*
- Housing domain results
- Find out more

# Cefndir i MALIC

## WIMD background

## Beth yw MALIC?

Bwriad Mynegai  
Amddifadedd Lluosog Cymru  
(MALIC) yw nodi'r **ardaloedd  
bach mwyaf difreintiedig  
yng Nghymru**

Defnyddir MALIC i lywio'r  
gwaith o lunio polisïau,  
dyrannu adnoddau, a  
gwasanaethau ar gyfer  
ardaloedd lleol

## What is WIMD?

The Welsh Index of  
Multiple Deprivation  
(WIMD) is designed to  
identify the **small areas of  
Wales that are the most  
deprived**

WIMD is used to inform  
policymaking, allocation of  
resources, and services for  
local areas

## Beth yw MALIC?

Mae'n gosod **ardaloedd bach** yn nhrefn eu lefelau o **amddifadedd cymharol**, ar draws **8 math o amddifadedd** i lunio **mynegai cyffredinol**

## What is WIMD?

It ranks **small areas** according to their **relative deprivation** levels, across **eight types of deprivation** to produce an **overall index**

# Ardaloedd bach

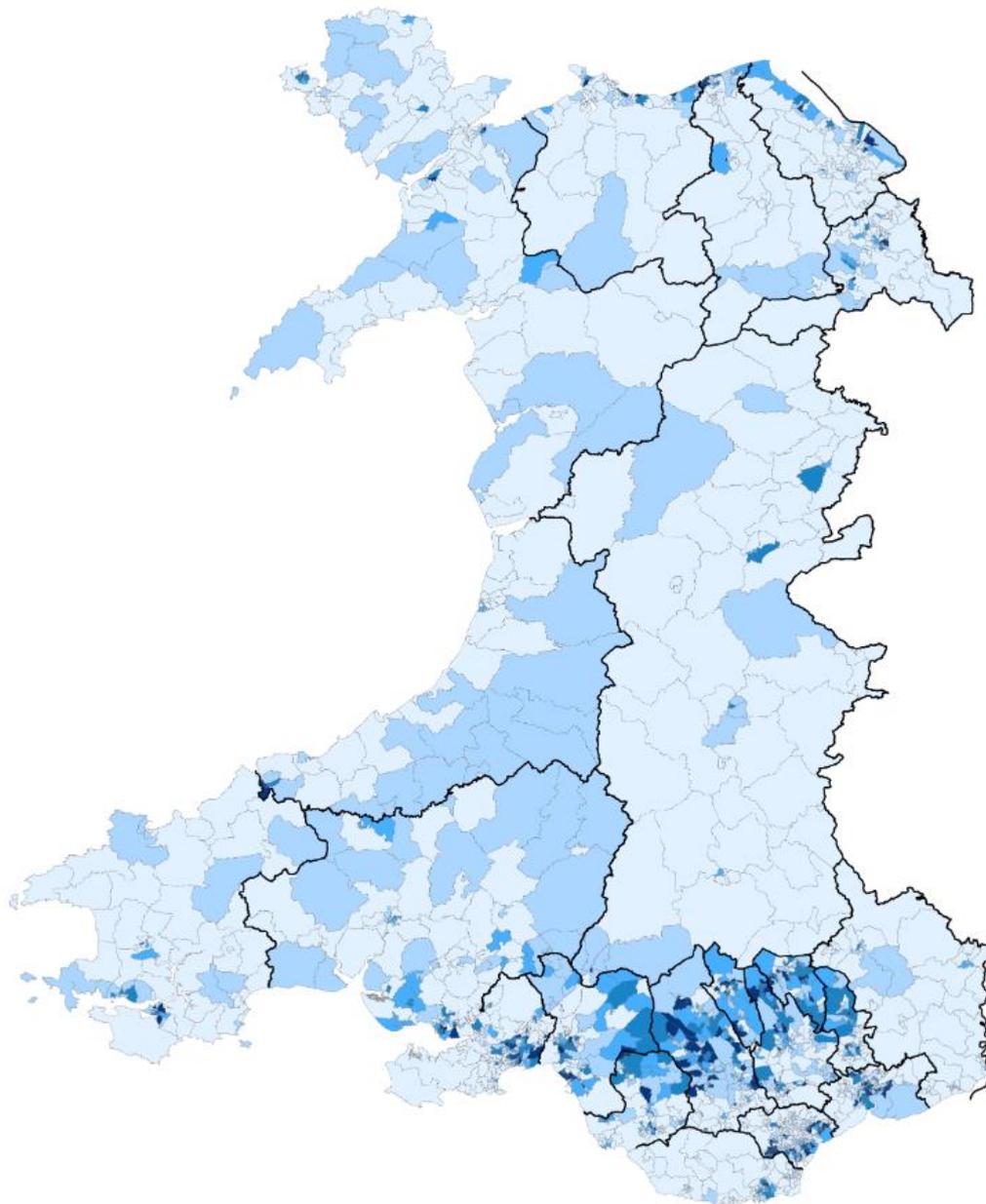
# Small areas

3.1 miliwn  
o bobl yng  
Nghymru

1,909  
o ardaloedd  
bach

Ardaloedd Cynnyrch  
Ehangach Haen Is  
(ACEHlau)

Ceir rhwng  
1,000 a  
3,000 o  
bobl  
ym mhob ardal  
fach



3.1 million  
people  
in Wales

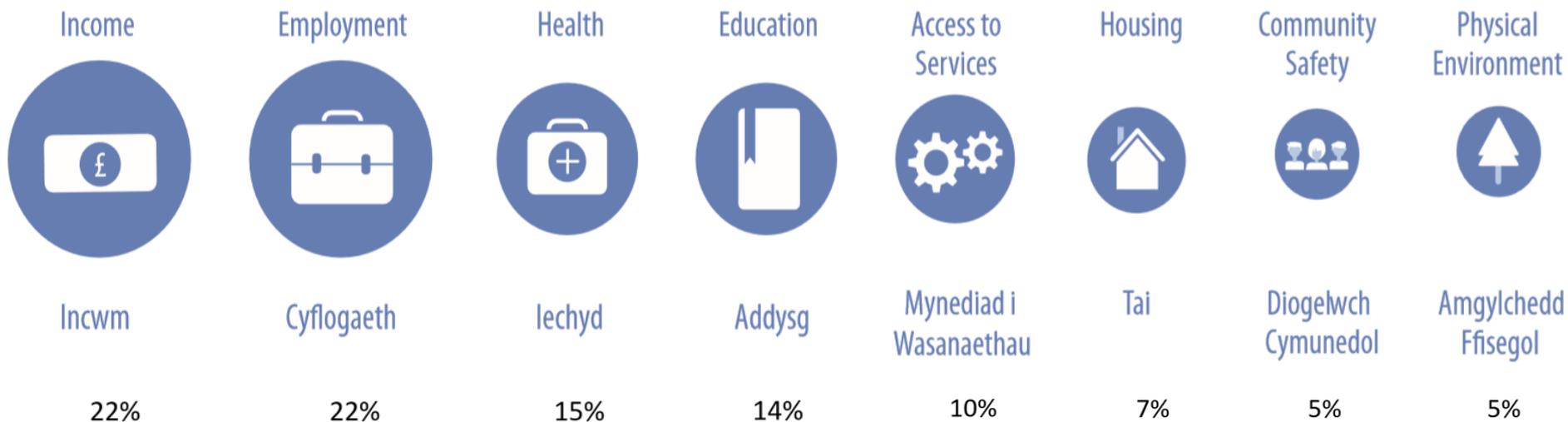
1,909  
small  
areas

Lower-layer  
Super Output  
Areas (LSOAs)

Between  
1,000 and  
3,000  
people  
in each small  
area

# Wyth maes

# Eight domains



# Sut i ddefnyddio MALIC

## Gellir defnyddio MALIC ar gyfer

- Adnabod yr ardaloedd bach **mwyaf difreintiedig**
- Cymharu amddifadedd **cymharol**
- Edrych ar yr 8 maes (**math**) o amddifadedd
- Cymharu cyfran yr ardaloedd bach mewn **ardal fwy** sy'n ddifreintiedig iawn
- Defnyddio **data dangosyddion** i gymharu newid dros amser

# WIMD: Do's and Don'ts

## Do's – WIMD can be used for

- Identifying the **most deprived** small areas
- Comparing **relative** deprivation
- Exploring the 8 **types** of deprivation
- Comparing the proportion of small areas within a **larger area** that are very deprived
- Using **indicator data** to compare change over time

# Sut i ddefnyddio MALIC

## Ni ellir defnyddio MALIC ar gyfer

- Mesur **pa mor ddifreintiedig** yw ardal fach
- Dweud **faint yn fwy** difreintiedig yw un ardal o'i chymharu ag ardal arall
- Defnyddio safleoedd i awgrymu **newid absoliwt** dros amser
- Pennu **pobl ddifreintiedig**
- Cymharu â **gwledydd eraill yn y DU**
- Mesur **digonedd**

# WIMD: Do's and Don'ts

## Don'ts – WIMD can't be used for

- Quantifying how deprived a small area is, or **how much more** than another
- Using ranks to infer **absolute change** over time
- Identifying **deprived people**
- Comparing with **other UK countries**
- Measuring **affluence**

# MALIC 2019

# WIMD 2019

# Newidiadau yn MALIC 2019

- O gymharu â MALIC 2014, defnyddir y data diweddaraf ar gyfer pob un ond 3 o'r 47 o ddangosyddion
- Methodoleg yr un fath ar y cyfan
- Ond mae newidiadau i'r dangosyddion ar draws **sawll maes**
- Un o'r blaenoriaethau oedd **gwella ansawdd data'r maes tai**

# Changes for WIMD 2019

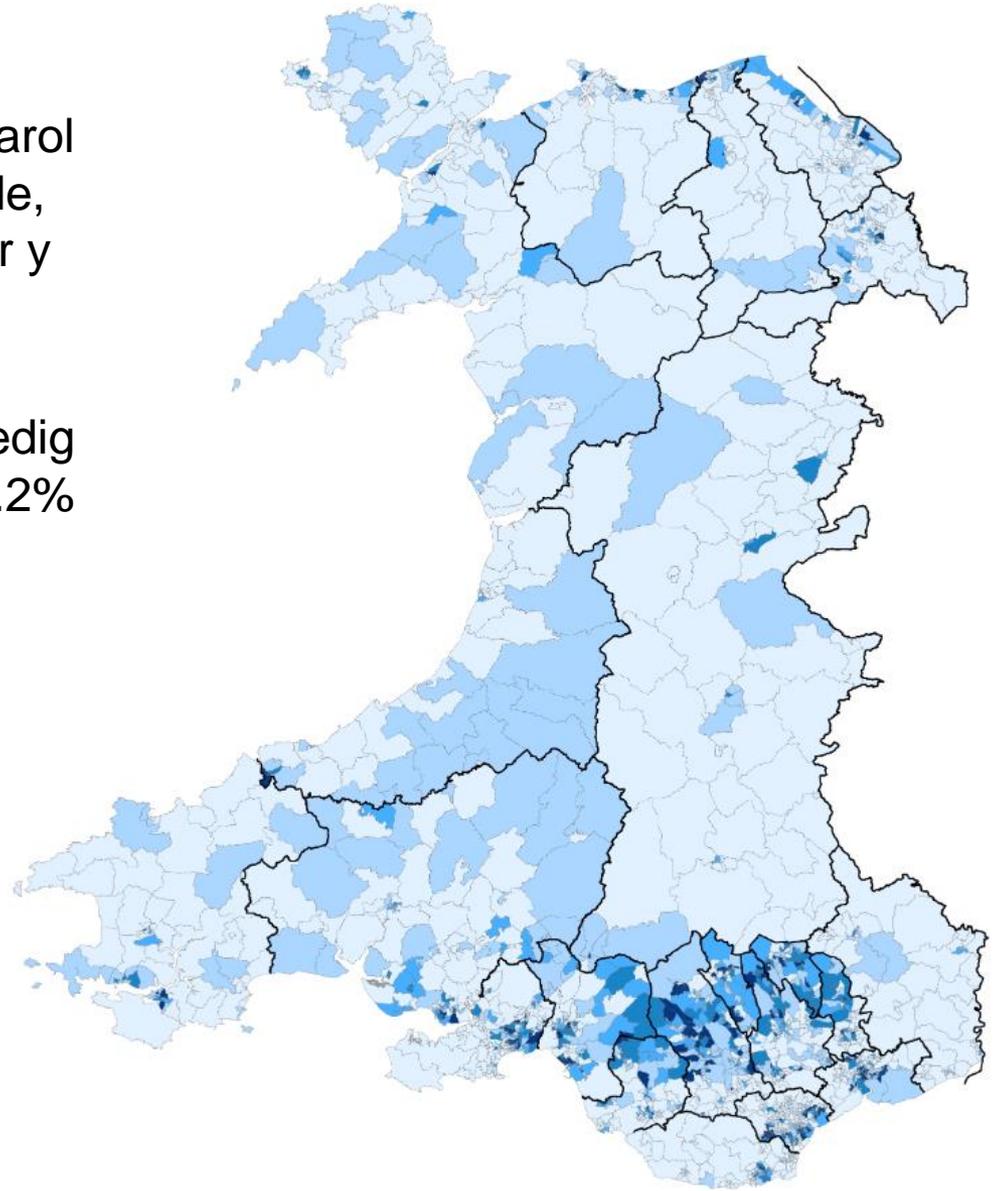
- Compared to WIMD 2014, updated data for all but 3 of the 47 indicators
- Methodology is broadly the same
- But there are changes to indicators **across several domains**
- One of the priorities was to **improve data quality for the housing domain**

## Mynegai Cyffredinol

- Roedd pocedi o amddifadedd cymharol uchel yn ninasoedd a chymoedd y de, ac mewn rhai trefi ar yr arfordir ac ar y ffin yn y gogledd
- Yr awdurdod lleol â'r gyfran uchaf o ardaloedd yn y 10% mwyaf difreintiedig yng Nghymru oedd Casnewydd (24.2% neu 23 o ardaloedd).

## Overall Index

- There were pockets of high relative deprivation in the South Wales cities and valleys, and in some North Wales coastal and border towns
- The local authority with the highest proportion of areas in the most deprived 10% in Wales was Newport (24.2% or 23 areas).



# Ardaloedd mwyaf difreintiedig / Most deprived areas

| Awdurdod Lleol     | Enw ACEHI                        | Safle / Rank<br>2014 | Safle /Rank<br>2019 | LSOA name           | Local authority   |
|--------------------|----------------------------------|----------------------|---------------------|---------------------|-------------------|
| Sir Ddinbych       | Rhyl Gorllewin 2                 | 2                    | 1                   | Rhyl West 2         | Denbighshire      |
| Sir Ddinbych       | Rhyl Gorllewin 1                 | 11                   | 2                   | Rhyl West 1         | Denbighshire      |
| Caerffili          | Sant Iago 3                      | 1                    | 3                   | St. James 3         | Caerphilly        |
| Rhondda Cynon Taf  | Pendyrus 1                       | 5                    | 4                   | Tylorstown 1        | Rhondda Cynon Taf |
| Pen-y-bont ar Ogwr | Caerau (Pen-y-bont<br>ar Ogwr) 1 | 6                    | 5                   | Caerau (Bridgend) 1 | Bridgend          |
| Rhondda Cynon Taf  | Penrhiw-ceiber 1                 | 15                   | 6                   | Penrhiwceiber 1     | Rhondda Cynon Taf |
| Merthyr Tudful     | Penydarren 1                     | 14                   | 7                   | Penydarren 1        | Merthyr Tydfil    |
| Caerffili          | Twyn Carno 1                     | 7                    | 8                   | Twyn Carno 1        | Caerphilly        |
| Wrecsam            | Queensway 1                      | 3                    | 9                   | Queensway 1         | Wrexham           |
| Casnewydd          | Pilgwenlli 4                     | 10                   | 10                  | Pillgwenlly 4       | Newport           |
| Caerdydd           | Y Sblot 6                        | 4                    | 12                  | Splott 6            | Cardiff           |
| Merthyr Tudful     | Ynyswen 2                        | 8                    | 34                  | Merthyr Vale 2      | Merthyr Tydfil    |
| Rhondda Cynon Taf  | Pen-y-waun 2                     | 9                    | 15                  | Pen-y-waun 2        | Rhondda Cynon Taf |

# Y maes tai

## The housing domain

# Maes tai



# Housing domain

Nodi annigonolrwydd mewn tai, o ran amodau ffisegol, amodau byw ac argaeledd

- Pobl sy'n byw mewn aelwydydd gorlawn: Mesur ystafelloedd gwely ar sail Cyfrifiad 2011 (%)
- NEWYDD - Ansawdd Tai Gwael *enghreifftiol* (% , Sefydliad Ymchwil Adeiladu)
- Pwysau'r maes tai yw 7% (i fyny o 5%) ac mae'r dangosyddion wedi'u pwysu yn gyfartal

To identify inadequate housing, in terms of physical and living conditions and availability

- People living in overcrowded households: 2011 Census-based bedroom measure (%)
- NEW - *Modelled* poor housing quality (% , Building Research Establishment)
- Domain weight is 7% (up from 5%) and indicators within are equally weighted

# Dangosydd ansawdd tai gwael



# Poor housing quality indicator

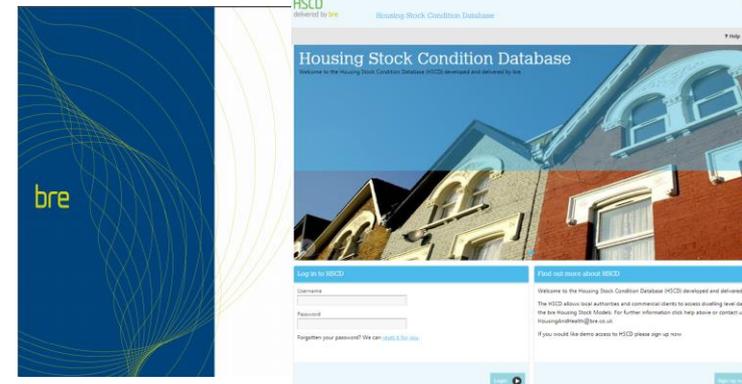
- Caiff ei gyfrifo gan ddefnyddio model a luniwyd o ddata arolwg, sy'n gwneud rhagfynegiadau ynglŷn ag anheddau yng Nghymru, gan ddefnyddio amrywiaeth o setiau data gweinyddol fel mewnbynnau.
- Mae'n ein galluogi i amcangyfrif y debygolrwydd bod anheddau mewn ardal:
  - yn cynnwys perygl Categori 1 ar gyfer oerfel, cwympiadau neu beryglon eraill o dan y System Mesur Iechyd a Diogelwch Tai neu
  - mewn cyflwr gwael
- Uses a model built from survey data, which makes predictions about dwellings in Wales, using a range of administrative datasets as inputs.
- Allows us to estimate the likelihood that dwellings in a given area:
  - contain a Category 1 hazard for excess cold, falls or other hazards under the Housing Health and Safety Rating System (HHSRS) or
  - are in a state of disrepair

# BRE Housing Stock Models

WIMD Housing Domain methodology

Rosie Winn – Senior Consultant, Housing and Health

Building a better world together



1921

Building Research Station formed by central Government

1967

National Housing Survey (England and Wales)

1997

BRE becomes an independent business

2003

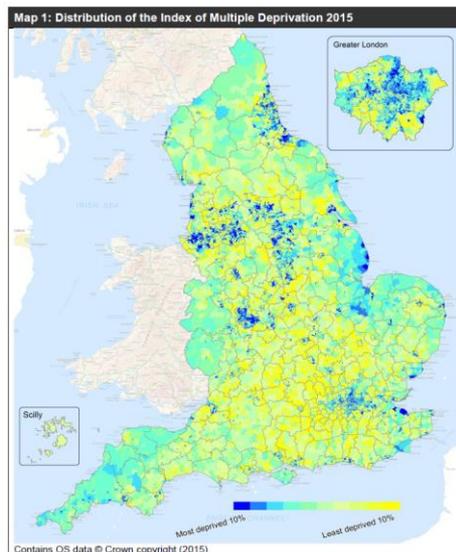
First stock modelling report produced

Present

Continually developing models & services

## IMD England

- 3<sup>rd</sup> update for 2019 IMD update
- Decent Home (includes HHSRS and Disrepair components)
- Data published at LSOA level

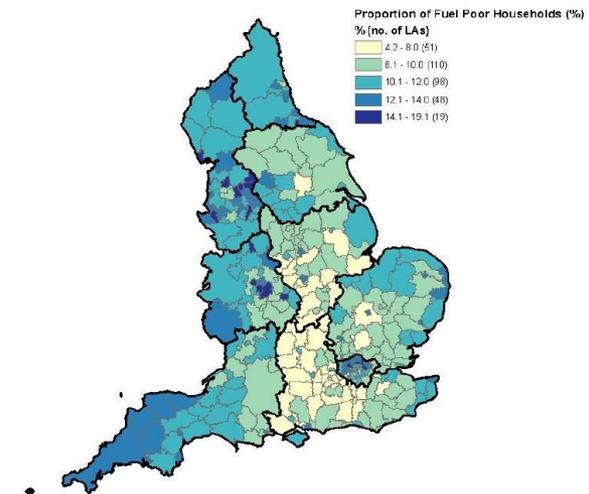


Source: The English Indices of Deprivation 2015 MHCLG

## BEIS - Sub-Regional Fuel Poverty Model

- Annual models since 2013
- Data published at Regional, Local Authority, LSOA, County and Parliamentary Constituency level

Figure 1.1: Households in the North West and West Midlands have the highest levels of fuel poverty in 2017



Source: Sub-Regional Fuel Poverty in England, 2019 (2017 data) BEIS

## Poor Housing Indicator

- Housing Health and Safety Rating System (HHSRS)
  - Excess Cold
  - Falls (vulnerable group 60+)
  - Other hazards
- Disrepair

Welsh Housing Conditions Survey sample size is not large enough (~2,500) to develop bespoke models in Wales.

We can apply models developed using EHS and benchmark them to the Welsh survey national figures.

Aggregate Models to LSOA level for housing domain indicator

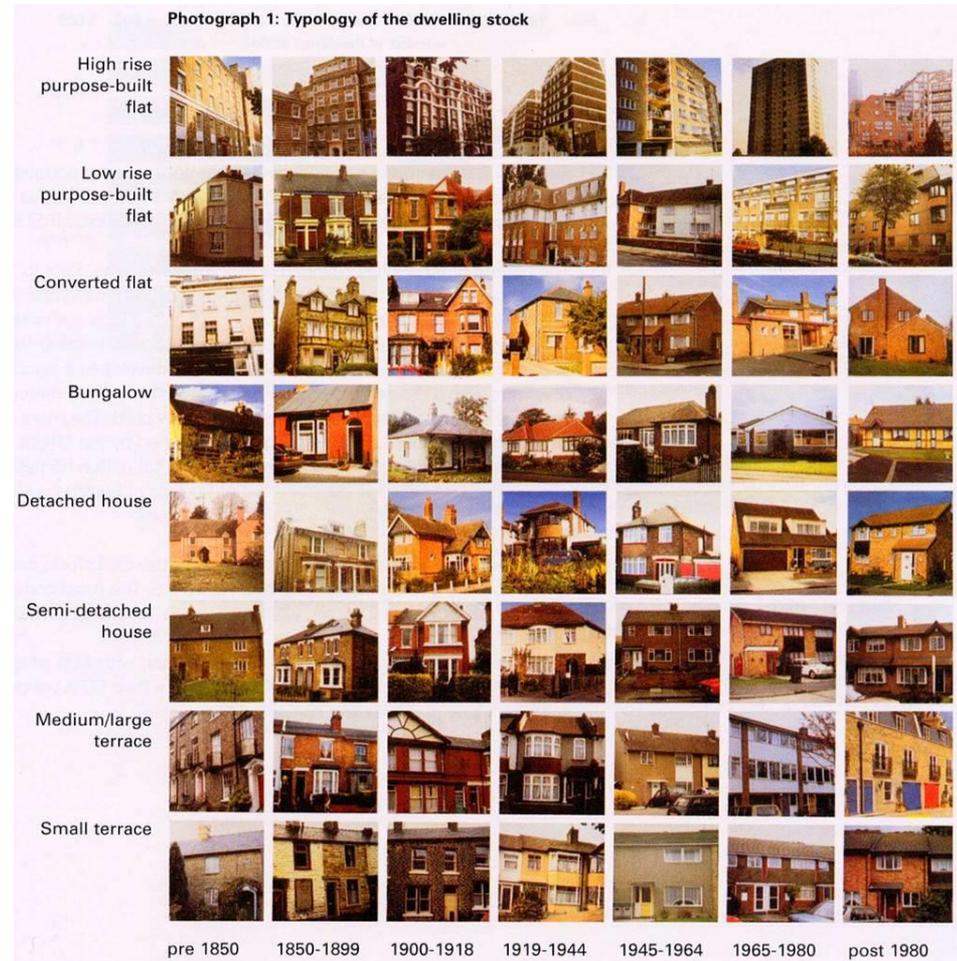
bre

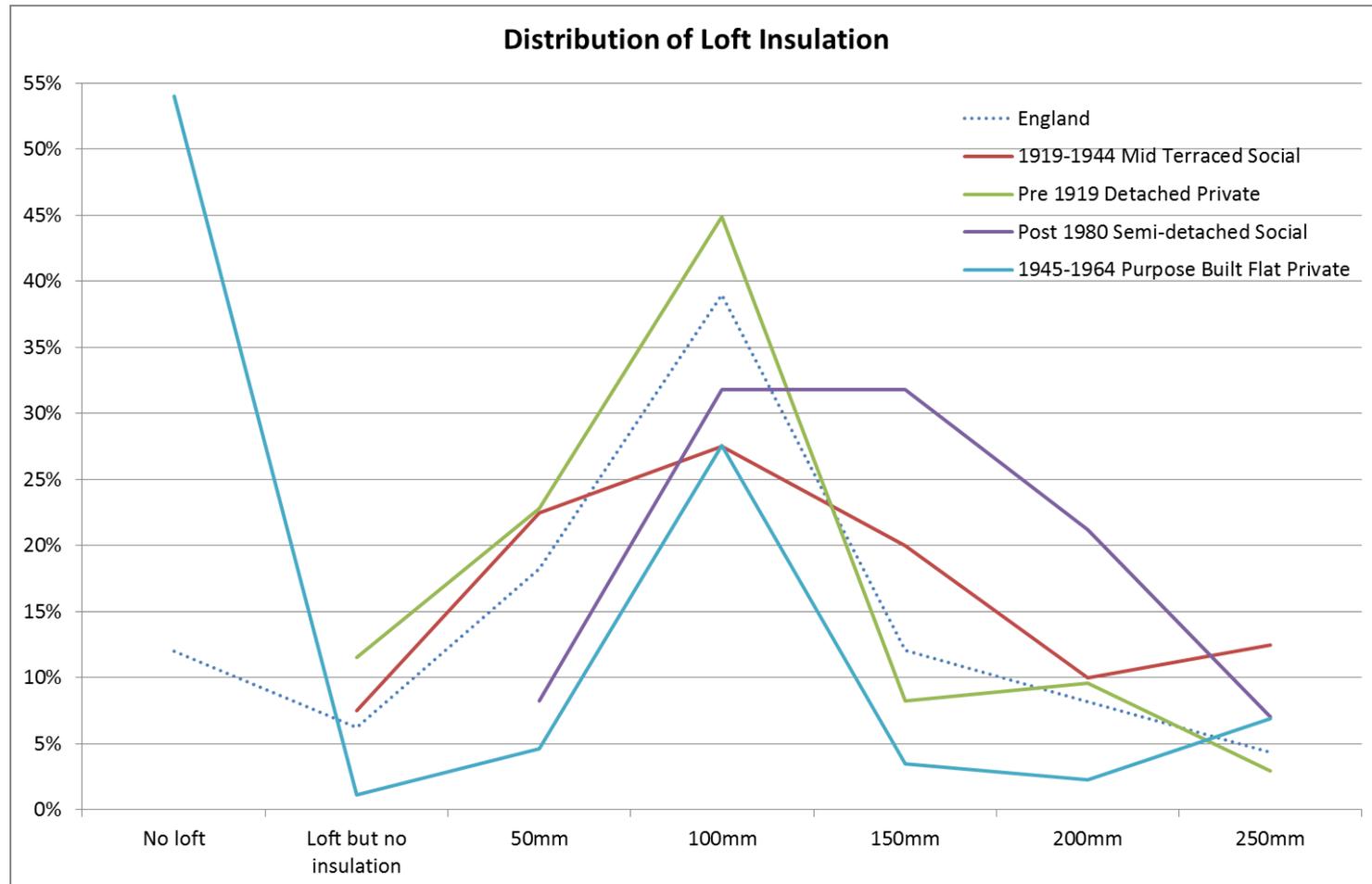
# BRE Housing Stock Models

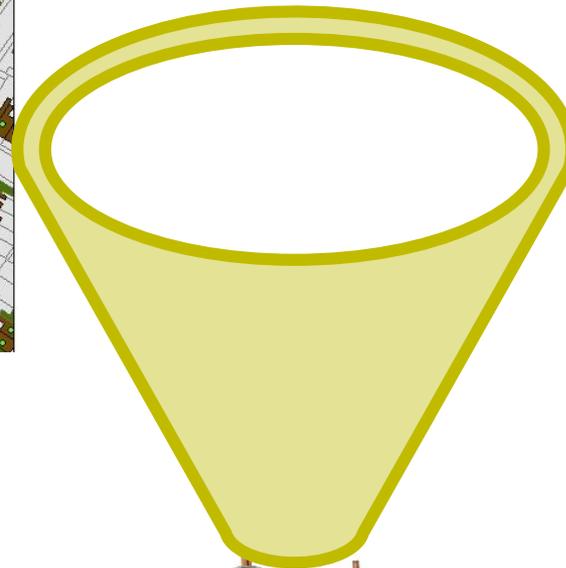


## Data Sources

- OS AddressBase and MasterMap
  - 1,458,117 residential properties
  - Dwelling type and block
- Experian UK Consumer Dynamics Database
  - Tenure
  - Dwelling Age
  - Household composition
  - Mosaic Characteristics
- Xoserve
  - Off Gas postcodes







## Expanded Input Data

Dwelling type

Dwelling age

No. of floors

Floor area

Floor level (flat)

Wall type

Wall insulation

Loft insulation

Heating system

Heating controls

Fuel type

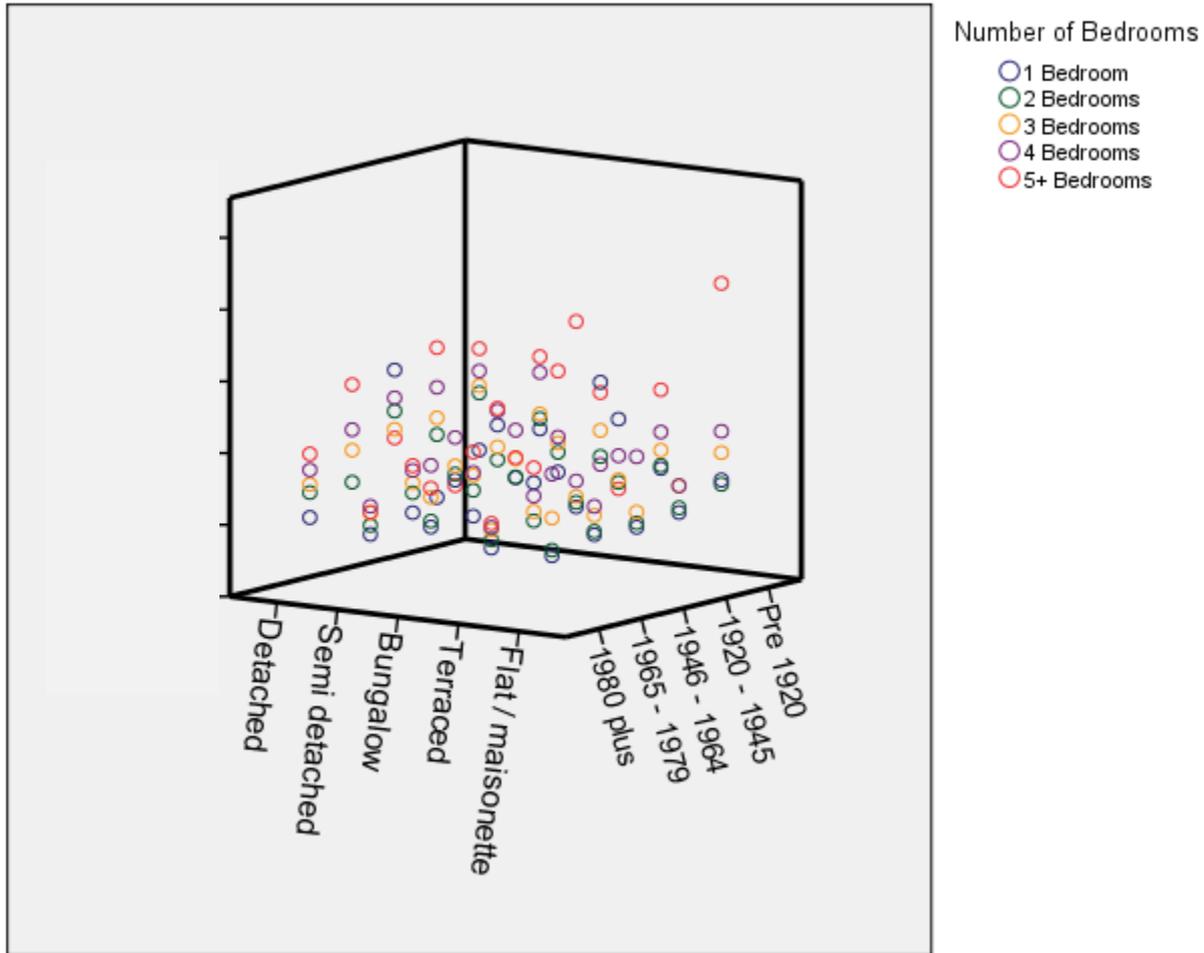
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# BRE Housing Stock Models

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# BRE Housing Stock Models

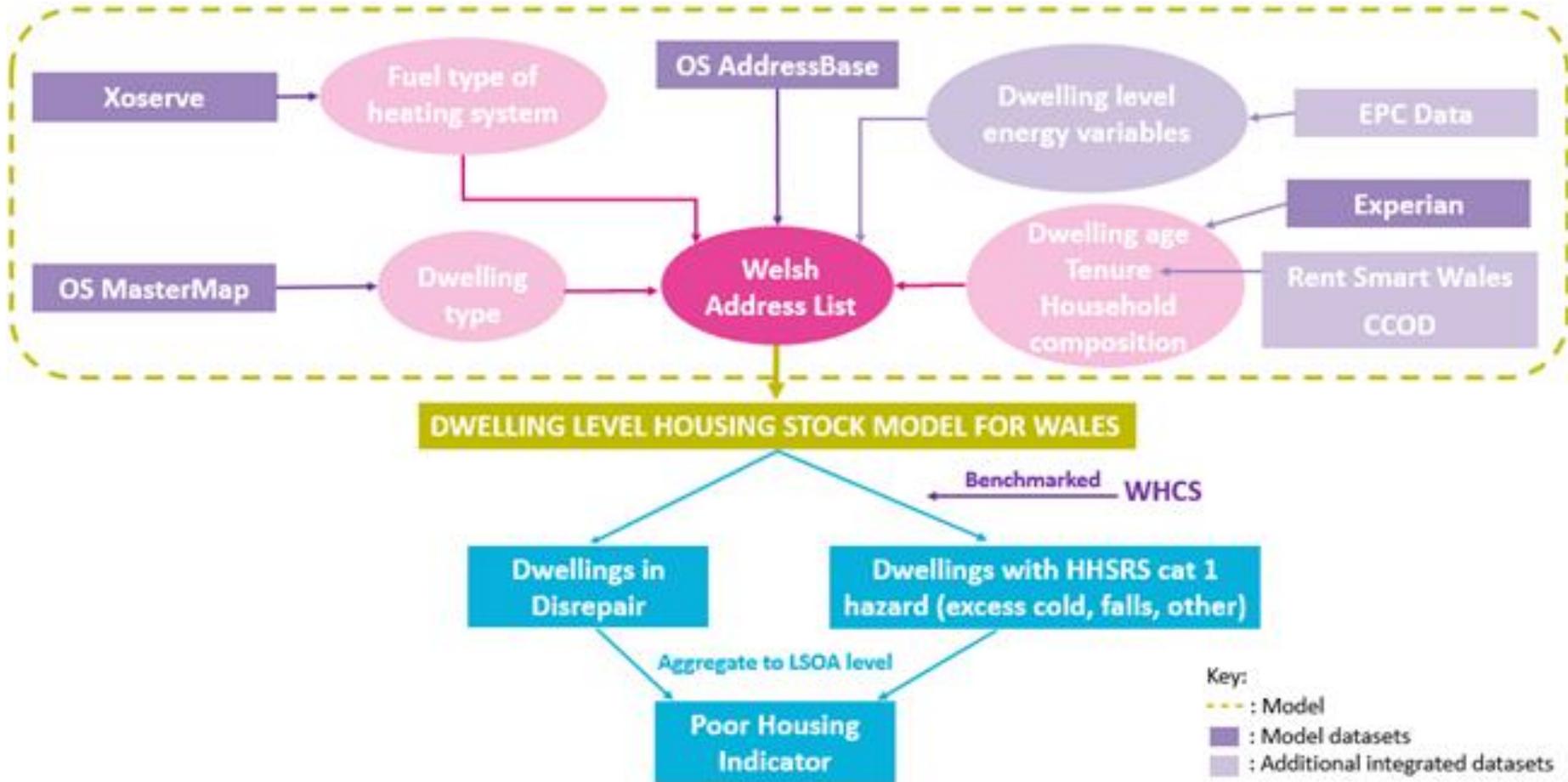


## Stage 1

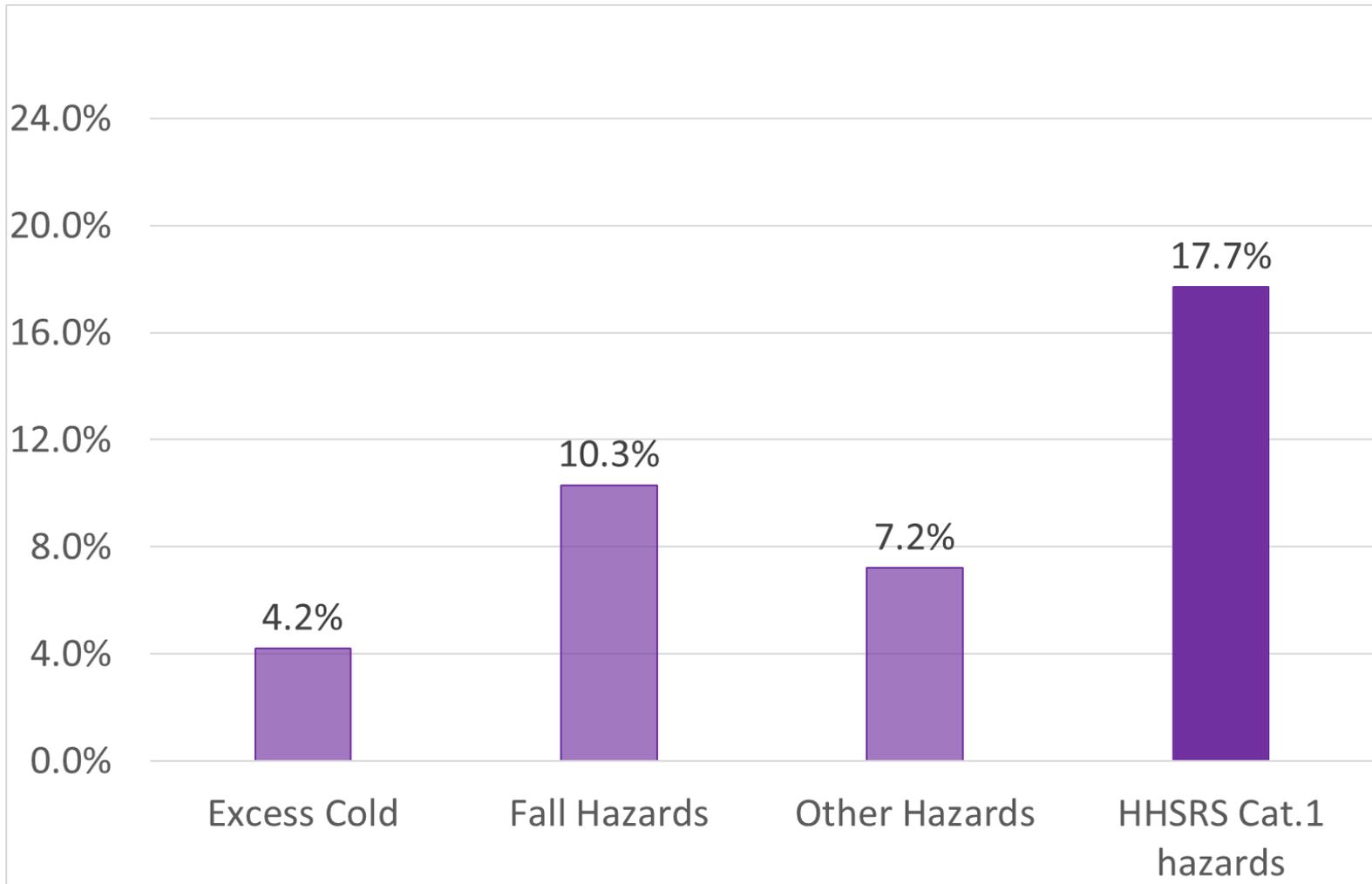
Available datasets in Wales were identified and evaluated for potential integration into the BRE Housing Stock Model:

- Energy Performance Certificate (EPC) data
  - 583,389 (88%) of the available EPC records matched, covering 40% of the residential dwellings
- Rent Smart Wales data
  - 165,161 (94%) records matched, 11% of residential dwellings in Wales
- Commercial and Corporate Ownership Database (CCOD) and Overseas Commercial Ownership Database (OCOD)
  - 124,938 social rented addresses identified, 8% of residential dwellings in Wales

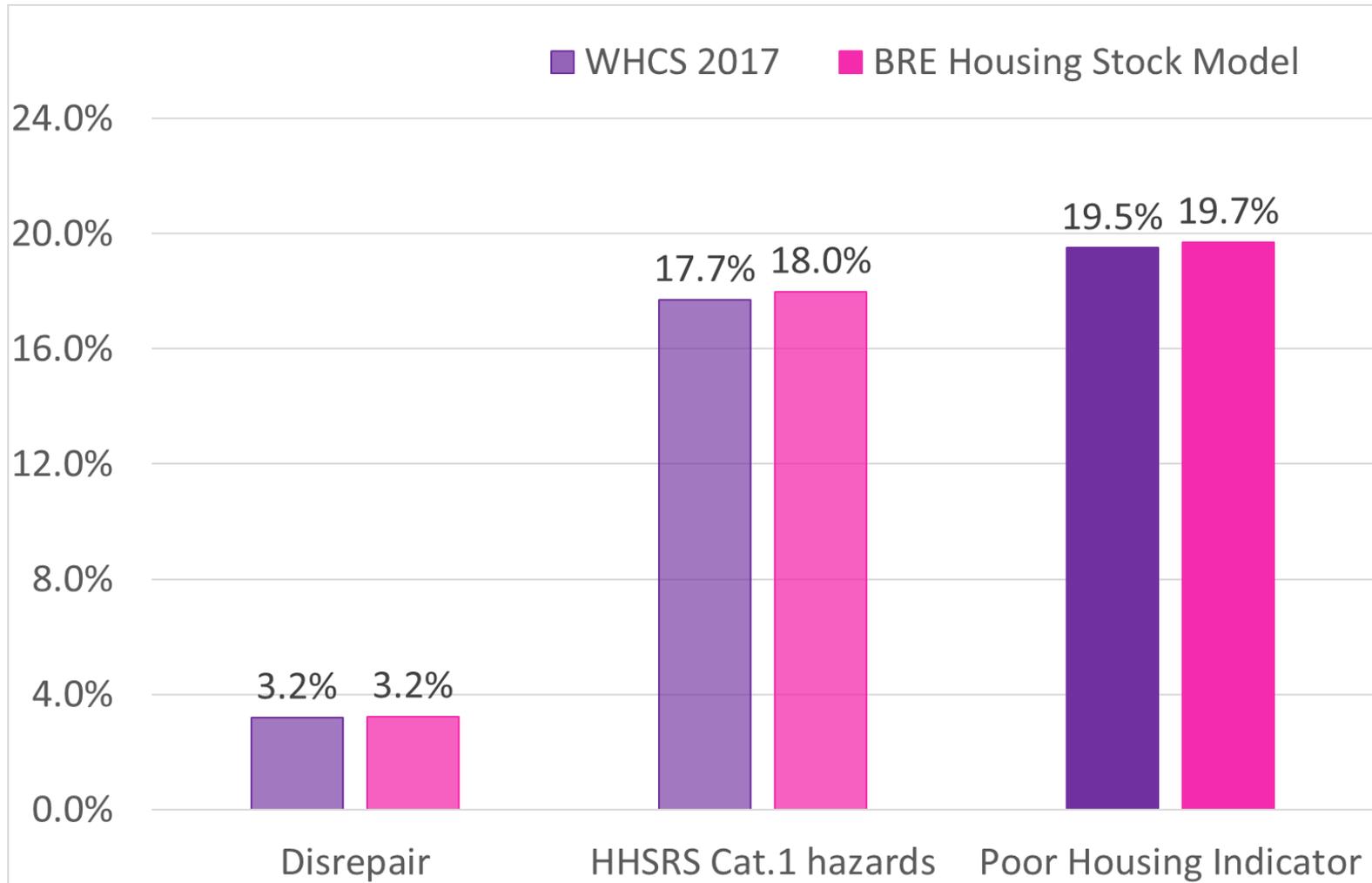
# WIMD Poor Housing Indicator



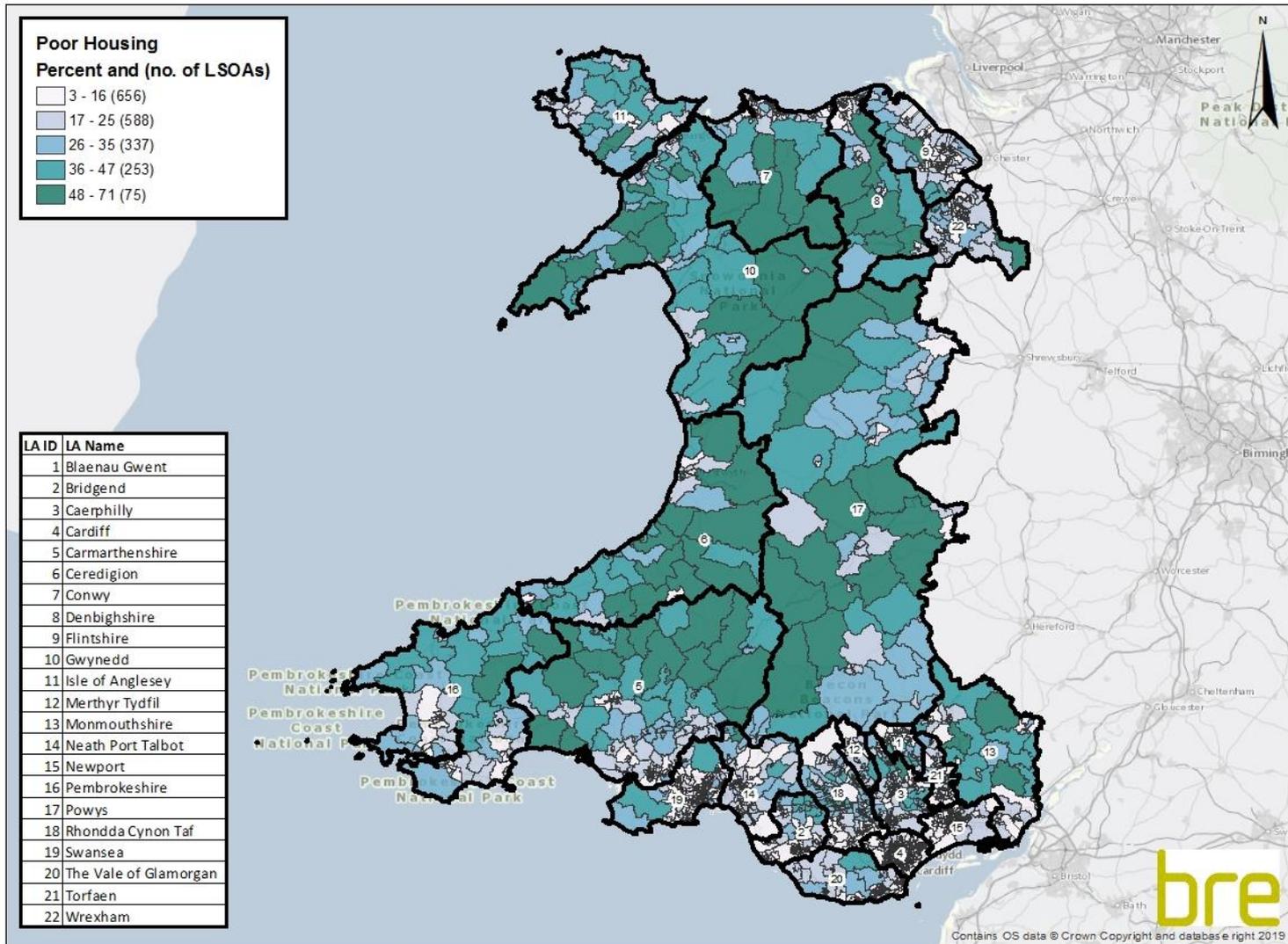
## HHSRS Category 1 Hazards



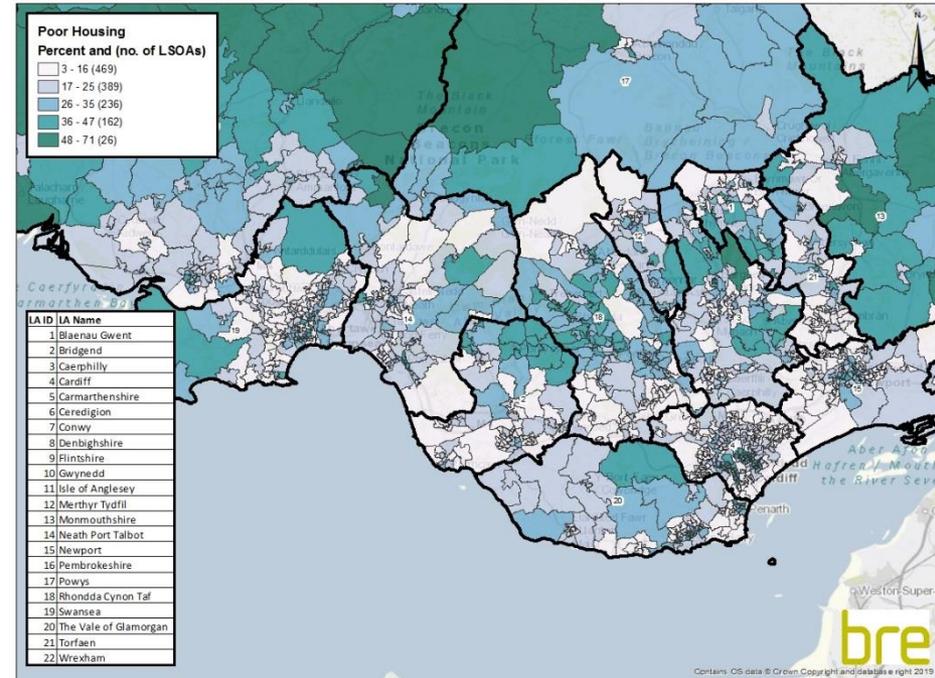
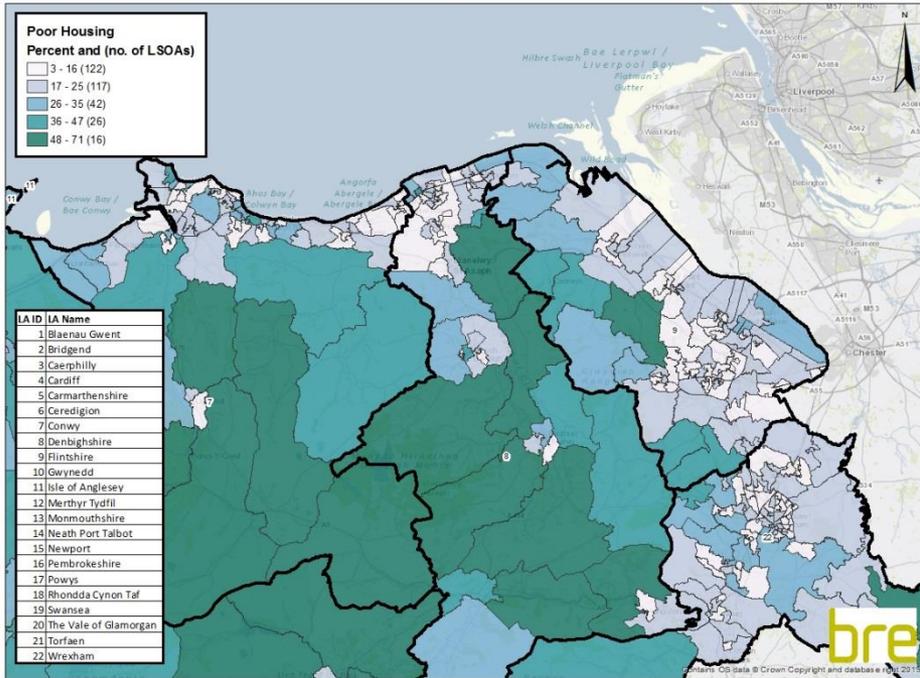
## Poor Housing Indicator



# WIMD Poor Housing Indicator



# WIMD Poor Housing Indicator





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# Canlyniadau y maes tai

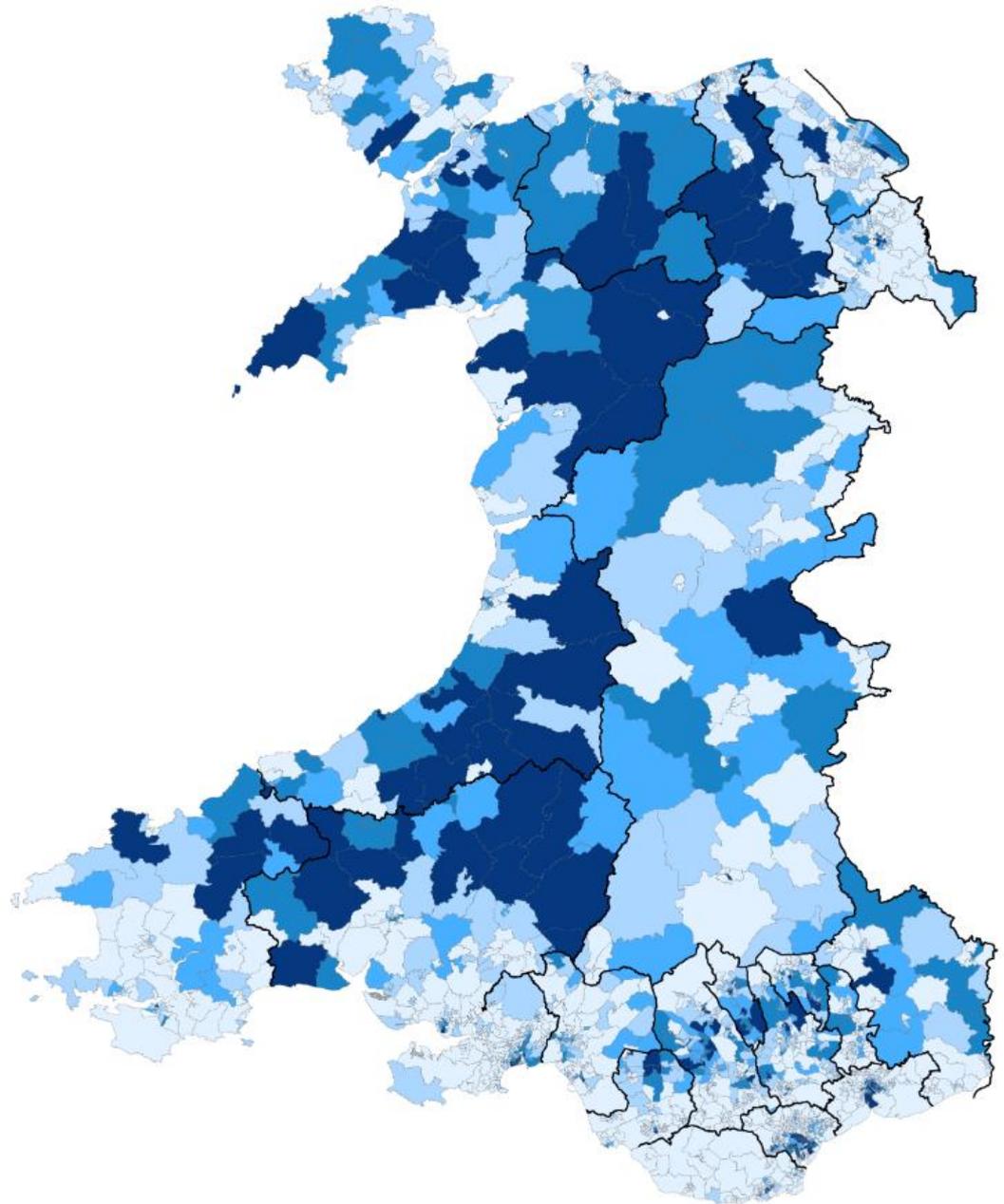
## Housing domain results

## Maes Tai

Roedd pocedi o amddifadedd uchel o ran tai yn ninasoedd a chymoedd y De, yn ogystal ag yn y Gorllewin a'r Gogledd

## Housing domain

There were pockets of high housing deprivation in the South Wales cities and valleys, as well as in West and North Wales.



# Maes Tai

- Yr awdurdod lleol â'r gyfran uchaf o ardaloedd yn y 10% mwyaf difreintiedig yng Nghymru oedd Ceredigion (28.3%, neu 13 o ardaloedd):
  - ardaloedd mewn pentrefi gwasgaredig gyda thebygoliaeth gymharol uchel o gael tai o ansawdd gwael
  - ardaloedd mewn trefi sydd â chyfraddau cymharol uchel o orlenwi
- Ar gyfer y maes tai, yr ardal fwyaf difreintiedig yng Nghymru oedd Grangetown 9, Caerdydd.
- Sylwer, oherwydd y SATC, mewn ardaloedd lle mae cyfran uchel o dai cymdeithasol, mae'r data a fodelwyd yn tueddu i ddangos llai o debygolrwydd o dai o ansawdd gwael.

# Housing domain

- The local authority with the highest proportion of areas in the most deprived 10% was Ceredigion (28.3%, or 13 areas):
  - areas in sparse villages with relatively high likelihood of poor quality housing
  - areas in towns with relatively high overcrowding rates
- The most deprived area in Wales was Grangetown 9 in Cardiff.
- Note that, due to WHQS, in areas where there is a high proportion of social housing, the modelled data tends to show a lower likelihood of poor quality housing.

# Maes Tai – gair i gall

- Dyma'r tro cyntaf i ddata wedi'u modelu cael eu defnyddio ar gyfer unrhyw faes ym MALIC.
- Mae'r ymarfer hwn wedi gwella'r ystod o wybodaeth ar dai sydd ar gael yn yr ardal leol.
- Mae yna gyfyngiadau posibl o ran adlewyrchu effaith ymyriadau diweddar neu newidiadau eraill.
- Wrth lywio penderfyniadau, dylid defnyddio data wedi'u modelu ochr yn ochr â data neu wybodaeth leol, gadarn a diweddar le bynnag y bo'n bosibl.
- Os daw dewisiadau amgen i ddangosydd tai enghreifftiol ar gael, bydd y rhain yn cael eu harchwilio ar gyfer mynegeion y dyfodol.

# Housing domain - caveats

- This is the first instance of using modelled data in any domain of WIMD.
- This exercise has improved the range of information on housing available at the local area.
- There are possible limitations in reflecting the impact of recent housing interventions or other changes.
- If informing decisions, modelled data should be used alongside robust, up-to-date local data or intelligence wherever possible.
- If alternatives to a modelled housing indicator become available these will be explored for future indices.



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## Ewch i...

- 1) Tudalennau MALIC [llyw.cymru/mallic](http://llyw.cymru/mallic) am ganlyniadau, gwybodaeth dechnegol a chanllawiau
- 2) Gwefan mapio rhyngweithiol [mallic.llyw.cymru](http://mallic.llyw.cymru) i archwilio mapiau a dadansoddiadau ardal yn seiliedig ar feysydd MALIC 2019
- 3) [Gwefan StatsCymru](http://Gwefan StatsCymru) ar gyfer safleoedd y mynegai a'r meysydd, a data dangosyddion ar gyfer ystod o grwpiau

## Go to...

- 1) WIMD pages [gov.wales/wimd](http://gov.wales/wimd) for results, technical information and guidance
- 2) WIMD interactive website [wimd.gov.wales](http://wimd.gov.wales) to explore maps and area analyses based on the WIMD 2019 Index and domain ranks
- 3) [StatsWales website](http://StatsWales website) for index and domain ranks and indicator data for a range of geography aggregations

# Llyw.cymru/mallic – gov.wales/wimd

## Reports



### WIMD 2019 results report

PDF 8 MB

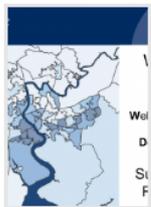
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### WIMD 2019 results infographic

PDF 3 MB

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### WIMD 2019 results summary

ODP 6 MB

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### WIMD 2019 guidance

PDF 529 KB

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### WIMD 2019 guidance presentation

ODP 4 MB

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### WIMD 2019 guidance infographic

PDF 596 KB

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### WIMD 2019 timetable of outputs

PDF 173 KB

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# Mallc.llyw.cymru - Wimd.gov.wales

## Welsh Index of Multiple Deprivation (WIMD) 2019

The official measure of relative deprivation for small areas in Wales

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[Domains](#)

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## Mynegai Amddifadedd Lluosog Cymru (2019)

Y dull swyddogol o fesur amddifadedd cymharol ar gyfer ardaloedd bach yng Nghymru

[Hafan](#)

[Ynglŷn â MALIC](#)

[Archwilio](#)

[Daearyddiaethau](#)

[Meysydd](#)

Chwilio



# StatsCymru - StatsWales

## Indicator Data by Lower Layer Super Output Areas - Housing Domain



Actions Chart



Revert



Link



Export



Print



Full Screen

Year ( 2019 )

Area Code

Year

Indicator

Housing

LSOA

People in overcrowded households (%)

Likelihood of poor quality housing (%)

Likelihood of housing containing serious hazards (%)

Likelihood of housing being in disrepair (%)

Wales

Aberaeron

Aberporth 1

Aberporth 2

Aberteifi/Cardigan - Mwldan

Aberteifi/Cardigan - Rhyd-y-Fuwch

Aberteifi/Cardigan - Teifi

Aberystwyth Bronglais

Aberystwyth Canol/Central

5.53

3.44

3.86

6.45

2.71

6.40

12.52

5.92

11.81

19.7

36.6

39.3

26.3

13.8

25.6

22.0

32.0

31.2

18.0

33.9

37.5

24.7

13.0

23.2

20.7

29.1

28.5

3.2

4.9

3.3

2.2

2.1

4.6

4.0

6.2

6.3



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# Cyswllt

# Contact

[ystadegau.cynhwysiant@llyw.cymru](mailto:ystadegau.cynhwysiant@llyw.cymru)

[stats.inclusion@gov.wales](mailto:stats.inclusion@gov.wales)