Llywodraeth Cymru
Welsh Government

Housing Conditions Evidence Programme

Welsh Housing Conditions Survey 2017-18

Glossary

The purpose of this document is to provide users with a glossary of terms used in the Welsh Housing Conditions Survey (WHCS) 2017-18. This is a live document and will be updated as and when additional terms are included in publications or amended as a result of user feedback.

Contents

Aids and Adaptations (age / disability / impairment related)

Often a minor adaptations to older and disabled people's homes can helping them to live safely and independently and can prevent the need for hospital admission or allow those who are in hospital to be discharged earlier. A range of questions are included on the WHCS survey form on whether or not the dwelling has adaptations and accessibility for disabled people. Questions include whether or not the dwelling is accessible to wheelchair users, if there is a room on the entry floor suitable for use as a bedroom and if the bathroom/WC is at entrance level. The surveyor is asked to note whether the dwelling has any adaptations for disabled people such as ramps, grab rails, stair lifts, hoists or electrical modifications (power points at appropriate height).

Bedroom standard

The 'bedroom standard' is used as an indicator of occupation density. A standard number of bedrooms is calculated for each household in accordance with its age/sex/marital status composition and the relationship of the members to one another. A separate bedroom is allowed for each married or cohabiting couple, any other person aged 21 or over, each pair of adolescents aged 10-20 of the same sex, and each pair of children under 10. Any unpaired person aged 10-20 is notionally paired, if possible, with a child under 10 of the same sex, or, if that is not possible, he or she is counted as requiring a separate bedroom, as is any unpaired child under 10.

This notional standard number of bedrooms is then compared with the actual number of bedrooms (including bed-sitters) available for the sole use of the household, and differences are tabulated. Bedrooms converted to other uses are not counted as available unless they have been denoted as bedrooms by the respondents; bedrooms not actually in use are counted unless uninhabitable. Households are said to be overcrowded if they have fewer bedrooms available than the notional number needed. Households are said to be under-occupying if they have two or more bedrooms more than the notional needed.

Boiler type

Standard: provides hot water or warm air for space heating with the former also providing hot water via a separate storage cylinder.

Back: Located behind a room heater and feeds hot water to a separate storage cylinder. They are generally less efficient than other boiler types.

Combination: Provides hot water or warm air for space heating and can provide hot water on demand negating the need for a storage cylinder, therefore requiring less space.

Condensing: Standard and combination boilers can also be condensing. A condensing boiler uses a larger, or dual, heat exchanger to obtain more heat from burning fuel than an ordinary boiler, and is generally the most efficient boiler type.

Construction date

The date of construction of the oldest part of the building. If a dwelling has a large later extension or been partially rebuilt, the surveyor records the age of the oldest part even if it accounts for less than half of the area of the dwelling. Where possible, the surveyor uses any definite information

available, for example a date from a wall plaque or reliable owner information. If there is no clear indication of an exact date the surveyor uses their judgement to make an estimation.

If a dwelling has been converted from its original use, for example from a barn or warehouse, then the surveyor records the construction date of the barn or warehouse not the date of conversion from non-residential use (this is recorded elsewhere on the survey form).

Cavity Wall insulation

See Insulation

Damp and mould:

Rising damp: Where the surveyor has noted the presence of rising damp in at least one of the rooms surveyed during the physical survey. This is the result of defective or missing damp proof coursing in walls and damp proof membranes in floors, leading to water leaching into the building fabric.

Penetrating damp: Where the surveyor has noted the presence of penetrating damp in at least one of the rooms surveyed during the physical survey. This is usually the result of leaks caused by defects in building components, such as damage to the walls or roof covering, water ingress due to damaged seals on doors or windows or damp as a result of leaks from internal plumbing.

Condensation or mould: This is the build-up of water vapour (moisture) inside a dwelling, which condenses on cold surfaces such as windows and walls. It may be the result of insufficient or ineffective ventilation. Virtually all dwellings have some level of condensation. Only serious levels of condensation or mould are considered as a problem, namely where there are extensive patches of mould growth on walls and ceilings and/or mildew on soft furnishings.

Dependent children

Any person aged 0 to 15 in a household (whether or not in a family) or a person aged 16 to 18 in full-time education and living in a family with their parent(s) or grandparent(s). It does not include any people aged 16 to 18 who have a spouse, partner or child living in the household.

Dwelling

A unit of accommodation which may comprise one or more household spaces (a household space is the accommodation used or available for use by an individual household). A dwelling may be classified as shared or unshared. A dwelling is shared if:

- the household spaces it contains are ‘part of a converted or shared house’, or
- not all of the rooms (including kitchen, bathroom and toilet, if any) are behind a door that only that household can use, and
- there is at least one other such household space at the same address with which it can be combined to form the shared dwelling.

Dwellings that do not meet these conditions are unshared dwellings.

Dwelling age

See Construction date.

Dwelling type

Dwellings are classified, on the basis of the surveyor's inspection, into the following categories:

- terraced house: a house forming part of a block where at least one house is attached to two or more other houses
- end terraced house: a house attached to one other house only in a block where at least one house is attached to two or more other houses.
- mid terraced house: a house attached to two other houses in a block
- semi-detached house: a house that is attached to just one other in a block of two
- detached house: a house where none of the habitable structure is joined to another building (other than garages, outhouses etc.)
- bungalow: a house with all of the habitable accommodation on one floor. This excludes chalet bungalows and bungalows with habitable loft conversions, which are treated as houses
- converted flat: a flat resulting from the conversion of a house or former non-residential building. Includes buildings converted into a flat plus commercial premises (such as corner shops).
- purpose built flat, low rise: a flat in a purpose built block less than six storeys high. Includes cases where there is only one flat with independent access in a building which is also used for non-domestic purposes
- purpose built flat, high rise: a flat in a purpose built block of at least six storeys high

Energy efficiency rating

See Standard Assessment Procedure (SAP) Rating

Energy efficiency rating band (EER)

See Standard Assessment Procedure (SAP) Rating

Environmental Impact (EI) rating

See Standard Assessment Procedure (SAP) Rating

Heating system

There are three main types of heating covered in the WHCS:

- central heating system: most commonly a system with a gas fired boiler and radiators which distribute heat throughout the dwelling (but also included in this definition are warm air systems, electric ceiling/underfloor and communal heating). It is generally considered to be a cost effective and relatively efficient method of heating a dwelling. Communal systems use heat generated in a centralized location for residential space and water heating. This could be from
    - a central boiler using any fuel which supplies a number of dwellings
    - waste heat from power stations distributed through community heating schemes
    - heat from a local CHP (combined heat and power) system
- storage heaters: predominately used in dwellings that have an off-peak electricity tariff. Storage heaters use off-peak electricity to store heat in clay bricks or a ceramic material, this heat is then released throughout the day. However, storage heating can prove expensive if too much on peak electricity is used during the day.
- room heaters: this category includes all other types of heaters such as fixed gas, fixed electric or portable electric heaters. This type of heating is generally considered to be the least cost effective of the main systems and produces more carbon dioxide emissions per kWh.

Household

A Household is one person living alone, or a group of people, who may or may not be related, living at the same dwelling, who share at least one living or sitting room and/or have regular arrangements to share at least one meal a day.

Household Reference Person (HRP)

The person in whose name the dwelling is owned or rented. If jointly owned or rented it is the person who earns the most. If incomes are equal, it is the eldest.

Household type

The main classification of household type uses the following categories:

- Pensioner couple - a couple where one or more of the adults are of State Pension age or over.
- Single pensioner - single adult of State Pension age or over.
- Couple with children - a non-pensioner couple with dependent children.
- Couple without children - a non-pensioner couple with no dependent children.
- Single adult with children - a non-pensioner single adult with dependent children.
- Single adult without children - a non-pensioner single adult with no dependent children.
- 3 or more adults with children – three or more adults with dependent children.

- 3 or more adults without children - related – three or more adults with no dependent children, who are related to each other.
- 3 or more adults without children - not related – three or more adults with no dependent children, who are not related.
- Other households.

Housing Health and Safety Rating System (HHSRS)

The Housing Health and Safety Rating System (HHSRS or Rating System) replaced the Fitness Standard in law, in 2006. The principle behind HHSRS is that a dwelling should provide a safe and healthy living environment for both the occupants and any visitors.

The HHSRS determines whether a hazard exists that may cause harm to the health and safety of a potential occupant who is most vulnerable to that hazard. For instance, stairs are a greater risk to older people and the very young so when assessing hazards associated with stairs they are considered the most vulnerable group. The HHSRS assesses 29 types of housing hazard and provides a rating for each one. Those which score high on the scale (and are therefore the greatest risk) are called Category 1 hazards – if, after a local authority inspection, a dwelling contains a Category 1 hazard the local authority has a duty to take the appropriate enforcement action. Those that fall lower down the scale and pose a lesser risk are called Category 2 hazards – when these occur the local authority may take enforcement action. Local authorities now base all enforcement decisions, in respect of residential premises, on HHSRS assessments. The hazard types are the same for both Categories 1 and 2. Any element categorised with a HHSRS Category 1 Hazard would automatically result in the dwelling 'Failing' the Welsh Housing Quality Standard (WHQS).

The WHCS assessed 26 of the 29 potential hazards. 6 of the hazards were measured directly in the survey, 16 were only flagged up in case of extreme risk and a further 4 were modelled using WHCS data or other data. The hazards that were not measured are those that are extremely unlikely to occur. A list of the hazards and their measured/modelled status is given below.

	Hazard	**How assessed**	**Specified vulnerable age group**
1	Excess cold	Modelled	Age 65 or over
2	Falling on level surfaces	Fully measured	Age 60 or over
3	Falling on stairs etc.	Fully measured	Age 60 or over
4	Radiation	Modelled	None
5	Collision and entrapment	Flagged if an extreme risk	Age under 5
6	Flames, hot surfaces etc.	Fully measured	Age under 5
7	Crowding and space	Modelled	None
8	Fire	Fully measured	Age 60 or over

9	Dampness and mould growth	Fully measured	Age under 14
10	Entry by intruders	Flagged if an extreme risk	None
11	Falls associated with baths	Flagged if an extreme risk	Age 60 or over
12	Noise	Flagged if an extreme risk	None
13	Falling between levels*	Fully measured	Age under 5
14	Food safety	Flagged if an extreme risk	None
15	Electrical safety	Flagged if an extreme risk	Age under 5
16	Carbon monoxide and fuel combustion products	Flagged if an extreme risk	Age 65 or over
17	Personal hygiene, sanitation and drainage	Flagged if an extreme risk	Age under 5
18	Explosions	Flagged if an extreme risk	None
19	Position and operability of amenities etc.	Flagged if an extreme risk	Age 60 or over
20	Structural collapse and falling elements	Flagged if an extreme risk	None
21	Excess heat	Flagged if an extreme risk	Age 65 or over
22	Asbestos (and MMF)	Not assessed	None
23	Biocides	Not assessed	None
24	Lead	Modelled	Age under 3
25	Uncombusted fuel gas	Flagged if an extreme risk	None
26	Volatile organic compounds	Not assessed	None
27	Lighting	Flagged if an extreme risk	None
28	Domestic hygiene pests and refuse.	Flagged if an extreme risk	None
29	Water supply	Flagged if an extreme risk	None

Insulation

cavity walls: where a dwelling has external walls of predominantly cavity construction, it is defined as having cavity wall insulation if at least 50% of the cavity walls are filled with insulation. This could have been fitted during construction or retrospectively injected between the masonry leaves of the cavity wall.

solid walls: where a dwelling has external walls of predominantly masonry solid construction, it is defined as having solid wall insulation if at least 50% of the solid walls are fitted with insulation.

This could be applied either externally (e.g. insulated board attached to the external face with a render finish) or internally (e.g. insulated plasterboard fitted to the external walls inside each room, with a plaster finish).

other walls: these are any dwellings with predominantly non-cavity or masonry solid walls (e.g. timber, metal or concrete frames).

loft insulation: the presence and depth of loft insulation is collected for all houses and top-floor flats. Insulation could be found between joists above the ceiling of the top floor of the dwelling or between the roof timbers where the loft has been converted to a habitable space. Where insulation could not be observed, information was taken from the householder or from imputed estimates based on the age and type of the dwelling.

Local Area

The local area is defined as the 'area around the dwelling of which the dwelling seems to be part'. The survey dwelling will not necessarily be at the centre of the area.

Low Energy Lighting

Low Energy Lighting includes strip lights as well as modern low energy light bulbs.

Non-dependent children

Any person aged over 18 or those aged 16-18 who are not in full-time education living in a family with his or her parent(s) or grandparent(s).

Occupancy

The surveyor notes whether the dwelling is occupied or vacant, and the length of time of this. The surveyor also notes their source of information on the dwelling's occupancy.

Overcrowding

Households are said to be overcrowded if they have fewer bedrooms available than the notional number needed according to the bedroom standard definition. See bedroom standard.

Renewables

Renewables includes solar panels, solar photovoltaics, heat pumps, biomass fuel and wind turbines:

Solar Panels

Solar water heating panels are used to harness the sun's energy in order to heat water. This is done by having panels exposed to the sun (generally on the rood) connected to a hot water storage device. Fluid (usually water or anti-freeze depending on the system) is heated within the panel by the sun and then flows through the system and passed through a coil within the hot water storage device, heating the water within this tank.

There is no fixed size of solar water heating panel, with the size dependant on the manufacturer, the type of panel and in some cases the system itself.

Solar Photovoltaic (PV) Panels

Solar panel electricity systems, also known as photovoltaics (PV), capture the sun's energy using photovoltaic cells. These cells don't need direct sunlight to work – they can still generate some electricity on a cloudy day. The cells convert the sunlight into electricity, which can be used to run household appliances and lighting.

Heat pumps

A ground water or air source heat pump transfers heat by evaporating and condensing an internal refrigerant. Heat is exchanged from the external surrounding and exchanged to the dwelling's heating distribution system. Heat pumps are powered by electricity though it is only used to pump the refrigerant around the loop. The heat energy is actually gained from the ground (in the case of a ground source heat pump). It is possible to have a heat pump for water heating only.

Biomass Fuel

The term biomass is used to refer to any fuel which is considered 'low carbon', which is derived from living or recently living organisms (ie. not fossil fuels). Examples include energy crops, coppiced wood, straw and animal waste.

Wind Turbines

Wind turbines harness the power of the wind and use it to generate electricity. Wind turbines use large blades to catch the wind. When the wind blows, the blades are forced round, driving a turbine which generates electricity. The stronger the wind, the more electricity produced.

There are two types of domestic-sized wind turbine:

- Pole mounted: these are free standing and are erected in a suitably exposed position, with generation capacity of about 5 to 6 Kilowatt (kW).
- Building mounted: these are smaller than mast mounted systems and can be installed on the roof of a home where there is a suitable wind resource. Often these are around 1kW to 2kW in size

Standard Assessment Procedure (SAP)

The SAP rating is based on the energy costs that would be associated with running the dwelling. Standard running conditions and the gross floor area (m2) are taken into account, to ensure that dwellings of different sizes can be compared. The ratings are expressed on a scale between 1 and 100, where 100 represents no energy cost. In some cases a dwelling can achieve a rating of more than 100, but this is reserved for dwellings which export energy and make a net profit. The 'SAP 2012' methodology is used.

SAP ratings are divided into bands from A to G. The highest values (i.e. the highest levels of energy efficiency) are assigned to band A and the lowest values are assigned to band G. The

bandings are shown in the table below. The same bandings are used for Environmental Impact (EI) ratings.

SAP or EI Band	SAP or EI Rating
A	92+
B	81-91
C	69-80
D	55-68
E	39-54
F	21-38
G	1-20

Environmental Impact (EI) rating

The EI rating is based on the dwelling's impact on the environment in terms of CO2 emissions associated with running the dwelling. Standard running conditions and the gross floor area (m2) are taken into account to ensure that dwellings of different sizes can be compared. The EI rating is expressed on a scale of 1 to 100, where 100 represents a carbon neutral dwelling. EI ratings are divided into bands from A to G using the same bands as SAP ratings.

Structural Defects

1. Roof spreading
2. Sulphate attack
3. Unstable parapet
4. Wall bulging
5. Differential movement
6. Roof sagging
7. Roof humping
8. Lintel failure
9. Wall tie failure
10. Unstable floors, stairs or ceilings
11. Dry rot/Wet rot
12. Wood-borer infestation
13. Adequacy of balconies / projections
14. Foundation settlement
15. Integrity of structural frame

16. Integrity of wall panels

17. Boundary wall - unsafe height

18. Boundary wall - out of plumb

19. Boundary wall - horizontal cracking

20. Unstable retaining wall

21. Any other problems

Tenure

The following categories are used for most reporting purposes:

- owner occupiers: includes outright owners, those buying with a mortgage or as part of a shared ownership scheme. Includes anyone who is buying their home from a housing association.
- social rented: includes households renting from Local Authorities (including Arms' Length Management Organisations (ALMOs) and Housing Action Trusts) and Housing Associations, Local Housing Companies, cooperatives and charitable trusts.
- private rented: renting from a private landlord, private company, other organisation, relative or friend. This sector covers all other tenants including all whose accommodation is tied to their job. It also includes people living rent-free (for example, people living in a flat belonging to a relative).

Under-occupation

Households are said to be under-occupying their property if they have two or more bedrooms more than the notional number needed according to the bedroom standard definition. See bedroom standard.

Urban/Rural

As defined by the ONS. Urban combines the urban and town categories and rural combines the villages and isolated dwellings and hamlets.

Vacant properties

The WHCS does not include vacant properties.

Vulnerable Households

Vulnerable households are defined as those with a person aged 60 years or over, a child or young person under the age of 16 years and/or a person who has a long term limiting condition.

Welsh Housing Quality Standard (WHQS)

The Welsh Housing Quality Standard states that all households should have the opportunity to live in good quality homes that are:

- In a good state of repair.

- Safe and secure.
- Adequately heated, fuel efficient and well insulated.
- Contain up-to-date kitchens and bathrooms.
- Well managed.
- Located in attractive and safe environments.
- As far as possible suit the specific requirements of the household, (e.g. specific disabilities).

This release looks at an assessment of some elements of the Welsh Housing Quality Standard (WHQS) as measured by the Welsh Housing Conditions Survey 2017-18.