

Welsh Housing Conditions Survey 2017-18 Technical Report

Author:

Chris Beer
Senior consultant
BRE

For further information please contact:

Abi Woodham
Welsh Housing Conditions Survey lead
Welsh Government
0300 025 1053
stats.housingconditions@gov.wales

Executive Summary

The Welsh Housing Conditions Survey (WHCS) 2017-18 is the first national housing conditions survey in Wales since the Living in Wales Property Survey 2008. The purpose of the survey was to provide an estimate of the condition and energy efficiency/performance of the housing stock in Wales. The survey covers all types of housing and all tenures; but not vacant properties. BRE carried out the survey on behalf of the Welsh Government and was responsible for the management, surveyor field force and administration of the WHCS and for the production of this technical report.

The WHCS is one aspect of the Welsh Governments 'Housing Conditions Evidence Programme' which is a strategic programme of investment in evidence about the housing condition and energy efficiency / performance of housing in Wales. It will help support future policy and investment decisions made by both the Welsh Government and local agencies.

In particular data collected from the survey is used by the Welsh Government to monitor the changing condition of the housing stock in Wales, and to measure work being undertaken to the stock. The WHCS also provides a major source of information for the Welsh Government for the development of and monitoring of housing policies directed at the repair, improvement and energy efficiency of the housing stock, covering both the private and public sectors.

The WHCS is designed to collect a range of information on the housing stock, including dwelling conditions in relation to the Housing, Health and Safety Rating System (HHSRS) and the Welsh Housing Quality Standard (WHQS), the state of repair and provision of amenities, energy efficiency statistics, the potential for future energy improvements as well as recording other attributes such as plot and the local environment.

The survey takes its sample from the National Survey for Wales (NSW) which is run on behalf of the Welsh Government by the Office of National Statistics (ONS).

A sample of **3,286** addresses was selected from eligible cases from the National Survey for Wales where a consent to a physical survey had been gained. The sample was selected to cover a range of tenures and dwelling types across Wales and all were occupied at the time of selection. Prior to the WHCS taking place all addresses had a household interview conducted as part of the National Survey for Wales. This included questions on the household income and household costs to help calculate Fuel Poverty statistics.

44 surveyors working to 4 regional managers were recruited by BRE, attended a surveyor briefing in June 2017 and began fieldwork on the WHCS in August 2017. Fieldwork lasted for 9 months and concluded as planned at the end of April 2018. Surveyors carried out an internal and external assessment of the property as well as recording information about the plot and local area. The data was collected using a digital pen and a paper survey form, printed with Anoto technology. Survey data was uploaded to a website hosted by BRE where complex validation was undertaken and photographs added.

There were no major incidents during the fieldwork period and a total of **2,552** full surveys were completed across the 22 local authorities of Wales. A conversion rate of **77.7%** was achieved by the BRE surveyors and a response (consent rate) of **58%** by the National Survey for Wales Interviewers.

The survey data was validated, processed and run through data Models by BRE before being sent to Welsh Government in August 2018 for analysis and reporting.

Table of Contents

1	Introduction	7
1.1	Background	7
1.2	Role of the Welsh Government	8
1.3	Role of BRE	9
1.4	Role of ONS	10
2	Sampling	11
2.1	Process	11
2.2	First Impressions	12
2.3	CAPI	12
2.4	Sift rate	12
3	National Survey for Wales	14
3.1	Background	14
3.2	Income / Housing Cost questions	14
3.3	Interviewer briefings	14
4	Methodology	15
4.1	Form design	15
4.2	ONS CAPI	15
4.3	Digital data collection tools	17
4.3.1	Digital pen	17
4.3.2	WHCS software	18
4.4	Survey form development and testing	19
4.5	Surveyor website	19
4.6	Validation system	20
5	Pilot	22
5.1	Findings and recommendations	22
5.2	Conclusions	26
6	Regional Managers	27
6.1	Recruitment	27
6.2	Responsibilities	27
6.3	Regions	27
6.4	Contract and fees	28
7	Surveyors	29

7.1	Recruitment	29
7.2	Distance learning	30
7.3	Contract and fees	30
7.4	Address allocation	30
7.5	Address reissue	31
7.6	Surveyor replacement	31
8	Survey materials	32
8.1	Briefing manual	32
8.2	ID badge	32
8.3	Missed appointment card	32
8.4	Signposting / Thank you leaflet	32
8.5	Barcodes	33
8.6	Respondent information leaflet	33
8.7	Clipboards	33
9	Helplines	34
9.1	Respondent / surveyor	34
9.2	BRE IT support	34
10	Surveyor briefing	35
10.1	Venue	35
10.2	Test houses	35
10.3	Surveyor packs	36
10.4	Presentations	36
10.5	Digital pen training	36
11	Fieldwork	37
11.1	Pilot period	37
11.2	Main fieldwork period	38
11.3	Surveyor management	38
11.4	Case management system	39
11.4.1	Mileage	40
11.4.2	Invoices	41
11.5	Booking appointments	41
11.6	Maximising responses	42
11.7	Welsh speaking respondents	42
11.8	Issues encountered during fieldwork	43
12	Response rates	44
12.1	Consent rate	44

12.2	Conversion rate	47
12.3	Use of Incentives	51
13	Weighting	52
13.1	Roles and responsibilities	52
13.2	Weighting strategy	52
13.2.1	Introduction	52
13.2.2	Design Weight	53
13.2.3	Non-response	53
13.2.4	Non-consent	54
13.2.5	Consent followed by decline	54
13.2.6	Calibration weight	54
13.2.7	Final weight	56
13.2.8	Person level weights	57
13.2.9	Summary	57
13.3	Design effects	57
14	Data processing	58
14.1	Editing	58
14.2	Derived variables	59
14.3	Imputation	60
14.4	Dataset	61
15	Data modelling	62
15.1	Dimensions	62
15.1.1	Raw physical file checks	62
15.2	Repair costs	66
15.2.1	Repair cost measures	66
15.2.2	What types of work are included and excluded?	67
15.2.3	Calculating repair costs	68
15.2.4	Dealing with missing data	69
15.2.5	Add-ons, uplifts, preliminaries and modifications to base costs	70
15.3	Energy efficiency	70
15.3.1	Main components of energy efficiency	70
15.3.2	Standard Assessment Procedure (SAP) of buildings' energy performance	73
15.3.3	Energy performance certificates (EPC)	75
15.3.4	Notional costs of installing the recommended EPC measures	78
15.3.5	Pre- and Post-improvement performance and costs	80
15.4	HHSRS	80
15.4.1	What is the HHSRS?	80
15.4.2	How does WHCS measure and model Category 1 hazards?	83
15.4.3	Costs to make safe	89
15.4.4	Data quality and reliability	90
15.5	WHQS	90
15.5.1	WHQS modelled through the WHCS	91

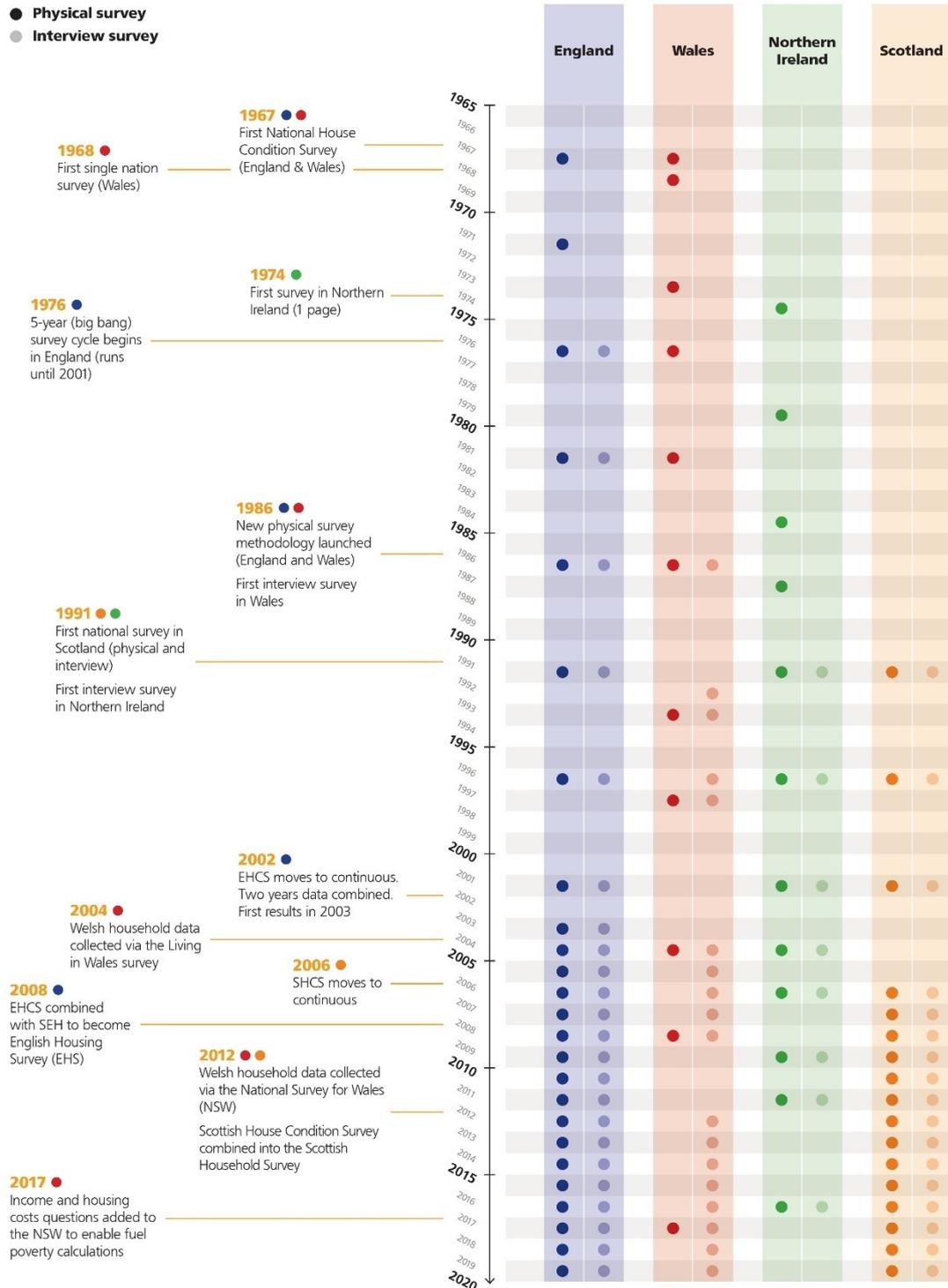
15.5.2	Pass criteria	92
15.5.3	Modelling process	92
15.5.4	Nominal occupancy	93
Appendix A	First Impression questions	94
Appendix B	WHCS Survey form – Page 1	96
Appendix C	Households questions in Welsh	97
Appendix D	ONS CAPI questions	99
Appendix E	Surveyor contract	102
Appendix F	Surveyor ID card	115
Appendix G	Missed appointment card	116
Appendix H	Thankyou – signposting leaflet	117
Appendix I	Sheet of barcode labels	119
Appendix J	Respondent leaflet	120
Appendix K	WHCS helpline log	122
Appendix L	WHCS briefing programme	123
Appendix M	WHCS briefing programme for EHS surveyors	124
Appendix N	Case management manual	125
Appendix O	WHCS surveyor invoice	175
Appendix P	WHCS Incentive voucher	176
Appendix Q	WHCS Derived variables – Physical.sav	177
Appendix R	WHCS fieldwork notice to the police	180
Appendix S	National Survey and WHCS fieldwork notice to Local Authorities	182
Appendix T	Modelling the WHQS individual elements	184
Appendix U	First Impression presentation	196

1 Introduction

1.1 Background

The 2017-18 Welsh Housing Conditions Survey (WHCS) is the eleventh in a series of such surveys going back to 1967-68.

Figure 1: UK National Housing Surveys Timeline



The first sample national housing survey in the world was the National House Condition Survey of England and Wales in 1967. This followed a report from the Government Central Housing Advisory Committee that recommended that “what was required was a national sample survey, scientifically designed and carried out by skilled investigators to provide reliable data on house conditions.”

Since 1967 all the four UK nations have moved into a cycle of measuring housing conditions through sample surveys and developing policies in response to the findings. 2017-18 is significant in that all four UK nations will have been in the field at a similar time and will be able to produce comparative statistics.

The 2017-18 WHCS methodology is similar to that used in the 2008 and 2004 Living in Wales surveys. So robust longitudinal comparisons of changing housing conditions can be made across time in Wales as well as being compared to other UK nations.

The WHCS is used by the Welsh Government to collect a wide range of information on the housing stock, including: repair costs; health and safety (HHSRS); the Welsh Housing Quality Standard; energy efficiency; fuel poverty; provision of amenities and services.

Information on the home and its condition is linked to information on the people who live there (the household) through the National Survey for Wales, of which the WHCS is a sub-sample.

A sample of 3,286 addresses was selected for survey from the National Survey for Wales and overall 2,552 full WHCS inspections were undertaken. The sample was selected to cover the full range of tenures, dwelling types and conditions across Wales. All were occupied at the time of selection.

The National Survey for Wales is undertaken by ONS, while BRE undertakes the WHCS. A separate [technical report](#) gives details of the National Survey for Wales.

The key requirements of the WHCS are to:

- Collect high quality data on the composition of the Welsh housing stock, the interior and external condition of the properties, including the plot and an assessment of the local area;
- To maximise response rates and deliver the required number of surveys within the timescale;
- Provide the Welsh Government with clean, high quality, fully documented data sets for analysis.

1.2 Role of the Welsh Government

The Welsh Government had overall responsibility for directing the WHCS. This was led by the Housing Conditions Evidence Programme (HCEP) team, with advice from a group of internal and external technical experts and governance from a Programme Board and Project Board. The main responsibilities of the HCEP Team included:

- Commissioning the survey
- Organising and minuting WHCS management meetings, monitoring progress against key milestones
- Setting requirements for, and agreeing, the survey form
- Agreeing the WHCS letters and leaflets to households
- Briefing surveyors on the purpose of the WHCS
- Taking action where necessary to achieve target survey uptake
- Producing data outputs and derived variable specifications

- Signing off final SPSS data sets
- Agreeing and paying BRE's invoices
- Depositing data at the UK Data Archive

1.3 Role of BRE

The WHCS was commissioned by the Welsh Government and conducted by BRE, with support from ONS around the areas of sampling and weighting.

The BRE project management of the WHCS has included the following tasks:

- Attending WHCS management meetings
- Agreeing the content and layout of the WHCS survey form, taking on board the requirements of the Welsh Government and ensuring consistency with the 2008 Living in Wales Survey and the current EHS
- Delivering the piloting of the 2017-18 WHCS survey form by the Regional Managers
- Producing and printing copies of the final survey form in Anoto format for digital pen completion
- Developing a digital pen system and survey website to enable submission of validated data
- Developing a web-based surveyor management system and provision of unique username and password details
- Producing the technical briefing manual to accompany the survey form
- Recruiting 43 surveyors to undertake the surveys
- Recruiting four Regional Managers to supervise the surveyors and ensure progress and quality
- Designing and delivering prequalification and learning material for surveyors
- Designing and delivering the residential training for surveyors
- Providing surveyors with their sample of addresses (with ONS)
- Providing surveyors with all of their equipment, including forms; pens; computer software; letters; property leaflets and vouchers
- Monitoring fieldwork progress
- Paying surveyors and regional managers
- Data validation and quality assurance
- Complex modelling of survey data to agreed specification
- Delivery of data outputs
- Weighting (with ONS)
- Pilot and Technical reports
- Submitting invoices to the Welsh Government for agreed outputs

1.4 Role of ONS

At the time of the WHCS, the Office for National Statistics (ONS) was the contractor responsible for conducting the National Survey for Wales (NSW). The National Survey for Wales involves face-to-face interviews with more than 11,000 randomly selected adults aged 16 and over. The survey covers a wide range of issues affecting people and their local area.

The responsibilities of ONS directly related to the WHCS are listed below.

- Providing the WHCS subsample from the National Survey for Wales sample
- Passing the details of consenting respondents to BRE on a weekly basis
- Monitoring and reporting on consent to the WHCS
- Collecting income and housing cost questions of the WHCS respondents
- Passing on a leaflet of information to consenting respondents on the WHCS
- Hosting ONS interviewer briefings across Wales
- Piloting the WHCS questions in the CAPI system
- Finalising the CAPI system hosting the WHCS questions
- Production of the WHCS weighting strategy and weights
- Attending WHCS progress meetings

2 Sampling

2.1 Process

The Welsh Government's specification for the Survey clearly stated the proposed sampling strategy. After project inception the HCEP team engaged BRE, ONS and the WHCS technical group over the proposed strategy to check on its suitability and robustness, and to discuss possible amendments. After discussions the Welsh Government decided to continue with the strategy outlined in the specification. The sampling for the WHCS 2017-18 was similar in design to the Living in Wales Property Survey 2004 and 2008.

The sample came from the National Survey for Wales 2017-18, which also provided:

- the associated household information needed to model fuel poverty (income, housing costs, energy payment method etc.); and
- respondents' views on a number of housing related topics that will add social context to the housing conditions data from the WHCS.

The National Survey for Wales is a face to face survey of over 11,000 people across Wales each year. The survey covers a range of topics with a focus on well-being and people's views on public services. Each year a sample of addresses are selected at random from the Postcode Address File, the Royal Mail's list of addresses, stratified by local authority. When interviewers make first contact with a household they select a random individual aged 16 or over to take part. Between July 2017 and March 2018, on their first visit to the address, the interviewer:

- made a basic assessment of the condition of the walls, windows and doors and the roof (if visible);
- rated each as having no, moderate or major signs of disrepair.

This information was then used to determine if the property was in good repair, moderate disrepair or major disrepair. Early in the National Survey for Wales interview the tenure of the property was established.

A property was deemed suitable for inspection if it was in moderate disrepair or major disrepair or if it was rented (regardless of whether this was privately or through a social landlord). This oversampling ensured sufficient numbers of these types of properties. A proportion of properties that were owner occupied and in no disrepair were also deemed suitable.

A property was eligible for inspection if it was deemed to be suitable and the selected individual, i.e. the respondent to the National Survey for Wales, was the Household Reference Person (HRP)¹ or their partner. In these cases consent to carry out an inspection was requested.

When a property was selected by the CAPI system to take part in the WHCS the respondent was asked a consent question at the appropriate point in the interview. The interviewer explained the purpose of the WHCS and provided the respondent with a leaflet ([Appendix J](#)) containing more information on the purpose of the WHCS and what to expect from the surveyor's visit.

The sample of respondents who agreed to take part in the WHCS was sent to BRE by ONS every Monday afternoon. The file was transferred securely and contained information to help the WHCS surveyor book a convenient appointment with the respondent. This included; the survey reference

¹ The Household Reference Person is the person in whose name the property 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.

number, name, address and contact details of respondents, preferred language and preferred time of the surveyor visit.

2.2 First Impressions

Upon visiting the dwelling the National Survey interviewer conducted a basic visual inspection of the external walls, windows & doors and roofs/roof structure in order to classify each element as “no evidence of disrepair”, “moderate disrepair” or “major disrepair”. This information was recorded by interviewers in the CAPI programme as they first approached the dwelling.

If any element was considered to have some disrepair and the respondent was the HRP or partner the property was deemed eligible to take part in the WHCS.

The ONS interviewers were trained on how to undertake the disrepair assessment by BRE and Welsh Government at the interviewer briefings held by ONS across Wales in March 2017. Briefing presentations and material were prepared by BRE in advance of these sessions and was signed off by Welsh Government and ONS. Simon Nicol (BRE) attended the first two briefing sessions in South Wales and was available to answer any interviewer queries on the first impression assessment. For the subsequent briefing sessions in Central and North Wales the Head of the HCEP team delivered this briefing after being present during the earlier sessions.

See [Appendix A](#) for more information.

2.3 CAPI

The National Survey for Wales included questions on the tenure of the household and indicated whether or not the respondent was the HRP or their partner. The respondent needed to be the HRP or partner in order to take part in the WHCS as they were required to answer questions on household income and housing costs.

The National Survey for Wales CAPI routing indicated which respondents were eligible to take part in the WHCS. All properties classified as “moderate disrepair” or “major disrepair” and all those in the private and social rented sectors were automatically selected by the CAPI routing. The remainder of the sample was made up of a random sample of owner-occupied properties with “no evidence of disrepair”.

The National Survey for Wales CAPI script selected the sample. If respondents consented to take part in the WHCS they were then asked a number of questions relating to their availability, preferred language and contact details. This information was recorded in the CAPI and uploaded to ONS. On a weekly basis, ONS sent BRE all data relating to the WHCS consenting respondents, so their surveyors were able to make contact and gain an appointment.

The development and testing of the National Survey for Wales CAPI is fully covered in the [National Survey for Wales 2017-18 Technical Report](#).

2.4 Sift rate

The WHCS sample included any rented property whether that be private or social, where the respondent was the HRP or partner as well as any property considered to be in some kind of disrepair, using the National Survey for Wales interviewers' First Impressions assessment, where the respondent was the HRP or partner. The rest of the sample was made up of owner-occupied properties in good condition where the respondent was the HRP or partner.

The number of owner occupiers in good condition in the sample was very high therefore a sift rate was introduced into the CAPI to limit the number of owner occupiers in good condition being routed

through to the consent question, while still allowing the target of 2,500 surveys to be achieved. For the start of fieldwork this was set at 30% based on information from the pilot survey but as consent rates remained low through the first two months of the fieldwork period the project team felt it was necessary to increase this to 60%. The sift rate stayed at this level for the remainder of the fieldwork period.

3 National Survey for Wales

3.1 Background

The National Survey for Wales is a face to face survey of over 11,000 people across Wales each year. The survey covers a range of topics with a focus on well-being and people's views on public services. Each year a sample of addresses are selected at random from the Postcode Address File, the Royal Mail's list of addresses, stratified by local authority. When interviewers make first contact with a household they select a random individual aged 16 or over to take part. The results are used by the Welsh Government to help make Wales a better place to live. They help to:

- make decisions that are based on sound evidence
- monitor changes over time
- identify areas of good practice that can be implemented more widely
- identify areas or groups that would benefit from intensive local support, so action can be targeted as effectively as possible.

The sample for the WHCS was taken from the National Survey for Wales 2017-18, as discussed in Chapter 2. Further details on the National Survey for Wales can be found on the survey [webpages](#).

3.2 Income / Housing Cost questions

The National Survey for Wales 2017-18 included some housing related questions for the duration of fieldwork (April 2017 – March 2018). Income, housing costs and energy payment method questions were included in the survey for the last three quarters of the survey year (June 2017 to March 2018). The income and housing costs questions were asked of all HRP /Partner respondents regardless of eligibility for an inspection. This data is needed by the Welsh Government so that Fuel Poverty estimates can be generated.

Shortly after project inception the HCEP team sought the advice of BRE on specific questions to include in the National Survey for Wales questionnaire. Welsh Government had already [cognitively tested](#) a number of income questions and shared the results with BRE. The minimum requirement was to collect sufficient and suitable data to enable Welsh Government to report on progress against its [Fuel Poverty Strategy 2010](#) and to produce fuel poverty estimates that are comparable to those produced from the Living in Wales Property Survey 2008 in order to track change.

These requirements were discussed in February and March 2017. BRE put forward its recommendations for which questions to include to meet the above requirements while also keeping the survey length to a minimum. The set of questions were agreed in time for ONS to programme them into the CAPI script for the start of June 2017. The full questionnaire and development and testing of the questions and CAPI is fully covered in the [National Survey for Wales 2017-18 Technical Report](#) and the survey [webpages](#).

3.3 Interviewer briefings

BRE staff attended the National Survey for Wales interviewer briefing in South Wales in March 2017 to support the Welsh Government and ONS in introducing the Welsh Housing Conditions Survey. BRE produced a presentation on how the 'First Impressions' scores should be completed ([Appendix U](#)) and answered questions on this. The presentation and guidance was left for the Welsh Government to include in the remaining briefings held in Mid and North Wales in March 2017.

4 Methodology

4.1 Form design

The Welsh Housing Condition Survey (WHCS) 2017-18 was designed to inform the development and monitoring of the Welsh Government's housing policies, which include but are not limited to:

- Improving the energy efficiency of the housing stock of all tenures, including initiatives such as NESTand Arbed.
- Building better housing for the future, through the application of the WHQS and Building Regulations.
- Enforcing better housing conditions in the private sector, through the HHSRS and the possible introduction of a new fitness standard.
- Reducing fuel poverty and its impact.

The design of the WHCS survey form needed to incorporate enough data to enable the reporting of the policies above. As a base it was agreed between BRE and the Welsh Government that the 2017-18 English Housing Survey (EHS) survey form be used so the WHCS was comparable to the current EHS and Northern Ireland House Condition Survey methodologies. These questions were augmented with specific questions the Welsh Government were interested in such as the Welsh Housing Quality Standard and flooding and also those present in the 2008 Living in Wales Survey that were not present in the 2017-18 EHS. This approach had the added benefit that piloting of the questions and validation routines could be kept to a minimum as many of these had already been designed and tested for the EHS.

As the WHCS form needed to be ready in time for the pilot survey it had to be signed off at an early stage in the project. Many of the BRE systems and procedures flow from the content of the form e.g. the Surveyor website, validation system, database, facing page notes and surveyor manual. Considering the tight timescales involved the timetable did not allow for any large-scale changes to the survey form after the pilot survey and before main fieldwork. It was therefore imperative to get it as accurate as possible before the pilot fieldwork began.

BRE worked closely with the Welsh Government on the specification starting from the project inception stage. The HCEP team at the Welsh Government canvassed opinion from policy colleagues and other agencies before sending a list of topics to BRE for discussion. Some of these topics were already included on the survey form, some could be included (e.g. flooding) and for others it was not possible to include (measure of air quality, quality of cavity wall insulation) due to the non-intrusive nature of the survey. After the final specification was agreed a survey form in principle was produced at the end of February 2017. The 1st page of which can be seen in [Appendix B](#). The full survey form can be found on the [Welsh Housing Conditions Survey webpages](#).

The WHCS form features a list of questions to be asked of the householder (page 8), to comply with Welsh language standards these questions were also provided in Welsh in case occupants wanted to converse in the Welsh language. These can be seen in [Appendix C](#).

4.2 ONS CAPI

BRE, ONS and Welsh Government met in early January 2017 at the project inception meeting. One of the key agreements to stem from this meeting was the adoption of a 'soft' appointment system for the WHCS. At that time, ONS interviewers did not have access to smart phones and the CAPI machines they were using did not have the functionality to communicate with outside systems to check surveyors' diaries. This precluded the possibility of a 'hard' appointment system where the

interviewer would make an appointment for the surveyor to carry out the physical survey. This was considered to be the method that would give the highest response rate. It was also the most complex option technically. The option at the other end of the scale was cold calling where surveyors are given a list of addresses and asked to knock on doors to try and get surveys. This was the method used on previous WHCS surveys and is the most straightforward option however it would potentially result in a lower response rate to the physical survey.

BRE put forward an option of creating 'soft' appointments for the surveyor at the time of the National Survey for Wales interview. BRE and ONS discussed an approach whereby the CAPI system could be developed to collect information on the general times that the respondent is available for a surveyor visit without being tied down to a precise time. For example, the respondent may say that they are available most weekday mornings or only on weekends or that they are away until a particular date but will be available at any time of day thereafter. The interviewer could record this in the CAPI and it would be included as a field in the data passed to BRE by ONS on a weekly basis. This approach was agreed at project inception.

The soft appointment approach required minor changes to be made to the CAPI system, but this was deemed worthwhile for the increased response rate expected from surveyors visiting in a more targeted way. We anticipated that the response would be somewhere between the hard appointment and cold calling options. Some of the same drawbacks exist as the cold calling approach in the sense that without a firm appointment it is harder to pin down a respondent. It is also easier for a respondent that doesn't want to have a property survey to say yes to a soft appointment and then refuse later or avoid the surveyor when they call. Although this does still happen, it is less likely with the hard appointments approach.

As well as ascertaining the preferred availability from the occupant we also needed the language they wanted the survey conducted in, their preferred method of contact and we needed their contact details. They were given the option of contact via email as many people now use this form of communication on their mobile phones as they are 'on the go'. These questions were programmed into the CAPI by the middle of March 2017 in order for the April version of the CAPI to be ready in time for the pilot. Please see [Appendix D](#) for further details of the questions asked in the ONS CAPI system.

The CAPI worked very well during the pilot phase but did throw up some improvements for main fieldwork. The main one being that email was removed from the list of contact options. Regional managers found that it was very hard to gain an appointment via email as respondents did not check them regularly and could easily ignore them. To improve the chances of a good conversion rate the option was removed and instead two phone numbers were taken (where possible) to maximise the chances of making contact with respondents. The case data items transferred from ONS to BRE on a weekly basis can be seen below.

Table 1: Key variables transferred to BRE each week

Question	Field type
Case ID / Unique identifier	text field
Language	coded number
Date of Interview	text field
Dwelling Type	coded number
Tenure	coded number
Address	text field
HRP / Partner, name	text field
Condition	coded number
Availability	coded number
Availability detailed free text	text field
Landline	text field

Mobile	text field
--------	------------

The CAPI system also hosted the income and housing cost questions needed for Fuel Poverty reporting. For more information please see Chapter 3.

4.3 Digital data collection tools

The electronic data capture system currently in use on the EHS (digital pens) was developed by BRE in 2007 and first used for the EHS in 2008, following a year of extensive piloting and testing. This method uses a digital pen in conjunction with a paper form printed using 'Anoto' technology.

The Northern Ireland Housing Executive has been using tablet PCs developed by BRE to collect their housing conditions data since 2009. The main reason for this is they combine their social survey with the physical inspection so have a lengthy interview to conduct halfway through the form.

BRE put forward both options in their proposal. At the project initiation stage the Welsh Government decided to go with BRE's recommendation of using digital pens for the WHCS over the use of tablet PCs. It suited the data collection requirements and fieldwork model; it also had the added benefit that some surveyors (users of the technology) already had experience of it from working on the English Housing Survey.

4.3.1 Digital pen

The digital pens contain a camera (as seen in the image below) which reads a pattern of small black dots (also below) on the paper on which the forms are printed. Every page has a unique Anoto pattern. As the pattern on each page is unique and non-repeating, the camera in the pen can determine the page the pen is on as well as the exact position of the pen as it writes across each page. Each survey produces a file which is stored in the pen's memory until it is downloaded from the pen onto a computer.

The surveyor uses a separate form for each survey. The pen is able to distinguish between forms by the use of a barcode (which the pen can scan), printed on an adhesive label which is placed on the front of each form. In this way, there is no address information present on the survey form; an important feature for data security. BRE acquired enough pens for every surveyor and regional manager as well as some spares in case any were misplaced or ceased to work during the fieldwork period. BRE handed out digital pens with replacement ink cartridges, chargers and lids, as well as sheets of barcodes, to the surveyors at the surveyor briefing in Swansea.

On completion of a day's surveying, the surveyor docks their pen with their PC via a docking station connected to the computer via a USB cable. On docking, the surveys stored in the pen's memory as PGC files automatically download to their PC, a process which takes a matter of seconds. The pen's memory is cleared at this point. Surveyors are then able to log on to the WHCS PC application and upload their surveys from the PC to the surveyor website.

Surveyors were trained on all aspects of the digital pen and WHCS PC application at the surveyor training in Swansea. They were also given a digital pen manual which gave further details of the functionality of the pens and what to do should they run into difficulties with their use.

Over the course of the fieldwork one surveyor lost their pen so a new pen was sent out to them. One other pen had problems scanning the barcode so this was also replaced. Other than this, the hardware proved to be very robust.

Figure 2: Digital pen and Anoto pattern



4.3.2 WHCS software

In order to upload the surveys from the surveyors' PCs to the surveyor website BRE developed a bespoke piece of software (the WHCS PC application) which needed to be installed on surveyors' home PCs. The software allows the PGC files stored on the pen to be assigned to a specific surveyor on the Surveyor website. BRE staff installed the software onto the surveyor's home computers at the surveyor briefing and tested it thoroughly before they went out into the field. For those that were unable to bring their computer to the briefing we provided the installation files and instructions via the surveyor website.

The surveyor must be connected to the internet for the transfer (upload) of data to occur. If they are not then the survey files will remain on the surveyor's machine in their 'WHCS data folder' until a time when an internet connection can be established. The secure system for data transfer over the internet uses SSL encryption. Once uploaded to the website, surveyors are able to log on, view their surveys as a facsimile of their paper form, carry out validation and attach photographs before sending to their regional manager for approval.

Figure 3: WHCS PC Application



There were occasions when surveyors experienced problems with the software during the fieldwork. A common cause of this was Microsoft updates causing the software not to launch when the pen was docked. If this happened during the course of fieldwork then surveyors were able to reinstall the software themselves from the surveyor website. Surveyors also had the option of asking BRE IT to install it for them remotely.

4.4 Survey form development and testing

After the contents of the WHCS survey form were agreed in principle BRE developed the form using the same systems, processes and procedures used for the English and Scottish Housing surveys. The design of the survey form is undertaken using the Quark desktop publishing program. A PDF copy of the form is generated from this Quark file. After inspection from the project manager and director this was sent to Welsh Government to review and approve. After successful sign off the form was 'digitised' in the professional version of Adobe Acrobat software. During this process each response category is assigned a variable name that links with BRE's web and database systems and allows the pen strokes to be recorded accurately on the form by the digital pen.

Once the digitised form was complete, test copies were printed by BRE and tested using the Anoto pattern that allows the pen strokes to be translated into data. This involved completing multiple surveys with the digital pen and uploading them to the website before sending the data to our servers where it resides on our secure database. Once BRE was satisfied the system was recording and translating all data correctly the digitised form was sent to Anoto certified print contractors.

BRE printed 100 survey forms prior to the pilot fieldwork commencing and these were handed to the regional managers at the pilot fieldwork briefing. The regional managers who are all current EHS surveyors and past Living in Wales (LIW) regional managers were given refresher training on the WHCS survey methodology and new briefing on any additions to the form. They then carried out a number of surveys under survey conditions and reported their findings back to BRE and the Welsh Government.

The pilot brought up a few minor recommendations for improvements to the form which included moving questions to more suitable locations on the form. These minor changes were made in Quark and then a PDF copy generated and signed off by the Welsh Government. The final form was then tested again in house before being sent off to the external printers. 3,700 copies of the form were printed to be used in the field and at the surveyor training. Each surveyor was given a box of 74 forms at the surveyor training for their surveys with a spare stock held at BRE. This spare stock was used towards the end of fieldwork when certain surveyors began to run out.

4.5 Surveyor website

The surveyor website² hosted by BRE was specified, designed and produced before the start of the pilot survey so it could be fully tested before main fieldwork began.

Its purpose was to host the case management system the surveyors used to view case data, arrange appointments, upload survey data, validate the survey data, attach photographs, add mileage and generate invoices. Regional managers used the website to check on the survey data sent to them by their surveyors and to help manage their surveying team.

² [BRE Surveyor website](#)

BRE project management staff also used the website for allocation of case data to surveyors, carried out acceptance checks on the data by viewing survey forms and associated photos, checked on the progress of the survey against target and to help with the rearrangement of survey appointments. Welsh Government staff also had access to the website to enable them to check on survey progress throughout the fieldwork period.

Each surveyor, regional manager, BRE analyst and Welsh Government WHCS team member had their own dedicated account with username and password access.

The surveyor website also hosted important documents that are useful to the surveyor over the course of the fieldwork period. These include the surveyor manual, HHSRS benchmarking examples, briefing presentations, BRE model answers for the briefing properties, the WHCS software and associated instructions.

4.6 Validation system

BRE has developed a validation system which sits behind the surveyor website and which runs for all surveys uploaded to it. It is designed to improve the quality of the collected data and to give the surveyors greater ownership over their surveys and the information they collect. The validation consists of a number of database checks and logic statements programmed in Java. These complex validation routines are run on the data when they are first uploaded and subsequently every time a surveyor moves between pages saving any changes they make to the data. These checks include:

- range checks – where the entered answer falls outside a valid range of responses
- logic checks – where a combination of responses to certain questions is not logically consistent (e.g. to check that the sum of 'tenths of area' across rows added up to ten)
- consistency checks – to determine whether linked responses in different parts of the form are consistent with each other (e.g. that detailed room data is only entered where a room is coded as existing), and
- plausibility checks – to determine whether a response is reasonable given that there is not a well-defined range of possible answers (e.g. ceiling height of a room entered as 24 metres instead of 2.4 metres)

Surveyors could also visually check all pages of their paper form against those on the website to ensure that the digital pen entries mirror those on the paper form i.e. that handwritten numbers have not been misinterpreted by the software. Surveyors receive instant feedback from their regional managers of any remaining validation error messages which need to be attended to before the survey is accepted.

A list of validation errors and warnings is shown at the top of each page if there are errors or warnings present. The details of why any errors are present are shown in a message and specific details are given. Validation errors are highlighted in red and need to be rectified by the surveyor and warnings are highlighted in yellow. Warnings are plausible responses but may be high or low values which the surveyor should double check. The regional manager can correct the outstanding validation errors (using access to the photos if necessary) and then submit the form to BRE or if necessary return it to the surveyor with queries for them to answer. If errors are not able to be resolved an explanatory note must be made in the notes box at the bottom of the page. Warnings should be checked but can remain and a note to BRE can be made if considered necessary.

Figure 4: WHCS website - validation system

Survey home 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Notes

[Submit](#) [View image](#)

Most recent comments

To: BRE
 From: [REDACTED]
 Date: 1/9/2017
 Comments: warning on number of doors - checked and correct

[show/hide all comments](#)

Validation

This page contains 1 error(s) :

- The response to Visit2VisitMade conflicts with a subsequent related entry on this page. Change Visit2VisitMade or clear subsequent entry and 0 warning(s) :

[Hide details](#)

110003 Surveyor [REDACTED]
Surveyor Number 11

1. Survey record

	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Visit/telephone call made	Yes ▾	- ▾	- ▾	- ▾	- ▾
Was this a booked appointment	Yes ▾	No ▾	- ▾	- ▾	- ▾
Record date of this call	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy
(24 hour clock)	Hr:mm	Hr:mm	Hr:mm	Hr:mm	Hr:mm
Start time	10:35				

The BRE project manager performed spot checks on the data and was able to change the data if a mistake was identified. They also had the option to return the form to the regional manager if the remedy was not clear-cut.

5 Pilot

The pilot for the WHCS was undertaken by BRE in May 2017 and a [report](#) was produced for the Welsh Government.

The recommendations and conclusions drawn from the pilot are detailed below.

5.1 Findings and recommendations

The main findings and recommendations for each aspect of the pilot are detailed below.

WHCS sample

In total 87 cases were passed through to BRE from ONS during the WHCS pilot fieldwork period. The breakdown of tenure and condition can be seen below.

Table 2: WHCS pilot sample

	Numbers Consenting to a physical survey				
Total asked the consent question	Owner Occupier, Disrepair	Owner Occupier, Good Condition	Rented, Disrepair	Rented, Good Condition	Total consenting
131	19	43	12	13	87

The number of owner occupiers in good condition makes up a very high proportion of those consenting to a physical survey. This is because the sift rate on owner occupiers was set at a very high 90% to boost the sample and allow us enough cases to complete our fieldwork in the 2-week window. Putting in a sift rate during the pilot also allowed this function of the CAPI to be tested before main fieldwork.

The consent rate for the pilot survey was 66.4% which is close to the presumed level before the pilot began.

Table 3: WHCS pilot survey breakdown

	Wrexham	Flintshire	Swansea 1	Swansea 2	Total
Cases passed through	11	26	26	24	87
Appointments made	7	14	15	12	48
Full Surveys	7	14	11	11	43
Doorstep Refusals	0	0	4	1	5

The table above shows the breakdown by local authority of the fieldwork period and exactly what was achieved in each. The regional managers managed to get more than the minimum 40 surveys we felt were needed to provide a thorough test of the procedures and processes. Only having a short window (2-weeks) in which to conduct the fieldwork meant that they were not able to exhaustively work the sample. Doorstep refusals of around 10% of appointments made are potentially a little lower than expected but telephone refusals are not included here and therefore we would expect this number to rise closer to predicted levels outlined in the proposal.

Conversion rate (number of completed surveys achieved against total cases) for the pilot was 49%. This is lower than expected. However, considering the small window allocated for fieldwork this figure cannot be used as a reliable indicator to predict the rate for the main fieldwork. The fact that only three local authorities across Wales took part in the pilot means that response and conversion rates may not be indicative of Wales as a whole.

Recommendations - We need to decide on the sift rate for owner occupiers in good condition for the main fieldwork period. Based on our calculations we would set this at 30% assuming that a consent rate of 65% is achieved by ONS interviewers.

First Impression questions

The ONS interviewers did not seem to have any problems answering the first impression questions and were quite happy with the briefing that was given. It was noted that one can't always see the roof when approaching the property or from one's car and may need to move around the house to get a better view if possible.

Recommendations – None.

WHCS survey form

As expected, most of the discussion and proposed changes to come from the pilot were in relation to the survey form. Not necessarily regarding the questions themselves but for the validation system, briefing materials and functionality of the website.

Recommendations – listed under separate headings below.

Functionality of the website

Page 1 – The recording of mileage was done on page 1 for each visit made. This was disliked by the RMs who reported it was a lot of effort to note down the mileage for every journey – would prefer mileage to be recorded per day and link the houses surveyed to the mileage claim.

Recommendation – BRE to look at changing the way mileage is recorded. BRE to discuss internally with developers.

Briefing material / clarifications

During the course of fieldwork the regional managers (RMs) came across various issues with form filling that the manual could not answer.

Page 3 / page 7 – Internal storage and airing cupboard storage

Page 4 – Tumble dryer present – non-condensing tumble dryers should be vented in order to be recorded as present. Condensing tumble dryers should be recorded as present, regardless of the presence of venting.

Page 4 – counting cupboards, be careful to not include fitted appliances.

Page 4 – second WC, which to record? The en-suite or the one downstairs?

Page 17 – The guidance on rear exit from dwelling (the bin test) needs updating.

Recommendations – BRE will revisit the guidance in the briefing manuals, the facing page notes and the briefing presentations and update / provide extra guidance where necessary.

Form changes

The RMs, BRE and Welsh Government staff discussed possible changes to the form that came from the regional managers' experience of filling out the form in the field.

1. The Welsh Government further contact question which is currently on page 24 can be missed as you are outside at this point and potentially won't move onto this page or see the occupant again.

2. There is no note, like there is on the EHS form, reminding the surveyor to check things such as wall thickness and double glazing before they leave the interior of the property.
3. It would be helpful to include a reminder on the form for the surveyor to give the householder a thank you leaflet with information of relevant schemes / funding.
4. The presence of a bath / shower is split on the amenities section so that the presence of both can be recorded. This is not the case for the secondary amenities.
5. Sprinklers; It was reported that the legislation to include sprinkler systems in new homes only came into force in 2017. As such, no such dwellings would be included in the PAF and so our surveyors will not pick up any.
6. Page 3, smoke detectors. It was noted that we are currently not able to record battery operated smoke alarms.

Recommendations

1. *Swap the HMO questions on page 8 with the re-contact question on page 24.*
2. *Add a reminder note at the bottom of page 8 for the surveyor to check these items before they leave the interior of the house.*
3. *Add a reminder on page 8 so that the surveyors don't forget to hand over the thank you leaflet.*
4. *Split bath / shower questions for secondary amenities, add shower cubicle questions.*
5. *Presence of sprinklers not to be asked on the WHCS.*
6. *Add another Y/N question to page 3 picking up the presence of battery-operated alarms.*

CAPI

ONS did not report any issues to BRE regarding the questions used in the CAPI. One suggestion which came from the regional managers and had a knock-on effect for the CAPI is below:

1. Regional managers found that e-mailing was not a preferable way of contacting the householder – they had a higher success rate if they were able to contact the householder by phone and talk to them about the survey.

Recommendations

1. *Remove the preferred method of contact question from the CAPI, that way ensuring a phone number is taken. If at all possible, it is preferred if both a landline and mobile phone number are collected.*

Surveyor website / case management

The functionality of the surveyor website and case management system created by BRE worked as expected. However, the regional managers noted some improvements that could be made during the pilot debriefing session at BRE.

1. The availability part of the case management was not really used by the RMs. Surveyors (the RMs in the pilot) tend to know their own availability and as they are booking their own appointments the availability is not needed for others to see. This feature was really created for the helpline or interviewers in case they were responsible for booking appointments on surveyors' behalf.
2. RMs reported that it would be useful to have a 7-day diary view so that surveyors can print their appointments for a whole week. This would be particularly useful when departing the house for fieldwork as all their appointments together with times and contact details would feature on one piece of paper.

3. RMs reported that when surveys had been uploaded, validated and sent off to BRE as 'completed' there was no way to tell whether the survey was full / partial or a refusal. In the case where the surveyor has turned up to a house and the occupant has decided that they no longer wish to have the survey, this survey should be sent back to BRE but still go into the completed surveys section with a partial outcome, this is especially needed for invoicing and mileage.

4. The regional managers reported that when validating surveys it would be very useful to make the surveyor name a hyperlink which will take you back to that surveyor's surveys. This would make the process of validation a lot quicker.

Recommendations

1. *Availability – while the regional managers did not use the availability functionality during the pilot it doesn't mean some surveyors won't. There is no value in removing it so we will leave it in for the time being.*
2. *7-day diary – BRE will investigate how this is done on other surveys and will likely introduce something similar for the WHCS.*
3. *Type of survey – we need to tell the type of survey once it has been sent to BRE. We will add this to the reporting tab on the Surveyor website and include this in the automatic invoicing processes so that surveyors will be paid the correct amount for the type of survey.*
4. *Hyperlink – This is a sensible idea and will reduce the amount of time it will take to validate. BRE to implement for main fieldwork.*

Case transfer from ONS

ONS provided the weekly WHCS sample every Tuesday via the 'Egress' system. There were no issues with the sending of the file or uploading the contents to BRE's case management system. During the pilot, the respondents were given the preferred contact options of landline, mobile or email. RMs reported that trying to make appointments over email proved very difficult as respondents could easily ignore the request or would not look at their emails on a daily basis. It occurred to BRE that while nothing went wrong with the case data transmission there was no official procedure for the sending of the file each week, e.g. who is responsible for sending / uploading the file and how is absence covered?

Recommendations

1. *Remove the email option from CAPI and therefore weekly transfer. BRE to update the case management system to remove this option from the surveyor's case information view.*
2. *BRE to discuss with ONS the procedure for sending the weekly file for main fieldwork and any contingencies.*

Survey Materials

Surveyor manual

The administration and case management sections had not been finalised so were not included in time for the pilot. The RMs noted at the debriefing when talking about making appointments that most people work and are not home until the evening. Therefore we should instruct surveyors to make a phone call after 5pm when respondents are more likely to be home.

Recommendations

1. *BRE will need to match the branding to the respondent leaflet and other survey materials for consistency when these are produced for main fieldwork. Once the case management system has been finalised, screenshots should be used in the manual to aid the surveyors' navigation of the system.*

2. *Update the surveyor manual and hints and tips / admin session with the fact time of ringing to make the appointment is important, a lot of people are not in until after 5pm.*

Respondent leaflet

Welsh Government reported that there may be some confusion of the different surveys amongst respondents. Currently all material is branded in red so that distinguishing between materials for the National Survey for Wales and the WHCS is very difficult. It was also reported that further confusion could arise over the cost of the helpline. The BRE helpline was a Freephone number but the Welsh Government number is not. Because of the nature of BRE's case management system and the fact the onus was on regional managers / surveyors to make their own appointments and handle their own diaries some of the text was inaccurate.

Recommendations

1. *Change the branding colour from red to blue to match that of the WHCS statistical team within Welsh Government.*
2. *Update the text on the leaflet to make it clear that the Welsh Government helpline is not a free phone helpline.*
3. *The text relating to the helpline rearranging appointments to be removed.*

5.2 Conclusions

The pilot successfully tested all systems and processes developed by BRE and ONS for the WHCS. It demonstrated that the survey instruments worked well and that the communications between different organisations' systems were stable and operating as expected. Subject to the implementation of the recommendations in this document (and summarised below), BRE's view is that the system is viable for the main fieldwork phase.

Recommendations for improvements have been made and should be adhered to if the project is to be a success. These improvements relate to;

1. BRE's case management and web systems to improve the surveyor experience and improve the speed with which regional managers can validate their surveyors' forms,
2. The WHCS survey form to help with surveyor form filling,
3. Survey materials – to avoid confusion amongst surveyors and respondents,
4. CAPI system – the removal of questions and options that will impede the surveyors' chances of gaining an appointment.

Response rates achieved by ONS interviewers will have to be monitored closely across all local authorities. These will have a knock-on effect for surveyors' allocations as well as the sift rate adopted in the CAPI system. Both of these will need to be reviewed regularly.

6 Regional Managers

6.1 Recruitment

BRE recruited four regional managers (RMs) to provide technical supervision of the surveyors and ensure delivery and quality control of the fieldwork. All had worked successfully as supervisors or surveyors on the 2008 Living in Wales survey and were also working on the 2017 EHS as part time surveyors. This was important as they all had both previous experience of the Living in Wales survey and current experience of the EHS digital pen data collection system, which was being introduced to surveyors working on the WHCS. Three RMs were employed as BRE associates on this contract, while the fourth (Ian Watson) is a full time BRE employee, who had time set aside for this contract.

6.2 Responsibilities

The RMs were contracted to undertake the following tasks:

- Attend the pilot survey briefing at BRE, undertake pilot surveys, report back at the pilot survey debriefing;
- Attend the orientation session at the surveyor briefing at the Swansea Marriott Hotel, agree model answers to fieldwork properties;
- Accompany their own group of 11 surveyors throughout their survey briefing, offer technical guidance and fieldwork support;
- Confirm surveyors' suitability for undertaking WHCS fieldwork;
- Accompany each of their surveyors in the field for at least half a day during their first ten inspections.
- Validate the surveys of each of their surveyors via the BRE surveyor website, providing support and feedback as necessary;
- Monitor the progress of each of their surveyors on a regular basis and provide regular updates to BRE;
- Assist with quality control; referring surveyors to BRE who should be given less or more work depending on their performance. Agree support strategy as appropriate.
- Provide technical advice and assistance to surveyors in the field;
- Undertake 'mopping-up' surveys where necessary, although in practice this was not required.
- Providing a final report on the performance of each surveyor and their suitability to take part in a future WHCS.

6.3 Regions

The areas allocated to each regional manager were set to give approximately the same number of surveys per area. The list of RMs and their areas, which were defined by local authorities and postcodes is below:

Table 4: Regional managers regions

Regional Manager	Region	LA, postcode
LR	South West Wales	Carmarthenshire, Neath Port Talbot, Pembrokeshire, Swansea, Bridgend West
AB	South Central Wales	Bridgend, Caerphilly (south), Cardiff, Rhondda Cynon Taff, The Vale of Glamorgan, Merthyr Tydfil
IW	South East and Mid Wales	Blaenau Gwent, Caerphilly (north), Newport, Torfaen, Monmouthshire, South and Central Powys, Ceredigion
AK	North Wales	Conwy, Denbighshire, Flintshire, Isle of Anglesey, Wrexham, North Powys

6.4 Contract and fees

BRE produced the regional manager contracts and were responsible for their recruitment, training, management and payment. Regional managers were paid a day rate in accordance with BRE's associate payment structure.

7 Surveyors

BRE was responsible for the selection and management of the surveyors to work on the 2017-18 WHCS. For statistical purposes, (to ensure each surveyor was allocated a similar number of surveys in order to reduce surveyor bias) it was decided that at least 40 surveyors should be recruited. In practice, it was agreed to recruit 44 on the basis that not all would complete the course.

7.1 Recruitment

BRE had been responsible for the selection of surveyors to work on the 2008 Living in Wales Survey and had reports on the performance of these surveyors and their contact details. The starting point was to write to all of those who had successfully completed their 2008 allocations to the required standard and ask them if they would like to take part in 2017-18.

In parallel with this process, BRE used its own networks in Wales to advertise for expressions of interest from suitable surveyors. This included writing formally to the Wales branch of the Chartered Institute of Environmental Health (CIEH), the Wales branch of Royal Institute of British Architects (RIBA) and the Wales branch of the Royal Institute of Chartered Surveyors (RICS), who all advertised the opportunity through their websites.

To qualify for the survey, surveyors were required to be:

- Professionally qualified building surveyors (RICS or Tech RICS);
- Environmental Health Officers with experience in older housing (CIEH);
- Architects with experience of the refurbishment of older housing (RIBA);

In addition, there would be a preference for selecting surveyors who have national housing survey experience, live in Wales, speak Welsh and are familiar with the Housing Health and Safety Rating System (HHSRS).

All surveyors were required to have clearance to work on the survey, through Disclosure Scotland.

The result of the recruitment drive was to select 44 surveyors to take part in the WHCS.

In all, 93 expressions of interest were received, with the majority of these having taken part in the 2008 Living in Wales Survey.

- Seventeen potential new surveyors completed the pre-selection exercises.
- Thirteen of these were offered contracts
- An additional two new surveyors were current EHS surveyors who were based in Wales and had not taken part in the Living in Wales Survey.
- The remainder had all taken part in Living in Wales 2008.

Overall, eight surveyors spoke fluent Welsh - at least one in each of the four regions.

One of the surveyors failed to attend the briefing sessions and was not replaced. The rest all successfully completed their briefing, going on to undertake fieldwork.

7.2 Distance learning

Pre-briefing exercise for new surveyors

Surveyors who had not taken part in either the Living in Wales Survey or EHS before were asked to undertake a pre-qualification exercise, following receipt of their expression of interest. This exercise contained:

- A cut down version of the technical manual
- A version of the EHS DVD showing the survey procedure
- A blank form, on which the surveyors were to attempt a partial survey of their own home
- An exercise book of surveying questions

Surveyors were to submit the exercise and the partially completed survey form by a set date. The exercises and surveys were marked against a set of model answers fixed by BRE.

The remaining places were filled by the new surveyors according to their pre-qualification results and also their locations and whether they spoke Welsh.

Distance learning for New Surveyors

Prior to their residential briefing, all new surveyors were sent:

- A survey form
- The full manual
- A booklet of test exercises

The test exercises were to be completed and discussed with the regional manager at the briefing.

7.3 Contract and fees

Once surveyors had been selected to take part in the 2017-18 WHCS they were sent a contract by BRE, which needed to be signed and returned. Please see [Appendix E](#).

7.4 Address allocation

Surveyors were allocated postcode regions prior to the start of fieldwork. These tended to be close to where they lived or close to their place of work. The postcode regions were allocated in such a way as to allow each surveyor the opportunity to achieve at least 60 full WHCS surveys. BRE used information from the 2017-18 National Survey for Wales sample in order to make these calculations.

ONS sent through the weekly sample of WHCS consents and these were automatically uploaded to surveyor accounts on the Surveyor website based on the postcode. Only cases where the respondent wanted the survey conducted in Welsh were the cases not automatically uploaded. In these instances, they were allocated to the closest surveyor who could converse in the Welsh language. Surveyors were then sent an email by the BRE project team notifying them of this allocation.

Throughout the fieldwork period some postcodes were reallocated to other surveyors in the cases of poor performance or resignation.

7.5 Address reissue

Throughout the fieldwork process the regional managers and the project team at BRE had the functionality to reallocate cases to other surveyors through the case management system. This was not done very often during fieldwork but occasions when this took place included surveyor resignation, surveyor holiday and surveyor poor performance.

It was important to allocate cases to a surveyor who was willing and available at the time of allocation to work the case. All respondents needed to be contacted within 4 weeks of their interview and to maximise conversion rates it was crucial that surveyors contacted respondents as soon as a case was allocated to them.

7.6 Surveyor replacement

The selection process ensured a good mix of qualified and committed surveyors. It was expected that some surveyors would drop out through the selection process and this was the case, with one dropping out just prior to attending the briefing.

During the fieldwork period, a further three surveyors did not see the survey through to the end. This was for personal reasons and they stood down by mutual agreement. In total forty surveyors completed their full allocations.

It was not necessary to replace any of the surveyors who dropped out. Rather, their remaining surveys were re-allocated to other surveyors in their area.

Regional managers were prepared to undertake surveys if required, but this did not prove necessary. In the end, 52 surveys more than the minimum required were delivered.

8 Survey materials

8.1 Briefing manual

The survey manual encompasses all the information a surveyor needs in order to complete, upload and validate a survey form. It not only includes information on the methodology and rationale of the questions on the form but also all the IT relating to the use of the digital pen and Anoto technology. The manual was produced by BRE and given out in hard copy to the surveyors at the residential training in Swansea. A digital PDF copy was also made available online via the BRE surveyor website.

8.2 ID badge

Before the residential briefing in Swansea each surveyor was required to submit a passport style photo to BRE. BRE used these to produce a photo ID card for each surveyor. The ID cards featured a photo of each surveyor together with their name, the survey name and helpline number. The surveyors received the ID card and lanyard in their pack at the surveyor briefing and were instructed to show this when the respondent answered the door. They were also instructed to explain to respondents that they could phone the helpline (if they wish) to legitimise the survey. Extra copies were created in case of them being mislaid. Please see [Appendix F](#).

8.3 Missed appointment card

BRE produced and printed a missed appointment card. These were given out to surveyors in their packs at the surveyor briefing in Swansea. The purpose of the card was for surveyors to fill out and post through respondents' letterboxes when appointments were missed or if a surveyor had 'cold called' at the property. Surveyors were able to leave their name and contact details as well as the date and time of visit so that respondents could get back in touch with them regarding an appointment.

Like the respondent leaflets the missed appointment cards adhered to the Welsh language standards. They also included the email address and telephone number of the WHCS helpline and the website address where respondents could get more information about the survey. Please see [Appendix G](#).

8.4 Signposting / Thank you leaflet

BRE produced a signposting / thank you leaflet for the surveyor to hand out at the end of each survey. The purpose of this leaflet was twofold. Firstly Welsh Government wanted to express their gratitude to the respondents for taking part. Secondly the Welsh Government saw this is an opportunity to pass on some free advice to the respondents on how they could improve their home.

The leaflet managed to fulfil both criteria by initially thanking the respondents for their time and good will. The second half of the leaflet signposted respondents to organisations and websites which could help improve the performance and condition of their home. Surveyors could point the respondents to particular organisations that would be of benefit to them. The leaflet was printed in English on one side and Welsh on the reverse to adhere with service delivery standards of the Welsh Language Measure 2011. Please see [Appendix H](#) for further details.

8.5 Barcodes

BRE produced and printed the barcodes that work in conjunction with the digital pen. Each barcode is unique and allows for each survey form to be allocated to the correct surveyor on the Surveyor website. The barcodes are made up of a 2-digit surveyor number, a yearly identifier and a sequential 3-digit number beginning with 001 and ending in 120.

The sheets of barcodes were handed out to the surveyors in their packs at the surveyor briefing. At the beginning of each survey they attached a unique barcode to the front of their survey form. This was then scanned by the digital pen before the commencement of the survey. An example of the barcodes used can be found at [Appendix I](#).

8.6 Respondent information leaflet

The National Survey for Wales interviewers were instructed to leave a leaflet with the respondent once they had agreed to take part in the property survey. The leaflet produced for the English Housing Survey was used as a starting point for the content and format of the WHCS leaflet. BRE worked closely with Welsh Government to determine the branding that should be applied to the leaflet, it was decided after the pilot to change the colour of the leaflet to make it distinguishable from the National Survey for Wales literature. To do this the colour of the Welsh Government logo and banner was changed from red to blue. BRE's specialist creative design team was used to produce the leaflets. This team includes graphic design professionals who advised on the best approach to take for visual layout of the content produced.

The content of the leaflet covered subjects including (but not limited to):

- The purpose of the property survey
- The importance of the property survey
- The appointment or contact process
- The surveyor (e.g. Disclosure Scotland checked, professional, with ID)
- A brief summary of what the surveyor does
- The helpline
- Answering some common questions such as, "Do I need my landlord's permission?"

BRE held discussions with ONS about how the leaflets would be distributed. The best and most cost effective solution was for BRE to produce the material and to ship it to ONS in bulk. ONS could then distribute the leaflet (and any other materials) to the interviewers along with any other literature and materials that they require for the National Survey for Wales at their interviewer briefings. An extra stock was held at the ONS field office to be distributed on a need basis.

Welsh language standards were adhered to in the production of the leaflets - the leaflet was printed double sided with Welsh on one side and English on the other. The respondent leaflet was handed to the respondent by the ONS interviewer after they had answered the consent question and had agreed to take part in the physical survey. Please see [Appendix J](#) for further details of the contents of the leaflet.

8.7 Clipboards

BRE produced specialist clipboards for use by the surveyors working on the WHCS. The clipboards had to be of a size to fit the survey form on comfortably but not be too cumbersome to carry. The clipboards featured the BRE and Welsh Government logos as well as the name of the survey on the reverse.

9 Helplines

BRE set up dedicated helplines in time for the start of ONS fieldwork in April 2017. This meant they could be tested during the WHCS pilot in early May 2017.

1. Respondent / surveyor helpline
2. IT support

9.1 Respondent / surveyor helpline

A Freephone helpline based in Wales at BRE's Swansea office was set up with the purpose of fielding respondent and surveyor enquires relating to surveyor appointments, scope and legitimacy of the survey and requests for further information. This helpline was bilingual with the contact details present on both the respondent's information leaflet and the surveyor's ID card.

Helpline staff were briefed on the survey at a dedicated session in their offices by the BRE project management team. They were instructed to complete a call log when they received a call relating to the WHCS and then to send this to the project manager on a weekly basis. If any calls were serious in nature staff were instructed to notify the project team including the project director, project manager and deputy project manager as soon as possible.

The helpline was not used by the surveyors during the course of the fieldwork. They made all the appointments themselves and if there was a cancellation by the respondent then the helpline or the BRE management team notified them of it via phone, text and email.

Operating alongside the helplines, dedicated email addresses were set up by BRE IT. Similarly to the helplines there was a dedicated email address in the Welsh language for those respondents who preferred to converse in Welsh. This information was also printed on the respondent leaflet.

Please see [Appendix K](#) for details of the nature of calls.

9.2 BRE IT support

The IT support helpline was based in BRE's IT department. Its purpose was to help with any enquiries relating to the use of the digital pen, accompanying software or use of the surveyor website / case management system.

Surveyors were given the helpline number in their briefing manuals. Any calls would be logged by BRE customer services and directed to the most appropriate BRE team member. Whether that be the WHCS project management team or the BRE IT team for specific IT related enquiries. Most calls received by BRE customer services were in the early stages of fieldwork where surveyors were inexperienced with the use of the digital pen and associated software. Once experience had been gained and the surveyors became confident in the system there was no need for them to contact the helpline for IT support.

Surveyors were encouraged to contact their regional managers when problems first arose, in some instances they could resolve the issue. If this was not possible then surveyors or their regional manager contacted BRE. All surveyors and regional managers had the contact details of the BRE project manager and were able to contact them if they felt their issue needed escalation.

10 Surveyor briefing

10.1 Venue

In determining the most appropriate venue for the residential surveyor briefing, a number of factors were considered:

- Bed space and briefing rooms for up to 44 surveyors, 4 regional managers and 10 staff
- Availability for two weeks at the beginning of July 2017
- High quality accommodation and food, which would earn the goodwill of the trainees and briefing staff
- Access to a range of suitable homes in which to undertake test house fieldwork
- Dedicated conference support staff and facilities, including specialist IT requirements
- Cost and value for money

Swansea had been used as the venue for the 2004 and 2008 Living in Wales survey briefings and had been deemed very suitable for the purposes of the WHCS.

BRE looked at a number of possible hotels and universities, and ended up with two similar quotations from the Swansea Marriott Hotel and the Swansea Village Hotel. Both were a little above budget but were suitable.

BRE selected the Swansea Marriott Hotel because:

- The educational facilities were better and could be guaranteed for the course of the briefing
- We would not be competing with other conferencing users (and hotel guests) but would have dedicated facilities and support
- We had a good history of working with the Marriott for the 2004 and 2008 Living in Wales surveys

10.2 Test houses

BRE produced a specification for the briefing test house requirements:

- A large older house with internal and external disrepair
- A house with external disrepair and structural problems
- A house with health and safety problems
- A flat in a large block with common areas and shared facilities
- A house with multiple problems in which to undertake a full un-accompanied survey

These homes were sourced from local estate agents and from Swansea City Council shortly before the briefing. A displacement fee was paid to homeowners and an arrangement fee paid to estate agent staff.

10.3 Surveyor packs

On departing the briefing all surveyors were given a pack of materials to take away with them. This included the following.

- A box of 74 survey forms
- A digital pen
- 120 barcode labels
- A photo ID badge and lanyard
- Missed appointment cards
- Thank you / signposting leaflets
- A branded clipboard

10.4 Presentations

A five-day briefing programme was developed for all surveyors, except for those who were currently working on the English Housing Survey. These had a one-day briefing which focused on the differences from the EHS.

Copies of the two briefing programmes are at [Appendix L](#) and [Appendix M](#).

The main briefing programme was based on the Living in Wales Survey briefing from 2008 and the EHS briefing from 2017. It was considered important to have consistency between the 2017-18 WHCS and the 2008 Living in Wales Survey, and the current English Housing Survey, so that comparisons and trend reporting would be as robust as possible. As such, many of the presentations included many of the same definitions and examples as previously, and some of the same presenters.

New material was included to address current Welsh housing priorities, including a session on grants and home improvements, and updated guidance on the Welsh Housing Quality Standard.

The one-day training for current EHS surveyors focused on the differences between the English and Welsh surveys and on administrative procedures. Surveyors also completed the same full field survey as the new WHCS surveyors.

All presentations used in the training were created and saved in PowerPoint format.

10.5 Digital pen training

Digital pen technology was being used on the WHCS for the first time and additional training was provided on this, largely based on the EHS experience. The training involved:

- Surveyors bringing their own laptop to the briefing and having it loaded with the WHCS software
- Demonstration of how the system works from BRE technical staff
- Practice survey and validation in the classroom
- Hints and tips
- Use of the digital pen technology in the field to complete one full survey of a house.
- Downloading, validating and submitting a survey
- The use of the WHCS PC application and WHCS surveyor web site.

11 Fieldwork

11.1 Pilot period

The pilot for the WHCS took place in spring 2017. Prior to the beginning of the WHCS pilot survey the Office for National Statistics ran their own pilot to obtain the sample for the WHCS. This included piloting the sample methodology on their CAPI system, the consent question and re-contact information. Interviewers were briefed on the WHCS in a series of interviewer briefings held across Wales in March 2017 with staff from the Welsh Government, ONS and BRE in attendance. Prior to these sessions BRE gave a thorough briefing to the ONS interviewer managers on the requirements of the WHCS.

The surveyors for the pilot (the regional managers) were briefed at a training session at BRE (Watford) on the 19th April 2017. The briefing was attended by all four regional managers, Welsh Government staff and the BRE project team.

The ONS interviewers were in the field between the 3rd April and the 28th April 2017 supplying eligible cases to BRE on a weekly basis. The BRE regional managers were then out in the field surveying these eligible cases over a 2-week period starting 2nd May and ending on 12th May 2017. At which point all survey data was relayed back to BRE for analysis. A face-to-face debriefing session with the regional managers was held at BRE in Watford on the 16th May 2017 and was attended by both BRE and Welsh Government staff to discuss the findings and put forward recommendations for main fieldwork.

Table 5. Key dates in the delivery of the pilot study

Task	Dates
Interviewer managers briefing (ONS)	28 th February 2017 – Newport
Interviewer briefings (ONS)	14 th March 2017 - Caerphilly 15 th March 2017 - Caerphilly 16 th March 2017 - Swansea 22 nd March 2017 - Llandrindod Wells 23 rd March 2017 - Llandudno Junction
Interviewer fieldwork (ONS)	3 rd April – 28 th April 2017
WHCS pilot briefing with regional managers (BRE)	19 th April 2017
WHCS pilot fieldwork using regional managers (BRE)	2 nd May – 12 th May 2017
WHCS debriefing with regional managers (BRE)	16 th May 2017

11.2 Main fieldwork period

The main fieldwork was 9 months long and began 3 weeks after receiving cases from ONS who supplied eligible cases from the National Survey for Wales. The fieldwork for the WHCS ran roughly one month in arrears of the National Survey for Wales to give surveyors enough time to make appointments and gain access to all cases.

The fieldwork period also had to start as closely as possible to the surveyor briefing so that surveyors retained all the information they had been given and still had confidence in the data collection tools.

There was the option of extending the fieldwork period but the introduction of incentives for the WHCS in January 2018 rendered this unnecessary as the target of 2,500 full surveys was exceeded by 52.

Table 6: Main fieldwork timetable

Task	Dates
Surveyor briefing Swansea (BRE)	1 st July – 6 th July 2017 – Group 1 (South West and East regions) 6 th July – 7 th July 2017 – Group 2 (EHS surveyors) 8 th July – 13 th July 2017 – Group 3 (North and South regions)
Interviewer fieldwork (ONS)	3 rd July 2017 – 31 st March 2018
WHCS fieldwork (BRE)	24 th July 2017 – 25 th April 2018
WHCS Incentive introduction (BRE)	8 th January 2018

11.3 Surveyor management

Each regional manager was given a team of eleven surveyors. A number of surveyors travelled to their area of work. The areas allocated to each regional manager were set to give approximately the same number of surveys per area. The list of regional managers and their local authorities is given in chapter 6.

Regional managers were able to view and validate surveys from their team and view survey progress via the online case management system. They were also able to reallocate surveys to other members of their team should the need arise. This was done rarely in practice but happened when surveyors were on holiday and so couldn't fulfil their allocation at that time or if a surveyor left the survey.

Regional managers could reallocate surveys in the case of poor performance / poor access rates which were all monitored through the case management system. The system allowed for an electronic dialogue to be created for each case where the regional manager and surveyor could discuss technical issues found at the property or methodological clarifications. If a decision on a technical aspect could not be reached or an error found by the validation system could not be resolved then the case was referred to BRE for action. BRE could return the case to the regional manager or surveyor with comments or instructions on how best to proceed.

The BRE project manager had access to all surveyors and regional managers through the case management system. The Welsh Government also had the same level of access making the process transparent. The BRE project manager had access to surveyors' diaries and could see the level of activity for each surveyor and was able to discuss working patterns and behaviours of the surveyor teams with each regional manager throughout the fieldwork period. For instance both regional managers and project management staff could view the level of refusals for each surveyor and could provide extra guidance on maximising response in these instances.

Figure 5. Case details for a regional team

Name	Total number of cases	Total number of surveys	In progress	Sent to RM	Returned to surveyor by RM	Resent to RM	Sent to BRE
[Redacted]	74	48	0	0	0	0	48
[Redacted]	65	52	0	0	0	0	52
[Redacted]	106	85	0	0	0	0	85
[Redacted]	126	106	0	0	0	0	106
[Redacted]	54	30	0	0	0	0	30
[Redacted]	63	50	0	0	0	0	50
[Redacted]	0	0	0	0	0	0	0
[Redacted]	95	74	0	0	0	0	74
[Redacted]	103	93	0	0	0	0	93
[Redacted]	16	9	0	0	0	0	9
[Redacted]	101	87	0	0	0	0	87
Totals	803	634	0	0	0	0	634

11.4 Case management system

The WHCS case management system hosted by BRE was specified, designed and produced before the start of the pilot survey. BRE developed the surveyor case management system specifically for the WHCS to enable surveyors to view case details, make appointments and view and update their diaries. Surveyors also used the system to add mileage and to generate invoices. Regional managers and the project team were also able to monitor survey progress. Complete details about the system are in the case management manual at [Appendix N](#).

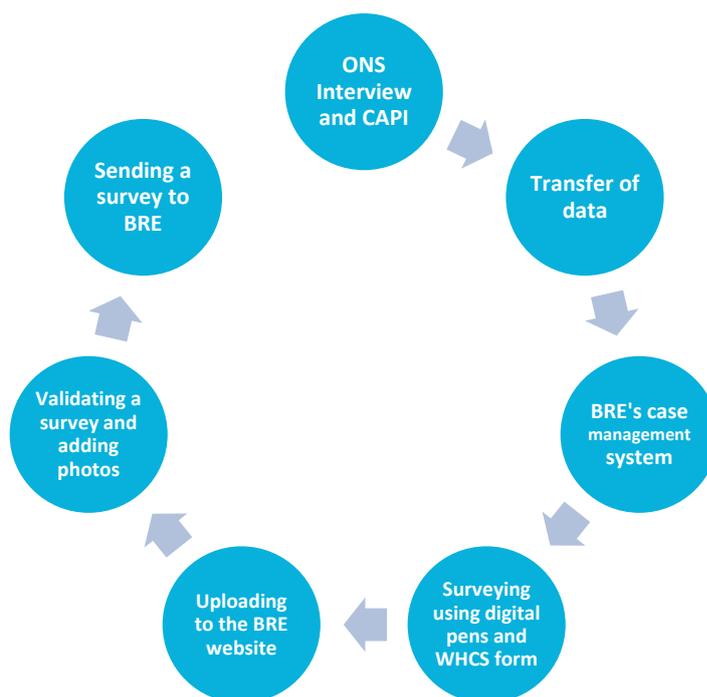
Prior to commencement of main fieldwork, regional managers tested the case management system and provided feedback at the pilot debriefing. Feedback was largely positive, with regional managers commenting it was easy to navigate and view respondent information. Suggestions for improvement included a change to the way mileage was recorded and to add some links between pages. See chapter 5 for more information on the recommended changes to the system from the pilot.

Cases were sent to BRE on a weekly basis by ONS, these were added to the case management system every Monday evening and were automatically assigned to surveyors based on the postcode of the case. From this point on they remained in the surveyor's account on the system and the surveyor took ownership of the case. They were responsible for making the appointment and working that case.

After a successful survey was undertaken it was uploaded to the case management system where the surveyor could link the survey undertaken to the correct case. At this time the case moved from the surveyor's not started section to 'in progress'. Surveyors could add mileage to the system, add photos and validate the survey before sending it off to their RM. Once the RM was satisfied with the case it was sent to BRE and moved out of the surveyor's 'in progress' section of the system into a locked 'completed' section where the surveyor could no longer make changes to it.

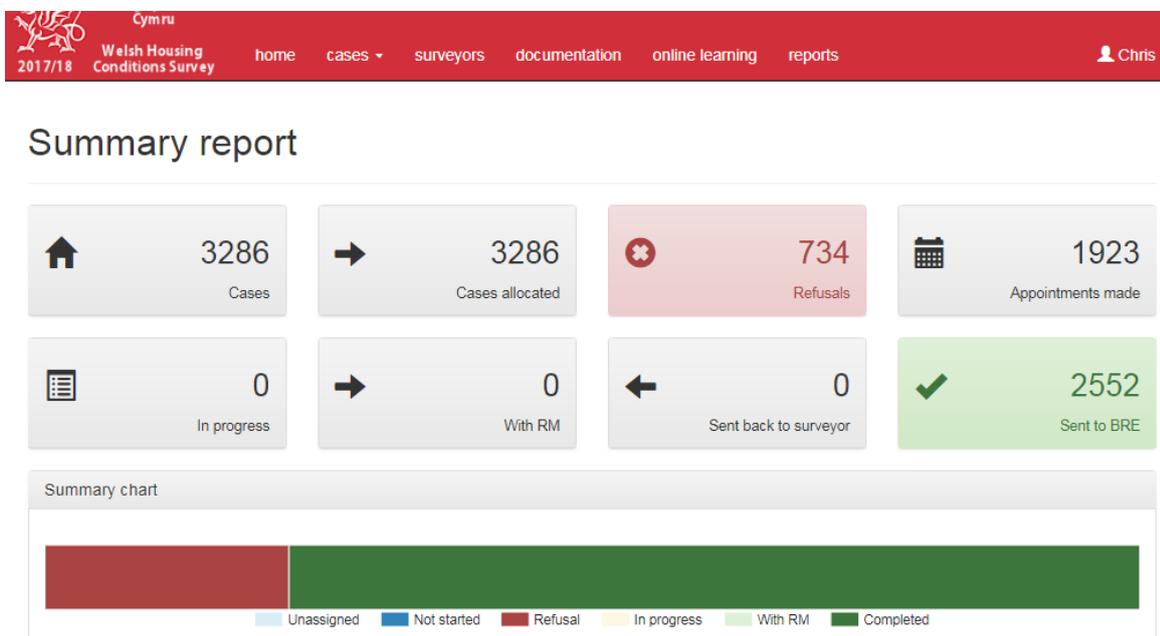
The life cycle of case can be seen below in **figure 6**.

Figure 6: Lifecycle of a case



Fieldwork progress could be monitored via the case management system. BRE created a dashboard so that they and Welsh Government could have real time updates to how fieldwork was progressing against target.

Figure 7: Case management dashboard



11.4.1 Mileage

Mileage was paid per mile for all miles within the Welsh border. Surveyors were instructed to add mileage to the system at the same time their survey data was uploaded to the website from the digital pen. This ensured mileage claims were accurate and could be included on their next invoice claim. Surveyors could also add the case numbers for which the mileage was incurred.

Mileage and the associated case numbers appeared on surveyor invoices and were checked by the BRE project manager before signing them off.

11.4.2 Invoices

Surveyors were able to generate statements of work using the case management system, detailing all the surveys that had been validated and approved by the regional manager and sent to BRE. Any surveys currently in progress on the system were not included. Mileage incurred since the last invoice was generated was automatically included on these statements.

The system generated a PDF statement / invoice which needed to be sent to BRE finance for payment. Once it was sent to BRE the BRE project manager was able to check the invoice and agree payment. The statements showed the following comprehensive information for each case

- Case number;
- Outcome, i.e. full survey or non-survey;
- Mileage; and
- Amount to invoice.

Each statement also showed the following details relating to the individual

- Surveyor address;
- Surveyor name;
- Surveyor ID number;
- Statement number; and
- Statement date.

A copy of a statement can be viewed at [Appendix O](#).

11.4.2.1 Retention

BRE automatically retained payment of surveyors' final invoices until all materials were returned and issued work completed to a satisfactory standard. Once the digital pens, ID cards and any remaining incentive vouchers were received and checked, the final invoices were released to the surveyor in the form of a BACS payment.

11.5 Booking appointments

Surveyors had access to the name, address and phone number of the respondent for each case. They also had access to the respondents preferred time of appointment whether that be weekends or weekdays and mornings or afternoons. The case management system featured a link to Google Streetview for each case so surveyors could locate the case before arriving at the property.

Welsh Government wanted each respondent to be contacted within four weeks of receiving a case from ONS. BRE instructed surveyors that to maximise response to try and make contact within a week of receiving the case. Surveyors armed with all of the respondent contact information tried to make an appointment via telephone in the first instance. Surveyors were instructed to leave voicemail messages and to try phoning at different times of the day if contact could not be made.

Some respondents phoned the WHCS helpline to request an appointment, re-arrange one or to refuse. In these cases the information was passed to the project management team at BRE and the surveyors notified by email, text or phone call depending on the proximity of the appointment.

If the property was local to the surveyor or they were going to be in the area then they could cold call on the respondent to try and make an appointment. This was successful for some surveyors who were used to working in this way. If respondents were not home then surveyors could leave a 'missed appointment' card ([Appendix G](#)) with details of the case and how to contact the surveyor to make or rearrange the appointment.

For cases where the surveyor visited the property they were instructed to complete a survey form with the digital pen. If they were able to gain access they undertook a full survey. If they visited but could not gain access they completed the first two pages of the survey form completing questions such as the survey outcome, dwelling type, tenure and construction age. These surveys were essentially non-surveys but the surveyors were paid a small fee and were able to claim mileage. The data collected for these 'non-surveys' fed into the weighting process.

11.6 Maximising responses

A number of measures were used to help maximise response to the WHCS.

1. Respondents were asked to provide both landline and mobile phone contact details at the National Survey for Wales Interview.
2. Respondents' preferred appointment time was also asked and conveyed to the surveyor along with the contact details.
3. Surveyors were asked to contact respondents ideally within a week of receiving the case information from ONS.
4. Surveyors were briefed to try phoning at different times of the day if it was hard to get hold of respondents.
5. Surveyors were briefed to cold call on respondents if they could not achieve contact over the phone and to leave a calling card if the respondents were not at home.
6. Surveyors were briefed to be kind and respectful when making appointments and visiting respondents' homes and not to be pushy in trying to obtain an appointment.
7. The WHCS helpline provided further information for respondents and acted as a point of reference to provide legitimacy to the survey.

11.7 Welsh speaking respondents

The WHCS adhered to Welsh language requirements. Respondents were asked during the National Survey for Wales interview whether they would prefer their survey was undertaken by a Welsh speaking surveyor. This was flagged in the CAPI and the information passed to BRE in the weekly transfer of data.

The BRE project manager ensured the case was allocated to a Welsh speaking surveyor and that they were notified by phone or email of the request. The case management system also highlighted the preferred language next to the respondent's contact details. Surveyors were therefore reminded of this when they came to make an appointment with the respondent.

Out of the 44 surveyors employed on the WHCS 8 spoke fluent Welsh ensuring that at least 1 Welsh speaking surveyor worked in each of the 4 regions.

11.8 Issues encountered during fieldwork

There were not too many issues for the surveyors or project management staff to deal with during the fieldwork period. Any issues around response rates and conversion rates are dealt with in chapter 12. With regards to practical issues encountered there were two periods of heavy snow fall during February and March 2018 which halted fieldwork for a small amount of time in certain areas of Wales. Surveyors were instructed to take extra care and to rearrange appointments where possible. There is little doubt that some cases were lost due to the adverse weather conditions.

BRE's case management system and internal processes dealt with minor issues as they arose. For example, if a respondent wanted the survey conducted in Welsh but the local surveyor was not able to speak Welsh then the case was allocated to the closest Welsh speaking surveyor who had availability.

Any respondent had the option of reporting any complaints to the helpline set up by BRE. These were recorded and sent on to the project manager at BRE to deal with. BRE did not receive any major complaint during the fieldwork process. There were a couple of minor complaints reported regarding respondents not receiving incentive payments which turned out to be for the National Survey for Wales participants. These were sent to the National Survey for Wales project team to deal with. There were also a couple of respondent misunderstandings regarding the scope of the property survey. These were reported to the BRE project manager by surveyors and their regional managers. Misunderstandings included:

- The need for surveyors to enter the property
- The need for surveyors to check the roof space
- The need for surveyors to go upstairs
- The time it took for the survey

All this information was given to the respondents by the ONS interviewer and was present on the information leaflet left by the interviewer. In most instances the surveyor was able to reassure the respondents and a full survey was carried out. In a small number of cases the respondent did not want the surveyor to enter the property and therefore a non-survey was recorded.

BRE's project management team had some small grievances with individual surveyors regarding their administration and communication. This was mainly aimed at a select few surveyors who had to be reminded about survey procedures and the processes involved on the case management website.

These administration issues included the following:

- Not adding mileage when uploading the survey
- Not submitting regular invoices
- Not telling their RM they would be away for a week or more
- Keeping hold of cases for too long without contacting respondents
- Prolonging the case process by not validating forms as they are uploaded to the case management system

Regional managers kept close tabs on all of their surveyor team and were in constant communication which helped resolve some of these issues early during the fieldwork period.

At the end of the fieldwork period each regional manager prepared a feedback form for the BRE project management team which rated each of their surveyors. The feedback centred on surveying and technical ability, administration, communication and availability. BRE has this on file for any future surveys.

12 Response rates

12.1 Consent rate

Consent rate refers to the number agreeing to a WHCS surveyor visit during the National Survey for Wales interview. This dictated the sample size for the WHCS. Based upon statistics from the pilot survey, BRE's predicted conversion rate and the total number of surveys required, BRE estimated that a consent rate target of **65%** was required for the WHCS to hit its target of 2,500 surveys.

During the first two months of fieldwork the consent rate remained in the low 50s. Factors which caused this low rate of consent included no incentive for the WHCS when the National Survey for Wales was incentivised, less experienced interviewers and position and wording of the consent question.

There were also regional differences which can be seen in **table 7** below. Some local authorities experienced very poor levels of consent. These tended to be those with higher unemployment and low-income households.

To help improve consent rates at this time a number of measures were put in place which included further help for the National Survey for Wales interviewers from their fieldwork managers, a reworded and repositioned consent question within the ONS CAPI system and close monitoring and mentoring for poorly performing interviewers. This had little or no impact on consent rates which declined as the fieldwork entered the winter months.

The effect of the declining consent rates meant BRE were not receiving enough cases to reach the overall target of 2,500 full surveys. To help address this the sift rate of owner occupiers in good condition within the CAPI script was increased from 30% to 60%. This allowed for more cases to be sent through to BRE each week but not enough to hit the WHCS target of 2,500 surveys.

Incentives were added in January 2018 which helped increase consent rates dramatically (especially in poorly performing local authorities) and for the remaining months of the survey a consent rate of 68% was achieved. See section 12.3 for more information on incentives.

Table 7: Consent rates for the WHCS by local authority

Local Authority							CONSENTS						ELIGIBLE						
	Consent Rate (%)	Target Consent	Difference to Consent Rate	TOTAL # WHCS	Target # Consents	Difference	# OO Good	# OO Disrepair	# SH Good	# SH Disrepair	# PR Good	# PR Disrepair	Total # eligible	# OO Good	# OO Disrepair	# SH Good	# SH Disrepair	# PR Good	# PR Disrepair
Blaenau Gwent	49.0	65	-16.0	96	152	-56	30	9	28	2	20	7	196	72	29	47	8	29	11
Bridgend	39.6	65	-25.4	88	152	-64	25	33	10	7	11	2	222	95	54	25	10	30	8
Caerphilly	64.8	65	-0.2	210	152	58	84	27	40	28	20	11	324	122	57	55	41	31	18
Cardiff	62.2	65	-2.8	363	152	211	164	47	64	15	50	23	584	275	75	92	23	88	31
Carmarthenshire	62.5	65	-2.5	185	152	33	79	25	39	13	22	7	296	135	45	45	16	35	20
Ceredigion	67.1	65	2.1	102	152	-50	37	28	16	5	9	7	152	64	40	19	6	13	10
Conwy	55.0	65	-10.0	104	152	-48	50	10	20	6	13	5	189	102	17	28	8	27	7
Denbighshire	57.1	65	-7.9	89	152	-63	35	13	17	2	16	6	156	71	28	20	3	24	10
Flintshire	51.3	65	-13.7	118	152	-34	50	14	29	8	10	7	230	104	46	39	12	17	12
Gwynedd	78.6	65	13.6	173	152	21	81	16	42	4	20	10	220	100	25	53	5	26	11
Isle of Anglesey	62.8	65	-2.2	86	152	-66	42	11	20	5	5	3	137	67	23	27	5	10	5
Merthyr Tydfil	45.5	65	-19.5	56	152	-96	23	6	12	3	8	4	123	53	23	19	8	13	7

Monmouthshire	56.0	65	-9.0	84	152	-68	41	10	19	1	9	4	150	80	18	32	1	12	7
Neath Port Talbot	44.1	65	-20.9	109	152	-43	46	13	31	5	8	6	247	112	27	68	10	15	15
Newport	52.8	65	-12.2	142	152	-10	58	10	44	3	24	3	269	116	21	68	6	51	7
Pembrokeshire	66.7	65	1.7	128	152	-24	66	9	28	5	16	4	192	100	17	37	6	27	5
Powys	56.6	65	-8.4	315	152	163	112	80	38	30	30	25	557	212	140	62	39	60	44
Rhondda Cynon Taf	54.2	65	-10.8	192	152	40	73	34	35	10	27	13	354	156	59	58	14	49	18
Swansea	59.2	65	-5.8	268	152	116	98	34	71	18	36	11	453	178	72	96	25	58	24
Torfaen	66.9	65	1.9	121	152	-31	55	14	38	2	9	3	181	95	22	43	3	15	3
Vale of Glamorgan	64.3	65	-0.7	133	152	-19	50	39	14	16	7	7	207	91	52	22	18	16	8
Wrexham	56.4	65	-8.6	124	152	-28	52	6	47	6	11	2	220	103	12	64	7	27	7
TOTAL (National)	58.1	65	-6.9	3286	3339	-53	1351	488	702	194	381	170	5659	2503	902	1019	274	673	288

12.2 Conversion rate

BRE's response to the ITT put forward a number of conversion rates based on the type of appointment system adopted for the WHCS. This decision was dependent on the tools available to the ONS interviewers at the time of fieldwork. At this time conversion rates (achieving a physical survey after an interview and consent to a survey) on the EHS were in the region of 80% using a hard appointment approach. For this survey, interviewers working on the EHS are able to gain access to surveyors' diaries through their CAPI and book a time convenient to both respondent and surveyor.

For the WHCS we were not able to replicate this system and after detailed discussions with ONS decided to adopt a soft appointment approach. Under this system, interviewers were able to record the preferred time of day for an appointment. Surveyors were then passed this information and could use it to help plan their appointments and diaries.

In order to achieve the Welsh Government's target of 2,500 full surveys BRE estimated a conversion rate of 75% at the start of fieldwork based on conversion rates from other national housing surveys being undertaken at the time and the previous national housing surveys undertaken in Wales.

To achieve the desired conversion rate surveyors were expected to make contact with respondents within four weeks of receiving the case. BRE and the regional managers felt it was important to keep the time lapse between interview and survey as short as possible and so encouraged surveyors to make contact within one week of receiving a case.

Conversion rates remained high throughout the fieldwork period, mainly due to the determination of the surveyors that without a hard refusal they did not give up easily on their case load. For long periods the conversion rate hovered around 85%, it was not until the final month of the survey that this began to drop as surveyors sent through cases they could not contact. The final conversion rate was **77.7%** which is comparable to other national housing surveys especially when considering the method of appointment. It also represents an improvement on the conversion rate achieved on the 2008 Living in Wales survey (**71.6%**).

The good level of conversion meant that the lower than estimated consent rates were mitigated somewhat during the first half of the fieldwork period.

The most common reason for a non-survey was a refusal / no response when the surveyor phoned to make an appointment (**15%** – see table 8 below). This is not surprising considering surveyors had to telephone to make appointments and so gave the respondent a further opportunity to refuse the survey. The frequency of refusals dropped significantly after the inclusion of the incentive in January 2018. This varied across local authorities where Torfaen and Newport saw the biggest drop in refusal rates. However, Torfaen still ended up with the lowest conversion rate of all the local authorities (**58.8%** - see table 10 below).

Table 8: WHCS final Case Outcomes

Case Outcome	No of cases	Percentage of cases
Full /completed survey	2,552	77.7
Partial survey / come back to finish	3	0.1
Partial survey then refusal	11	0.3
Refusal on doorstep	105	3.2
Refusal to HQ	4	0.1
Household missed appointment - no contact	20	0.6
Household missed appointment - rescheduled	1	0
Surveyor missed appointment - no contact	1	0
Speculative call - no contact	68	2.1
Other reason for non-survey	22	0.7
Never contacted	5	0.2
Telephone refusal / no response	494	15
Total	3,286	100

Table 9: Number of calls taken to achieve a full survey

Number of calls	Number of full surveys	%
1	2209	86.56
2	231	9.05
3	69	2.70
4	22	0.86
5	21	0.82
Total	2552	100

Table 10: Conversion rate by local authorities

Local authority	Cases	Refused	Completed	Conversion rate (%)
Blaenau Gwent	96	29	67	69.79
Bridgend	88	13	75	85.23
Caerphilly	211	44	167	79.15
Cardiff	363	60	303	83.47
Carmarthenshire	185	46	139	75.14
Ceredigion	102	32	70	68.63
Conwy	104	25	79	75.96
Denbighshire	89	17	72	80.90
Flintshire	118	26	92	77.97
Gwynedd	173	55	118	68.21
Isle of Anglesey	86	17	69	80.23
Merthyr Tydfil	56	5	51	91.07
Monmouthshire	84	19	65	77.38
Neath Port Talbot	109	19	90	82.57
Newport	142	47	95	66.90
Pembrokeshire	128	32	96	75.00
Powys	314	71	243	77.39
Rhondda Cynon Taf	192	32	160	83.33
Swansea	268	56	212	79.10
Torfaen	121	50	71	58.68
Vale of Glamorgan	133	20	113	84.96
Wrexham	124	19	105	84.68
Totals	3,286	734	2,552	77.66

Table 11: Local authority by first impression assessment

Local Authority	Total surveys	Owner Occupier in Disrepair	Owner Occupier Good Condition	Private rented in Disrepair	Private rented Good Condition	Social Housing in Disrepair	Social Housing Good Condition
Blaenau Gwent	67	5	23	5	13	1	20
Bridgend	75	28	22	2	11	5	7
Caerphilly	167	22	70	3	18	23	31
Cardiff	303	42	146	17	39	8	51
Carmarthenshire	139	22	61	4	15	9	28
Ceredigion	70	23	26	6	9	1	5
Conwy	79	8	40	2	9	5	15
Denbighshire	72	10	29	6	13	1	13
Flintshire	92	11	43	5	5	7	21
Gwynedd	118	11	62	4	21	3	17
Isle of Anglesey	69	8	33	1	4	5	18
Merthyr Tydfil	51	7	21	3	7	3	10
Monmouthshire	65	8	34	1	6	1	15
Neath Port Talbot	90	12	37	4	6	5	26
Newport	95	6	39	2	14	1	33
Pembrokeshire	96	8	56	3	12	3	14
Powys	243	61	94	17	16	23	32
Rhondda Cynon Taf	160	24	66	10	22	8	30
Swansea	212	30	84	8	24	14	52
Torfaen	71	9	33		3	2	24
Vale of Glamorgan	113	36	40	4	7	15	11
Wrexham	105	6	51	1	6	5	36
Total	2,552	397	1,110	108	280	148	509

12.3 Use of Incentives

Due to declining consent rates to the WHCS the use of incentives was discussed with the WHCS project team during October and November 2017 and it was agreed that a proposal should be put forward to the WHCS project board at Welsh Government. It was felt that consent rates were suffering because a £10 incentive was sent to participants in the National Survey for Wales for taking part but nothing was offered to the consenting WHCS participants. The WHCS project board agreed the use of a £10 incentive on the WHCS which was adopted in January 2018.

From January 8th surveyors completing a full survey handed a £10 'love to shop' voucher to the respondents. Respondents signed the 'notes' page at the back of the survey form to show they had received a voucher.

BRE ordered the vouchers and sent them out to the surveyor field force in batches so that the stock could be managed and allocated to the right surveyors at the right times. A visual representation of the vouchers can be seen at [Appendix P](#).

The use of incentives dramatically increased the take up (consent rate) to the WHCS. Consent rate prior to their introduction was 54% but for the months following introduction this rose to 68%.

Around 1,300 respondents benefitted from the incentive after its introduction.

13 Weighting

The Welsh Housing Conditions Survey (WHCS) is weighted to take account of the over-sampling of the less prevalent tenure groups and differential non-response, in order to provide unbiased national estimates. This chapter provides details of the weighting methodology, the roles and responsibilities of those parties involved and the process for agreeing the final strategy.

13.1 Roles and responsibilities

The weighting of the WHCS data was part of the contract between BRE and the Welsh Government. Due to the close working relationship of BRE and ONS and the fact ONS already produced the weights for the National Survey for Wales, BRE commissioned ONS to produce the weights for the WHCS shortly after project inception. Initial discussions over roles and responsibilities had already taken place between ONS and BRE at the bidding stage.

ONS were responsible for the weighting strategy and the production of the weights. BRE was responsible for supplying ONS with the survey data from the WHCS which was sent in mid-May 2018 after initial data acceptance checks had been undertaken by BRE. BRE received the household weights in early July 2018 and validated the weights by applying them to the WHCS modelled data and by comparing them to the LIW 2008 survey data and current EHS data.

Because no vacant properties were included in the WHCS sample there was no need to produce a dwelling level weight.

13.2 Weighting strategy

ONS delivered an initial weighting strategy which was discussed between BRE, ONS and the WHCS project team at the Welsh Government, after which it was circulated to the National Survey for Wales team and the Welsh Housing Conditions Survey Technical Group for their thoughts and comments. Comments on strategy came from the National Survey for Wales project manager, the head of Health, Social Services and Population Statistics in the Welsh Government, the EHS project manager at the Ministry for Housing Communities and Local Government (MHCLG) and lecturers in housing and health from Cardiff Metropolitan university. These were sent back to ONS and the strategy was refined to take on board these comments.

Welsh Government required both household weight and an HRP / spouse / partner weight, ungrossed and grossed which was confirmed in a meeting between Welsh Government, ONS and BRE in mid-April 2018. The HRP / spouse / partner weight was needed as participation in the WHCS is reliant on the respondent being the HRP or their spouse / partner. Grossed and ungrossed were needed if survey weights are used during regression analysis.

13.2.1 Introduction

The WHCS is a follow-up survey to the National Survey for Wales (NSW) and measures the state of repair of a sub-sample of dwellings sampled in the National Survey for Wales. Dwellings identified in the National Survey for Wales as being rented or in a state of visible disrepair where the respondent was also the HRP or partner were selected with certainty for the WHCS. Of the remaining dwellings where the respondent was the HRP or partner, 30% were selected for WHCS in July 2017 with 60% selected from August 2017 onwards.

Having been selected, the respondent is then asked whether they consent to participating in the WHCS.

13.2.2 Design Weight

The design weight is the inverse of the probability of selection for dwellings in the WHCS. The starting point is the calibrated weight for the household from the National Survey for Wales as the WHCS is effectively a sub-sample from the National Survey for Wales; this is then multiplied by the inverse of the probability of being selected for the WHCS. The probability of being selected for the WHCS depends on some characteristics of the property, but also on the selected person in the National Survey for Wales being the household reference person or their spouse. This latter condition means that households with a larger number of adults have a lower chance of being selected in WHCS and this condition needed to be reflected in the weighting. It also means that households with a spouse of partner of the household reference person have a higher chance of selection. Once this condition has been met, the probability of the household being selected for the WHCS varies depending on whether those dwellings were sampled with certainty (rented dwellings or those in a state of visible disrepair) or whether they were sampled with probability 0.3 or 0.6.

The design weight for the WHCS for dwelling i in the WHCS sample is therefore:

$$\frac{d_i^{NSW}}{P(\text{selection into WHCS})}$$

where d_i^{NSW} is the calibrated National Survey for Wales design weight for dwelling i . Considering the probabilities of selection into the National Survey for Wales, the WHCS design weight d_i^{WHCS} becomes:

$$d_i^{WHCS} = d_i^{NSW} \times \frac{m_i}{h_i} \times \frac{1}{k}$$

where:

- h_i is one if the household reference person has no spouse of partner and two otherwise,
- m_i is the number of adults in the National Survey household
- k is one for rented dwellings and those in a state of visible disrepair, otherwise $k=0.3$ for properties sampled in July and 0.6 for properties sampled in August onwards

13.2.3 Non-response

There are two types of non-response that may affect the WHCS: firstly where the respondent does not give their consent to be in the WHCS (non-consent, section 3.1), and secondly where despite initially giving consent in the National Survey for Wales, they either subsequently cannot be contacted or refuse (consent then decline, section 3.2). The design weights can be adjusted for non-response if an appropriate model of the probability of responding can be constructed. This requires variables that are related both to the variables of interest for the survey (in this case the condition and state of repair of a property) and the likelihood of an individual to participate in the survey. The advantage of the

WHCS being a follow-up survey is that there is a wealth of information available from the National Survey for Wales on those individuals who do not respond to the WHCS.

13.2.4 Non-consent

A weighted logistic regression model was used to model the probability of consenting to the WHCS. The model included the following variables:

- Local Authority
- Tenure
- Dwelling type
- First impression of walls (state of repair)
- First impression of roof (state of repair)
- Highest educational qualification
- Number of people in the household

These parameters are all significant predictors in the model. The model was then used to adjust for non-response bias. Predicted probabilities of response were used to adjust the design weights of responders as follows, to give a non-response adjusted design weight $d_i^{WHCS,nr}$ defined as:

$$d_i^{WHCS,nr} = \frac{d_i^{WHCS}}{p_i^{WHCS}}$$

where p_i^{WHCS} is the probability of a response to the WHCS from unit i , from the logistic regression model.

13.2.5 Consent followed by decline

The second type of non-response occurs when individuals initially consent to the WHCS but later decline. A logistic regression model was used to try to model this non-response, but it was found that the model fit was poor. As the variables used in the model also appear in the calibration, it was decided to allow the calibration to correct any non-response arising from this scenario.

13.2.6 Calibration weight

Calibration can help to adjust for non-response as well as ensuring that the survey estimates are consistent with known population totals. With a follow-up survey it can also be used to ensure that consistent estimates are produced between the WHCS and the National Survey for Wales. There needs to be sufficient numbers of cases (typically 30 or more) in each calibration group to limit variability in the weights.

Prior to calibration, a rescaling step was applied to scale the sum of the non-response corrected WHCS design weights to the number of households in Wales (1,341,624³ in 2016). This makes an implicit assumption that the households eligible for the WHCS are representative of the population of

households in Wales. This also ensures that the calibration weights are close to one, which makes interpretation and quality assurance more effective.

It makes sense for the calibration for the WHCS to match, as closely as possible, the calibration for the National Survey for Wales. The household design weights in the National Survey for Wales are calibrated by Local Authority and household composition (i.e. the numbers of adults and children residing at the property). For consistency with the National Survey for Wales, weights were initially calibrated to the total number of households in each Local Authority³ and the household composition.

The design of the WHCS is such that certain types of property are sampled with certainty. Therefore, the inclusion of information about the type of property or its tenure was also considered in the calibration. As the WHCS will be used to estimate dwelling type, this cannot be included in the calibration. However, the use of tenure as a possible calibration constraint was explored. Two approaches were investigated:

- 1 Welsh Government publishes dwelling stock estimates by tenure⁴ and by Local Authority⁵. The proportion of different tenure types, from the dwelling stock estimates, could be applied to the total number of households in each Local Authority and the resulting figures used as population totals in the calibration. This has the benefit of ensuring that tenure is used in the calibration, but would mean that the calibration is no longer consistent with the National Survey for Wales. Estimates of tenure from the National Survey for Wales would also not match those totals used for the WHCS calibration as they will come from different sources.
- 2 Alternatively, estimates of tenure from the National Survey for Wales itself⁶ could be used as population totals in the calibration. This is a type of two-phase estimation. This has the benefit of ensuring consistency between the National Survey for Wales and the WHCS, but the variance of the estimates used as population totals will add to the variance of estimates from the WHCS.

Both methods were tested and the distribution of the weights examined. Comparing the weights with those where tenure was not included in the calibration showed that it reduces the weights for rented properties, which are sampled with certainty in the WHCS. This indicates that it is important to include tenure in the calibration as those sampled are not fully reflecting the proportions seen across Wales.

The consistency between the National Survey for Wales and the WHCS and the benefits this has for users of the data is a strong motivation for using tenure estimates from the National Survey for Wales (option 2) and would lead it to be the preferred approach. However, to ensure that this did not introduce unacceptable variation in resulting estimates, scenario testing was used to explore the effect of variation in the published National Survey for Wales tenure estimates on the calibrated weights and estimates of the key WHCS variable of dwelling type. This involved re-calibrating the WHCS data using versions (a mixture of the estimate, upper and lower bounds across the three tenure categories whilst still satisfying the constraint that these three proportions need to sum to 1) of the published National Survey for Wales tenure proportions, within their confidence limits. The different versions of the resulting weights were then used to estimate dwelling type. This gave an indication that the variation in the estimates of dwelling type arising purely from the variance of the population totals was between 0.5% and 3%, depending on the dwelling type. This was deemed to be

³ [Stats Wales table - household estimates by local authority and year](#)

⁴ [Stats Wales table - dwelling stock estimates by year and tenure](#)

⁵ [Stats Wales table - dwelling stock estimates by local authority and tenure](#)

⁶ [National Survey for Wales results viewer](#)

acceptable from a methodological point of view and the National Survey for Wales tenure proportions have been adopted in the calibration as fixed values⁷.

The published National Survey tenure proportions, and the totals used for calibration, calculated by applying these proportions to the number of households in Wales (1,341,624³ in 2016) are shown in Table 12.

Table 12. Published National Survey for Wales tenure proportions and the derived population totals based on applying these proportions to the total number of households in Wales.

Tenure	NSW proportion	Derived population total
Owner-occupied	0.69	925,399
Social Housing	0.18	237,977
Private Rented	0.13	178,248
Total	1.00	1,341,624

In practice, the calibration weight was calculated using the GES program in SAS; this is the standard approach for ONS social surveys and is the approach applied to the National Survey for Wales.

13.2.7 Final weight

The final weight w_i^{WHCS} is the product of the non-response adjusted design weight d_i^{WHCS, nr^*} and calibration weight w_i^{cal} :

$$w_i^{WHCS} = d_i^{WHCS, nr^*} \times w_i^{cal}$$

⁷ Note that for calibration in general, we assume that the population totals for calibration are known without error, which is not the case in practice. It is therefore reasonable to assume that the National Survey estimates used in the calibration are also known without error, and this will add a small, but not easily measured contribution to the variance of the final estimates.

13.2.8 Person level weights

There is an additional requirement to produce person level weights for those people included in households in the WHCS sample so that statements can be made about the proportion of individuals from different groups (for example, children) and the conditions of the properties they live in.

The person level weights are calibrated to the total number of individuals in Wales in the same sex-age groups and Local Authorities as the National Survey for Wales⁸. This implicitly assumes that the mix of individuals in households in the WHCS is representative of the population of Wales.

13.2.9 Summary

The methodology for deriving final weights for the WHCS included the following decisions:

- A logistic regression model was included to correct for non-consent to the WHCS.
- A logistic regression model was not included to correct for consent followed by decline non-response to the WHCS as the model fit was poor. This type of non-response was addressed by the calibration.
- Household weights were calibrated to the number of households in each Local Authority, the household composition and estimates of tenure (owner-occupied, social housing and private rented) proportions from the National Survey for Wales which were applied to the number of households in Wales.
- Person weights for individuals within each WHCS household were calibrated to the total number of individuals in Wales in the same age-sex groups and Local Authorities as the National Survey for Wales.

13.3 Design effects

Although the estimate produced from a sample survey will rarely be identical to the population value, statistical theory allows us to measure the accuracy of any survey result. The standard error can be estimated from the values obtained for the sample and this allows calculation of confidence intervals which give an indication of the range in which the true population value is likely to fall.

The design effects (DEFF) requested by the Welsh Government are noted below. Tenure was not included as it was used in the production of the weights.

- dwelling type
- dwelling age
- Welsh Housing Quality Standard (WHQS)
- energy efficiency rating band
- damp problems

⁸ [National Survey for Wales technical report](#)

14 Data processing

This chapter outlines data processing procedures used on the WHCS and also gives information about the main derived variables and data outputs from the survey. The WHCS has several quality assurance measures in place which are undertaken throughout the survey process, beginning at the point of data collection, through surveyors validating their own forms using the online system developed by BRE. As the data are collated, processed and modelled, additional validation procedures are undertaken. These processes are similar to those used on the English, Scottish and Northern Ireland House Condition Surveys.

14.1 Editing

The introduction of the digital pen and accompanied online validation system to the 2017-18 WHCS led to a number of improvements over the system used for the 2008 Living In Wales survey. The process operates in three stages.

First, a large number of checks are run on the data as surveys are uploaded. These are then displayed back to the WHCS surveyors via the surveyor website. These checks include:

- range checks – to identify where the entry falls outside a pre-specified range of responses
- logic checks – where a combination of responses to certain questions is not logically consistent (e.g. to check that the sum of 'tenths of area' across rows adds up to ten)
- consistency checks – to determine whether linked responses in different parts of the form are consistent with each other (e.g. that detailed room data is only entered where a room is coded as existing), and
- plausibility checks – to determine whether a response is reasonable given that there is not a well-defined range of possible answers (e.g. ceiling height of a room entered as 24 metres instead of 2.4 metres)

Surveyors also visually check all pages to ensure that the digital pen entries mirror those on the paper form i.e. that handwritten numbers have not been misinterpreted by the software.

Second, the surveyors' regional managers check the data and where necessary discuss with surveyors to agree on a final set of responses.

Once all the WHCS surveys had been submitted by the surveyors, BRE undertook further consistency and plausibility checks on the raw physical survey data. The purpose of these checks is, firstly, to detect and eliminate certain logical inconsistencies that would cause problems for modelling based on a more complex set of logic rules and, secondly, to identify highly implausible answers, which if deemed necessary after investigation, are corrected. In some cases, the raw WHCS physical survey data were altered following these consistency and plausibility checks as outlined below.

- Levels checks – data may be inconsistent regarding the number of storeys in the building, and the floor occupied by the dwelling. BRE checks for the following possible errors:
 - a room on a floor that does not exist (e.g. 3rd floor of a three storey block, the three floors being recorded as ground, first and second)
 - a room on a level that is not part of the flat (e.g. room on the 3rd floor but flat on the 2nd floor)
 - a measured floor that is not part of the block (e.g. dimensions for 3rd floor when the dwelling only has three storeys)

- a flat on a level that does not exist (e.g. flat on the 3rd floor when the module only has three storeys)
- presence of a habitable attic/basement is inconsistent with the number of floors
- Implausible dimensions – checks are carried out on the dimensions, to identify any floor area that seems too large or too small. Where a reliable measurement is missing, BRE will attempt to work out the data from any measurements thought to be correct; or failing this by estimating the dimensions as best as possible from the photographs.
- Non-permissible values – on rare occasions a surveyor response may happen to be equal to a value that is reserved for special purposes. The numbers 77, 88 and 99 are reserved to indicate section not applicable, question not applicable, or unknown. When these figures occur as real measurements or counts, they are reduced by one.
- Incorrect number of flats – the dimensions of the surveyed flat are checked against the total floor area of the survey module to identify if the number of flats per module seems realistic.
- Incorrect roof type – certain roof types (chalet and mansard) can only occur where the dwelling has an attic. On occasions surveyors may mistake steep pitched roofs for chalet roofs. In this situation, the data for pitched and chalet roofs are swapped over.
- Implausible wall and window areas/fenestration ratios – where a dwelling seems to have a wall or window area/fenestration ratio that is either too high or too low the data are checked. The surveyor's judgement is deemed correct unless there is clear evidence (e.g. from photographs) to amend the data.
- Wall thickness – cases are identified where the wall thickness as measured by the WHCS surveyor is not typical of the wall selected i.e. cases where the WHCS validation system has triggered a wall thickness range check. Each case is checked by looking at the details recorded on the physical survey form in conjunction with the photos and surveyor comments. Based upon the information gained, the action is decided upon for each case. This could be no action required or it could be that the survey data looks incorrect, either the wall thickness value or the way the surveyor has coded something as wall that should not be counted as wall. Where required, the appropriate modifications are applied to the physical survey data.
- Heating system consistency checks – cases which contain inconsistent heating system data on the physical survey form are flagged in the validation process at BRE. Each case is checked by returning to the raw data; in cases where alterations can confidently be made, the data are modified accordingly.

14.2 Derived variables

Derived variables are created either by simply recoding a particular survey question or by combining the information collected from a number of questions, which can involve complex modelling. Examples of basic derived variables include dwelling age and dwelling type and examples of complex derived variables include repair costs, usable floor area and energy efficiency rating.

The list of derived variables included in the key WHCS derived dataset physical.sav can be found in [Appendix Q](#).

The derivation of some of the derived variables involves complex data modelling. A detailed description of how the more complex derived variables are defined and modelled is covered in chapter 15.

14.3 Imputation

As part of the modelling processes, it is sometimes necessary for any missing data to be substituted with imputed values. The level of imputation for the WHCS data was low as the inspection is carried out by a trained surveyor and there are only a few sections of the survey form where the surveyor can select 'information unknown' as an option; the most notable is the loft inspection, where surveyors cannot always obtain access.

Imputation of data also takes place in the modelling of derived variables where a value provided in the raw data falls outside the pre-specified range of the consistency/plausibility checks. Such values are interrogated and only changed when analysts are confident that the data are incorrect. See chapter 15 for further details.

An example of imputation that occurred in the modelling of WHCS 2017-18 derived variables is in the modelling of the dimensions of the property e.g. derivation of floor area, external wall area etc., a total of 104 cases in the dataset had some form of alteration to the raw physical survey data following consistency and plausibility checks on the raw physical survey data.

14.4 Dataset

A range of WHCS datasets are produced and are detailed below.

Table 13: WHCS datasets

Physical datasets	Detailed derived datasets	Derived datasets
Amenity.sav	Standardised costs.sav	Physical.sav
Around.sav	Actual costs.sav	
Chimney.sav	Dimensions.sav	
Commac.sav	Energy performance.sav	
Common.sav	HHSRS.sav	
Damppc.sav	WHQS.sav	
Doors.sav		
Dormers.sav		
Elevate.sav		
Firstimp.sav		
Flatdets.sav		
Hhsrs.sav		
HQ.sav		
Interior.sav		
Introoms.sav		
Numflats.sav		
Plotlvl.sav		
Roofcov.sav		
Rooffeat.sav		
Roofstru.sav		
Services.sav		
Shape.sav		
Shared.sav		
Structure.sav		
Wallfin.sav		
Wallstru.sav		
Windows.sav		

15 Data modelling

15.1 Dimensions

Once all WHCS physical surveys have been submitted by the surveyors the data are converted into a series of raw physical survey SPSS files. The first complex model to run using the raw physical survey WHCS data is the Quantities (or “Dimensions”) model.

The purpose of this model is to take a series of observations and measurements recorded by the WHCS surveyors carrying out the physical survey and convert these into all of the required dimensions e.g. floor area, external wall area, window area, roof area, etc. These dimensions are then used as inputs into a number of processes, including costing of repairs and energy modelling.

In the process of running the Dimensions model, BRE staff undertake a number of consistency and plausibility checks on the raw physical survey data. The purpose of these checks is to firstly detect and eliminate certain logical inconsistencies that could not be processed by the Dimensions model and secondly to identify highly implausible answers from the Dimensions model outputs which, if deemed necessary after detailed investigation, can lead to correction of the WHCS raw physical survey data.

The WHCS raw physical survey data are stored in an SPSS database format and, after data acceptance checks the dataset is used as the input into the dimensions modelling process.

15.1.1 Raw physical file checks

Wall thickness

The ‘wall structure’ section of the WHCS 2017-18 form included a new variable ‘Wall thickness (cm)’ (*Fexws1wt*, *Fexws2wt*) for which surveyors were asked to measure the wall thickness for each wall type (eight types possible) recorded on the front and back views. This information is used within the Dimensions model in the calculation of the floor area.

A flag is created for cases with a warning for wall thickness, front view and back view; these are cases where the wall thickness is not typical of the wall type selected. Each case is investigated by looking at the physical survey form in detail in conjunction with the photos and surveyor comments and a note is made for each case of what is likely to have caused the warning on the form. Based upon the information gained, the action is decided upon for each case. This could be no action required or it could be that the physical survey data look incorrect, either the wall thickness value or the way the surveyor has coded something as wall that should not be counted as wall. The spreadsheet is passed to a second analyst to quality assure the outcomes. The appropriate modifications are applied to the raw physical survey data. In 2017-18, 12 cases were flagged and investigated with no cases subsequently being edited.

An average wall thickness is calculated, by multiplying the thickness of each wall type by its area (in tenths) and dividing by 10. The resulting values are rounded to the nearest whole number to maintain the level of accuracy present in the original data. The variable is used as an input into the Dimensions model for the conversion of dimensions from external measurements to internal measurements.

Levels

A series of checks, written in SPSS syntax, are performed in order to identify possible logical inconsistencies in the raw data associated with the number of storeys in the building and the floor occupied by the dwelling. If the inconsistencies were left unchanged it would result in problems in the running of the Dimensions model.

The WHCS uses the British system of denoting floor levels, where the ground floor is designated G, then the next level 1, then 2, 3, etc. Therefore, a dwelling with 3 storeys should only have rooms, flats, or measured levels on floors G, 1, and 2. The most common type of error relating to floors is one where the surveyor switches to the American designation and uses 1 to indicate the ground floor. Other types of error linked to floor levels include failure to identify an attic as habitable and failure to include the basement in the count of the number of storeys. The level checks for inconsistency include:

- a room on a level that does not exist (e.g. 3rd floor of a three-storey module)
- a room on a level that is not part of the flat (e.g. room on the 3rd floor but flat on the 2nd floor)
- a measured level that is not part of the module (e.g. dimensions for 3rd floor when the dwelling only has three storeys)
- a flat on a level that does not exist (e.g. flat on the 3rd floor when the module only has three storeys)
- An additional part of the dwelling that starts on a higher storey than the main part of the dwelling

All cases that are identified as having inconsistencies are manually examined by inspecting the WHCS physical survey form and surveyor photographs in order to determine why the error has occurred and how the data should be changed. The cause of the error and the actions required to resolve the issue are then documented. In 2017-18 33 cases were flagged as having possible inconsistencies. Of these, 20 were found to have an error and were therefore corrected.

When it is established that there is an error in the raw data, SPSS syntax is used to alter the required variable/s. The altered physical files are then saved in a new location. The levels checks are repeated in order to confirm that all issues have been resolved.

Dimensions calculations

The Dimensions calculation engine takes the altered physical files and uses the data to compute all the required dimensions e.g. floor area, external wall area, window area, roof area, etc. as outlined in flow chart, **Figure 8**.

The model begins by taking the measurements for the floors measured by the surveyor and then extrapolates from these the size of any unmeasured floors. Once a plan of each floor has been calculated the ceiling heights can be used to calculate or extrapolate (depending on the location of the five measured rooms within the building) the overall height of each floor. This in turn can be used as the basis for an overall wall area.

Wall areas are complex as there is the potential for additions beyond the surveyor's initial measurements (through base walls, gables and the like) and reductions brought about by attachment to other properties. It is also necessary at this stage to consider the location of the additional part, which may affect the size of the dwelling envelope⁹.

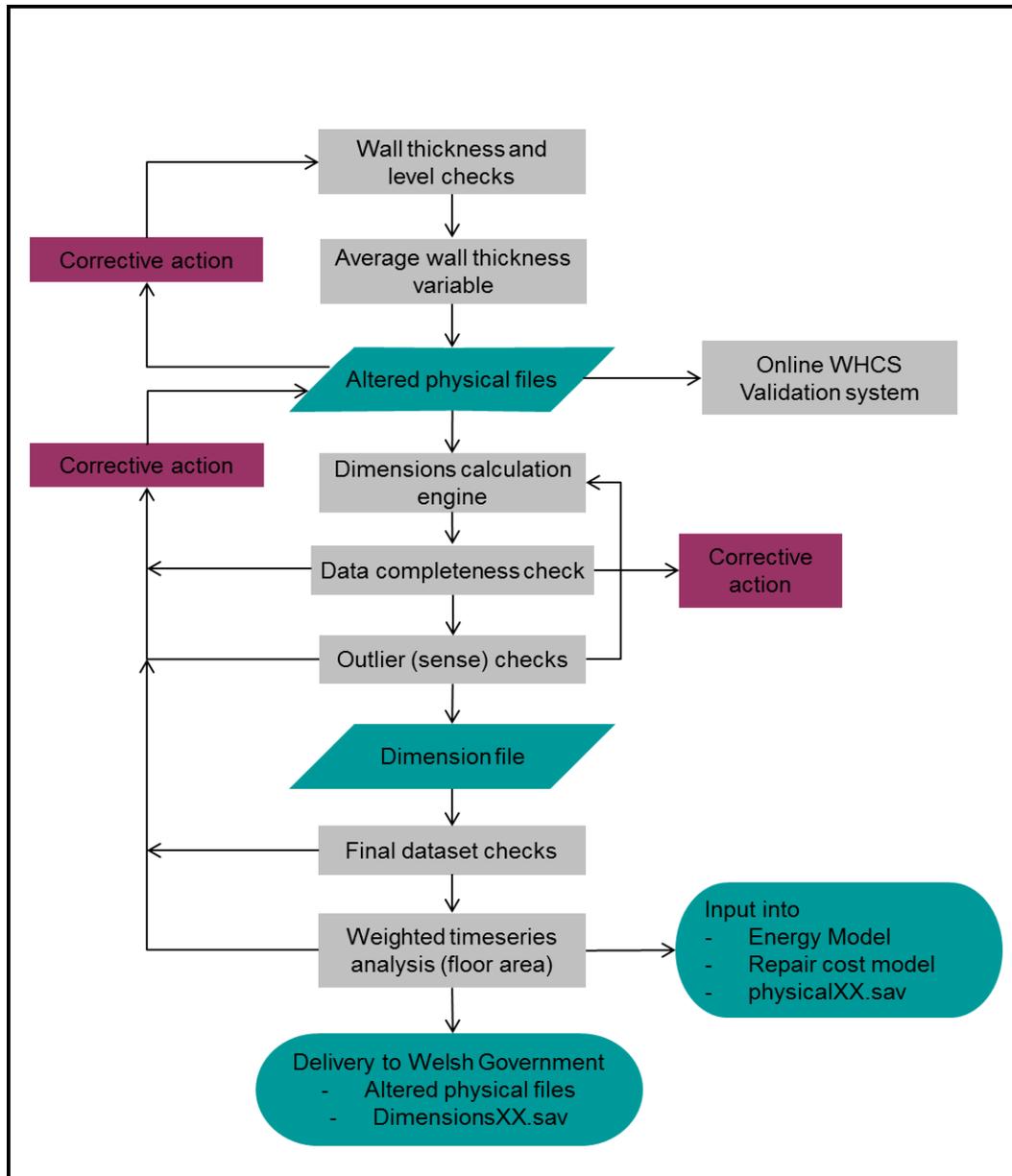
With the areas of the walls calculated for each face of the dwelling the level of fenestration on each face is assessed by using the fenestration ratio (the proportion of the gross surface area of the external wall which is given over to windows, voids and wall) as recorded by the surveyor with reference to the exposed area of the face.

The area of the roof is calculated by taking the area of each floor and comparing it to the floor above. Where the latter is smaller the difference is considered to be exposed roof. This is then increased to

⁹ The envelope in this context relates to the design and construction of the exterior of the dwelling and consists of its roof, sub floor, exterior doors, windows and exterior walls.

allow for an eaves overhang, and then the results are summed across all levels up to the top floor, creating a total roof area that will typically be larger than the footprint of the dwelling. The same piece of code is also used to look at the amount of eaves perimeter on each level and total these across all levels.

Figure 8 : Dimension model process



In the event that the dwelling is a flat a number of additional algorithms are used to separate out the interior dimensions of the flat itself, and the exterior dimensions which relate to the “module”. It is important for the energy modelling that dimensions relate to the flat itself, but for repair costs the overall cost of repairs to the module must be shared among all dwellings within the envelope, and therefore external dimensions should apply to the module.

The preliminary results are stored in SPSS database format.

Data completeness checks

Outlier (sense) checks

A number of checks are then performed on the derived dimensions to validate the outputs. The checks are designed to identify:

- implausible wall areas
- implausible floor areas
- implausible window areas
- incorrect number of flats
- incorrect roof type

A statistical function written in SPSS syntax is used to identify outlying cases in terms of floor, wall and window area. Cases that have unusually large or small areas given the dwelling's size (in terms of the number of rooms) are flagged up. The survey form and photographs of each outlying case are manually examined to determine whether the outlier is genuine, or the result of an error. Errors can occur where key data have not been entered (such as an integral garage), dimensions mis-measured (such as entering 72 instead of 7.2) or features over- or underestimated. BRE defers to the surveyor's judgement unless convinced the data are incorrect (i.e. the evidence from the photographs). If an error in the raw data is identified, the cause of the error and the actions required to resolve it are recorded. For 2017-18 around 154 cases were identified as outliers for floor, wall or window areas, and of these 36 cases were found to have an error of some kind.

For the check on the number of flats, the dimensions of the surveyed flat are checked against the total floor area of the module to determine whether the number of flats per module seems realistic. Where it does not, BRE staff will examine the floor plans and photographs in an attempt to understand the surveyor's error, which usually stems from the module definition, and to determine the correct number of flats.

Certain roof types (Chalet and Mansard) can only occur where the dwelling has an attic. On occasion surveyors may mistake steep pitched roofs for chalet roofs. In this situation, the data for pitched and chalet roofs are swapped over.

Alterations to physical data

In relation to the above checks, where there is missing information, BRE will attempt to fill in the missing data or otherwise resolve the error. For the applicable cases, the required variable/s are altered and the new altered physical files replace those created following the levels checks. The Dimensions model is then rerun using the altered physical files.

Alterations to dimensions model code

The data completeness checks and the sense checks may highlight amendments that are required to the Dimensions model code. Where necessary, the code is altered and tested to ensure it is working correctly.

The Dimensions model is rerun using the altered physical files and a series of first run 'final' dimensions files are created in SPSS database format.

The above procedure is repeated when the 'second run' of the WHCS raw physical data is available once the dimensions file has been run through the first run of the energy model.

Basic checks are performed on the final derived dataset from the Dimensions model ensuring that all variables are present and labelled correctly, that all variable values are present (via a frequency check) and that all missing values are set as missing following the WHCS conventions.

On delivery of the grossing factor, further investigation may take place should the weighted results highlight an unexpected change in the data.

At this point the Dimensions modelling is complete. The 'Dimensions.sav' is used to derive the original WHCS floor area variable (floorx) and a new floor area variable (floory) which is based on total internal floor area. These variables are added to the derived physical.sav dataset. The altered physical files are then delivered to Welsh Government along with the 'Dimensions.sav' and these datasets are used internally by BRE as an input into the repair cost model and the energy model.

15.2 Repair costs

This section presents an overview of how repair costs are derived from the WHCS and is divided into three sections:

- the different repair cost measures used
- what types of work are excluded and included
- an outline of how the raw data is used to generate the costs

Information about repair costs is used for two basic purposes:

- to assess how much it would cost to carry out the specified work to the dwelling to give some idea of the likely level of investment needed. This is termed 'required expenditure' or 'actual costs'.
- to assess whether parts of the stock are in a better or worse state of repair than others. This is measured through 'standardised costs'.

15.2.1 Repair cost measures

Required expenditure

This is an estimate of what the specified work to the individual dwelling would actually cost. These costs therefore take account of variations in prices across the country and assume different project sizes depending on each dwelling's type and tenure. In the owner occupied and private rented sector, the contract size for work to houses is taken to be one. In the social rented sector, the contract size is taken as the number of dwellings on the estate unless the house is not on an estate and therefore assumed to be a street property with a contract size of one. For flats, the contract size for exterior works is the size of the block regardless of tenure. This measure assumes that all work is carried out by contractors who operate in accordance with health and safety regulations. The costs do not include any VAT or mark up for profit. These costs should not be used for assessing differences in condition between different tenures or dwelling types because they vary according to dwelling size, tenure and location (note: on the WHCS database these costs are shown as 'actual costs'). When making such comparisons among different dwelling characteristics, it would be more appropriate to use 'standardised repair costs' as explained below.

Standardised repair costs

This is an index of disrepair that expresses costs in pounds per square metre (£/m²) based on prices for a mid-point in the range of prices in Wales. The same assumptions about contract size are made for houses in all tenures (contract size = 5 dwellings) and are then divided by the total floor area of the dwelling. The resulting index can be used to compare the relative levels of disrepair for dwellings of different sizes, in different tenures and different locations.

The extent of work required to a dwelling depends on the judgements made by the surveyor about the urgency of that work. The two different measures of required expenditure and standardised costs are therefore presented with reference to three different time scales:

Urgent repairs

This is a measure of serious and immediate problems in the dwelling and includes all interior work. Where surveyors record that work is needed to an exterior building element, they indicate whether work specified is urgent. To be classed as 'urgent', the problem must meet at least one of the following criteria:

- it threatens the immediate safety of occupants or passers-by or is a health hazard
- it is currently promoting noticeable and rapid deterioration in other parts of the building
- it is at present causing difficulty or discomfort to the occupants
- the security of the building is threatened

(variables on database = cstactux and cststdux)

Basic repairs

These cover all works that the surveyor has identified as necessary to carry out within five years, including any urgent work as described above. These do not include replacement of building elements nearing the end of their life where the surveyor has recorded that this action could be delayed by more than five years, often by short term patch repairs. *(variables on database= cstactbx and cststdbx)*

Comprehensive repairs

These cover all repairs as specified above together with any replacements that the surveyor has assessed as being needed in the next 10 years. For all exterior elements, whether repairs are needed or not, surveyors record the number of years before the element needs replacing either following specified repair work or simply as the remaining life expectancy. This measure provides a better basis for identifying work which would form part of a planned programme of repair by landlords. *(variables on database = cstactcx and cststdcx)*

15.2.2 What types of work are included and excluded?

The costs described above include all of the following types of work:

- all work to the external fabric of the building: chimneys, roof, roof and soil drainage, windows, doors, dormers, bays, porches, balconies, damp proof course and treatment of inappropriate gradients/levels of ground adjacent to the dwelling
- additional work to deal with structural instability: e.g. underpinning, tying in of walls, treatment of fungal or insect infestation, replacement of cavity wall ties, etc.
- work to the internal fabric: ceilings, floors, internal and partition wall surfaces, internal doors and stairs
- work to amenities and services inside the dwelling: kitchen, bathroom, WC, electrical wiring, plumbing, gas pipes, heating, and water heating
- work to common areas and access ways in blocks of flats: floors, walls, ceilings, doors, screens, windows, lighting and balustrades
- work to shared facilities on estates: stores and common rooms, communal parking facilities, surfaces and fences and common services. Note that this only covers any shared facilities that

might be used by the occupants of the survey dwelling and which, for large estates, are located within 100 metres of the survey module.

The costs **exclude**:

- work to fences and boundary walls
- work to underground drainage
- hidden work to structure or foundations
- work to plant associated with shared facilities, e.g. lift motors, communal boilers, washing machines in laundry rooms, etc.
- shared facilities not used/useable by the dwelling itself
- VAT, professional fees, overheads or profit.

It is also important to remember that repair costs are based on a snapshot of the housing stock at the time of the survey and no provision is made for any routine regular maintenance that would (or should) be carried out e.g. servicing of boilers, lifts etc. or clearing of gutters.

15.2.3 Calculating repair costs

The WHCS uses four types of information to calculate base repair costs:

- The surveyor's assessment of the type of repair needed and its extent.
- The surveyor's description of the materials from which the element is constructed (for external elements only).
- Building dimensions and configuration derived from the surveyor's measurements and observations, for example, the shape of the dwelling.
- Unit prices for different types of job from the 1996 National Schedule of Rates (NSR), adjusted for inflation using the Building Cost Information Service (BCIS) national price index. The BCIS data is used to convert basic standardised repair costs (£/m²) to 2017 prices so that the level of disrepair over time can be examined.

The surveyor assesses each element in turn: usually surveying the interior first, and then the exterior of the dwelling. Internally an assessment of the main rooms is made (the main living room, main bedroom plus hall, kitchen and bathroom). The work identified as needed in the sample of rooms is scaled up to reflect the total number of rooms in the dwelling. All of the internal amenities and services are surveyed individually.

For the common areas in blocks of flats, surveyors select only part of the common areas to survey – the main entrance, stairway and corridor/deck used by the survey dwelling. These are assumed to be representative of the whole of the common areas and scaled up accordingly.

Externally the surveyor assesses each element in turn, looking at the building from two vantage points ('views') which between them encompass the whole building.

In assessing the type and extent of work needed, surveyors follow a sequence of decisions that are made explicit on the survey form:

- identify whether there is a fault
- determine the nature of the action
- determine the scale of the action

- determine the timing of the action (for exterior elements only)

These assessments will depend on a large number of factors. What standard of repair should be aimed for? Will the work be spread over time or is it all to be done straight away? How long must the building remain in good condition once the work is done? How much is it worth spending on the building? According to how these questions are answered, the final repair cost can vary considerably. The WHCS therefore sets fairly stringent ground rules and assumptions for surveyors to follow.

In making their assessments, surveyors are instructed to assume that dwellings have an indefinite life – repairs are recorded even where it is felt to be uneconomic.

When determining the nature of the action required, they are instructed to treat the work as a programme of actions stretching into the future which means to repair rather than replace unless:

- this is impracticable
- it means that the element will still need replacing within 5 years
- the element needs replacing for other reasons, e.g. it is unsuitable for its intended purpose. Here, the standard of work should result in the element being fully functional without any allowance for modernisation, upgrading or purely cosmetic improvements.

In deciding how much of the element requires the specified action, they are instructed not to employ economies of scale. The quantity of work required is recorded in different ways for different types of elements:

- in tenths, for elements treated as areas, e.g. walls, roofs, or lengths e.g. roof features. The building measurements and other information enable us to calculate the total number of square metres of each element in each view or room e.g. external walling at the rear, ceiling in the kitchen etc. and these are then multiplied by the proportions indicated by the surveyor to obtain an actual quantity
- in number of units needing work, for elements which can be treated as individual entities, e.g. doors, windows, baths
- in square or linear metres for work to elements where there is insufficient data to estimate the total quantity within the building e.g. flooring in common areas

For the last two, the quantity given is multiplied by the unit cost for the job specified. For elements where the work is specified as a proportion, this is first converted to a quantity (m² or linear metres) from the dimensions taken of the dwelling/building and then this quantity is multiplied by the unit price (per m² or per m) for the type of work specified. In all cases it is assumed that a like for like replacement is undertaken and the costs selected reflect the materials from which the element is currently constructed, e.g. a slate roof is always replaced with a slate roof.

The cost calculated is for the individual dwelling. Therefore for flats the cost of works to the common areas and exterior, recorded for the whole building, is divided by the number of flats and this is added on to the interior, amenities and services costs for the individual dwelling.

15.2.4 Dealing with missing data

The cases included in the physical survey database are those where a full survey was conducted, but even where the form was completed fully the surveyor may have omitted to provide some information needed to calculate repair costs. Such omissions are, however, increasingly rare, particularly after the introduction of the digital pen technology.

Where data are missing costs are imputed using data for dwellings of a similar age and type:

- if the surveyor has clearly indicated that repairs are needed to an element, but not what those repairs are, then an average cost for that element is taken from dwellings of a similar age and type where repairs are needed to that same element.
- if the surveyor has not indicated whether repairs are needed to an element, then an average cost for that element is taken from all dwellings of a similar age and type.

15.2.5 Add-ons, uplifts, preliminaries and modifications to base costs

Once the 'base' costs have been calculated as above, additional sums are added to account for preliminaries and access equipment:

- preliminaries: items required before the work can commence e.g. site hut, security fencing
- access equipment: includes the costs for scaffolding, cradles and other equipment needed to work safely at height.

There are also factors added to account for 'uplifts' or economies of scale which are calculated differently for the 'required expenditure' and 'standardised costs' versions as described above.

It is important to remember that costs do not include any VAT, professional fees, overheads or profit.

15.3 Energy efficiency

The Welsh Housing Conditions Survey (WHCS) collects a large amount of detailed information relating to building construction, heating and insulation. This provides a detailed profile of the energy performance and carbon emissions of the existing housing stock and how far it could be improved using different types of measures. This section describes the following:

Main components of energy efficiency – how the individual components contributing to overall efficiency are defined and modelled.

Standard Assessment Procedure (SAP) of buildings' energy performance – the methods and assumptions used to calculate SAP (energy efficiency) ratings and carbon dioxide emissions.

Energy Performance Certificates (EPC) – how an assessment is made of what measures could be installed to improve energy efficiency and reduce carbon emissions, and what the impact of installing these possible improvements would be.

15.3.1 Main components of energy efficiency

Primary heating systems

The WHCS records up to two forms of space heating system and all water heating systems present in each dwelling. Where two types of space heating system are present, the WHCS designates the one that covers the largest proportion of the dwelling as the primary heating system and collects detailed information on its overall type, the fuel used, boiler details (where relevant) and heating controls. The primary space heating type is classified as central heating system, storage heaters or room heaters.

Central heating system: This is most commonly a system with a gas fired boiler and radiators, distributing heat throughout the dwelling. Also included in this definition are warm air systems, communal heating and electric ceiling/underfloor heating. Central heating is generally considered to be a cost effective and relatively efficient method of heating a dwelling, although the cost effectiveness and level of carbon dioxide (CO₂) emissions will be closely linked to the type of fuel.

Storage heaters: These are 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; they charge overnight (typically) and the heat is then released throughout the day. These are more cost effective than fixed or portable on-peak room heaters, but storage heating can prove expensive if too much on-peak electricity is used during the day. Their performance is calculated based on their age and the type of controls present.

Room heaters: This category includes all other types of heater such as fixed gas or on-peak electric heaters. This type of heating is generally considered to be the least cost effective of the main systems and produces more CO₂ emissions per kWh.

Secondary heating systems

Where more than one space heating system or appliance has been recorded and the primary system identified as above, the additional appliance is coded as the secondary system and, along with the secondary fuel, used in the SAP calculation and other analysis. These systems may have been originally installed alongside the primary system, perhaps in a larger home. They may have been the only source of heating when the property was built, before being superseded by a new system, typically a form of central heating. The secondary space heating type is classified as follows:

Fixed room heaters: the majority of secondary systems fall into this category, which includes various types of mains gas fires, solid fuel fires and stoves, and direct acting electric panels and radiators which are wired into the mains electricity.

Storage radiators: individual storage heaters which are not considered to be a main heating system are included here.

Heat pumps: Heat pumps which are not considered to be a main heating system are included here.

Portable heaters: where the only secondary heating is through a portable electric heater. This includes cases where the SAP methodology has concluded that the main fixed heating is insufficient to heat the dwelling to a satisfactory level, so a portable secondary system is imputed to allow an energy efficiency rating to be calculated.

Boilers

Where the heating system has a boiler, the WHCS collects basic information on its generic type. The WHCS also collects information about the make and model of the boiler and its age so that an accurate estimate of its overall fuel efficiency can be derived. There are four main types of boilers:

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

Back boiler: these (typically) older models are located behind room heaters and feed hot water to a separate storage cylinder as well as distributing heat to radiators. They are generally less efficient than other boiler types.

Combination boiler: provides hot water for space heating and can provide hot water on demand, thus negating the need for a storage cylinder and therefore requiring less room.

Condensing boiler: 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. Changes to Building Regulations have seen an increase in condensing boilers as they have become mandatory for virtually all replacements.

Water heating

All existing water heating systems are recorded by the surveyor. Where more than one water heating system is present, the system used for analysis and modelling is selected in the order of the categories below. The main categories of water heating systems are:

With central heating: the water is primarily heated by the same system as the primary space heating, usually a standard boiler with a separate storage cylinder or a combination boiler heating water on demand.

Dedicated water boiler: a separate boiler to the space heating system, possibly using a different fuel, provides the hot water. This category includes dedicated back boilers and communal systems for water heating only.

Immersion heater: hot water is provided by a single or dual electric immersion heater in the storage cylinder. These are less cost effective than central or separate boilers, but are often found as a 'top-up' system for other systems.

Instantaneous water heater: these are the least energy and cost efficient water heating appliances. They heat small amounts of water on demand in a similar way to a kettle and distribute the hot water to one or more points.

Wall types and wall insulation

The construction of the external walls and whether they contain any additional insulation is an important determinant of heat loss. The WHCS collects detailed information on the overall construction type, age of the building, added wall insulation and what proportion of the external walls consists of different types.

Cavity walls: A cavity wall is one constructed of two brick or block walls separated by a cavity that is usually at least 50mm wide. They are generally found in houses dating from about 1930 onwards, although some older examples exist. Many dwellings (especially older private sector homes) have a mix of wall types because they have had one or more extensions added at different times.

Dwellings are only classed as 'cavity wall' where at least 50% of the total external wall area is cavity brickwork. This means that a small house built with solid 9" brick walls in 1900 which had a cavity brickwork extension that was larger than the original building added in 1960 would be classed as having 'cavity walls'.

Dwellings with cavity walls can have none, part or all of the cavity wall area insulated. The insulation can be built into the original wall construction or installed later and can reduce fuel costs by up to 15%.

Post-1995 dwellings: In addition to cases that have been identified in the WHCS physical survey as having evidence of cavity wall insulation and those without evidence of cavity wall insulation, a third category is established: post-1995 dwellings with predominantly cavity walls without evidence of full cavity wall insulation. It is likely that these dwellings had cavity wall insulation installed at the time of construction (known as 'as built' insulation), however the non-intrusive survey undertaken in the WHCS would not always be able to identify this. In order to provide a more realistic estimate of the number of insulated cavity walls, all post-1995 cavity wall dwellings are assumed to be fully insulated, even if this was not apparent in the physical survey.

The 1990 and 1994 Building Regulations both specify an external wall U-value, however compliance could be achieved through other mechanisms as an alternative to cavity fill. Therefore an increasing proportion of new dwellings were built with cavity wall insulation in the early 1990s, and it is thought to have become the predominant practice after 1995.

Solid walls: Where dwellings do not have cavity walls, external or internal wall insulation can be installed to improve energy efficiency where the thermal properties of the external walls are poor. Where a surveyor has recorded that external wall insulation had been applied to at least 50% of a non-cavity walled dwelling, or that at least 50% of the rooms have had internal insulation applied, it is classed as having an insulated solid wall.

Loft insulation: Adequate loft insulation can make significant savings to both heating costs and CO₂ emissions, making this a cost-effective method of insulation. It involves fitting insulating foam or fibre

between the joists or rafters in a loft, which reduces heat from within the thermal envelope¹⁰ below escaping through the roof. The performance of loft insulation is adjusted to reflect the performance of the material compared to mineral wool. Rigid foam board is assumed to perform twice as well as mineral wool and Vermiculite beads are modelled to perform two-thirds as well as mineral wool.

The WHCS involves an inspection of the loft where the surveyor notes whether insulation is present and measures its thickness. In cases where surveyors are unable to access lofts the amount of insulation in the dwelling was imputed using the mean value for dwellings of that age, tenure and broad geographical area for the purposes of a SAP assessment. These classifications were used because earlier regression analysis indicated that these factors were the main determinants of the amount of loft insulation present.

Renewable energy measures: WHCS surveyors record the presence of solar photovoltaic panels and domestic wind turbines for electricity generation, as well as the presence of solar hot water panels.

In the full SAP methodology a calculation is used to determine the electricity production of PV panels, using peak power of the type of PV panel multiplied by factors such as dwelling orientation and overshadowing. The area of PV panels is also collected, which allows peak power to be calculated more accurately for each dwelling, using the equation: (Peak power (kWh) = 0.12 x PV area), in line with RdSAP conventions.

The WHCS 2017-18 also collects detailed information on biomass heating fuels which allows heating systems with low-carbon heating fuels to be modelled more effectively.

15.3.2 Standard Assessment Procedure (SAP) of buildings' energy performance

SAP ratings

The Standard Assessment Procedure (SAP) is the Government's recommended system for home energy ratings. SAP ratings allow comparisons of energy efficiency between different dwellings to be made. The SAP rating is expressed on a logarithmic scale, which normally runs from 1 (very inefficient) to 100, where 100 represents zero energy cost. The rating can be greater than 100 for dwellings that are net exporters of energy; however these are extremely rare in the existing dwelling stock. In extremely inefficient cases the formula that defines the rating can result in negative values, but values less than one are coded to a SAP of one.

The Building Regulations require a SAP assessment to be carried out for all new dwellings and conversions. Local authorities, housing associations, and other landlords also use SAP ratings to estimate the energy efficiency of existing housing. The version of SAP used in the survey is SAP 2012.

The 2012 changes in the SAP methodology are less far-reaching than those which occurred following the move from SAP 2005 to SAP 2009. Differences in SAP ratings calculated under SAP 2009 and SAP 2012 mainly occur for dwellings using solid fuel; for further details see The Government's [Standard Assessment Procedure for Energy Rating of Dwellings 2012 edition](#) (SAP worksheet Table 15 p.231)

¹⁰ The thermal envelope of the dwelling is the physical barrier between the warm interior and the cold air outside or in unheated spaces such as a loft for example.

In 2017, an update to Appendix S of SAP was released (RdSAP 2012 v9.93) which included revised U-values for solid, stone and cavity brick walls. The changes specified in RdSAP v9.93 have been incorporated in the modelling of the 2017-18 WHCS.

The SAP ratings give a measure of the annual unit energy cost of space and water heating for the dwelling under a set heating regime which assumes specific heating patterns and room temperatures. The fuel prices used are averaged over the previous three years across the different areas of the UK. The SAP rating takes into account a range of factors that contribute to energy efficiency, which include:

- thermal insulation of the building fabric
- the shape and exposed surfaces of the dwelling
- materials used for construction of the dwelling
- efficiency and control of the heating system
- the fuel used for space and water heating, ventilation and lighting
- ventilation and solar gain characteristics of the dwelling
- renewable energy technologies

SAP is not affected by the individual characteristics of the household occupying the dwelling, nor by its geographical location. The calculation is based on a fixed heating pattern of 21°C in the main living area and 18°C elsewhere. It is also based on standard occupancy assumptions with the household size correlating with the total floor area of the dwelling.

The WHCS uses a computerised version of the SAP methodology to calculate the SAP rating for each dwelling included in the physical survey sample. Most of the data required to calculate SAP are available from the survey, either directly from the questions asked or as a result of further modelling. Those data items that are not collected have very little impact on the final calculated rating. Where data items are missing these are dealt with using default information based on information from dwellings of the same age, built form, tenure, number of floors and size.

The Energy Efficiency Rating (EER) is derived by translating the SAP ratings into an A to G banding system where band A represents low energy costs and band G represents high energy costs.

Table 14: SAP rating and Energy Efficiency Rating (EER) bands

SAP rating	EER band
1 to 20	G
21 to 38	F
39 to 54	E
55 to 68	D
69 to 80	C
81 to 91	B
92 or more	A

Carbon dioxide emissions

The carbon dioxide (CO₂) emissions are calculated using the same SAP document and method as for the SAP rating except that it uses CO₂ emissions factors for each fuel in place of unit prices to derive the CO₂ emissions rate per m² of floor area. A logarithmic scale is used to convert the CO₂ emissions rate into the Environmental Impact Rating (EIR), which also runs on a 1–100 scale where 1 represents very high emissions per m² and 100 is achieved at zero net emissions. The EIR can rise above 100 if the dwelling is a net exporter of energy.

Comparison with actual energy data

The SAP methodology that is used to calculate both energy efficiency and CO₂ emissions tends to provide higher estimates of energy requirements and associated emissions for heating, lighting and ventilating dwellings than estimates derived from actual household energy consumption. This is primarily because the assumed heating regime (achieving standard temperatures for a standard number of hours), and the assumed hot water and lighting requirements (depending on a level of occupancy determined by the floor area of the home rather than actual occupancy) are more likely to result in an over estimation than under estimation of actual energy consumption for most dwellings. However, such standardised assumptions are necessary in order to compare the energy performance of one part of the housing stock with another and over time.

15.3.3 Energy performance certificates (EPC)

Energy performance certificate (EPC) improvement measures

Following the implementation of the European Energy Performance of Buildings Directive in 2007, all homes are required to have an Energy Performance Certificate (EPC) when they are sold or let. The EPC provides an overall assessment of the current energy performance of the property and makes recommendations regarding a range of lower and higher cost heating, insulation and lighting upgrades and electricity generation technologies that would improve its energy performance. The WHCS is able to provide a whole stock assessment of homes that could benefit from these measures.

SAP was updated to SAP 2012, version 9.92, in October 2013. In June 2014, Appendix S and Appendix T of the SAP booklet were updated to RdSAP as part of SAP 2012. The revisions significantly altered the way that RdSAP software implements improvements as part of the EPC production process. The new methodology has been applied to the 2017-18 WHCS.

Details of the upgrade measures recommended on an EPC are provided in Appendix T of the [SAP 2012 specification](#). Measures are no longer categorised as low cost, higher cost and further measures and the order for considering recommendations has been updated. The most relevant being that Measure Q (solid wall insulation) is now third priority, and measures R, S and T (upgrading boilers with/without fuel switching) have moved up in priority. Seven additional improvement measures have been added to the specification and the criteria and/or improvement specification has changed for some existing measures.

Table 15: List of improvements specified in SAP 2012 appendix T that are included in the WHCS¹¹

Item	Measure	Calculated in previous methodology	Any change to measure since previous version?
A	Loft insulation	Yes	Improve to 270mm (previously 250mm)
A2	Flat roof insulation	No	
A3	Roof room insulation	No	
B	Cavity Wall Insulation (CWI)	Yes	
Q	Solid Wall Insulation (SWI)	No	
W1	Floor insulation (suspended floor)	No	
W2	Floor insulation (solid floor)	No	
C	HW cylinder insulation	Yes	
D	Draught proofing	No	
E	Low energy lighting	No	
F	Cylinder thermostat	Yes	

¹¹ The SAP 2012 Appendix T also includes some 'Alternative measures' which are measures shown on an EPC if relevant but are never selected for inclusion unless an assessor specifically includes it. These alternative measures (Q2, J2, Z1, Z2 and Z3) are not included in the WHCS EPC modelling. Measure P is considered in the same way as the "alternative" measures because it is only considered if the assessor de-selects measure O.

G	Heating controls for wet CH system	Yes	Thermostatic Radiator Valves (TRVs) without room thermostat can be also without programmer
H	Heating controls for warm air system	Yes	
J	Biomass boiler	Yes	
K	Biomass room heater with boiler	Yes	Water cylinder upgraded in addition to heating system
I	Upgrade boiler, same fuel	Yes	
R	Install condensing oil boiler	No	
S	Condensing gas boiler no fuel switch	No	
T	Condensing gas boiler fuel switch	No	
L2	Replacement/New storage heaters	Yes	Change from fan assisted with automatic charge control to high heat retention type. Electric secondary heating no longer included
M	Replacement warm air unit	Yes	Split by fuel type, applies to non-condensing, mains gas units, and LPG units installed before 1998
N	Solar water heating	No	
O	Double glazing	No	
O3	Glazing replacement	No	
X	Insulated doors	No	

U	Photovoltaics	No	
V2	Wind turbine	No	

In the method used in the WHCS, measures are only recommended for implementation if that measure alone would result in the SAP rating increasing by at least 0.95 SAP points. The suggested measures do not necessarily imply that current measures in place in the home are defective nor that the home is deficient in terms of any particular standard.

The calculation of improvements N (solar hot water) and U (photovoltaics) deviate from Appendix T in that additional data collected in the WHCS on dwelling roof pitch and orientation are used.

The WHCS does not include EPC measure T2 (flue gas heat recovery) or Y (waste water heat recovery) because the survey is unable to assess how effective they would be in improving the performance of individual dwellings.

15.3.4 Notional costs of installing the recommended EPC measures

The WHCS also estimates the notional costs of installing the recommended measures. The costs are calculated using indicative costs that have been produced and included within the [Product Characteristics Database \(PCDB\)](#). Indicative costs for EPC measures are provided in table 181 of the PCDB. For the majority of measures, a low and high range of costs is provided and the mean of these is used. The costs are also calculated using the low and high prices to give an indication of the impact that the range has on the overall cost of improving the stock. Measure E (low energy lighting), L2 (storage radiators) and X (insulated doors) have an associated cost per item dependant on a variable e.g. number of rooms for L2. The costs for these measures are therefore specific to each dwelling.

Table 16: Indicative costs of the EPC measures

Item	Measure	PCDB Indicative cost (£) (mean, (low, high))	
A	Loft insulation	£225	(£100, £350)
A2	Flat roof insulation	£1,175	(£850, £1,500)
A3	Roof room insulation	£2,100	(£1,500, £2,700)
B	CWI	£1,000	(£500, £1,500)
Q	SWI	£9,000	(£4,000, £14,000)
W1	Floor insulation (suspended floor)	£1,000	(£800, £1200)

W2	Floor insulation (solid floor)	£5,000	(£4,000, £6,000)
C	HW cylinder insulation	£23	(£15, £30)
D	Draught proofing	£100	(£80, £120)
E	Low energy lighting	£5 per unit	(£5, £5) per unit
F	Cylinder thermostat	£300	(£200, £400)
G	Heating controls for wet CH system	£400	(£350, £450)
H	Heating controls for warm air system	£400	(£350, £450)
J	Biomass boiler	£10,000	(£7,000, £13,000)
K	Biomass room heater with boiler	£10,000	(£7,000, £13,000)
I	Upgrade boiler, same fuel	£2,600	(£2,200, £3,000)
R	Install condensing oil boiler	£5,000	(£3,000, £7,000)
S	Condensing gas boiler no fuel switch	£5,000	(£3,000, £7,000)
T	Condensing gas boiler fuel switch	£5,000	(£3,000, £7,000)
L2	Replacement/New storage heaters	£500 per unit	(£400, £600) per unit
M	Replacement warm air unit	£1,875	(£1,250, £2,500)
N	Solar water heating	£5,000	(£4,000, £6,000)
O	Double glazing	£4,900	(£3,300, £6,500)
O3	Glazing replacement	£1,200	(£1,000, £1,400)
X	Insulated doors	£500 per unit	(£500, £500) per unit

U	Photovoltaics	£6,500	(£5,000, £8,000)
V2	Wind turbine	£20,000	(£15,000, £25,000)

15.3.5 Pre- and Post-improvement performance and costs

The WHCS also estimates the total carbon dioxide emissions, primary energy use and fuel costs by end-use before and after any recommended improvements have been installed. The EPC methodology has been updated so that for running costs and savings, total emissions and primary energy, the calculations are done using regional weather and fuel prices taken from the [SAP fuel price library](#) for the July of the survey year. The SAP rating and EI rating are still calculated using UK average climate data and the fuel prices published in Table 12 of the SAP 2012 document.

It is also important to emphasise that these are *notional* estimates based on standard assumptions about occupancy and consumption patterns. What improvements would be realised in practice will depend critically on actual occupancy and consumption patterns.

15.4 HHSRS

This section presents an overview of the Housing Health and Safety Rating System (HHSRS) and how the various hazards are measured and modelled using data from the WHCS. It is divided into three sections:

- what is the HHSRS?
- how does the WHCS measure and model Category 1 hazards?
- data quality and reliability

15.4.1 What is the HHSRS?

The HHSRS is the government's evidence-based risk assessment procedure for residential properties. It replaced the Housing Fitness Regime on the 6th April 2006 in England. In the 2008 Living in Wales survey the HHSRS was introduced alongside the fitness standard. In 2017-18 it replaced the fitness standard.

The HHSRS is a means of identifying defects in dwellings and of evaluating the potential effect of any defects on the health and safety of occupants, visitors, neighbours and passers-by. The system provides a means of rating the seriousness of any hazard so that it is possible to differentiate between minor hazards and those where there is an imminent threat of major harm or even death. The emphasis is placed on the potential effect of any defects on the health and safety of occupants, visitors, and particularly vulnerable people. Altogether 29 hazards are included, **Table 17**.

Table 17: The 29 hazards covered by HHSRS

Physiological requirements

- dampness and mould growth
- excess cold
- excess heat
- asbestos (and Man-made Mineral Fibres)
- biocides
- carbon monoxide and fuel combustion products
- lead
- radiation
- uncombusted fuel gas
- volatile organic compounds

Psychological requirements

- crowding and space
- entry by intruders
- lighting
- noise

Protection against infection

- domestic hygiene, pests and refuse
- food safety
- personal hygiene, sanitation and drainage
- water supply

Protection against accidents

- falls associated with baths etc.
- falling on level surfaces
- falling on stairs etc.
- falling between levels
- electrical safety
- fire
- flames, hot surfaces etc.
- collision and entrapment
- explosions
- position and operability of amenities etc.
- structural collapse and falling elements

The HHSRS scoring procedure uses a formula to generate a numerical hazard score for each of the hazards identified at the property – the higher the score, the greater the severity of that hazard. Potential hazards are assessed in relation to the most vulnerable class of person who might typically occupy or visit the dwelling. For example, for falls on stairs and falls on the level, the vulnerable group is defined as persons over 60 years, and for falls between levels it is children under 5 years old.

The hazard score formula requires the HHSRS inspector to make two judgements.

- the likelihood of an occurrence which could result in harm to a vulnerable person over the following 12 months. The likelihood is to be given as a ratio – e.g., 1 in 100, 1 in 500, etc.
- the likely health outcomes or harms which would result from the occurrence. From any occurrence there may be a most likely outcome, and other possible ones which may be more or less severe. For example, a fall from a second-floor window could result in a 60% chance of a severe concussion, but there may also be a 30% chance of a more serious injury and a 10% chance of something less serious. The four classes of harms and the weightings given to them are listed in **Table 18**.

Table 18: Classes of harms and weightings used in the HHSRS

Class	Examples	Weightings
Class I	Death, permanent paralysis below the neck, malignant lung tumour, regular severe pneumonia, permanent loss of consciousness, and 80% burn injuries.	10,000
Class II	Chronic confusion, mild strokes, regular severe fever, loss of a hand or foot, serious fractures, very serious burns and loss of consciousness for days.	1,000
Class III	Chronic severe stress, mild heart attack, regular and persistent dermatitis, malignant but treatable skin cancer, loss of a finger, fractured skull, severe concussion, serious puncture wounds to head or body, severe burns to hands, serious strain or sprain injuries and regular and severe migraine.	300
Class IV	Occasional severe discomfort, chronic or regular skin irritation, benign tumours, occasional mild pneumonia, a broken finger, sprained hip, slight concussion, moderate cuts to face or body, severe bruising to body, 10% burns and regular serious coughs or colds.	10

From the judgements made by the HHSRS inspector, a hazard score can be generated for each hazard, **Table 19**.

Table 19: Calculation of HHSRS hazard score

Class of Harm	Weighting		Likelihood 1 in		Spread of Harm (%)			
I	10,000	÷	100	X	0	=	0	
II	1,000	÷	100	X	10	=	100	
III	300	÷	100	X	30	=	90	
IV	10	÷	100	X	60	=	6	
						Hazard Score	=	196

To provide a simple means for handling and comparing the potentially wide range of scores and avoid placing too much emphasis on the exact numbers, a series of ten hazard score bands have been devised, **Table 20**. Bands A, B, and C are the most serious and grouped together as presenting a Category 1 hazard; local authorities have a statutory duty to consider some form of action where these are present.

Table 20: HHSRS hazard score bands

Band	Equivalent Hazard Scores
A	5,000 or more
B	2,000 – 4,999
C	1,000 – 1,999
D	500 – 999
E	200 – 499
F	100 – 199
G	50 – 99
H	20 – 49
I	10 – 19
J	9 or less

Welsh Government, and others, have published a number of [guidance documents](#) for HHSRS practitioners and private landlords.

15.4.2 How does WHCS measure and model Category 1 hazards?

For the WHCS, surveyors are required to collect a wide range of information in what is a relatively short and non-intrusive property inspection. The survey cannot therefore replicate in full the HHSRS assessment that would be carried out by a local authority environmental health practitioner. The approach used has been developed by the Building Research Establishment working in close co-operation with experts from the University of Warwick who were involved in the development of the HHSRS methodology.

Of the 29 HHSRS hazards only three (which occur very rarely in the stock) are not assessed by the WHCS. These are asbestos (and manufactured mineral fibres), biocides and volatile organic compounds. The WHCS uses three different methods to assess whether any of the remaining 26 Category 1 hazards exist in dwellings:

- Fully measured hazards as part of the physical survey for the most common types of hazards. The surveyor first assesses whether the risks presented for each of these hazards are significantly worse than average for the age and type of dwelling concerned. If this is the case, they then score both a likelihood of an incident occurring and the expected range of outcomes. An actual HHSRS score is not computed in the field but where risks are assessed as significantly worse than average surveyors obtain this score later during validation of their survey data prior to submission. In 2017-18 WHCS surveyors fully measured six hazards.
- Hazards flagged only when an 'extreme' risk is found as part of the physical survey. This approach is used for some of the rarer hazards where surveyors are instructed that 'extreme risk' equates to a Category 1 hazard. In 2017-18 WHCS surveyors assessed 16 hazards by this approach.

- Four hazards modelled post fieldwork from other data collected on the physical survey form. This approach is used where the surveyor is less able to directly assess the risk from these hazards.

Figure 9 shows a worked example of HHSRS assessment. In making their HHSRS assessments surveyors are instructed to ignore the current occupancy and assume a member of the group most vulnerable to the particular hazard occupies the property. **Table 21** shows how information on each hazard is collected.

Figure 9: Worked example of HHSRS assessment

FALLS ON STAIRS ETC

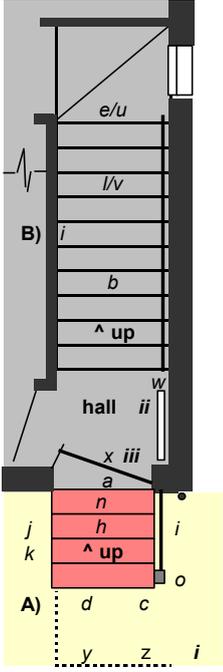
HHSRS VERSION 2

Vulnerable group	Persons aged 60 years or over	Multiple locations	Yes	No
Related hazards	None	Secondary hazards	Yes	No

A) Front door steps



A/B) Plan



B) Main stairs



DESCRIPTION OF HAZARD/S

Dwelling: 1930s, Semi-detached house

C) Steps at gate



A) Front door steps: These are of smooth painted concrete and have no top 'landing'. The bottom riser is high and uneven (300 mm max). There is a wobbly tubular steel handrail on one side but no guarding at all, despite the narrow width. There is no external porch light and little street lighting.

B) Main stair: The main internal stairs have two winders at the top and are moderately steep. There is a handrail only along the outside wall of the straight flight. There is a projecting radiator in the small hall and some glass in the front door close to the foot of the stairs.

C) Steps at gate: The steps close to the front gate are of rough spalling concrete. They have high uneven risers and a narrow tread. There is a crude rotten timber handrail but no guarding.

LIST OF RELEVANT MATTERS

LIKELIHOOD	A	B	C	OUTCOMES	A	B	C
<i>a</i> Tread lengths	1	1	2	<i>a</i> Length of flight	-	1	-
<i>b</i> Riser heights	3	1	2	<i>b</i> Pitch of stairs	-	2	-
<i>c</i> Variation in T&Rs	3	1	2	<i>c</i> Projections etc #	-	2	3
<i>d</i> Nosing length	-	-	-	<i>d</i> Hard surfaces #	2	1	2
<i>e</i> Poor friction quality	3	-	1	<i>e</i> Construction/repair	2	-	3
<i>f</i> Openings - in stairs	-	-	-	<i>f</i> Thermal efficiency	3	-	2
<i>g</i> Alternating treads	-	-	-				
<i>h-i</i> Lack/height handrails	3	2	2	# Secondary hazards	A	B	C
<i>j-l</i> Lack/height guarding	3	-	1	<i>i</i> Concrete kerb	2	-	-
<i>m</i> Stair width	2	-	-	<i>ii</i> Projecting radiator	-	2	-
<i>n</i> Length of flight	-	1	-	<i>iii</i> Glass in front door	-	1	-
<i>o-q</i> Inadequate lighting etc	3	-	3	<i>iv</i> Condition of paths	3	-	2
<i>r</i> Door/s onto stairs	-	-	-				
<i>s</i> Inadequate landing	3	-	-	Key	3	1	Not satisfactory
<i>t</i> Construction/repair	2	-	3		2	-	Satisfactory/NA
<i>u</i> Thermal efficiency	2	-	1				

COMPLETION OF SECTION 23 OF WHCS FORM

LIKELIHOOD

Falling on stairs etc.

Significantly higher than average? Y N

Likelihood of a person over 60 having a fall leading to harm

		Average Pre 1919										
		1800	1000	560	320	180	100	56	32	18	6	2
										18	6	2

Justification

The main stairs are assessed as giving the same likelihood of a major fall as the average for inter-war houses, (i.e. around 1 in 320), the limited handrail provision cancelling out any benefits of the broad winders. However, the added presence of the front access steps - particularly dangerous in icy weather and at night - substantially increases the overall annual probability of such a fall - to 1 in 18.

OUTCOMES

Likely outcome if a person over 60 should fall

Class	Extreme %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
Class 1	0.1%							4.6				
Class 2	Severe %							10				
Class 3	Serious %								21.5			

Must not add up to more than 100.2%

Justification

The stairs are designed to be carpeted but the resulting lower harms are offset by the small hall, projecting radiator and single glazing in the door, albeit this is not at low level. However, the presence of the external front door steps and steps near the front gate, both flanked by rough tarmac and a concrete curb, significantly increase the risk of a fatal or severe fall occurring, particularly in cold weather or at night.

Likelihood Class 1 Outcome	1 in 1800	1 in 1000	1 in 560	1 in 320	1 in 180	1 in 100	1 in 56	1 in 32	1 in 18	1 in 6	1 in 2
0.1%							E	D	C	B	A
0.2%						E-	E	D	C	B	A
0.5%						E	E	D	C	B	A
1.0%						E	E+	D	C	A-	A
2.2%				F	E-	E	D	C	B	A	A
4.6%				E-	E	D	C	B-	B	A	A
10.0%			E-	E	D	C	B-	B	A	A	A
21.5%		E	E	D	C	B	B	A	A	A	A
31.6%		E	D	C	B	B	A	A	A	A	A
46.4%	E	E	D	C	B	B	A	A	A	A	A
100%	D	C-	C	B	A	A	A	A	A	A	A

ACTION REQUIRED

Justification

Replacing the steps to the front door and at the gate with steps satisfying current Building Regulations and British Standards and fitting a porch light and a full handrail on both sides of the main stair would give a more average likelihood of a major fall and an average spread of health outcomes, and thereby a rating closer to the average.

Action required

Action required?	Action	Coded elsewhere?	Quantity
<input checked="" type="radio"/> Y	Install handrail	Y <input checked="" type="radio"/> N	Metres: 0.5
<input type="radio"/> Y	Install balustrade	Y <input type="radio"/> N	Metres:
<input type="radio"/> Y	Cover dangerous balustrade/guarding	Y <input type="radio"/> N	Metres:
<input type="radio"/> Y	Repair/replace internal staircase (S5)	Y <input type="radio"/> N	
<input type="radio"/> Y	Redesign internal, common or external staircase (design, not condition)	Y <input type="radio"/> N	Number:
<input type="radio"/> Y	Repair/replace external/common staircase (S9)	Y <input type="radio"/> N	
<input checked="" type="radio"/> Y	Repair/replace external steps (S11, S18)	<input checked="" type="radio"/> Y <input type="radio"/> N	Number:
<input type="radio"/> Y	Cover slippery stairs	Y <input type="radio"/> N	Flights:
<input checked="" type="radio"/> Y	Repair/replace/provide additional lighting (S5, S9, S11)	Y <input checked="" type="radio"/> N	Number: 1
<input checked="" type="radio"/> Y	Remove obstacle	Y <input checked="" type="radio"/> N	Number: 1

Table 21: Summary of how WHCS collects and models information about HHSRS hazards

Hazard	How assessed	Average HHSRS score	Specified vulnerable age group
Excess cold	Modelled	926	Age 65 or over
Falling on level surfaces	Fully measured	181	Age 60 or over
Falling on stairs etc.	Fully measured	134	Age 60 or over
Radiation	Modelled	91	None
Collision and entrapment	Flagged if an extreme risk	57	Age under 5
Flames, hot surfaces etc.	Fully measured	42	Age under 5
Crowding and space	Modelled	19	None
Fire	Fully measured	17	Age 60 or over
Dampness and mould growth	Fully measured	11	Age under 14
Entry by intruders	Flagged if an extreme risk	11	None
Falls associated with baths	Flagged if an extreme risk	7	Age 60 or over
Noise	Flagged if an extreme risk	6	None
Falling between levels*	Fully measured	4	Age under 5
Food safety	Flagged if an extreme risk	2	None
Electrical safety	Flagged if an extreme risk	2	Age under 5
Carbon monoxide and fuel combustion products	Flagged if an extreme risk	1	Age 65 or over
Personal hygiene, sanitation and drainage	Flagged if an extreme risk	1	Age under 5
Explosions	Flagged if an extreme risk	1	None
Position and operability of amenities etc.	Flagged if an extreme risk	1	Age 60 or over
Structural collapse and falling elements	Flagged if an extreme risk	1	None
Excess heat	Flagged if an extreme risk	0	Age 65 or over
Asbestos (and MMF)	Not assessed	0	None
Biocides	Not assessed	0	None

Lead	Modelled	0	Age under 3
Uncombusted fuel gas	Flagged if an extreme risk	0	None
Volatile organic compounds	Not assessed	0	None
Lighting	Flagged if an extreme risk	0	None
Domestic hygiene pests and refuse.	Flagged if an extreme risk	0	None
Water supply	Flagged if an extreme risk	0	None

Notes:

1) average scores are for all dwellings are taken from Version 2 of the HHSRS guidance. The averages have been calculated for the age range of the population most vulnerable to each type of hazard.

From 2008, reporting of the HHSRS included all 26 hazards covered by the WHCS. This allows for figures from the WHCS 2017-18 survey to be compared to those from the LIW 2008 survey. There was, however, a minor modelling change for the 2017-18 risk of harm from radiation.

A very serious risk of harm from radiation cannot be robustly measured at individual dwelling level either by the surveyor or via modelling. In both the Living in Wales 2008 survey and the WHCS 2017-18 a radon flag was created where the postcode is located within an area where 30% or more homes have radiation levels in excess of the action level (around 5% of homes). Other criteria are added namely that the dwelling must be a house built before 1980. This approach resulted in around 5% of homes with a Category 1 hazard in 2017-18 based on the same principles used in 2008, a level which is not plausible. Our knowledge of radon indicates that those homes at greatest risk are those built directly onto igneous rock in hilly areas, so a rurality indicator was added in 2017-18.

Table 22 summarises the assumptions and data used for the four hazards that are modelled from other data.

Table 22: Modelling HHSRS hazards using WHCS data

Hazard	Category 1 hazard defined as:
Excess Cold	Estimates the number of households living in homes with a threat to health arising from sub-optimal indoor temperatures using the Standard Assessment Procedure (SAP) ¹² . This hazard is based on dwellings with an energy efficiency rating of less than 34.59 using the SAP 2012 methodology.
Radiation	The house is located in one of the critical postcode sectors, based on a radon exposure map of Wales AND the house was built before 1980 AND the house is located in a rural area.

¹² SAP is the Government's standard procedure for energy ratings of dwellings.

Lead	The house is located in one of the postcodes with very soft water (based on the drinking water quality map of Wales) AND built before 1945 AND with lead piping present either before or after the mains stop cock.
Crowding and space	The occupants per habitable room ratio is calculated. If this exceeds 2 the dwelling has a category 1 hazard regardless of size. If it is equal to 2 and the number of habitable rooms is 2 or more the dwelling also has category 1 hazard.

15.4.3 Costs to make safe

The WHCS estimates a notional cost for undertaking work to a dwelling with one or more Category 1 hazards under the HHSRS so that the risks of harm are no worse than the average for dwellings of a similar age and type. The survey also estimates the notional cost of remedying all the Category 1 hazards in the Welsh housing stock.

Measured hazards

If a surveyor assesses that a hazard at a property is significantly worse than average, the surveyor must record what action or actions are necessary to alleviate that hazard. Furthermore, for each action they must decide whether that action has been described elsewhere on the form as a repair or not (see Figure 10). Where it is already covered, the cost of appropriate repairs is used. Where it is not covered elsewhere on the form, surveyors indicate the quantity of the work required (e.g. 4m of handrail to install, or 6 window restrictors to be fitted).

Figure 10: Example of action required for significantly worse than average measured hazards on the physical survey form

The image shows a section of a survey form titled "Falling on level surfaces etc." It includes a risk assessment table and an "Action required" table.

Risk Assessment Table:

		Significantly higher than average		Average										
		Y	N											
Likelihood of a person over 60 having a fall leading to harm				1000	560	320	180	100	56	32	18	6	2	
Likely outcome if a person over 60 should fall	Class 1 Extreme %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100		
	Class 2 Severe %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100		
	Class 3 Serious %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100		

Note: Must not add up to >100.2%

Action required table:

Action required?	Action	Coded elsewhere?	Quantity
Y	Repair floors (S5, S9)		
Y	Repair paths/external surfaces (S11, S18)	Y	
Y	Remove trip steps (S5, S9)	N	Number:
Y	Redesign external pathways (S11, S18)	N	Metres:
Y	Cover slippery surfaces	Y	Sq m:
Y	Repair/replace/provide additional lighting (S5, S9, S11)	Y	Number:
Y	Remove obstacle	N	Number:

Because the work required can be specified in these two very different ways the process of costing works within the modelling is separated out in a similar fashion;

- one suite of programs to cost work that has been described elsewhere on the form (using the repair cost model)
- one suite of programs to cost work where a quantity has been given by the surveyor. These programs use a 'typical' specification of work that has been devised by an experienced HHSRS practitioner

If a cost cannot be generated using the information given by the surveyor, a default cost for a typical job is used.

Extreme risks and modelled hazards

Cost are given to a typical action that has been selected by an experienced HHSRS practitioner (as above for measured hazards).

Excess cold

For costs to mitigate excess cold at a dwelling the WHCS uses the EPC methodology to identify both the energy improvement work required and the associated cost.

The outputs from the three processes above are then combined to provide the notional overall costs for all 26 hazards collected by the WHCS. Any double counting of work (e.g. heating improvements may be required to mitigate both dampness and excess cold) is removed where feasible. This is very complicated because components have many areas of work that overlap. Actions are grouped into broad work areas e.g. insulation, heating, kitchens, stairs. Remedial works that do not fit into these classifications, and are independent of any other jobs, are grouped as 'other' e.g. work to mitigate the risk of harm from lead or overcrowding. An inflation/deflation factor is applied to reflect the price of the work in the WHCS survey year.

These final costs are notional figures, and do not include profits, preliminary works, access costs or uplifts. They are also independent of region but are considered to be representative of social sector prices.

15.4.4 Data quality and reliability

Surveyors working on the WHCS have received extensive training and support to help ensure their HHSRS assessments are consistent and robust. This includes residential training involving classroom, fieldwork and e-learning exercises, together with manuals providing benchmark examples for reference when making their judgements.

While these measures ensure a good level of consistency in judgements, some surveyor variability is to be expected. The WHCS approach to the HHSRS provides surveyors with a systematic approach with which to make these judgements.

15.5 WHQS

The Welsh Housing Quality Standard (WHQS)¹³ requires all social landlords to improve their housing stock to an acceptable level by December 2020. After this date they must maintain it.

The Standard will ensure that dwellings are of good quality and suitable for the needs of existing and future residents. To meet the standard, houses must be:

- 1 in a good state of repair
- 2 safe and secure
- 3 adequately heated, fuel efficient and well insulated
- 4 contain up-to-date kitchens and bathrooms

¹³ [WHQS guidance](#)

- 5 well managed (for rented housing)
- 6 located in attractive and safe environments
- 7 as far as possible suit the specific requirements of the household (e.g. specific disabilities)

15.5.1 WHQS modelled through the WHCS

BRE was contracted to model the WHQS based on information collected on the WHCS survey form. Questions were retained from the Living in Wales Survey 2008 and some new questions added where applicable. As the WHCS is a non-intrusive snapshot survey there are certain elements of the WHQS that can't be measured through a house condition survey. The following elements are not measured through the WHCS.

- 2 (g) Is there an external fire escape?
- 2 (k) Are bedroom window locks without automatic locking action?
- 2 (l) Is the gas, solid fuel or oil service and safety certificate up to date, and have all heating installations and appliances been certified safe by an appropriately qualified person as required by law?
- 2 (m) Have electrical lighting and power installations been checked and certified safe by an appropriately qualified person?
- 5 (a) Is the dwelling fairly, efficiently and well managed?
- 6 (a) Are roads and footpaths accessible, providing safety for residents, pedestrians and children?
- 6 (b) Is there soft and hard landscaping with planting in protected areas?
- 6 (c) Is there adequate street lighting?
- 6 (d) Is there adequate and safe play space for young children?
- 6 (e) Are there adequate, practical and maintainable communal areas?
- 6 (f) Are dwellings clearly identifiable with definable boundaries?
- 6 (g) Are utility services practically located and well identified?
- 6 (h) Is there adequate and practically located car parking clearly visible to residents?
- 7 (c) Does the dwelling layout meet the special cultural needs of the residents?

There was one element that was modelled in 2008 that couldn't be measured/modelled in 2017-18 because questions were omitted from the 2017-18 physical survey form.

- 7 (e) Does the garden have a level area no smaller than 10m² directly accessible from the dwelling?

There was a new element added to the 2017-18 WHCS.

- 7 (a) Is there sufficient space within the dwelling for everyday living?

All elements measured in the 2017-18 WHCS are listed below, a (P) or (S) at the end of the measure denotes whether it is a primary or secondary measure.

- 1 (a) Is the dwelling structurally stable and free from disrepair? (P)
- 1 (b) Is the dwelling free from damp? (P)
- 2 (a) Is the staircase & balustrade safe? (P)
- 2 (b) Is there adequate space for kitchen appliances? (S)

- 2 (c) Is the work surface sufficient for safe food preparation? (S)
- 2 (d) Is the cupboard storage convenient and adequate? (S)
- 2 (e) At least one convenient power socket close to main food preparation worktop in addition to that used for the refrigerator. (S)
- 2 (f) Is the flooring in the kitchen and bathroom safe and suitable for use? (S)
- 2 (h) Are there adequate fire alarms and equipment? (P)
- 2 (i) Do bedrooms have escape routes not passing through another room? (S)
- 2 (j) Are mains powered smoke detectors on each floor? (P)
- 2 (n) Do external doors and windows give a reasonable level of physical security? (P)
- 2 (o) Is the rear garden easy to maintain, reasonably private, safe and suitable for young children to play in? (P)
- 3 (a) Is the heating system reasonably economical and capable of heating the dwelling to a reasonable level? (P)
- 3 (b) Are external doors and windows adequately draught proofed? (P)
- 3 (c) Is the living room separated from the main entrance door? (S)
- 3 (d) Is the hot water tank effectively insulated? (P)
- 3 (e) Is there adequate mechanical extract ventilation in the kitchen and bathroom? (S)
- 4 (a) Is the kitchen 15 years old or less, unless in good condition? (P)
- 4 (b) Are there adequate facilities for washing, drying and airing clothes? (S)
- 4 (c) Are the bathroom and WC facilities 25 years old or less, unless in good condition? (P)
- 4 (d) Is there a shower as well as a bath? (P)
- 7 (a) Is there sufficient space within the dwelling for everyday living? (S)
- 7 (b) Is internal and external general storage space adequate? (S)
- 7 (d) Does the dwelling have the necessary physical aids to suit the requirements of the residents? (S)
- 7 (f) Is there a paved access to the drying line and any garden gate? (S)

Please see [Appendix T](#) for further details on how the individual elements were modelled.

15.5.2 Pass criteria

Each WHQS element is categorised into a primary or secondary measure. A primary element is one that impacts on the safety of the residents whereas a secondary element is more focussed around the comfort of the residents. In 2017-18, 26 elements were measured in the WHCS. Of those, 13 were primary elements and 13 were secondary elements.

In order to pass the WHQS a dwelling must pass all primary elements and pass at least 75% of secondary elements. Cases with insufficient information (where less than 75% of elements either pass or have missing data) must be failed.

15.5.3 Modelling process

For consistency and to enable comparison with previous data the process for modelling the WHQS through the 2017-18 WHCS was aligned to the Living in Wales 2008 modelling of the WHQS. The

Welsh Government sent BRE the relevant SPSS syntax file which detailed how the WHQS was modelled in 2008 for the then Living in Wales Survey.

BRE used this as a starting point for the 2017-18 modelling. The syntax was updated where necessary in order to take into account the changes mentioned above. The calculation of the majority of elements remained the same, only a small minority were altered slightly to account for inconsistencies such as renamed variables (e.g. 'entrance door leads directly into living room' variable changing from finiddd to finsecd).

Other minor changes to the syntax included element 2(j) 'Are mains powered smoke detectors on each floor?' and 4(d) 'Is there a shower as well as a bath?', the syntax for the modelling of these elements was updated due to the introduction of new variables to the 2017-18 form. Previously, cases were passing these elements for simply having these facilities in place whereas for cases to pass them in the 2017-18 WHCS they now must also be in a working condition.

15.5.4 Nominal occupancy

In order to implement element 7(a) 'Is there sufficient space within the dwelling for everyday living?', a new SPSS model had to be produced to create a Nominal Occupancy variable. Physical data collected from the WHCS form was used to calculate the floor area of the bedroom, lounge and kitchen. In the WHCS, dimensions of only one bedroom are recorded. For this reason it had to be assumed that all other bedrooms in that household were of the same size.

The floor area of the bedroom was then used to determine whether the room was a twin (minimum 10m²) or a single (minimum 6m², less than 10m²) room. The floor areas of the lounge and kitchen were combined due to the difficulty in differentiating the function of the rooms (for instance, both living room and kitchen can be used as a dining space), creating a total living space variable.

BRE acquired household data from the National Survey of Wales social survey in order to pair the number of occupants with the number of bedrooms within the dwelling. The criteria cited in Appendix 2 of the [Welsh Housing Quality Standard guidance booklet](#) were used to determine whether the dwelling met Nominal Occupancy requirements.

Dwellings would pass the WHQS criteria if the combined 'living' floor area and number of bedrooms matched the space needed for the number of occupants living there. There was little or no guidance on how to treat bedsits therefore BRE introduced a set of assumptions. For homes of multiple occupancy (HMOs), Nominal Occupancy was calculated as normal, however for those living in studio flats the combined floor area of the kitchen, living and dining area had to be greater than or equal to 16m² to pass.

FIRST IMPRESSION / CONDITION QUESTION

External walls

No evidence of disrepair = 1

Moderate disrepair = 2

Major disrepair = 3

Doors and Windows

No evidence of disrepair = 1

Moderate disrepair = 2

Major disrepair = 3

Roofs / roof structure

No evidence of disrepair = 1

Moderate disrepair = 2

Major disrepair = 3

Not visible = 0

ONS Interviewers to record / note this as they approach the property and then record in the CAPI once an interview has been started.

NOTE: If any element is at worst a '2' then the dwelling is classified as being in moderate disrepair. If any element is classified a '3' then the dwelling is classified as being in major disrepair. All of these cases will be eligible for a physical survey (if respondent is HRP / partner). Along with all rented cases (if respondent is HRP / partner). If there is no evidence of disrepair for all elements (or roof is not visible) and the house is owner occupied we require a sift rate to be operating where the CAPI passes through a certain number of these cases for a survey. We envisage setting this at 30%¹⁴ for the main fieldwork with a 65% consent rate in mind (Sift_flag variable to be added to identify a random subsample of HRP /partner living in owner occupied houses with no evidence of disrepair).

Therefore, routing for the WHCS consent question is:

¹⁴ The sift rate was increased during the fieldwork period to ensure enough cases were routed through to the WHCS consent question allowing for the target number of surveys to be achieved.

- (CondAssm (total score)=any AND respondent = HRP / partner AND Tenure = rented) OR
- (CondAssm (total score)>3 AND respondent = HRP / partner AND Tenure = owner occupied) OR
- (CondAssm (total scores)<=3 AND respondent = HRP / partner AND Tenure = owner occupied AND Sift_flag=1)

Please tick both boxes and scan barcode before editing the form

1. Edit form 2. Activate scan

Barcode

3. Scan barcode

Surveyor

1. Survey record

	Visit 1		Visit 2		Visit 3		Visit 4		Visit 5	
Visit / telephone call made	Y	N	Y	N	Y	N	Y	N	Y	N
Was this a booked appointment?	Y	N	Y	N	Y	N	Y	N	Y	N
	Day	Month								
Record date of this call (24 hour clock)	Hr	mm								
Start time										
Finish time										
Outcome										
Full/completed survey	1		1		1		1		1	
Partial survey/comeback to finish	2		2		2		2		2	
Partial survey then refusal	3		3		3		3		3	
Refusal on doorstep	4		4		4		4		4	
HQ refusal after surveyor visit										
Household missed appointment - no / unproductive contact	6		6		6		6		6	
Household missed appointment - rescheduled	7		7		7		7		7	
Surveyor missed appointment - no contact	8		8		8		8		8	
Surveyor missed appointment - rescheduled	9		9		9		9		9	
Speculative call - no / unproductive contact	10		10		10		10		10	
Speculative call - appointment scheduled	11		11		11		11		11	
HMO referred to Regional Manager	12		12		12		12		12	
Address untraceable	13		13		13		13		13	
Dwelling derelict	14		14		14		14		14	
Dwelling demolished	15		15		15		15		15	
No longer usable as dwelling	16		16		16		16		16	
Other reason for non-survey	17		17		17		17		17	

2. Dwelling identification

Reason for non survey:

Is the dwelling address passed on to you by the interviewer a single dwelling?

Y N

Is address

Part of dwelling 1	More than one dwelling 2	Dwelling with non-residential 3
Number of addresses at dwelling	Number of dwellings at address	Number of dwellings at address
Address surveyed same as that passed on by interviewer		
Y N		

Go to Section 3

Go to Section 3

Notify your supervisor of amended address

Holiadur aelwyd

Gofynnir y cwestiynau? Oedd Nac Oedd Anhysbys

1. Oes gennych inswleiddio wal geudod?

Cofnodwch yn 'nodweddion codiad' (adran 16) os gwelir a chwblhewch grynodedb inswleiddio wal (adran 19)

2. Oes gennych inswleiddio wal fewnol?

Cofnodwch yn waliau (adran 5) os gwelir a chwblhewch grynodedb inswleiddio wal (adran 19)

3. Oes gennych inswleiddio wal allanol?

Cofnodwch yn waliau (adran 16) os gwelir a chwblhewch grynodedb inswleiddio wal (adran 19)

4a. Ydi unrhyw un o'ch lloriau sydd mewn cyswllt a'r ddaear wedi'u hinsiwleiddio?

4b. Canran o loriau mewn cyswllt a'r ddaear sydd gydag inswleiddiad yn bresennol

5. Oes gennych fynediad at garej neu le parcio preifat?

6. Oes gennych fesurydd dŵr?

7. Os oes, ydych chi yn cael eich codi yn ôl y swm a ddefnyddiwyd?

8. Ydych chi wedi eich cysylltu yn uniongyrchol i'r prif ddraeniad a weithredir gan gwmni dwr/garthffosiaeth?

9. Oes gennych system rheoli cartref sydd yn rheoli eich gwres? E.e. Nest, Hive a.y.y.b

10. Ydi unrhyw ran o'ch cartref yn cael yn anghyfforddus o boeth?
(hyd yn oed pan fo'r gwres i ffwrdd a'r ffenestri yn agored)

11. Os ydi, pa ystafelloedd sydd yn cael eu heffeithio yn benodol?

Ystafelloedd gwely

Ystafelloedd byw

Ystafell atig

Heulfan

Llifogydd

12a. A ydych erioed wedi cael problem gyda llifogydd ers byw yma?

Achos y llifogydd:

- Problem plymio
- Difrod storm
- Draeniau
- Dŵr daear
- Gorlif afon / llyn

Problem? Oes Nac oes

Os ydw i unrhyw un:

12b. Oes dal gennych broblem gyda llifogydd?

Problem gyfredol:

- Cyfredol
- O fewn 1 mlynedd
- 1-5 mlynedd
- Dros 5 mlynedd
- Anhysbys

12c. Ble mae'r broblem gyda llifogydd?

Codiwch bob un sy'n berthnasol

Lleoliad y broblem:

- Cartref
- Gardd
- Ardaloedd cyffredin

12d. Pa gamau adfer a gymerasoch yn dilyn llifogydd? Beth oedd y gost?

Cwestiwn caniatâd

Mae'n bosibl bydd Llywodraeth Cymru neu gwmni ymchwil sy'n cael ei gyflogi ganddynt, yn eich gwahodd i gymryd rhan mewn mwy o ymchwil, ar sail yr arolwg a gynhaliwyd heddiw. Byddai hyn yn golygu rhoi eich manylion i Lywodraeth Cymru ynghyd â'ch ymatebion i'r arolwg. Bydd eich manylion yn cael eu defnyddio at ddibenion ymchwil yn unig a gaiff eich manylion personol eu cadw'n gwbl gyfrinachol.

Pe byddent yn cysylltu â chi, does dim rhaid i chi gymryd rhan. Fyddech chi'n fodlon i ni gysylltu â chi eto?

* Cyn gadael y tu mewn, sicrhewch eich wedi gofyn i'r preswlydd am hanes gwella'r annedd, mesur trwch y wal a phasio ar y daflen wybodaeth am y grantiau a chynlluniau perthnasol yn yr ardal.

WHCS 17-18 Consent Qu as asked January 2018 – April 2018

Position: After Recontact Qu July & August. After Housing Qus before Income Qus from September. Reworded from November. Incentives referenced from January 2018

SUBSAMPLED MODULE: ask of subsample of respondents in Q1 for HCS pilot; and from Q2 onwards of HRP / HRP partner respondents eligible for HCS.

ASK IF

(CondAssm (total score)=any AND respondent = HRP / partner AND Tenure = rented) OR

- (CondAssm (total score)>3 AND respondent = HRP / partner AND Tenure = owner occupied) OR
- (CondAssm (total scores)=3 AND respondent = HRP / partner AND Tenure = owner occupied AND Sift_flag=1)

ASK IF RESPONDENT IS HRP OR SPOUSE / PARTNER

HCSPerm

NEW

While we're on this topic, I'd also like to mention that the Welsh Government is carrying out a survey to collect information on housing in Wales. To do this, a qualified surveyor visits homes to look in the main rooms, and then most of their time is spent outside. They don't move or disturb anything. All personal details are kept confidential and the results are only used for research purposes.

[IF 2,3 OR 4 AT TENURE: Landlords don't need to be asked for permission and no information is shared with them. All registered landlords in Wales have been informed of the survey.]

Just like the survey you're doing now, at the end of the housing survey you will get a £10 gift voucher as a thank you.

[IF NECESSARY: The information provided is used to help the Welsh Government tackle housing and environmental issues across Wales.]

Would you be willing to help us by taking part?

ALL RESPONDENTS ASKED THIS QUESTION ARE ELIGIBLE FOR THE SURVEY, INCLUDING ALL TYPES OF TENANT AND THOSE IN SHARED ACCOMMODATION.

RESPONDENTS DO NOT NEED TO ASK FOR CONSENT TO TAKE PART FROM LANDLORDS, FLAT MANAGEMENT COMPANIES OR FROM ANY OTHER TYPE OF FREEHOLDER.

DETAILS OF PARTICIPATION WILL NOT BE SHARED WITH RESPONDENTS' LANDLORDS BY THE WELSH GOVERNMENT OR ANY OTHER ORGANISATION.

Yes
No

1
2 | GO TO HCSCcontact

TIMESTAMP

ASK IF 1 AT HCSPerm

HCSPref

NEW What day or days of the week would usually be best for the surveyor to visit?

IF YES PROMPT RESPONDENT FOR WEEKDAYS OR WEEKEND SLOTS

IF NO CODE ANYTIME / ALL WEEK

CODE ALL THAT APPLY

Weekday mornings	1		GO TO HCSCContact
Weekday afternoons	2		
Weekday evenings	3		
Weekend mornings	4		
Weekend afternoons	5		
Weekend evenings	6		
Anytime / all week	7		
Special instructions on availability (IF REQUIRED ONLY)	8		

ASK IF 8 AT HCSPref

AppointNotes"

NEW INTERVIEWER TO ADD NOTES ON AVAILABILITY IF REQUIRED

ENTER A TEXT OF AT MOST 250 CHARACTERS
PLEASE NOTE: DO NOT include any personal information
such as on holiday, away etc

| Go to HCSCContact

ASK IF 1 AT HCSPerm**HCSCContact**

NEW The surveyor will arrange the visit directly with you by phone. Do you have a household landline or mobile number?

CODE ALL THAT APPLY, EXCEPT CODE 3

Landline	1
Mobile	2
No	3

ASK IF 1 AT HCSCContact

PhSTD

NS Please may I have your landline number?

1617 THIS NUMBER CAN BE THREE, FOUR OR FIVE DIGITS IN LENGTH
THIS IS THE AREA DIALLING CODE (E.G. 0123)

ENTER A TEXT OF AT MOST 5 CHARACTERS

| GO TO PhNum

ASK IF 1 AT HCSCcontact

PhNum

NS ENTER REMAINING DIGITS OF THE NUMBER

1617

ENTER A TEXT OF AT MOST 8 CHARACTERS

| GO TO PhNumMob

ASK IF 2 AT HCSCcontact

PhNumMob

NS Please may I have a mobile number?

1617

ENTER A TEXT OF AT MOST 16 CHARACTERS

| MODULE ENDS

ASK IF 1 OR 2 AT HCSCcontact

Thanks (HAND OUT THE BRE LEAFLET). A surveyor will contact you soon.

ASK IF 3 AT HCSCcontact

That's fine, a surveyor will call round. Thanks (HAND OUT THE BRE LEAFLET).

TIMESTAMP

Fees

There are two elements to the fee structure for this contract. The first element is a fixed fee for successful attendance at the WHCS survey training, and the second element is a variable payment based on performance on surveys achieved. Full details are set out in Schedule 1, however a summary of the work and the fee structure is as follows:

- Application and pre-briefing qualification – no fee
- Surveyor training – fixed fee based on successful completion of training and dependent on successful completion of survey fieldwork
- Survey fieldwork – variable fee, performance related

BRE shall pay the Contractor for the above at the rates set out below (exclusive of Value Added Tax).

Qualification

No payment will be made to Contractors for completing the pre-training qualification, which may include (for surveyors who have not previously been employed on the LIW 2008 or current EHS):

- Reading the cut-down briefing manual
- Viewing a version of the EHS surveyor DVD
- Completing a survey on a home
- Completing an exercise book
- Postage of survey and completed exercise book to BRE.

Surveyor training

BRE will pay the Contractor £500 for full attendance and successfully completing the surveyor training. No payment will be made for attendance at the training if the Contractor does not subsequently work on the survey. A minimum of ten allocated surveys must be completed for payment (fees and expenses) to be made for the training. The training is residential and will be provided at the Marriott Hotel, Swansea (or other comparable venue). Contractors who live locally and are able to make it to the venue for a 08.30 start each day may commute from home, if they prefer. All meals and accommodation will be provided but the following items will not be reimbursed by BRE:

- Use of telephones
- Drinks at the bar
- Laundry services
- Any other costs incurred.

Travel costs to and from the surveyor training

Travel costs to and from the residential training will be paid at £0.40 per mile for car travel, or standard class rail travel, and taxi to and from Swansea railway station to the Swansea Marriott Hotel, paid at cost with receipts supplied.

Rates of pay for surveyors

The payment system for survey work on the 2017-18 WHCS is based on results. There are three types of survey: a full survey of an occupied dwelling; a full survey of a vacant dwelling; a non-survey at a dwelling following the required number of visits. No other sums will be paid for subsistence or consumables for survey work, except where detailed below, or otherwise agreed in writing by BRE.

Payment will only be made for electronic forms returned and accepted to the BRE surveyor website. The rate of pay for the three types of survey will be as follows:

Full survey at occupied dwelling	Full survey at vacant dwelling	Non-survey following visit(s)
£90.00	£116.00	£10.00

Currently, it is not planned to undertake surveys of dwellings which have been identified as vacant by the National Survey for Wales (NSW) interviewer. However, if the Welsh Government decides to include these in the sample to be issued to surveyors, these will be paid at the increased rate in the table above. This higher fee represents the additional work that will be involved in gaining access to vacant properties, which may include picking up keys from a landlord or estate agent.

The following items are covered in the basic set fee, i.e. no additional payment will be made for the following:

- Maps
- Telephone calls
- Stationary
- Accommodation (unless agreed in advance with BRE).

Any additional expenses, such as bridge tolls within Wales, must be agreed in advance with BRE.

For the purposes of payment, the definitions are outlined below.

Full survey

For payment to be paid on a full survey, the following definition applies: all relevant sections of the survey form are complete, i.e. full internal and external inspections, common areas and shared facilities (if they exist) and an inspection of the local area. The form must be completed to an acceptable standard and must be accompanied with an appropriate number of photographs for the dwelling (as specified by BRE). Both the forms and photographs must be posted via the internet on the BRE WHCS surveyor web site

and have been validated to the required standard by the Contractor and approved for payment by the BRE Supervisor.

Non-survey

For payment to be made on a non-survey, the following definition applies: any form that is partially completed, i.e. anything short of a full survey, including any sort of partial survey, such as survey where only the exterior has been completed. In most cases a non-survey will involve a visit plus the completion of sections 1-4 of the survey form. Any other outcome apart from a full survey will be defined as a non-survey, i.e. no contact made; access refused to surveyor; or other outcome. Where a surveyor has not gained access to a vacant property, and only the exterior has been complete, the survey will be defined as a non-survey. Payment will only be made when the form is entered on the BRE WHCS web site and the outcome is agreed with the Supervisor. In cases where no visit is made to an address, (e.g. a telephone refusal to the surveyor, or where the householder has contacted BRE directly to refuse), no payment will be made.

Additional mileage payments

During survey fieldwork, surveyors will be entitled to claim for mileage travelled to each survey address, at a rate of £0.40 per mile. Mileage to each survey address will be monitored by BRE, and the surveyor must record each day's mileage travelled on log sheets supplied by BRE.

Surveyors will agree, in advance, with BRE, the area of Wales where they will be working. The addresses will, as far as possible, be grouped and the surveyor will be required to make an appointment with the household to undertake the survey at a convenient time for both the household and the surveyor. Surveyors will be expected to claim mileage from their home address, unless another arrangement is made with BRE, for example if their allocation is based on their work address rather than their home address, or they live outside Wales.

Number of surveys

The addresses for the WHCS will be a proportion of the addresses that have been issued for the National Survey for Wales, which will be running in parallel with the WHCS. The National Survey for Wales is being delivered by The Office for National Statistics (ONS). The selection of addresses for the WHCS will only come from those that have agreed to be re-contacted in the National Survey for Wales. BRE expects to allocate each surveyor Contractor between 70 and 90 addresses from which to achieve the required number of surveys. These will be spread out over at least nine months and the Contractors will be expected to undertake them in manageable batches over this period.

Contractors will need to maintain regular contact with the BRE survey management web site to manage their allocations.

It is expected that the Contractor will complete around 60 surveys over the fieldwork period. BRE cannot guarantee a minimum number of surveys. BRE reserves the right to change Contractors addresses as necessary, e.g. where one particular Contractor allocation is too high and another is too low, because of the pattern of addresses selected from the National Survey for Wales.

Contractors will be expected to achieve a full survey in almost all addresses issued for the WHCS. BRE will expect response rates of 80% full surveys or higher. Although re-contact will have been agreed, contractors will be required to persuade households, where necessary, to agree to a survey. Any performance below the expected response rates will be subject to review by Supervisors, and a

surveyor's contract may be terminated if response rates are unacceptably low. If the Welsh Government decides to include dwellings in the WHCS sample that have been identified as vacant at the time of the National Survey for Wales interview, it is accepted that the access rate will be lower, but not less than 30%.

Availability

The surveys are spread out over a long period and there should be ample time for even a fully employed Contractor to complete them. However, Contractors need to make themselves available on evenings and weekends where necessary, and take time off their day jobs occasionally to ensure that their allocations are completed. Surveyors will be expected to visit each survey address within three weeks of allocation. The surveyor's contract may be terminated if a regular flow of work is not maintained. Contractors new to the 2017-18 WHCS (who have not worked on the 2008 LIW survey or current EHS) will need to be accompanied by their Supervisor for at least one full survey during their first session of fieldwork. This may be more at the discretion of the Supervisor.

Photographs

For the purpose of fulfilling the contract, surveyors will need to supply four photographs of all survey dwellings (as described in Schedule 1). They should provide their own digital camera for this purpose. The images will be downloaded and attached to the survey file when it is uploaded to the BRE web site.

Internet access

See Schedule 1.

Quality control and payment of Contractors

Contractor's performance will be monitored by BRE and the WHCS Supervisors. Invoices submitted by Contractors will only be paid if BRE is satisfied with performance based on the following criteria:

- Performance of the Contractor as measured by the Supervisor (factors measured will include quality of survey forms – completeness and accuracy, understanding of concepts, professional competence, response rates, regular flow of work)
- Performance of the Contractor as measured by response from householders (factors measured will include maintaining appointments, professional conduct, manner with household.
- Performance as measured by BRE, in terms of keeping progress up to date, being flexible and enthusiastic, hitting targets.
- Quality of forms returned posted on the BRE surveyor website, in terms of accuracy, errors, completeness, etc.
- Timeliness of completed forms.

Retention sum

BRE will retain the briefing fee until 10 or more surveys have been successfully completed, validated and posted on the BRE web site with their accompanying photographs.

Invoicing

Regular statements will be generated by Contractors via the BRE surveyor website providing details of the amount to be claimed for each completed address. Surveys should submit a claim for the first ten full surveys, and then be able to generate monthly statements thereafter. The statements will list the outcomes of all booked-in addresses and the amount that Contractors are entitled to claim for each address. Contractors will then be asked to invoice BRE based on these statements, plus the mileage incurred for undertaking those surveys at the agreed mileage rates. Invoices will be paid by BACs transfer.

Value Added Tax

It is understood that the supply of goods and services by the Contractor under this Contract will not be subject to VAT charges.

This is a fixed term contract and surveyors are required to complete a minimum of 20 addresses, unless removed from the survey in accordance with the terms and conditions of this contract by BRE.

Schedule 1: Programme of work

Introduction

1. The 2017-18 Welsh Housing Conditions Survey (WHCS) is the latest in a series of housing surveys that go back as far as 1967. The last such survey in Wales was the 2008 Living in Wales Property Survey. For the 2017-18 survey the WHCS will follow on from the National Survey for Wales, which is a continuous household survey of Wales with an annual sample of around 11,000 homes. A sample of the dwellings where an interview has taken place, and where they have given permission to be re-contacted, will be selected for a survey to be undertaken by a trained inspector. A total of some 2,500 full WHCS surveys must be achieved.
2. The WHCS seeks to establish the condition and energy performance of the housing stock in Wales by carrying out a full internal and external inspection of dwellings. The survey provides a major source of information for the development and monitoring of housing policies directed at the repair, improvement and energy efficiency of the housing stock of all tenures. The Welsh Government has commissioned BRE to deliver the WHCS, working in close cooperation with the Office of National Statistics (ONS), who manage the National Survey for Wales.
3. Forty four surveyors will be employed by BRE to work on the WHCS, made up of a pool of professional Environmental Health Practitioners, Surveyors, and Architects. All surveyors will be allocated to one of four regionally based teams (11 surveyors per team) led by a BRE Supervisor.

The WHCS contact arrangements

4. A sample of some 2,500 addresses will be achieved for the WHCS. These will consist of a range of tenures and dwelling types. All households where a WHCS survey will take place will have undergone a National Survey for Wales household interview, which is used to determine the households' characteristics, including details of their financial circumstances, their tenure, and attitudes towards housing. Surveyors will undertake a full dwelling inspection at a sample of the addresses where a National Survey for Wales interview has taken place. Dwellings will be selected for inclusion in the WHCS on a random basis, with a greater weight being given to some characteristics recorded in the National Survey for Wales interview. WHCS addresses will be selected from all those who have agreed to be re-contacted from the National Survey for Wales. The household will, therefore, know in advance that a surveyor will be contacting them, although not the name of the surveyor. The first contact with the selected households for the WHCS will be initiated by the surveyor, using a contact number collected by the National Survey for Wales interviewer. This will be as soon as possible after the interview has taken place.
5. Surveyors will need to regularly log on to the BRE Surveyor website to manage their allocation. Surveyors will be notified by telephone of any appointment cancellations or refusals received by BRE.
6. Surveyors will be notified of the addresses which they are expected to survey in batches, as they come through from the National Survey for Wales. They will receive some 70-90 addresses each over the length of the fieldwork, although this will vary by location. Each surveyor will be expected to achieve approximately 60 full WHCS surveys.
7. All survey forms will be completed, validated and approved within a time-period to be specified by BRE.

The surveys

8. The survey is a non-intrusive visual inspection. Surveyors will attempt to undertake a physical assessment of the dwelling at each address provided, unless informed otherwise. All surveys will involve a full internal and external inspection, in accordance with surveying procedures specified by BRE. The survey is a paper based survey and surveyors will be provided with survey forms to be completed at each address. The survey form is used in conjunction with a digital pen which is downloaded to the BRE surveyor website once the surveyor is back at the PC containing the WHCS software. No other form or format is to be used for WHCS surveys. In the event that the Digital Pen is lost or otherwise unavailable at the time of the survey, the survey should be completed using a pencil and over-written using a digital pen at a later stage, and then submitted in the normal way. Surveyors should expect to spend between 45 and 90 minutes to complete a full survey, although the duration will vary according to the type and condition of the property, the speed of the surveyor and the level of interaction with the household. It should take no more than 45 minutes for an experienced surveyor to inspect a simple modern terraced house in good condition, while it could take 90 minutes for the same surveyor to complete a full survey of a flat in a tower block with common areas and shared facilities.
9. A Full Survey is defined as the completion of all relevant sections of the survey form as specified by BRE. Anything other than this will be treated as a Non-Survey (see contract).

The survey management system

10. The Survey Management System for the WHCS will be handled by BRE. Surveyors should regularly log on to the surveyor web site to manage their allocation and generate invoice statements for work completed.
11. It is a requirement of this contract that surveyors have a mobile phone and internet access for use throughout the survey period. There may be times where a surveyor will need to be notified of a short notice cancellation made through contact with BRE.
12. Surveyors must make at least five attempts to contact the occupants (if occupants are not present at the time of the initial call or subsequent appointment times if these have been arranged), before abandoning the address as un-contactable. Where more than one call is necessary, these should be made, in person, at different times of the day, in at least two different weeks, and at least one should be on a weekday, one in the evening and one during the weekend.
13. It is the responsibility of the surveyor to ensure that they visit the correct address to undertake the WHCS survey, i.e. the address where the National Survey for Wales interview has taken place. Surveyors will usually be provided with the address details together with the date the interview took place. If BRE establishes that the survey has been undertaken at the wrong address, no payment will be made for that survey and the surveyor will be required to undertake the survey at the correct address. If the surveyor suspects that the interview has been undertaken at the wrong address, they must contact BRE and await further instructions.
14. If there are circumstances where a surveyor is unable to keep the appointment made with the household, it is essential that the surveyor telephones the householder themselves to re-arrange the appointment in the first instance.

Qualification exercise

15. For surveyors working on the WHCS who have not taken part in the 2008 Living in Wales Property Survey or the current English Housing Survey, there will have been a pre-qualification exercise to undertake. This would have been completed successfully for them to be offered this contract.

Residential training

16. Surveyors in receipt of this contract will attend a residential briefing at the Swansea Marriott Hotel. The briefing will cover five 24-hour days from Saturday 1st (or 8th) July 2017 through to Thursday 6th (or 13th) July 2017. The training will be delivered by BRE staff and consist of a mixture of classroom lectures, practical fieldwork exercises and tuition in the survey systems and administration. The surveyors' location will determine which of the two briefing sessions they will be allocated to, which is not negotiable other than in exceptional circumstances.
17. Surveyors will be organised into four groups of 11 surveyors headed up by a regional Supervisor. Surveyors will be accompanied at their briefing by their Supervisor. At the end of the briefing session, surveyors will be expected to meet the standards of work necessary to undertake WHCS survey work, as judged by their Supervisor and BRE staff. Whether surveyors meet the criteria will be judged on:
 - Their professional competence, as demonstrated at the briefing
 - Grasp of the principles of the WHCS methodology
 - Willingness to apply the standards set by the professional instructors at the briefing
 - Ability to complete all the required parts of the survey form in a correct and timely way
 - Ability to use the electronic survey systems
 - Commitment, energy and enthusiasm for the survey

The contract may be terminated if BRE staff agree that the surveyor does not meet these requirements. Surveyors who do not subsequently work on the survey following the training will not be paid for their attendance.

Allocation of addresses to surveyors

18. The address allocations to each surveyor will be fixed and non-negotiable. The addresses will be allocated in order to comply with the rules for the address allocation process, which are designed to ensure that no biases are brought into the survey. Another aim of the allocation process is to ensure that all surveyors get, as far as possible, equable and fair work patterns. BRE therefore reserves the right to change allocations as necessary, although this will be done only where absolutely necessary.
19. All survey addresses must be completed by the named contractor/surveyor to whom they are issued. Surveyors are not permitted to pass survey addresses on to any other surveyor or any other person for completion. If, due to exceptional circumstances, a surveyor is unable to complete any part of the address allocation this must be discussed with BRE immediately. BRE will be responsible for any re-allocation of survey addresses.

Confidentiality

20. Surveyors may be allocated addresses within the local authority that they work. By signing this contract, surveyors agree that the surveys undertaken in the WHCS are purely for statistical purposes and that any information revealed will not be acted upon in a professional capacity.
21. Confidentiality of all addresses surveyed, and all information gathered, is of the utmost importance. Surveyors must not discuss the content of the survey findings with the occupier or any other party. No copies of the completed form should be made or passed on to a third party. Any completed hard copy survey forms and personal address information held by the surveyor must be destroyed by the surveyor or returned at the end of the survey, as instructed by BRE. Surveyors are required to comply with their obligations under the 1998 Data Protection Act. According to the Act, BRE is the data Controller for all personal data collected or used for this survey, and the Contractor/surveyor only acts as a Data Processor. In this respect, surveyors will only process Personal Data for the purpose of complying with their obligations under this agreement. They will not retain any copy, abstract, summary or precis of the whole or any part of such personal data or disclose to any person such Personal Data. Surveyors will safeguard any Personal Data held on their own computers from unauthorized or unlawful processing and against loss or damage. Surveyors will indemnify BRE in respect of any and all claims or proceedings in respect of any breach contained in this paragraph provided that such breach was due to their act or omission.

Work patterns

22. Surveyors will be expected to work on the survey intermittently, as addresses come through from the National Survey for Wales. For those surveyors who are already in full time employment, as well as working at the weekend and on light evenings, there may be a need to take occasional days off work during the week to complete surveys. Performance (in terms of completed surveys posted on the BRE surveyor website) will be monitored at all times. Surveyors may have their surveys reallocated to other surveyors if they fail to undertake surveys within a reasonable time of receiving the address. This would usually be three weeks although may be negotiable for individual remote rural surveys and vacant dwellings.
23. It is essential that surveyors are contactable at all reasonable times by mobile phone where information from BRE needs to be relayed.

Supervision and Assistance in the Field

24. Surveyors will be assigned to a Supervisor who will act as a source of assistance in the field. During the first period of fieldwork, surveyors who have not previously worked on the 2008 LIW survey or current EHS will be accompanied for at least one full survey by their Supervisor. The Supervisor will be offering support in this role, but if the Supervisor is unhappy with the performance of the surveyor, BRE reserves the right to terminate the contract of the surveyor. Any surveyor removed from the survey must return all materials associated with the survey within five working days of being notified as such.
25. Surveyors should seek assistance from their Supervisors in the first instance if they have technical queries in the field, for which there is not an answer in their briefing manual. Surveyors will submit all surveys and photographs through the BRE surveyor website at which point they will

be checked and signed off by their Supervisor. This is also an appropriate time to discuss queries about the survey. Should a surveyor be unable to complete the address allocation for any reason, their Supervisor must be notified immediately.

Feedback to Supervisors

26. The work of surveyors will be closely monitored throughout the period of the survey. Surveyors will validate their own surveys on-line before submitting them to the BRE surveyor website. The Supervisors will check the forms, correct minor mistakes and provide feedback to the surveyor, either on-line or over the telephone. Supervisors will enter into a dialogue with surveyors where more consistent mistakes are being made or the training they have been given is not being put into practice. This should ensure that, over time, surveyors will be consistently submitting forms to the required standard.

Administrative queries

27. Surveyors should contact BRE with any administrative queries in the field, eg requests for stationary, difficulty in locating an address, digital pen hardware issues, queries about payment, etc.

Photographs

28. Surveyors are required to maintain a photographic record of each dwelling surveyed, using their own digital camera. Surveyors will usually take four photographs at the address: the front and back of the building and up and down the street, as briefed by BRE. An additional photograph of the barcode of the barcode used to identify each survey is also required. The photographs will be used for validation purposes and will be submitted via the BRE surveyor website alongside the completed survey form.

Submitting surveys

29. At the end of each day's work completed forms and photographs should be downloaded to the BRE surveyor website and validated.

Equipment

30. Surveyors must provide themselves with the necessary equipment to complete the survey forms satisfactorily. This will normally comprise:
 - A computer to the specification described below
 - A digital camera
 - A metric measuring tape/device
 - A portable ladder

- A torch
- A pair of binoculars
- Maps or GPS

The computer requirement to run the WHCS survey system is governed by the software sub-systems used by the digital pens. The minimum required is:

Operating System/Web Browser

- Minimum: Windows 7, Service Pack 1
- Recommended: Windows 10
- Internet Explorer 11 or equivalent

The user will need administrator access to be able to install the software.

NB. The system may operate on non-Microsoft Windows systems (e.g. Apple Macs) but such set-ups will not be supported by BRE.

Hardware Specification

- Processor: 1 GHz or faster 32-bit (x86) or 64-bit (x64)
- Memory
 - Minimum: 1 GB RAM (32-bit) or 2 GB RAM (64-bit)
 - Recommended: 2 GB RAM (32-bit) or 4 GB RAM (64-bit)
- 100 Mbytes of free disk space
- Available USB port

Internet access

- The system will require access to a reliable Broadband connection.

BRE will provide support to surveyors in their use of the digital pen and associated software for purposes relating to the WHCS on one item of PC equipment. BRE will not undertake to diagnose and resolve pre-existing or coincidental PC/Lap-top hardware or software problems that themselves result in surveyors being unable to use the digital pen or software.

31. Every surveyor must also provide a car for his/her own use during the survey period, insured for business use. BRE must be informed of the registration number of every car use for survey work. If, for any reason, the car becomes unavailable, it is the responsibility of the surveyor to provide an alternative vehicle. BRE should be informed of any new car registration number.

Insurance

32. BRE carries Public Liability insurance to cover you while on BRE business. You are obliged to behave in a professional and reasonable manner. If it is deemed that you have not behaved in a professional and reasonable manner, you will be responsible for any compensation paid to the property occupier by BRE arising out of any damage caused to the property or any chattels contained in or on the property.

33. In conducting work under this contract you will be responsible for providing your own transport to and from all work locations. Surveyors using their own vehicles are required to ensure that their transport insurance is endorsed in the necessary terms for business use in accordance with the requirements of the contract.
34. Whilst surveyors are expected to fully exercise their professional judgement in all matters, no professional indemnity is required in respect of any technical assessments made.

Leave of absence

35. If a surveyor is unable to work for a period on the survey due to sick leave, holidays or other reason, they must let BRE and their Supervisor know. If it is not possible for a surveyor to complete the work within an acceptable timeframe, it may be necessary to give some of the surveyor's workload to another surveyor. In some cases this may result in the termination of the contract. Any address re-allocation will be undertaken by BRE. The surveyor will not be permitted to pass addresses on to any other individual.

Debriefing questionnaire

36. Surveyors may be required to complete a debriefing questionnaire at the end of their survey work, detailing their views on the survey and survey process.

Return of survey equipment and materials

37. All digital pen equipment and survey materials left over at the end of survey fieldwork must be returned to BRE within two weeks of the last survey being completed. Completed survey forms and notes on individual surveys, households and addresses which have been retained by surveyors must be destroyed following instructions from BRE.

Health and safety

38. It is the policy of BRE to comply with, or to exceed where practicable, all statutory obligations in maintaining safe and healthy conditions in every area of work in which the company is engaged. In this regard, surveyors will comply, at all times, with instructions and guidance, either written or verbal, given by BRE and intended to ensure both the safety of the surveyor and the safety of others with whom the surveyor comes into contact with while delivering the WHCS contract.
39. In your acceptance of the contract, you are certifying that you have no pre-existing medical conditions or infirmities that would prevent you from carrying out all of the duties required, in the safe and responsible matter that BRE has stipulated. This includes the ability to drive safely and to climb stairs and loft ladders. If, during the course of the contract you become aware of a condition or infirmity which might prevent you from undertaking the work safely, you should contact BRE to discuss your options and your ability to continue.
40. You will, at all times, show due respect to the properties that you have been asked to survey and ensure that the surveys are non-intrusive by nature, in accordance with the briefing provided by BRE.

41. During the course of the WHCS you must not give advice to any third party on any matter, unless this is part of your briefing. The exception to this rule is if you find yourself in a situation which, in your professional opinion, may constitute an immediate danger to life and limb, e.g. a gas leak (please refer to issued guidance). If your advice or opinion is requested by a third party, you can refer them to the generic leaflets and contact numbers that will be provided by the Welsh Government to accompany the survey.
42. You may not seek or accept any work with any third party arising from your work on the WHCS.

Complaints

43. We require you to notify BRE immediately of any complaint from any party which you receive whilst carrying out, or attempting to carry out, our instructions.
44. Having notified BRE of the complaint you should cooperate with BRE in any way we may reasonably require in order to resolve the complaint.
45. All complaints will be investigated in accordance with the BRE Complaints Procedure.
46. In the case of a serious complaint made against you, BRE may suspend the contract at any time pending further investigation, in accordance with our complaints procedure.

CRB compliance

47. All surveyors will be required to have at least basic CRB clearance. For those that do not have a current certificate, this can be obtained from the Government Scotland website for a small fee.

WELSH HOUSING CONDITION SURVEY

SURVEYOR NAME



HELPLINE
0808 164 2982

bre



bre



**Welsh Housing
Conditions Survey
Appointment Card**

BRE Bucknalls Lane, Watford, Hertfordshire, WD25 9XX
Tel: 0808 164 2982 **Email:** whcsinfo@bre.co.uk
Website: www.bre.co.uk/whcs2017-18

CASE NUMBER _____

Our surveyor called today, ____/____/____, at, _____
as arranged, to conduct a survey of your home for the 2017-18
Welsh Housing Conditions Survey.

To arrange another appointment, please call

on telephone number _____

All our surveyors carry a photo Identity Card, please ask to see it.
Please contact BRE using the adjacent details if you have any
queries about the survey, quoting the case number above.

OGL

Welsh Government © Crown copyright 2017
WG31402

Appendix H Thankyou – signposting leaflet

bre



Welsh Housing Conditions Survey Thank You.

Thank you for taking part in the Welsh Housing Conditions Survey

We appreciate you giving your time to take part in this important study.

The information that has been captured about your property and that you have provided will be treated in the strictest confidence and only used for statistical and research purposes.

For more information on the study visit our website:

www.gov.wales/statistics-and-research/welsh-housing-conditions-survey-information-participants

Further information on schemes and advice available in Wales to help households make improvements to their homes;

Welsh Government Warm Homes Nest Scheme

The scheme offers householders free, impartial advice to help them reduce their energy bills and, for those who are eligible, a package of free home energy efficiency improvements, such as a new boiler, central heating or insulation.

www.nestwales.org.uk/home
Call Freephone 0808 808 2244

Home Improvement Loan Scheme

Loans are available to homeowners and landlords to help remove hazards from their homes. Eligibility criteria apply.

www.gov.wales/topics/housing-and-regeneration/grants-and-funding/home-improvement-loans

Houses into Homes Scheme

Loans are available to bring empty houses or commercial buildings back into use as homes. Eligibility criteria apply.

www.gov.wales/topics/housing-and-regeneration/housing-supply/empty-homes/houses-into-homes

Enable – Support for Independent Living Adaptations Scheme

Support for adapting your home if you are struggling to access basic facilities in or feel unsafe getting around your home.

www.gov.wales/topics/housing-and-regeneration/housing-quality/aids-and-adaptations/support-for-independent-living

Falls Prevention – Steady on Stay Safe

www.ageingwellinwales.com/en/SteadyOn
02920 445 030

Care and Repair Cymru

Works to ensure that all older people have homes that are safe, secure and appropriate to their needs.

www.careandrepair.org.uk/en
02920 674830

Tenants advice from RentSmartWales

www.rentsmart.gov.wales/en/tenant

Government Fire Safety Guidance

www.gov.uk/government/collections/fire-safety-guidance

Natural Resources Wales: Flood advice

www.naturalresources.wales/flooding
0300 065 3000

Public Health Wales Advice on Carbon Monoxide

www.wales.nhs.uk/sitesplus/888/page/50368

The organisations listed above are independent of the Welsh Government.

Your property inspection was carried out by a surveyor employed by the Building Research Establishment on behalf of the Welsh Government.

OGL

Welsh Government © Crown copyright 2017
WG31402

bre

bre



Arolwg Cyflwr Tai Cymru Diolch.

Diolch am gymryd rhan yn Arolwg Amodau Tai Cymru

Rydym yn gwerthfawrogi eich bod wedi rhoi eich amser i gymryd rhan yn yr astudiaeth bwysig hon.

Bydd y wybodaeth sydd wedi cael ei chofnodi am eich eiddo, a'r wybodaeth rydych wedi ei darparu yn cael ei thrin yn gwbl gyfrinachol, ac yn cael ei defnyddio at ddibenion ystadegol ac ymchwil yn unig.

Am ragor o wybodaeth am yr astudiaeth, ewch i'n gwefan:

www.gov.wales/statistics-and-research/welsh-housing-conditions-survey-information-participants

Rhagor o wybodaeth am y cynlluniau a'r cyngor sydd ar gael yng Nghymru er mwyn helpu pobl i wella eu cartrefi;

Cynllun Nyth Cartrefi Clyd Llywodraeth Cymru

Mae'r cynllun yn cynnig cyngor diduedd yn rhad ac am ddim i ddeiliaid tai i'w helpu i leihau eu biliau ynni ac, i'r rhai sy'n gymwys, pecyn rhad ac am ddim i wella effeithlonrwydd ynni yn y cartref, fel boeler newydd, gwres canolog neu inswleiddio.

www.nestwales.org.uk/home

Ffoniwch y Rhadffôn 0808 808 2244

Y Cynllun Benthyciadau Gwella Cartrefi

Mae benthyciadau ar gael i berchnogion cartrefi a landlordiaid er mwyn eu helpu i gael gwared â'r peryglon o'u cartrefi. Dibynnol ar feini prawf cymhwysedd.

www.gov.wales/topics/housing-and-regeneration/grants-and-funding/home-improvement-loans

Cynllun Troi Tai'n Gartrefi

Mae benthyciadau ar gael er mwyn gwneud tai neu adeiladau masnachol gwag yn addas i'w defnyddio fel cartrefi. Dibynnol ar feini prawf cymhwysedd.

www.gov.wales/topics/housing-and-regeneration/housing-supply/empty-homes/houses-into-homes

Hwyluso – Cynllun Cymorth i Fyw'n Annibynnol

Cymorth ar gyfer addasu eich cartref os ydych yn cael trafferthion wrth gael mynediad at gyfleusterau sylfaenol neu os nad ydych yn teimlo'n ddiogel yn symud o gwmpas eich cartref.

www.gov.wales/topics/housing-and-regeneration/housing-quality/aids-and-adaptations/support-for-independent-living

Atal Cwypmudiadau – Sadiwch i gadw'n saff

www.ageingwellinwales.com/en/SteadyOn
02920 445 030

Gofal a Thrwsio Cymru

Gweithio i sicrhau bod gan bobl hyn gartrefi diogel, cadarn a phriodol ar gyfer eu hanghenion.

www.careandrepair.org.uk/en
02920 674830

Cyngor i denantiaid gan Rhentu Doeth Cymru

www.rentsmart.gov.wales/en/tenant

Arweiniad Diogelwch Tân y Llywodraeth

www.gov.uk/government/collections/fire-safety-guidance

Cyfoeth Naturiol Cymru: cyngor llifogydd

www.naturalresources.wales/flooding
0300 065 3000

Cyngor Iechyd Cyhoeddus Cymru am Garbon Monocsid

www.wales.nhs.uk/sitesplus/888/page/50368

Mae'r sefydliadau a restrir uchod yn annibynnol o Lywodraeth Cymru.

Cynhaliwyd eich arolwg eiddo gan syrfewr a gyflogwyd gan y Sefydliad Ymchwil Adeiladu, ar ran Llywodraeth Cymru.

OGL

Llywodraeth Cymru © Hawffraint y Goron 2017
WG31402

bre

Appendix I Sheet of barcode labels

WHCS 2017 030008



WHCS 2017 030009



WHCS 2017 030010



WHCS 2017 030011



WHCS 2017 030012



WHCS 2017 030013



WHCS 2017 030014



WHCS 2017 030015



WHCS 2017 030016



WHCS 2017 030017



WHCS 2017 030018



WHCS 2017 030019



Appendix J Respondent leaflet

bre



Welsh Housing Conditions Survey 2017-18

Thank you for agreeing to take part in this important study. Your participation is very important and greatly appreciated.

What is the Welsh Housing Conditions Survey?

The Welsh Housing Conditions Survey is a survey of the condition of all types of housing – houses and flats; owned and rented – across Wales. During your National Survey for Wales interview you provided vital information on a number of topics – household income, housing costs, how you pay for your energy – this will be combined with information from a physical inspection of your property to give the Welsh Government a clear picture of the state of homes and housing in Wales.

Why is it important?

The information collected helps the Welsh Government make informed decisions – so resources are better used to help home owners and tenants. This includes decisions on how to improve energy efficiency of homes, build better housing for the future and reduce the impact of poor quality housing on the health of the occupants. The survey was last undertaken in 2008 and the information collected has been used constantly since then to inform government policies.

What will the inspection involve?

A surveyor employed by the Building Research Establishment (BRE) will undertake an inspection of your home. The surveyor will look at the inside and outside of your home. **It is only a visual inspection;** they will not need to move any furnishings or carpets, or undertake any testing. Your home will not be disturbed in any way and the surveyor will not take up much of your time.

How long will the surveyor visit last?

Around 40-50 minutes; most of this time will be spent outside, with just about 20 minutes spent inside.

When will the surveyor call?

A surveyor will telephone you within the next few weeks to arrange a convenient time to carry out the inspection. If you are not in when the surveyor arrives they will leave a calling card with their contact details. If you need to rearrange the appointment you can contact the surveyor directly.

How do I know that the surveyor is genuine?

All surveyors carry photo ID cards, with a Freephone number enabling you to check that they are who they say they are.

Do I need permission from my landlord?

There is no need to seek permission from your landlord or freeholder to participate in the survey. You do not need to inform them of your participation unless you wish to. As the interviewer explained, all your responses to the National Survey for Wales and the information collected as part of the inspection of your home will remain confidential.

Is confidentiality guaranteed?

YES. The information collected as part of the inspection will be treated as confidential as directed by the Code of Practice for Official Statistics. It will be used to produce statistics that will not identify you or anyone in your household. Information is also provided to other approved organisations for statistical purposes only and the same standards of protection are applied to your information at all times.

Is it possible to have a Welsh speaking surveyor?

YES. You will have indicated to the interviewer whether you wish to have a Welsh speaking surveyor call. If you wish to change your preference please contact BRE on the number below.

Further information

If you would like further information about the Welsh Housing Conditions Survey or have any queries contact BRE on **0808 164 2982** or email whcsinfo@bre.co.uk. Calls are free from mobiles as well as landlines.

If you would like to contact the Welsh Government directly, please email

stats.housingconditions@wales.gsi.gov.uk or call **0300 060 3300**. Calls made to this number are not free and you will be charged at the normal rate.

For more information visit:
www.gov.wales/whcsinfo or
www.bre.co.uk/whcs2017-18

OGL

Welsh Government © Crown copyright 2017
WG31402

bre

bre



Arolwg Cyflwr Tai Cymru 2017-18

Diolch am gytuno i gymryd rhan yn yr astudiaeth bwysig hon. Mae eich cyfranogiad yn bwysig iawn ac yn cael ei werthfawrogi'n fawr.

Beth yw Arolwg Cyflwr Tai Cymru?

Mae Arolwg Cyflwr Tai Cymru yn arolygu cyflwr pob math o dai – tai a fflatiau; a berchenogir ac a rentir – ledled Cymru. Yn ystod eich cyfweiliad Arolwg Cenedlaethol Cymru, fe rôddoch wybodaeth hollbwysig am nifer o bynciau – incwm yr aelwyd, costau tai, sut rydych chi'n talu am eich ynni – bydd y wybodaeth hon yn cael ei chyfuno â gwybodaeth a gafwyd o archwiliad ffisegol o'ch eiddo er mwyn rhoi darlun eglur i Lywodraeth Cymru o gyflwr cartrefi a thai yng Nghymru.

Pam mae'n bwysig?

Bydd y wybodaeth a gesglir yn helpu Llywodraeth Cymru i wneud penderfyniadau gwybodus – fel bod adnoddau'n cael eu defnyddio'n well i helpu perchenogion a thenantiaid. Mae hyn yn cynnwys penderfyniadau ynglŷn â sut i wella effeithlonrwydd ynni cartrefi, adeiladu tai gwell ar gyfer y dyfodol a lleihau effaith tai o ansawdd gwael ar iechyd y preswylwyr. Cynhaliwyd yr arolwg diwethaf yn 2008 ac mae'r wybodaeth a gasglwyd wedi cael ei defnyddio'n gyson ers hynny i lywio polisiau'r llywodraeth.

Beth fydd yn cael ei wneud yn ystod yr archwiliad?

Bydd syrfewr a gyflogir gan y Sefydliad Ymchwil Adeiladu (BRE) yn cynnal archwiliad o'ch cartref. Bydd y syrfewr yn edrych ar y tu mewn a'r tu allan i'ch cartref. **Archwiliad gweledol ydyw yn unig;** ni fydd angen iddo symud unrhyw ddodrefn na charpedi, na chynnal unrhyw brofion. Ni fydd y syrfewr yn tarfu ar eich cartref mewn unrhyw ffordd nac yn cymryd gormod o'ch amser.

Pa mor hir y bydd ymweliad y syrfewr yn ei gymryd

Tua 40-50 munud; bydd y rhan fwyaf o'r amser hwn yn cael ei dreulio y tu allan, a thua 20 munud yn unig y tu mewn.

Pryd bydd y syrfewr yn galw?

Bydd syrfewr yn eich ffonio o fewn yr ychydig wythnosau nesaf i drefnu adeg gyfleus i gynnal yr archwiliad. Os na fyddwch chi gartref pan fydd y syrfewr yn cyrraedd, bydd yn gadael cerdyn galw sy'n cynnwys ei fanylion cyswilt. Os bydd angen i chi ail-drefnu apwyntiad, gallwch gysylltu â'r syrfewr yn uniongyrchol.

Sut gallaf gadarnhau pwy yw'r syrfewr?

Bydd gan bob syrfewr gerdyn adnabod â llun, sy'n cynnwys rhif rhadffôn y gallwch ei ffonio i gadarnhau pwy ydyw.

A oes angen i mi gael caniatâd gan fy landlord?

Nid oes angen ceisio caniatâd gan eich landlord neu rydd-ddeiliad i gymryd rhan yn yr arolwg. Nid oes angen i chi roi gwybod iddynt eich bod yn cymryd rhan oni bai eich bod chi eisiau. Fel yr esboniodd y cyfwelydd, bydd eich holl ymatebion i Arolwg Cenedlaethol Cymru a'r wybodaeth a gesglir yn rhan o'r archwiliad o'ch cartref yn aros yn gyfrinachol.

A yw cyfrinachedd yn cael ei warantu?

YDY. Bydd y wybodaeth a gesglir yn rhan o'r archwiliad yn cael ei thrin yn gyfrinachol yn unol â'r Cod Ymarfer ar gyfer Ystadegau Swyddogol. Bydd yn cael ei defnyddio i gynhyrchu ystadegau na fyddant yn eich enwi chi nac unrhyw un yn eich cartref. Bydd gwybodaeth yn cael ei rhoi i sefydliadau cymeradwy eraill hefyd at ddibenion ystadegol yn unig, a bydd yr un safonau diogelwch yn berthnasol i'ch gwybodaeth bob amser.

A oes cael syrfewr sy'n siarad Cymraeg?

OES. Byddwch eisoes wedi dweud wrth y cyfwelydd a ydych eisiau i syrfewr sy'n siarad Cymraeg alw. Os hoffech newid eich meddwl, cysylltwch â BRE ar y rhif isod.

Gwybodaeth ychwanegol

Os hoffech gael gwybodaeth ychwanegol am Arolwg Cyflwr Tai Cymru neu os oes gennych unrhyw ymholiadau, cysylltwch â BRE ar **0808 164 2982** neu anfonwch neges e-bost at **actcgwyb@bre.co.uk**. Mae galwadau am ddim o ffonau symudol yn ogystal â thirlinellau.

Os hoffech gysylltu â Llywodraeth Cymru yn uniongyrchol, anfonwch neges e-bost at **ystadegau.cyflwrtai@cymru.gsi.gov.uk** neu ffoniwch **0300 060 3300**. Nid ydy galwadau i'r rhif hwn am ddim, ac fe godir tâl ar y gyfradd arferol.

I gael rhagor o wybodaeth, ewch i:
www.llyw.cymru/actcgwyb neu
www.bre.co.uk/whcs2017-18

OGL

Llywodraeth Cymru © Hawffraint y Goron 2017
WG31402

bre

Appendix K WHCS helpline log



Date	Name	Address	Contact details	Nature of call	Resolved Y/N	English / Welsh
27/7/17				Surveyor having problems with pen	Yes	English
28/7/17				Needs to re-arrange appointment	Yes	English
8/8/17				Emailed in request to cancel	Yes	English
21/8/17				Surveyor has query re invoicing and mileage	Yes	English
14/9/17				Wants to cancel survey - changed her mind	Yes	English
26/9/17				Needs to re-arrange appointment	Yes	English
31/10/17				Checking surveyor from WHCS via helpline	Yes	English
8/11/17				Needs to re-arrange appointment	Yes	English
20/11/17				Would like further info on Grants	Yes	English
23/1/18				Query re voucher	Yes	English
23/1/18				Cancel survey today 3.30pm - rearrange	Yes	English
24/1/18				Did not received 1st voucher	Yes	English
24/1/18				Please delay survey until 3pm today	Yes	English
5/2/18				Missed call for survey can't find number	Yes	Welsh
22/2/18				Felt survey questions were too personal	Yes	English
1/3/18				Needs to re-arrange appointment	Yes	English
12/3/18				Survey agreed to but drone above house?	Yes	English
15/5/18				Someone carried out survey but not arranged	Yes	English
23/4/18				No gift voucher from 2nd visit	Yes	English

*Name, address and contact information removed for to comply with GDPR regulations.

Appendix L WHCS briefing programme



WHCS BRIEFING PROGRAMME JULY 2017 (WELSH SURVEYORS)

Day 0 Introduction		Sat 1st
20.00-20.45	Welcome/Introduction	WG / SN
20.45-21.30	Sections 1 - 4 of form	SN
21.30-22.00	Dwelling definition exercise	SN/CB

Day 1		Sun 2nd
08.30-09.00	Basic principles/WHQS	SN,
09.00-10.15	Interior/amenities	ER/SN
10.15-10.30	Coffee	
10.30-11.30	Interior/amenities faults	RF
11.30-13.00	Services, heating, energy	MC/JW
13.00-14.00	Lunch	
14.00-14.30	Primary services	MC/JW
14.30-15.00	Energy exercise	MC/JW
15.00-18.00	Fieldwork/debriefing	IW, ER, RMs
18.00-19.00	Free	
19.00-20.00	Dinner	
20.00-21.00	Energy exercise debrief	MC/JW
20.30-21.00	Time with supervisors	
21.00-	Free	

Day 3		Tues 4th
08.30-09.15	Module/flat surveys	SN
09.15-10.00	Common parts	RF
10.00-10.30	Shared facilities	IW
10.30-10.45	Coffee	
10.45-11.25	Flat construction/faults	RF
11.25-11.45	Review flat surveys	ER
11.45-12.30	Block/area	SN
12.30-13.00	Module definition Exercise	SN/CB
13.00-14.00	Lunch	
14.00-18.00	Fieldwork : full survey of flat in large block	RF, ER, IW, RMs
18.00-19.00	Free	
19.00-20.00	Dinner	
20.00-20.30	E-learning feedback	RMs
	Test exercises	
20.30-	Free	

Day 5		Thurs 6th
08.30-09.00	Check out of rooms	
09.00-10.30	Full survey debriefing	SN,IW, ER, RF
10.30-10.45	Coffee	
10.45-11.15	Validation hints and tips	ER
11.15-12.00	Using your data	MC
12.00-12.45	Grants and home improvements	CK
13.00-14.00	Lunch	
14.00-16.00	Survey admin/web site	CB/MC
16.00-16.15	Coffee	
16.15-	Computer workshop	KD, JW
	Pick up packs, lap tops	
	Leave	

Key

Location	Hotel
	Field
	Free

Day 2		Mon 3rd
08.30-09.15	Dwelling age, type, construction	SN
09.15-10.25	Shape/measurement, views	JW
10.25-10.45	Shapes and Views exercise	RMs
10.45-11.00	Coffee	
11.00-12.00	Exterior/plot	SN, ER
12.00-13.30	External faults	RF
13.30-14.30	Lunch	
14.30-15.00	Structural faults	SN
15.00-18.30	Fieldwork/debriefing	ER, IW, RMs
18.30-19.00	Free	
19.00-20.00	Dinner	
20.00-20.45	HMOs / HH interview	ER, SN
20.30-	Free	

Day 4		Weds 5th
08.30-09.00	HHSRS and the EHS	SN
09.00-09.30	HHSRS extreme risks	SN
09.30-10.45	HHSRS worked examples	RF
10.45-11.00	Coffee	
11.00-11.20	Introduction to digital pen	MC, CB, JW
11.20-13.00	Digital pen practice.	MC, CB, JW
13.00-14.00	Lunch	
14.15-17.30	Fieldwork - Full survey using digital pen	RF, ER, IW, RMs
17.30-18.00	Downloading survey	MC, CB
18.00-19.00	Free	
19.00-20.00	Dinner	
20.00-21.30	Validating data from this afternoons survey cont'd	MC, CB
21.30-	Free	

WHCS BRIEFING PROGRAMME JULY 2017 (Current EHS Surveyors)

Group 2

July 6th, 7th

July 6th		
18.00-19.00	Group 2 EHS Surveyors arrive Hand in lap-tops/computers Collect pens.	KD, JW
19.00-20.30	Dinner	
20.30-20.50	Welcome/introduction	JD
20.50-21.10	Differences between WHCS/EHS	SN
21.10-21.25	WHCS test properties	SN

July 7th		
08.30-09.30	Check out of rooms	
09.00-12.00	EHS Surveyors visit house and undertake a full survey using WHCS digital pen system. Debrief in the field	IW, ER, RM's
12.15-13.00	Download and validate survey	
13.00-14.00	Lunch	
14.00-14.45	Grants and home improvements	CW
14.45-15.45	Survey administration	CB, MC
15.45	Coffee	
15.45	Pick up lap tops, equipment, Leave	KD, JW

SURVEYOR BRIEFING MANUAL

PART 5

ADMINISTRATION / CASE MANAGEMENT

CONTENTS

5.1	INTRODUCTION.....	128
5.1.1	The Welsh Housing Conditions Survey (WHCS).....	128
5.1.2	Summary of required work.....	128
5.1.3	The role of BRE in the WHCS	129
5.2	THE SURVEY WEBSITE.....	130
5.2.1	The survey management system.....	130
5.2.2	Gaining access	130
5.2.3	Receiving New Cases.....	130
5.2.4	Diary and Availability	132
5.2.5	Managing Appointments	133
5.2.6	Making an appointment	133
5.2.7	Altering an appointment.....	136
5.2.8	Household refusal	137
5.2.9	Household no contact	138
5.2.10	Holidays / wrongly allocated cases.....	139
5.2.11	Linking a survey to a case	139
5.2.12	Seven day view.....	141
5.2.13	Completed surveys	142
5.2.14	Welsh speaking surveyors.....	143
5.2.15	Google maps.....	143
5.3	FIELDWORK BASICS.....	145
5.3.1	Surveyor identification number	145
5.3.2	Case number	145
5.3.3	Barcode label	145
5.3.4	On-line survey address list	145
5.3.5	Full surveys and partial surveys	145
5.3.6	Progress.....	146
5.4	CONTACT WITH HOUSEHOLDS.....	147
5.4.1	Notifying the household	147
5.4.2	Telephone contact	147
5.4.3	Preparation for the visit.....	148
5.4.4	Approaching the house.....	148
5.4.5	Introduction to the household on the doorstep	149
5.4.6	Frequently asked questions	149
5.4.7	Older people and gaining access to vulnerable households	150
5.4.8	Occupant not at home /number of visits	150
5.4.9	Missed Appointment cards	150
5.4.10	Change of appointment or refusal by telephone.....	150
5.4.11	Time of visits	150

5.5	ENSURING THAT YOU ARE AT THE CORRECT ADDRESS	151
5.5.1	Finding the correct address	151
5.5.2	Reasons for discrepancies between surveys	151
5.5.3	Different address visited from interview survey	151
5.5.4	Different household.....	152
5.5.5	Different dwelling type	152
5.6	MORE ABOUT SURVEY ADDRESSES	153
5.6.1	Valid addresses	153
5.6.2	Unusual dwellings	153
5.6.3	Finding difficult addresses	153
5.6.4	Houses in multiple occupation	154
5.6.5	Dwellings with other uses	154
5.6.6	Vacant dwellings	154
5.6.7	Undergoing renovation	154
5.7	PHOTOGRAPHS	155
5.7.1	Use of photographs.....	155
5.7.2	Occupants permission	155
5.7.3	Data protection act.....	155
5.7.4	Camera specification	155
5.8	SURVEY MATERIALS AND EQUIPMENT	156
5.8.1	Equipment provided by the surveyor	156
5.8.2	Survey materials provided by BRE	156
5.8.3	Car	157
5.8.4	Welsh Housing Conditions Survey Identity Card Scheme	157
5.8.5	Signposting / thankyou leaflets	158
5.9	YOU AND YOUR SUPERVISOR	159
5.9.1	Supervision	159
5.9.2	Accompaniment during first weeks of work	159
5.9.3	Checking survey forms	159
5.9.4	Technical problems.....	159
5.9.5	Maintaining standards.....	159
5.9.6	Monitoring progress	160
5.10	PROBLEMS IN THE FIELD.....	161
5.10.1	Technical problems.....	161
5.10.2	Workload problems	161
5.10.3	Additional stationary and paperwork.....	161
5.10.4	Refusals at the survey address	161
5.10.5	Household requesting information about the survey	161
5.10.6	Language difficulties	162
5.10.7	Social problems	162
5.10.8	Seeking assistance	162
5.11	CONTRACTS AND PAYMENTS.....	163
5.11.1	Terms and conditions of the contract.....	163
5.11.2	Mileage and expense payments	163
5.11.3	Invoicing BRE	165
5.12	QUALITY CONTROL.....	167
5.12.1	Supervision and Supervisor assessment	167
5.12.2	Back-checking addresses	167
5.12.3	Validation of survey forms	167

5.12.4	Progress.....	167
5.13	CODE OF CONDUCT	168
5.13.1	Introduction	168
5.13.2	Market and social research principles	168
5.13.3	Before you begin a project.....	168
5.13.4	When introducing a survey	169
5.13.5	During the project.....	169
5.13.6	After the project.....	170
5.13.7	Code of Common Sense	170
Annex A	– Fieldwork Invoicing BRE.....	171

INTRODUCTION

This manual provides information on how to carry out your fieldwork effectively. It provides details of:

- The survey addresses
- What to survey
- The use of photographs
- The use of the BRE survey management website
- Administrative requirements of surveyors
- How your progress is monitored

It also contains information on how to deal with any problems you may encounter while undertaking surveys and how claims for payments should be made. ***Please read the entire document carefully.***

The Welsh Housing Conditions Survey (WHCS)

The Welsh Housing Conditions Survey is the 11th in a time series of surveys going back to 1967. In fact the 2017-18 survey marks the Golden Jubilee of the WHCS which, with the English House Condition Survey which began at the same time, is the longest running survey of national housing conditions in the world. The surveys have been used over the years to develop, measure and monitor policies for the renewal and improvement of the housing stock of Wales, which is the oldest in Europe. The last survey took place in 2008 (when it was branded as the Living in Wales Property Survey) and this is the longest gap there has been between the surveys. So, the 2017-18 WHCS is long overdue.

For the 2017-18 survey the WHCS will follow on from the National Survey for Wales, which is a continuous household survey of Wales with an annual sample of over 11,000 homes. A sample of the dwellings where an interview has taken place, and where they have given permission to be re-contacted, will be selected for a survey to be undertaken by a trained inspector. A total of some 2,500 full WHCS surveys must be achieved. Data from both the interview and the inspection will be anonymously matched to provide comprehensive information on the Welsh housing stock and the people who live in it.

Forty four surveyors will be employed by BRE to work on the WHCS, made up of a pool of professional Environmental Health Practitioners, Surveyors, and Architects. All surveyors will be allocated to one of four regionally based teams (11 surveyors per team) led by a BRE Supervisor.

Summary of required work

The survey is a non-intrusive visual inspection. Surveyors will attempt to undertake a physical assessment of the dwelling at each address provided, unless informed otherwise. All surveys will involve a full internal and external inspection, in accordance with surveying procedures specified by BRE. The survey is a paper based survey and surveyors will be provided with survey forms to be completed at each address. The survey form is used in conjunction with a digital pen which is downloaded to the BRE surveyor website once the surveyor is back at the PC containing the WHCS software. No other form or format is to be used for WHCS surveys. In the event that the Digital Pen is lost or otherwise unavailable at the time of the survey, the survey should be completed using a pencil and over-written using a digital pen at a later stage, and then submitted in the normal way. Surveyors should expect to spend between

45 and 90 minutes to complete a full survey, although the duration will vary according to the type and condition of the property, the speed of the surveyor and the level of interaction with the household. It should take no more than 45 minutes for an experienced surveyor to inspect a simple modern terraced house in good condition, while it could take 90 minutes for the same surveyor to complete a full survey of a flat in a tower block with common areas and shared facilities.

A Full Survey is defined as the completion of all relevant sections of the survey form as specified by BRE. Anything other than this will be treated as a Non-Survey (see contract).

Properties will be selected for a survey from the National Survey for Wales sample following a number of sampling rules, including the pass-porting in of all homes identified by the interviewer as appearing to be in disrepair from a first impression. This means that you should not be alarmed if you feel that the sample of properties you are given to visit does not appear to be fully representative of the Welsh housing stock as you see it. The weighting of the results will undo any apparent bias.

It is important that you visit the correct address and make sure that it is the same address that was visited by the ONS National Survey for Wales (NSW) interviewer. No substitutions of other properties may be made. If you suspect that the interview has taken place at the wrong address, you must inform BRE before undertaking your survey.

Photographs should be taken at all full survey addresses where you have received the permission of the household to do so. A set of photographs for each survey dwelling (front and back views plus up and down the road, and one of the survey barcode should be attached to the electronic survey when it is submitted to BRE.

All completed survey forms will be submitted via the BRE surveyor website and validated by the surveyor. They will then be checked by the supervisor, who will approve them for payment if they are satisfied with the outcome.

The role of BRE in the WHCS

BRE has been appointed by the Welsh Government to manage all aspects of the WHCS, including:

- The design of the survey instruments
- The employment, training and supervision of surveyors
- The management of fieldwork
- The compiling of the data set(s)
- Complex data modelling

BRE will work closely with the ONS National Survey for Wales team to select the sample for the survey and weight the survey results.

THE SURVEYOR WEBSITE

The following chapter sets out the basic principles you will need to know when using the surveyor website.

The survey management system

The Survey Management System for the WHCS will be handled by BRE. Surveyors should regularly log on to the surveyor website to manage their allocation and generate invoice statements for work completed.

For the Welsh Housing Conditions Survey 2017-18, a dedicated [surveyor website](#) has been created. The website will allow you to manage your cases, surveys and workload, and allow information to be transferred between surveyors, regional managers and staff at BRE.

Gaining access

To gain access to the website you will need to know your surveyor ID number and password. Both of these will be given to you during the digital pen training and also you'll find this information in your surveyor materials. The password is case sensitive but can be changed at any time following the link on the website.

Receiving New Cases

On logging into the website, using your surveyor ID and password, the 'Your cases' page will be displayed. This page contains a list all of your current cases and surveys, and can be used to manage appointments and access survey forms. The page can also be accessed by using the 'home' button on the top banner or by selecting the 'in progress' button from the 'cases' dropdown list.

New cases will be assigned to you when they become available every Monday lunchtime throughout the fieldwork period. This is an automatic process and does not require any input from the surveyor. When new cases have been assigned, they will appear in the 'Not started' section of the 'Your cases' page next to the associated case number. Details such as the address, contact details, and householder availability will be displayed alongside the case number.

New cases will not yet have an associated appointment for a physical survey, and the **Book an appointment** button will be shown next to the case number to make you aware that an appointment needs to be made. *Please see screen shot below.*

Arolwg Am odau
Tai yng Nghymru
2017/18 Welsh Housing
Conditions Survey

home cases diary documentation Jon

Your cases

Not started

Case number	Address	Next appointment
40702201 ⓘ	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
620401301 ⓘ	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
620401901 ⓘ	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
660100601 ⓘ	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Tuesday 25 April 2017 08:00

In progress

You don't have any current surveys.

Clicking the green information icon ⓘ next to the case number will display more information relating to the case. This includes more comprehensive contact details required to make an appointment.

Arolwg Am odau
Tai yng Nghymru
2017/18 Welsh Housing
Conditions Survey

home cases diary documentation Jon

Your cases

Not started

Case number	Address	Next appointment
40702201 ⓘ	[Redacted] Availability	26 April 2017 09:00
601000601 ⓘ	10 PRITCH Availability	7 April 2017 10:00
620401301 ⓘ	7 CWMALS Availability	Book an appointment
620401901 ⓘ	29 ST. MAF Availability	Book an appointment
660100601 ⓘ	65 QUEEN Availability	April 2017 08:00

Case details

Case number 40702201

Address [Redacted]

Contact Name 6

Availability Weekday mornings

Contact preference Mobile

Phone number [Redacted]

Email

[Close](#)

In progress

You don't have any current surveys.

Diary and Availability

For the WHCS each surveyor will be booking their own appointments and managing their own diary. The diary tab allows you to update your availability and view any current cases that have been booked in to receive a survey.

The diary is viewed in a monthly format, and the month being viewed can be changed by using the arrows at the top of the calendar.

Dates will be highlighted in the calendar view to show where you are available to carry out a survey, or where a case has had an appointment made to receive a survey. Dates in which you have specified that you are available are highlighted in yellow, and dates which have a booked case assigned to it are highlighted in pink.

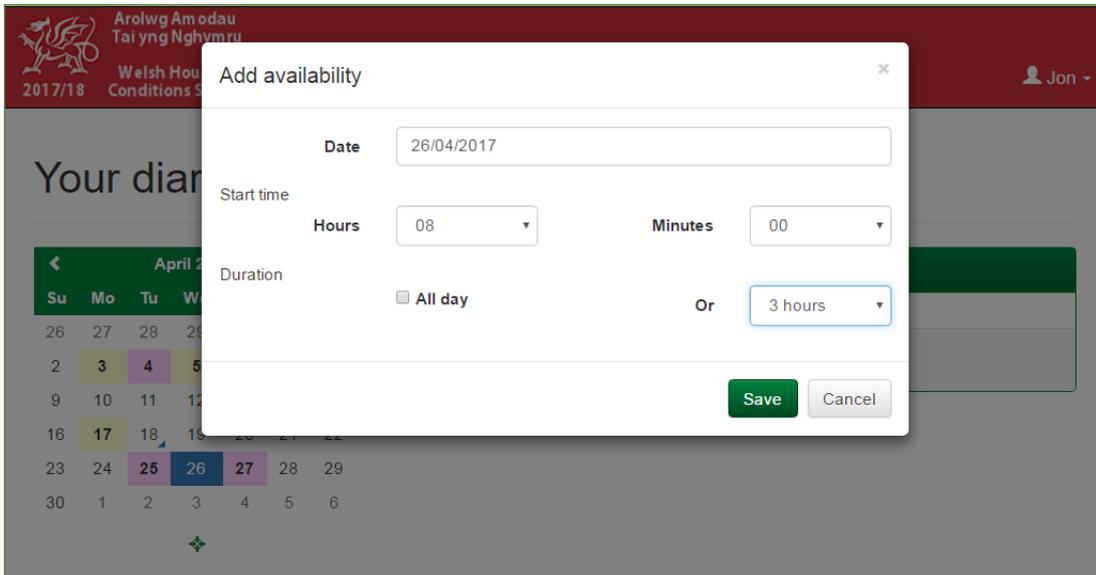
The screenshot shows the 'Your diary' interface. At the top, there is a red navigation bar with the Welsh Housing Conditions Survey logo and text in Welsh and English, along with navigation links for 'home', 'cases', 'diary', and 'documentation', and a user profile 'Jon'. Below the navigation bar, the main heading is 'Your diary'. On the left, there is a calendar for April 2017. The calendar shows dates from 26 to 30. Dates 3, 4, 5, 17, 25, 26, and 27 are highlighted in yellow, indicating availability. Dates 25, 26, and 27 are also highlighted in pink, indicating booked cases. On the right, there is a detailed view for 'Wednesday 26 April 2017'. Below the date header, there is a blue button labeled 'Add availability'.

Availability

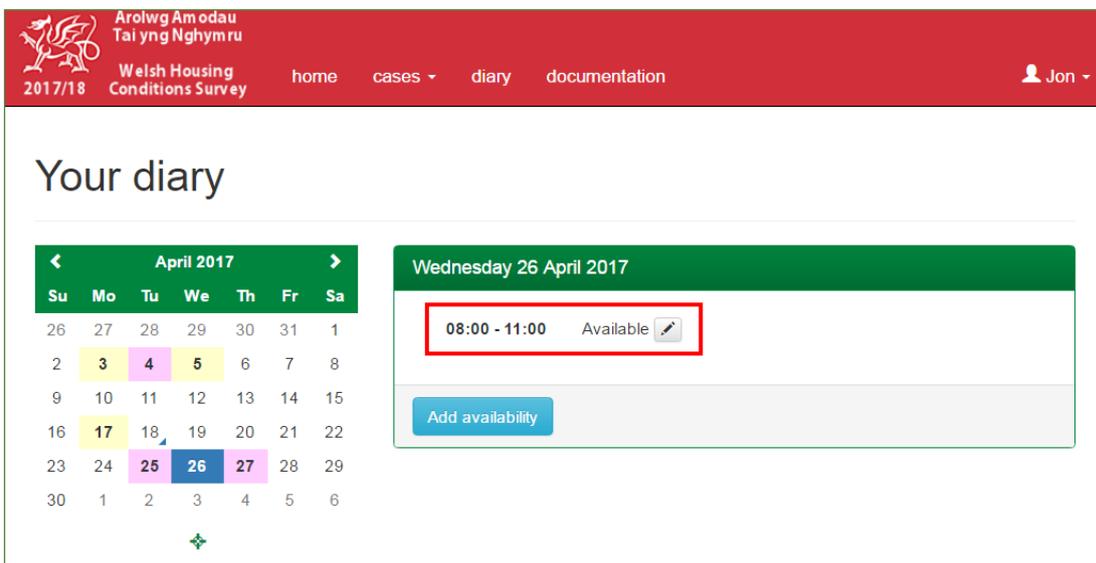
We've added a feature to help you when booking appointments. This is essentially a diary to let yourself know when you are or are not available. You don't have to use it and instead may want to use your own calendar at home or perhaps your outlook calendar?

In order to update your availability, first select the date that you would like to attach your availability to and then click the **Add availability** button. This will open a window in which you can specify the hours that you are available to complete surveys.

Select the starting time for your availability, and then select how long you are available for. This can be done by specifying a length of time from the drop-down box, or by selecting the 'all day' tick box if you are available for the whole day.



Click the **Save** button to record the selected availability period in the calendar. The appropriate date will now be highlighted yellow in the calendar view to show that you are available on this day, and the period of availability will be shown in the box on the right when the date is selected. Multiple periods of availability can be recorded on a single day, if you are available for multiple, non-continuous periods.



Managing Appointments

All appointments are managed from the 'Your Cases' screen. This screen will automatically be displayed upon logging into the website, but can also be navigated to by clicking the 'home' button on the top banner, or by selecting 'In progress' from the 'cases' drop down.

Making an appointment

To make a booking, first click on the **Book an appointment** button next to the case for which you would like to make an appointment.

Arolwg Am odau
Tai yng Nghymru
Welsh Housing
Conditions Survey
2017/18

home cases ▼ diary documentation

Jon ▼

Your cases

Not started

Case number	Address	Next appointment
40702201	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
620401301	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
620401901	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
660100601	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Tuesday 25 April 2017 08:00

In progress

You don't have any current surveys.

You will be taken to your diary, which will show your availability and dates where an appointment has been made for other cases. The details of the case you are making an appointment for will be displayed next to the calendar. This will contain all the information relevant for booking an appointment, such as:

- Case number
- Address of the property
- Contact details
- Householder availability

You may use your calendar to remind yourself of your availability to conduct a survey, and of other surveys that you have already made an appointment for.

Arolwg Am odau
Tai yng Nghymru
Welsh Housing
Conditions Survey
2017/18

home cases ▼ diary documentation

Jon ▼

Your diary

April 2017

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Case details

Case number: 40702201

Address: [Redacted]

Contact: Name 6

Availability: Weekday mornings

Contact preference: Mobile

Phone number: [Redacted]

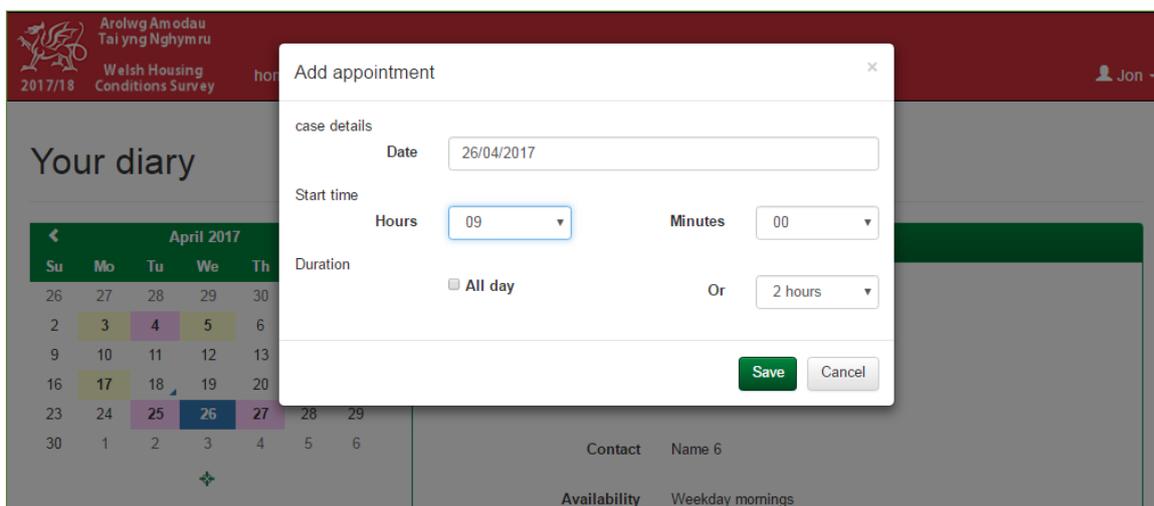
Email: [Redacted]

Wednesday 26 April 2017

08:00 - 11:00 Available

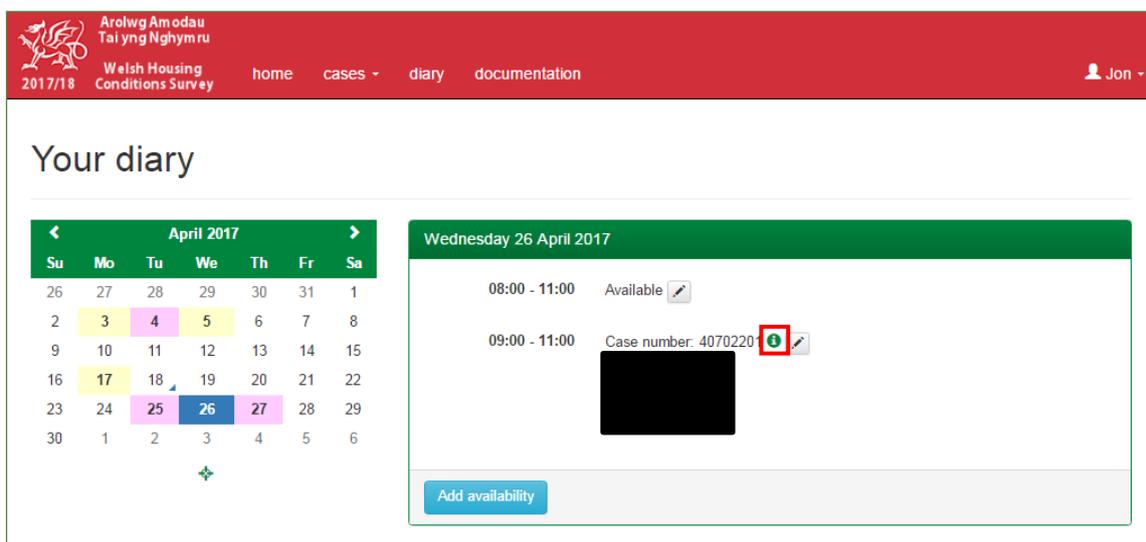
[Make appointment](#)

Select the day that you would like to book the appointment for and click the **Make appointment** button. This will open a window which will allow you to select the starting time and expected duration for the survey.



Click the **Save** button to record details of the appointment in your calendar. The date selected will now be highlighted in pink to show that an appointment has been made for this day, and clicking on the date will show details of the time slot and address details of the appointment.

Selecting the green information icon next to the case number will show more information, such as contact details and preferences, in case this information is needed for any reason.



Cases which have been booked for a physical survey will remain in the 'Not started' section of the 'Your cases' page until they have been linked to a survey form. This process is explained later.

Altering an appointment

It may be necessary to reschedule an appointment for a survey. This can be done from the 'Your cases' page or from the diary view.

Your cases

Not started

Case number	Address	Next appointment
40702201	[Redacted]	Wednesday 26 April 2017 09:00 
601000601	[Redacted]	Thursday 27 April 2017 10:00 
620401301	[Redacted]	Book an appointment
620401901	[Redacted]	Book an appointment
660100601	[Redacted]	Tuesday 25 April 2017 08:00 

In progress

You don't have any current surveys.

Click on the calendar icon next to the case that you would like to reschedule or alter to go to the diary entry for the selected appointment. Then click on the pencil icon to open the 'Edit appointment' window.

Your diary

April 2017

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Tuesday 25 April 2017

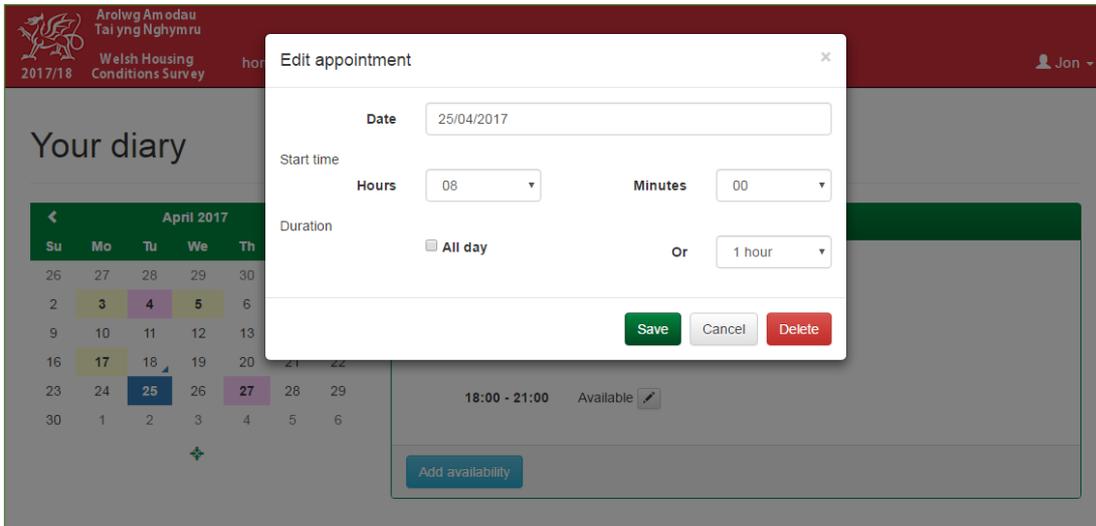
08:00 - 09:00 Case number: 660100601 

[Redacted]

18:00 - 21:00 Available 

[Add availability](#)

Here, you may alter the date, start time and duration of the appointment and click the **Save** button to confirm the changes. Clicking the **Delete** button will remove the appointment altogether. You can then book a new appointment for the case in the same way as described in the 'Making an appointment' section.

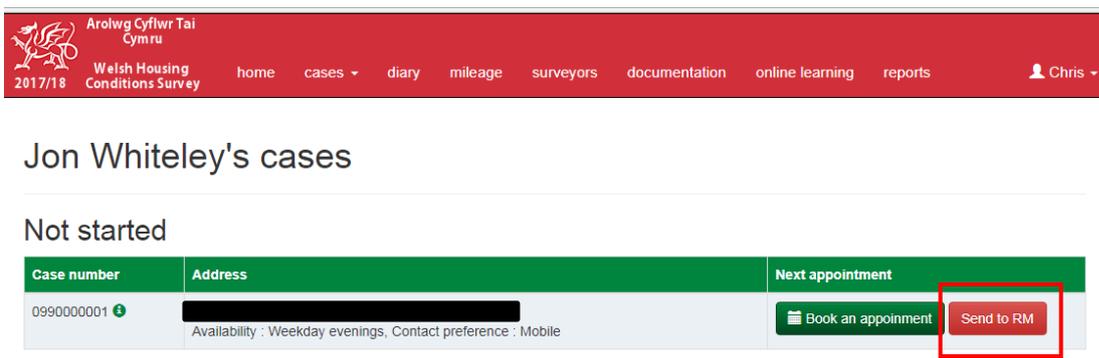


SURVEY REFUSALS

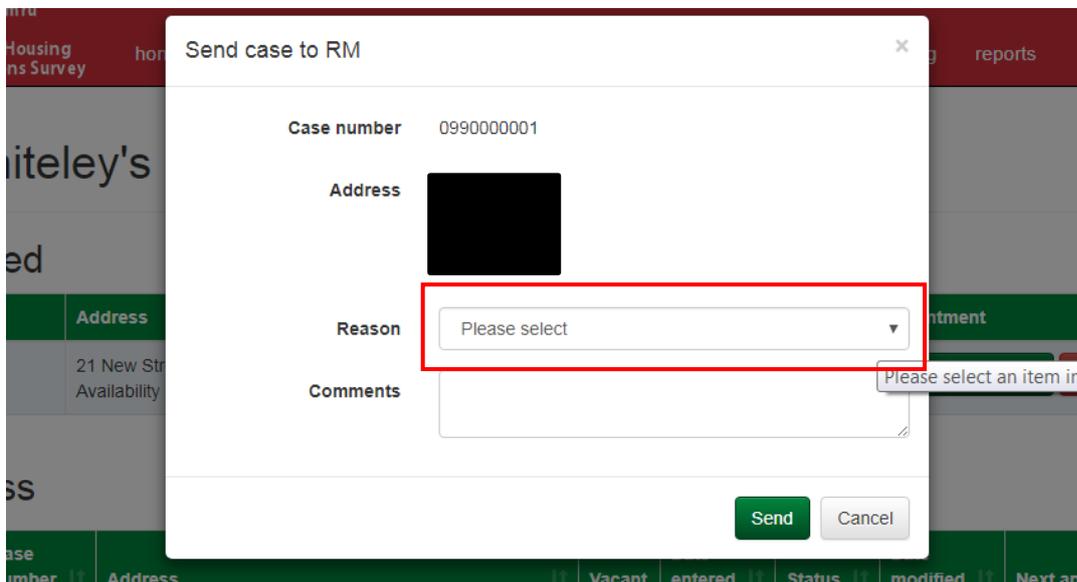
Household refusal

After making telephone contact with the occupant they may change their mind and now **refuse** to have a physical survey which they are well within their right to do. You should make every effort to try and convince them to take part in the survey without upsetting them. If they insist on withdrawing from the survey then this is deemed a refusal and the case should be sent back to BRE. **A survey form should not be started.**

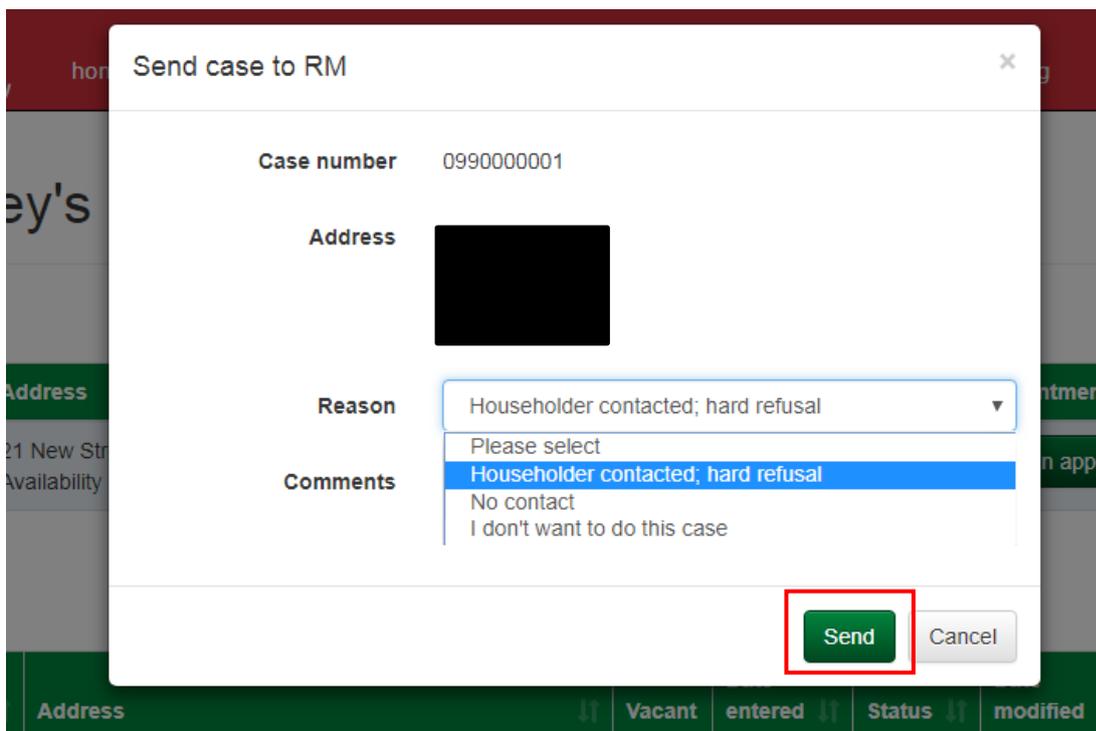
To send a refusal back to BRE please click on the **red** 'send to RM' button for the relevant case number.



This will bring up more information of the case and you are able to choose from the drop down menu the reason for sending the case back to the RM and then to BRE.



Select "householder contacted; hard refusal" from the list and click "send". You can add any notes on the case in the comments box should you wish.

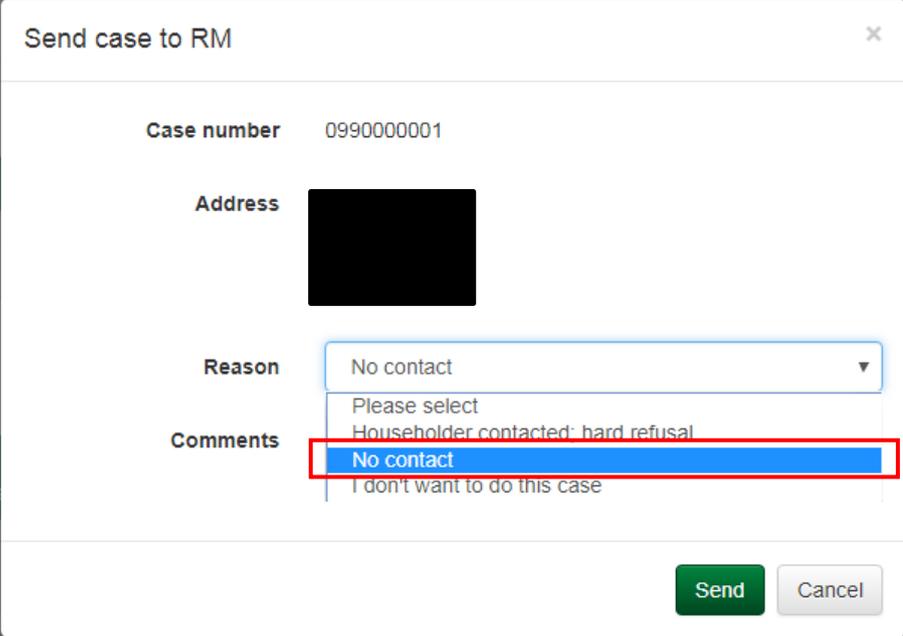


The case will then disappear from your cases 'not started' list.

Household no contact

After making 5 telephone calls and leaving messages over a period of a few weeks it may be that you've not been able to achieve contact with the occupants. The address may also be too far out of your way to attempt a cold call. In this scenario the case should be sent back to BRE as a 'non' contact. **A survey form should not be started.**

To send a case back to BRE the process is the same as above. All you need to do is select 'no contact' as the appropriate reason for sending the case back to BRE.



The screenshot shows a 'Send case to RM' dialog box with the following fields:

- Case number:** 0990000001
- Address:** [Redacted]
- Reason:** A dropdown menu with 'No contact' selected. Other options include 'Please select', 'Householder contacted: hard refusal', and 'I don't want to do this case'.
- Comments:** A text box containing 'No contact' and 'I don't want to do this case'.

Buttons: 'Send' (green) and 'Cancel' (grey).

Holidays / wrongly allocated cases

There may be other reasons why you need to send a case back to BRE without starting it. You may be going on holiday for longer than a couple of weeks in which case you should contact your RM. They may suggest you send any unworked cases back to your RM for them to reallocate to another surveyor in the team. Alternatively you may have been incorrectly allocated a case which requires a Welsh speaking surveyor. In these scenarios you should follow the process above and select 'I don't want to do this case' and add a comment to the comments box.

Managing Surveys

Linking a survey to a case

After completing a survey, the survey can be uploaded using the digital pen docking station, through the WHCS PC app. Please refer to the digital pen guide (section 4 of the manual) for more information on this process.

Once a survey has been uploaded to the surveyor website, it will appear in the 'In progress' Section of the 'Your Cases' page. The survey is identified by the unique barcode number attached to the survey form which will have been scanned as part of the survey process. 901009 in the example below. At this stage, the survey will not be linked to a case, and so the 'Case number' and 'Address' fields will be empty.

In progress

Barcode number	Case number	Address	Vacant	Date entered	Status	Date modified	Next appointment
901009				11/4/2017	In progress	11/4/2017	

Click on the barcode number of the survey you have just uploaded or wish to check/validate to open the survey homepage. The first time the survey is selected, you will be asked to assign the survey to a case.

Click the radio button next to the address that corresponds to the survey you are working with and click the **Save** button. This will associate that address with the form and the address will not appear in your list the next time you come to associate a form with an address. It is vital that care is taken to make sure that the correct address is associated with the survey being worked on.

The screenshot shows the 'Assign a case number to this survey' page. At the top, there is a red navigation bar with the Welsh Housing Conditions Survey logo and text in Welsh and English, along with navigation links (home, cases, diary, documentation) and a user profile (Jon). The main heading is 'Assign a case number to this survey'. Below this, it displays 'Survey number : 901009' and a message: 'This survey does not have a case number assigned to it. Please select a case from the list below'. There is a list of radio buttons next to several rows, but the content of these rows is obscured by a large black redaction box. At the bottom of the form, there are two buttons: 'Save' (in green) and 'Later' (in grey).

The case that was selected to be assigned to the survey will now have moved out of the 'Not started' section of the 'Your cases' page and into the 'In progress' section, next to the barcode number of the survey it was linked with.

Arolwg Am odau
Tai yng Nghymru
Welsh Housing
Conditions Survey

home cases ▼ diary documentation

Jon ▼

Your cases

Not started

Case number	Address	Next appointment
620401301	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
620401901	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Book an appointment
660100601	[Redacted] Availability : Weekday mornings, Contact preference : Mobile	Tuesday 25 April 2017 08:00

In progress

Barcode number	Case number	Address	Vacant	Date entered	Status	Date modified	Next appointment
901009	40702201	[Redacted]		11/4/2017	In progress	18/4/2017	Wednesday 26 April 2017 08:00

Seven day view

To help you with appointments when out in the field you can print out a 7 day report of all your surveys coming up in the next 7 days. From the diary screen or from an individual case appointment screen you will find the 7-day report button, outlined in red below.

July 2017

Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Case details

Case number: 0990000001

Address: [Redacted]

Dwelling type: End terrace - House/bungalow

Contact: Joe Bloggs

Availability: Weekday evenings

Contact preference: Mobile

Language: English

Phone number: [Redacted]

Email: [Redacted]

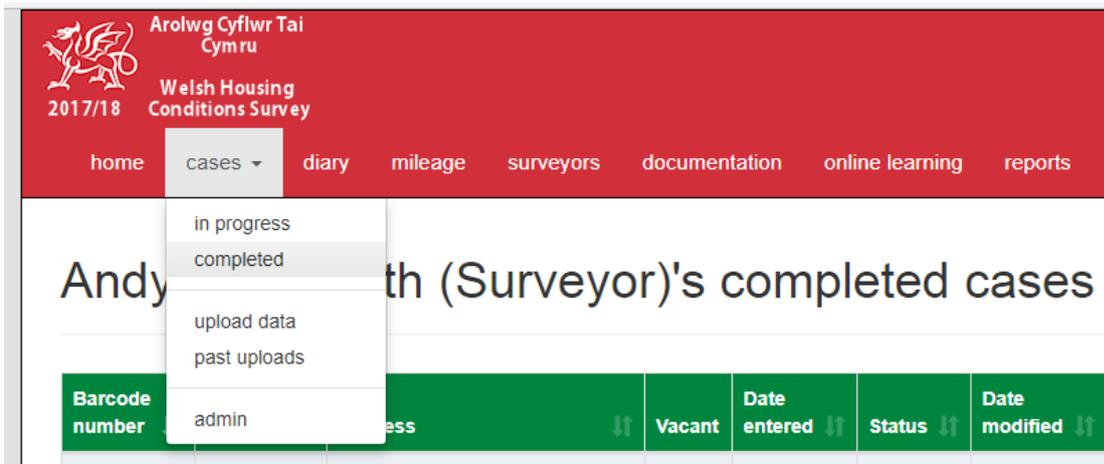
Monday 3 July 2017

[Make appointment](#) [7 day report](#)

This will create a report in PDF format which you can print off and take out surveying with you.

Completed surveys

Once a survey has been completed and approved by the Regional Manager, it is sent to BRE for consolidation with other WHCS surveys. When a survey has been sent to BRE, it is deemed as complete and will move from the 'Your cases' page to the 'Your completed cases' page. Once it has been sent to BRE it will be locked and neither you nor your regional manager is able to make any changes to the data. To view your completed cases click the 'completed' link in the 'cases' drop down menu.



A list of your completed cases will then be shown, see screen shot below.

Barcode number	Case number	Address	Vacant	Date entered	Status	Date modified	Final outcome
930001	0370700701	[redacted]		6/5/2017	Sent to BRE	15/5/2017	Full/completed survey
930002	0370701701	[redacted]		6/5/2017	Sent to BRE	15/5/2017	Full/completed survey
930003	0370701801	[redacted]		6/5/2017	Sent to BRE	15/5/2017	Full/completed survey
930004	0380500701	[redacted]		6/5/2017	Sent to BRE	15/5/2017	Full/completed survey
930005	0370702501	[redacted]		8/5/2017	Sent to BRE	15/5/2017	Full/completed survey
930006	0380503401	[redacted]		8/5/2017	Sent to	15/5/2017	Full/completed

Welsh speaking surveyors

On the Welsh Housing Conditions Survey the occupant has the right to request that the survey be undertaken in Welsh. This will have been conveyed to the ONS interviewer during the National Survey for Wales interview. This information will be passed to BRE and we will allocate these surveys to the closest Welsh speaking surveyor. You can see whether a survey should be conducted in English or Welsh when clicking the information button or when making the appointment.

The screenshot displays a web interface with a calendar on the left and a 'Case details' form on the right. The calendar shows the month of July 2017, with the 3rd of July highlighted. The 'Case details' form contains the following information:

Case details	
Case number	0990000001
Address	[Redacted]
Dwelling type	End terrace - House/bungalow
Contact	Joe Bloggs
Availability	Weekday evenings
Contact preference	Mobile
Language	English
Phone number	[Redacted]
Email	[Redacted]

Below the form, there is a date header 'Monday 3 July 2017' and two buttons: 'Make appointment' and '7 day report'.

Each surveyor is provided with a laminated copy of the Household questionnaire on page 8 in the Welsh language should they ever need to use it.

Google maps

When you go to make the appointment for a case you can click on the green icon which looks like planet earth. This is a link to the address on Google maps where you can then plan your route and see the property on Google Streetview.

RM One's diary

July 2017						
Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Case details	
Case number	0990000001a
Address	
Dwelling type	End terrace - House/bungalow
Contact	Joe Bloggs
Availability	Weekday evenings
Contact preference	Mobile
Language	English
Phone number	
Email	

FIELDWORK BASICS

The following chapter sets out the basic elements you will need to know in order to carry out the survey effectively.

Surveyor identification number

Each surveyor will be allocated a unique two-digit identity number. This ID number should be used throughout the survey period, including the training in Swansea. This number will be given to you at the briefing and will also be in your surveyor packs.

Case number

Each survey address has a unique ten digit ID referred to as the Case Number. This number is generated by ONS and is used to match data from the interview to the physical survey. You will see this 'case' number alongside the address on the Surveyor website. Should you need to leave a 'missed appointment card' with the respondent you should quote this number.

Barcode label

Each survey will use a different barcode label so that each survey is unique on the system. A batch of barcodes are allocated to each surveyor and given out at the surveyor briefing. They consist of a 6 digit number; the first 2 numbers are your surveyor number.

On-line survey address list

Surveyors will be working in allocated postcodes and will be drip fed addresses in these postcodes as they come through from the National Survey for Wales interviewer. New cases will be allocated to each surveyor every Monday after they've been sent through to BRE from ONS. Surveyors should keep checking the system every Monday afternoon / Tuesday to check for new cases allocated to them.

Full surveys and partial surveys

For the WHCS no partial surveys are required. Surveys are defined as either a full survey or a non-survey. Where you have completed a partial survey in anticipation of (unsuccessfully) completing the survey later, this will be considered to be a non-survey.

Details of what constitutes a full and partial survey are contained in the contract.

Full survey

For payment to be paid on a full survey, the following definition applies: all relevant sections of the survey form are complete, i.e. full internal and external inspections, common areas and shared facilities (if they exist) and an inspection of the local area. The form must be completed to an acceptable standard and must be accompanied with an appropriate number of photographs for the dwelling (as specified by BRE). Both the forms and photographs must be sent to BRE via the internet on the BRE Surveyor website and be validated to the required standard by the Contractor and approved for payment by the BRE Supervisor.

Non-survey

For payment to be made on a non-survey, the following definition applies: any form that is partially completed, i.e. anything short of a full survey, including any sort of partial survey, such as survey where only the exterior has been completed. In most cases a non-survey will involve a visit plus the completion

of sections 1-4 of the survey form. Any other outcome apart from a full survey will be defined as a non-survey, i.e. access refused to surveyor after an appointment made; or other outcome. Where a surveyor has not gained access to a vacant property, and only the exterior has been complete, the survey will be defined as a non-survey. Payment will only be made when the form is entered on the BRE Surveyor website and the outcome is agreed with the Supervisor. **In cases where no visit is made to an address, (e.g. a telephone refusal to the surveyor, or where the householder has contacted BRE directly to refuse), no payment will be made. These direct refusals should be sent back to BRE and no survey form started.**

Progress

Progress of each surveyor will be monitored by BRE and their supervisor. If you are falling behind with your workload you must contact your supervisor as quickly as possible so that contingency arrangements can be made.

It is the responsibility of the surveyor to ensure that any appointments that have been arranged are met. If you are unable to make an appointment that has been set up it is your responsibility to telephone the household to rearrange the appointment.

CONTACT WITH HOUSEHOLDS

The following chapter covers the main issues you will need to be familiar with in order to achieve successful contact with households.

Notifying the household

The household will have already taken part in the National Survey for Wales and been interviewed by an ONS interviewer. They will have agreed to your visit and will have provided contact details. So you will have made an appointment to visit at a convenient time to undertake the survey. They will have been provided with an advance leaflet about the survey. The leaflet is printed in both English and Welsh. You will be provided with a copy of this for reference or to show the household if necessary.

Telephone contact

Your first contact with the household should be by telephone, when you arrange the appointment using the contact details supplied by the interviewer. The household will have also provided some basic information on when it will be most convenient to call – i.e. daytime, evenings, weekends'. You should use this information to plan an ideal time for you to undertake the survey and then call the household to ask if this will be OK with them.

When you make contact for the first time, a typical introduction might be:

“Good morning/day/evening. My name is and I am your Welsh Housing Condition Survey inspector. You will recall that you recently had a visit from an ONS interviewer who asked if you would be happy for a surveyor to visit your home. I am in your area on and I would like to call then if that is OK with you”

If the answer is not a straight “Yes”, you may need to react in an appropriate way. Below is a list of potential reactions from households and suggested responses. However, you should try to avoid lengthy conversations on the phone – your aim is to arrange the visit and further discussion can be had at this time:

“I have changed my mind about agreeing to your visit”

Answer – The survey is particularly important because it links together the information you have provided to the interviewer about your household with information about the home itself. Without the survey we cannot make full use of the information you have already provided. The survey is not intrusive and will not take up much of your time. In fact much of the time will be spent looking at the outside of your home and the area it is situated in.

“It is not a good time/I am too busy”

Answer – When would be a convenient time for me to call when you are not too busy.

“I am going on holiday/away”

Answer – Your assistance is important, particularly as you have already taken part in the interview. Can I call when you return?

“I am only prepared for a Welsh speaking surveyor to visit”

Answer – I will pass on your details to a Welsh speaking WHCS surveyor who will call to arrange an appointment

“I own my own home and the survey is irrelevant to me”

Answer – the survey is designed to cover all types of housing in Wales. Only by doing this can we understand the condition of homes in Wales properly – and make sure that housing policy and spending is directed to the areas where it is most needed.

“My home is only two years old; the survey is irrelevant to me”

Answer – we need to include all types of home to properly understand the overall performance and condition of housing in Wales.

“I’ve already done an interview, why should I also take part in the survey”

Answer – The survey is vital as it is the only reliable source of information on the performance and condition of housing in Wales, which is vital for policy making and financial planning for the future. Data from the interview and property surveys will be linked anonymously to enable some of the analysis, such as estimating levels of fuel poverty, to be undertaken.

“Hasn’t the Government got enough information from the Census?”

Answer – Although the Census provides comprehensive information about the people who live in Wales, the Government needs to carry out surveys to obtain more detailed information about matters such as housing and home energy use.

Preparation for the visit

Even though you have made an appointment to visit the property in advance, you must still be prepared on arrival to persuade households of the importance of their participation. Here are a few points to help you plan your visit:

- Research the property in advance, perhaps by using Google Street view
- Get your paperwork and equipment in order, charge your pen
- Have your identity card easily accessible
- Plan your route
- Dress neatly and appropriately
- Think positively.

Approaching the house

Again, many of the following suggestions on approaching the property may seem obvious but their importance in securing as many surveys as possible has been emphasised to us by surveyors and interviewers alike:

- Don’t park right outside the house, and certainly not on their drive.
- Close the garden gate
- Check if the curtains are drawn, in case the householder may be sleeping
- Don’t sand on the doorstep –step back
- Be brief – don’t say too much or you may talk yourself out of the survey
- Smile and be confident – you are coming in!
- Stress the importance of the survey and assure confidentiality
- Be prepared to answer questions
- Try to persuade refusals
- After your introduction, it can be helpful to give people a cue, e.g. “can we make a start now?” or “may I come in?”

Introduction to the household on the doorstep

Below is a suggested introduction. Of course, you will need to adapt this to the particular situation, or you may have developed your own technique.

Good morning. My name is and I am the Welsh Housing Condition Survey inspector. You will recall that we spoke on the phone and I arranged to call at this time (show identity card). May I please come in and start the survey inside.

If you meet resistance on the doorstep, you should refer back to the phone conversation and the list of possible responses above, and the frequently asked questions below.

Frequently asked questions

Below is a list of questions that you may be asked. With them is a list of suggested answers. These are all answered on the explanatory leaflet that is provided to all addresses in the sample.

What is the Welsh Housing Conditions Survey?

The WHCS is carried out by the Building Research Establishment (BRE) on behalf of the Welsh Government. It is the main source of information on the condition and energy performance of homes in Wales.

How is the survey used?

The Welsh Government will use the survey to:

- Measure whether housing conditions are getting better or worse for everyone and which groups of households have the poorest housing or have problems keeping their homes warm in winter;
- Monitor whether what is being done to improve standards in both public and private housing is working. Also to assess the energy efficiency of our homes;
- Target resources. £millions of public money is spent on promoting the improvement of the housing stock each year. Work includes energy efficiency improvements to homes and adaptations to help disabled and elderly people live in their homes more safely. The survey is used to ensure that funding for housing is directed to the people, areas and regions where it is most needed;
- Assist with the creation, development, monitoring and evaluation of housing and home energy policies.

Why are you choosing my home?

It is too expensive to call on every address in the country so we select a few thousand addresses to represent the country as a whole. The addresses are selected from those who took part in the National Survey for Wales interview. This allows data from the interview to be anonymously linked to the survey. This is needed for some of the analysis, such as the measurement of levels of fuel poverty in Wales.

How do I know you are a genuine WHCS surveyor?

All surveyors carry photo ID cards, with a number to call if you want to check they are who they say they are.

Should I let my landlord know I am taking part?

There is no need to do so, it is up to you.

How long will the survey last?

About 50 minutes. But most of the time will be spent outside.

Is the information confidential?

Yes, all information collected from your home will be combined with all other homes in the survey. A report will be written summarising the results and it will not be possible to identify any individual or home from the results. No personal details will ever be released to anyone outside the survey team. The use of

the data collected is controlled by the Data Protection Act. You will never receive sales calls or direct mail as a result of taking part in the survey. It is completely confidential.

Can I have a copy of the survey?

The survey is used for statistical purposes and it would be very difficult to interpret the information written on it. I need to take this form away with me. If you have any concerns over the condition of your home and would like advice on how you might improve it and what grant assistance might be available, please read the information provided by the Welsh Government and call the advice numbers provided.

Older people and gaining access to vulnerable households

For older households you may need to adjust to their pace. It is important to respect their worries and, if necessary, you should offer to call back at a more convenient time or when a friend or relative can be present. Always show your identity card and a copy of the leaflet.

Occupant not at home /number of visits

If you cannot make telephone contact with the household in advance, even after attempting calls over a few days at different times of the day, you could cold call on them at the convenient time suggested by the interviewer if the address is close by. If the occupant is not at home when you visit (regardless of whether you have a pre-arranged appointment), you should leave your contact card and call later to re-arrange. If you are still in the area you might try again to catch the household in. Unless you are expressly refused entry, you should make up to five attempts (phone calls, cold call) to gain access. These should be at different times of the day and different times of the week. If you have never been able to make contact, the address will still be live and a final attempt may be made later in the fieldwork period, in discussion with your supervisor.

Missed Appointment cards

Although you should always attempt to make an appointment in advance, you will be provided with appointment cards to leave with the household if you need to use them. You should leave the time of day you called and provide them with a telephone number for the householder to call to arrange a time for you to return. Appointment cards will be given to you at the surveyor briefing.

Change of appointment or refusal by telephone

Even if they have agreed to the survey, a householder may subsequently contact BRE or yourself to refuse or even change a time if an appointment has been made. It is essential that you meet any appointments that you have made. If notification is urgent you will be contacted by telephone, where possible, or email. If you receive a refusal from BRE you must not visit the address and instead pass back to us as a refusal.

Time of visits

You should not call at an address before 09.00 a.m. (or 10.00 a.m. on a Sunday) or after 21.00 unless requested by the occupant.

ENSURING THAT YOU ARE AT THE CORRECT ADDRESS

This chapter provides guidance on ensuring you carry out surveys at the correct addresses.

Finding the correct address

Finding the correct WHCS address is a crucial part of the survey. In order to provide the information required for analysis of the survey, extensive preparations have been made for selecting a sample of addresses that will produce a good mix of tenures, property types and ages in each part of the country. Rigorous sampling procedures have been followed to ensure that the data from the survey will be representative of all housing in Wales and it is therefore vital that as many households as possible that have taken part in the National Survey for Wales interview are subsequently located correctly for the housing conditions survey.

You must only visit and survey the selected addresses – no substitutions may be made.

All addresses will have participated in the National Survey for Wales interview survey (unless the Welsh Government decides to include vacant dwellings in the sample at a later date, for which a separate briefing will be provided) and therefore all addresses on your sample will have been visited by an interviewer. You need to ensure that there are no discrepancies between the addresses you visit and those already visited by interviewers.

It is therefore important that you undertake the survey at the same address that was visited by an interviewer and that the unit of accommodation you include is that of the household that was interviewed.

Reasons for discrepancies between surveys

In the great majority of cases, you will make contact with the same household that was interviewed and make arrangements to visit their home, which will be the same one visited by the interviewer. Job done! However, in a very few cases you will arrive at the address and perhaps not meet the person you expect at the door. Perhaps they will deny knowledge of the survey or the fact that an interviewer visited. You must establish whether:

- You have the correct address
- You are speaking to a different household member to the one that was interviewed or agreed to the visit
- The household has changed since the interview
- The tenure arrangements have changed since the interview
- The home has become vacant

Because of the short timespan between the interview and the survey and the fact that you are making the appointment, all of the above are very unlikely but you need to have a strategy to deal with them if they do occur.

Regardless of whether you are at the correct address or not you should not begin your survey until you have made contact with the household and established that you are at the correct address.

Different address visited from interview survey

If, on speaking with the household, you establish that you are at a different address than the one visited by the interviewer, you must establish whether you are at the wrong address, or whether the interviewer

went to the wrong address. You have the contact number of the respondent so give them a call to ascertain whether you are in the right place.

In this rare instance you must make general enquiries with the household to try and establish whether any changes have taken place which would explain the apparent difference.

If you think you are at the wrong address, you must try to find the correct address. If, on the other hand, you are sure you are at the correct address and that the interviewer visited the wrong address, you should notify your RM and BRE and **do not undertake the survey**.

The vast majority of addresses you come across will be straightforward. Complications are most likely to arise in the case of HMOs. In such cases you should ensure that you undertake the survey at the property where the household interview took place. This is the dwelling occupied by the household that was interviewed and may not be the complete dwelling – for example one flat or bedsit within it.

Different household

If you establish that a different household is present, then you need to consider whether you are at a different address than the one visited by the interviewer or that there has been a genuine change of occupancy. If you are sure that you are at the correct address, and it is obvious that the interviewer visited the wrong address, you must contact BRE with the address details as soon as possible, and **do not undertake a property survey**. Because you have the respondent name and contact details this should never really happen.

Different dwelling type

You will need to confirm that you are either at a different address or that you are at the correct address. In these instances, you must contact BRE with the address details and ask for instructions.

MORE ABOUT SURVEY ADDRESSES

The following chapter provides more information on the addresses used in the survey; the selection; locating them; and some unusual situations.

Valid addresses

All addresses will have been visited by an interviewer. They should have all have been located and confirmed as residential first homes. Therefore all addresses that come through to you should be valid for survey and, so long as the address is correct, you should go ahead and make every attempt to complete a full survey at them.

Unusual dwellings

Unusual homes which may still be valid for a survey include: Non-residential buildings which contain some residential accommodation, e.g. public houses, doctor's surgeries, schools, residential caravans, park homes, houseboats. If such situations have come through from the interview survey you should be very careful to connect with the correct household and match up the residential accommodation with what you survey. Details of how to survey unusual homes are contained in the technical manual.

If it is clear that the interviewer has made a mistake, contact BRE and ***do not undertake the survey***.

Finding difficult addresses

Previously we discussed planning the survey and locating the address beforehand, by using map references, postcode finders and Google Streetview. This is particularly important with remote properties.

If when you arrive at a location you then cannot locate the correct address you should:

- Ask local people, including the postman/woman;
- Phoning local post-code enquiries. Phoning the local postal sorting office before 11.00 am.
- Asking at local post offices
- Contacting neighbourhood offices for local authority and RSL properties
- Asking the police
- Using internet sources, such as [multimap](#), and [royal mail](#) which provides a listing of all properties in a postcode.

Houses in multiple occupation

Where surveyors have an address which is suspected of being an HMO, it is important to read through the relevant parts of the technical manual before visiting. The checklist below should help you determine whether the property is an HMO or not. If you feel unsure, you should discuss this with your supervisor. If you have difficulty in determining what to survey at the dwelling while you are there, you can also ring your supervisor for help.

Survey procedures – HMO “checklist”

Key questions (ranked in order):

1. Does the landlord find new tenants to fill any rooms that become vacant (as opposed to the remaining tenants fulfilling this function)?
2. Does the landlord bear the cost of any shortfall in rent if one or more tenants defaults or vacates (as opposed to the remaining tenants having to pay)?
3. Did the occupiers come to rent the house separately (as opposed to a single group of renters)?

Additional questions (not in any ranking order):

4. Do the tenants identify themselves as multiple households?
5. Is there a large group of occupiers (i.e. more than 5 persons)?
6. Is there a separate tenancy agreement for each occupant (as opposed to a joint tenancy)?
7. Do individual tenants keep their rooms locked, excluding other tenants from their accommodation?
8. Has there been a large turnover of occupiers since the commencement of the tenancy? (Say more than 40% over last 18 months.)
9. Is there a mix of different types of occupants at the premises? (e.g. they are not all students)

All “Key questions” and 4 “Additional questions” answered “yes” = HMO!

Dwellings with other uses

Where the survey address includes a non-residential use such as a shop, surgery or public house, only the residential part of the interior should be surveyed. An exception is where a single room is used as an office or consultation room. The exterior should be surveyed as directed in the technical manual.

Vacant dwellings

If the dwelling has become vacant since the interview (unlikely but possible!), you should still make every attempt to gain access. At the time of writing this manual vacant properties are not part of the WHCS sample. However, Welsh Government is currently considering their inclusion and it is possible we will need to survey up to 200 vacant properties across Wales. Should they become part of the sample we will notify all surveyors and give you further instructions on the process for surveying these cases. Details of payment for vacant properties are included within your surveying contracts.

Undergoing renovation

It is possible that, even though an interview has taken place, the dwelling may be undergoing renovation at the time of the inspection. The dwelling should still be surveyed, as seen, although when completing the HHSRS the surveyor should bear in mind how the health and safety of the occupants will be affected over a one year period.

PHOTOGRAPHS

This chapter gives you the reasons behind taking photographs for the survey, how to do so, and the restrictions on what you should take photographs of.

Use of photographs

Photographs are invaluable in helping to validate and interpret the survey data. They are of great help to the surveyor when they are validating their own survey form, on line and far away from the survey address. They are helpful for the survey team to undertake further validation at the office, often many months after the address has been visited.

Photographs should be taken at each full survey address using a good specification camera supplied by yourself. Photographs should not be taken at dwellings where entry or permission has been refused.

For addresses where you achieve a full survey, you should take the following photographs:

- Photographs of the front and rear views of the dwelling, preferably matching the two views selected for survey.
- Two photographs to illustrate the local environment. These will normally be “up the road” and “down the road”.
- A photograph of the barcode you have attached to the survey form, to ensure that the survey is matched correctly with its accompanying photographs.

You should only take five photographs per dwelling. If an additional photo is required to show the whole of the front or back then you should substitute this for one of the photos of the local environment.

Occupants permission

You should always seek the permission of the household prior to taking any photographs. You should explain that the purpose of the photograph is to aid interpretation of the data on the form. Photographs should only be taken of the exterior of the dwelling and the streetscape.

Data protection act

The provisions of the Data Protection Act classify photographs containing identifiable individuals as ‘personal data’. You should therefore ensure that householders and others are not included in the photographs you take of the dwelling.

Camera specification

You should use a camera which is suitable for purpose, has enough battery life for a full day’s work, enough memory to store photographs and can be downloaded to your survey computer. Mobile phones are acceptable.

SURVEY MATERIALS AND EQUIPMENT

The following chapter provides a brief overview of the materials provided and required to conduct the survey. It also gives instructions on rules which accompany the identity card.

Equipment provided by the surveyor

You must provide yourself with the necessary surveying equipment to complete the surveys satisfactorily. This will normally comprise:

- A metric measuring tape;
- A portable set of ladders
- A torch
- A pair of binoculars
- Maps
- A computer set up which meets the requirements, below

The computer requirement to run the WHCS survey system is governed by the software sub-systems used by the digital pens (which will be provided by BRE). The minimum required is:

Operating System/Web Browser

- Minimum: Windows 7, Service Pack 1
- Recommended: Windows 10
- Internet Explorer 11 or equivalent

The user will need administrator access to be able to install the software.

NB. The system may operate on non-Microsoft Windows systems (e.g. Apple Macs) but such set-ups will not be supported by BRE.

Hardware Specification

- Processor: 1 GHz or faster 32-bit (x86) or 64-bit (x64)
- Memory
 - Minimum: 1 GB RAM (32-bit) or 2 GB RAM (64-bit)
 - Recommended: 2 GB RAM (32-bit) or 4 GB RAM (64-bit)
- 100 Mbytes of free disk space
- Available USB port

Internet access

- The system will require access to a reliable Broadband connection.

BRE will provide support to surveyors in their use of the digital pen and associated software for purposes relating to the WHCS on one item of PC equipment. BRE will not undertake to diagnose and resolve pre-existing or coincidental PC/Lap-top hardware or software problems that themselves result in surveyors being unable to use the digital pen or software.

Survey materials provided by BRE

Surveyors will be provided with the following materials:

- Survey forms (~75)
- A technical briefing manual
- A survey administration manual (this document)
- Copy of advance leaflet given to household
- WHCS 2017-18 grants / home improvement leaflet

- Appointment cards
- A clipboard
- Identity card
- A digital pen plus attachments

If you are missing any of these items or require replacements contact BRE by email at whcs@bre.co.uk

In addition, you will have access to the BRE web site where you can view:

- The HHSRS Worked Examples manual.
- The 'How to Survey a Flat in a Block' DVD.
- The WHQS guidance.

Car

Every surveyor must provide a car for his/her own use during the survey period, insured for business use and roadworthy. If, for any reason, the car becomes unavailable, it is the responsibility of the surveyor to provide an alternative vehicle.

Welsh Housing Conditions Survey Identity Card Scheme

Each surveyor will be issued with an identity card. This must be shown to the household on initial contact – as they have been informed by leaflet that this will happen. If the card is lost you must inform your RM and BRE immediately.

All identity cards must be returned to BRE at the end of the survey period.

WHCS ID card rules for surveyors:

The surveyor should:

1. Do everything possible to ensure a continuing climate of goodwill, responsibility and trust, and should leave respondents disposed to receive further contacts on research projects.
2. Must not mislead any respondent by giving inaccurate information.
3. Must not disclose any information given in confidence during the survey to any person other than those needing it to check the validity of the data or those engaged in processing them.
4. Must be polite and courteous at all times and allow respondents to withdraw at any stage of the survey, if they so wish.
5. Must always follow the instructions given by BRE or their supervisor.
6. Must always show the WHCS ID card at the outset of the survey.
7. Must, if asked by the household, give:
 - a. The name of the person at BRE responsible for the project.
 - b. An explanation of why the household has been included (eg the household's address is part of a representative sample taken from completed National Survey for Wales interviews).
8. Should not call in person or by telephone a household before 09.00 am weekdays, 10.00 am Sundays, or after 21.00 any day, unless by appointment.
9. Must maintain strict confidentiality of all data collected, which must not be used for any other purpose. The surveyor may not retain records of addresses or persons visited beyond the requirements of completing this work, and must not disclose such details to any other person or organisation. All survey forms will be destroyed at the end of the survey, as directed by BRE.

Signposting / thankyou leaflets

The Welsh Government would like surveyors to leave a thankyou leaflet with each occupant at the end of the survey. This leaflet is designed to signpost occupants to further information on schemes, grants and advice available in Wales to help households make improvements to their homes.

You will be supplied with enough household leaflets to cover your sample allocation. Each household should be provided with the leaflet with an explanation of how it should be used.

YOU AND YOUR SUPERVISOR

The following chapter sets out the interaction between Supervisors and surveyors; their respective roles and responsibilities.

Supervision

There are four regional Supervisors for the WHCS 2017-18, who have been allotted 11 surveyors each. Your Supervisor will be present at your residential briefing in Swansea and will attend all fieldwork and debriefing sessions with you. Supervisors will help to ensure that you have fully understood the briefing and that you are completing the survey forms and using the systems correctly. It is essential that you maintain regular contact with them while undertaking the surveys.

Accompaniment during first weeks of work

For surveyors who did not take part in the 2008 Living in Wales Survey or are not current EHS surveyors, there is a requirement that they are accompanied in the field by their Supervisor within the first few weeks of fieldwork. This will give you the confidence that you are undertaking the surveys correctly and give you the opportunity to discuss technical details and standards, and any problems which may arise. It will also enable your Supervisor to ensure that each surveyor is carrying out fieldwork in a competent, efficient and professional manner.

You must arrange a time and place to meet your Supervisor in the field. You may find it useful to spend a day or two on your own in the field and make a note of any issues that you have before arranging to be accompanied. Depending on the outcome the accompaniment may be for one, two or more surveys.

Supervisors may, at any time, request to accompany any surveyor in the field whom they feel may benefit from their support.

Checking survey forms

All the survey forms that you complete will be sent electronically to your Supervisor for checking. Your Supervisor may contact you to clarify elements of your survey, where necessary, and to discuss any common errors that you are making. Once the Supervisor is happy with the completed form it will be posted on the BRE surveyor website and it will be approved for payment.

Technical problems

Your Supervisor will act as the first line of technical assistance in the field. Any technical enquiries you may have (which are not dealt with in the briefing manuals) should be directed through your Supervisor, who may refer enquiries that cannot be resolved on to BRE. Such as issues with your digital pen or survey software.

Maintaining standards

After accompanying you in the field and/or checking survey forms and discussing surveys with you, Supervisors will be asked to inform BRE of any surveyors who are not judged to be up to the standards of undertaking the surveys. Contracts may be terminated if this is the case.

You should remember, however, that your Supervisor is primarily there to act as a source of assistance in the field and to help you with any technical queries that you have. Should a surveyor be unable to complete their address quota for any reason, their Supervisor must be notified immediately.

Monitoring progress

Surveyors' work will be closely monitored throughout the period of the survey through the survey submission system and Supervisors will make arrangements to keep in regular contact with their surveyors so that overall progress can be monitored. It is important that you maintain regular contact with your Supervisor as they need to be sure that you are fully active, even though there will be times when addresses are coming through slowly.

PROBLEMS IN THE FIELD

The following chapter aims to address some of the most likely problems you may encounter whilst in the field. These include technical problems, workload issues, the need for additional materials, dealing with refusals and requests for further information.

Technical problems

Your Supervisor will act as the first line of technical assistance in the field. Any technical problems that your Supervisor cannot resolve may be referred to BRE. If the technical query is on the digital pen or the survey software the best way to get in touch with us is via email at whcs@bre.co.uk

Workload problems

If you are experiencing difficulties in completing your workload for any reason you must contact your Supervisor as soon as possible so that this can be managed. This may result in some work being delayed, passed on to another surveyor to complete, or even an agreement to terminate the contract.

Additional stationary and paperwork

You should be provided with sufficient numbers of survey forms for you to easily complete your survey workload. If, however, you need additional forms, or any other items of paperwork, please contact BRE.

Any requests for additional stationary will be sent to your home address by return of post.

Refusals at the survey address

The occupant of any survey address is not obliged to permit a survey to be undertaken. If you are refused entry, you must not attempt to complete any part of the survey. You should leave the property as quickly and politely as possible. The exterior must not be surveyed, nor any photographs taken. You should note on the form that a refusal was given and complete Sections 1-4 only, before submitting the form electronically in the usual way.

Household requesting information about the survey

All information collected on the survey form is confidential, but if the occupant insists on looking at the form, you should allow them to do so. You will have to take the form away with you and the household will not be offered a copy. You should explain to the household that the information is collected for statistical purposes only, and no findings about a particular dwelling can be identified.

You should also avoid telling the occupant about any detailed findings or specific problems which you have found while undertaking the survey. If, however, you come across a dangerous situation, e.g. you can smell gas, you should advise the occupants to contact their gas provider. If there are serious health and safety problems with the dwelling you may wish to advise the household to contact the local authority or their landlord.

If there are serious problems with the dwelling that you think need to be brought to the attention of other authorities, you should not do this yourself but should contact your Supervisor to discuss. They will then liaise with BRE.

Language difficulties

If a householder speaks Welsh and is only prepared to entertain a Welsh speaking surveyor, this should have been noted at the interview survey stage and the address passed on to a Welsh speaking surveyor.

If you, as a non-Welsh speaking surveyor, find yourself trying to make an appointment with a household who will only entertain a visit from a Welsh speaking surveyor, you should speak to your Supervisor, who will pass on the contact details to a Welsh speaking WHCS surveyor who will call to arrange an appointment. Likewise, if you arrive at a home where the household will only allow a survey to be undertaken by a Welsh speaking surveyor, you should call your Supervisor who will arrange for the survey to be reallocated to a suitably qualified surveyor.

If the occupant does not speak English or Welsh, again this should have been noted at the interview. An interviewer who speaks the language will have been used and if the householder is happy for the survey to take place, BRE will liaise with the household to have an interpreter accompany the surveyor to the appointment.

If you arrive at the door only to find that the household speaks neither English nor Welsh, then a family member or neighbour should be sought to act as a translator. Children are often good at this task. If you are unable to communicate you should leave your calling card, ring your Supervisor and devise a strategy to try again later.

Social problems

You should avoid getting involved with social problems. If there are social problems, these should have been noted by the interviewer and dealt with at that stage. It is highly unlikely that these situations will then come forward for a physical survey. If, however, you do come across circumstances that cause concern, you should use your discretion and discuss the issue with your Supervisor. If the household asks you for help, you should suggest that they contact their local town hall or the Citizen's Advice Bureaux.

Seeking assistance

You should always contact your Supervisor in the first instance if you have any technical or fieldwork problems. If the matter is urgent and you cannot get hold of your Supervisor, you should contact BRE. Emailing the team is sometimes the quickest way of getting the information to us as the whole BRE project team has access to this mailbox.

CONTRACTS AND PAYMENTS

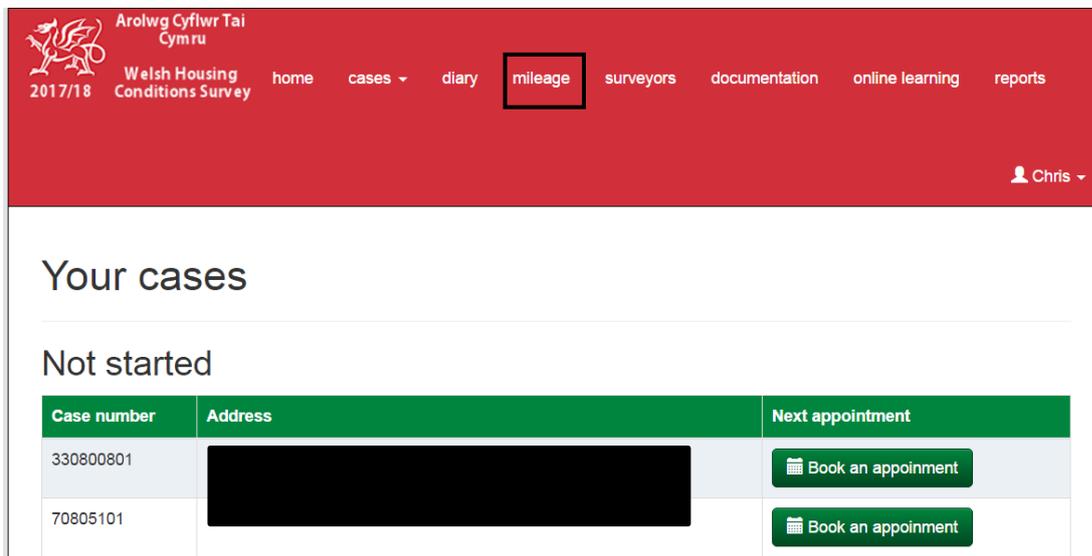
The following chapter addresses issues surrounding invoicing and expenses.

Terms and conditions of the contract

Payment will be in accordance with the rates and conditions set out in the contract.

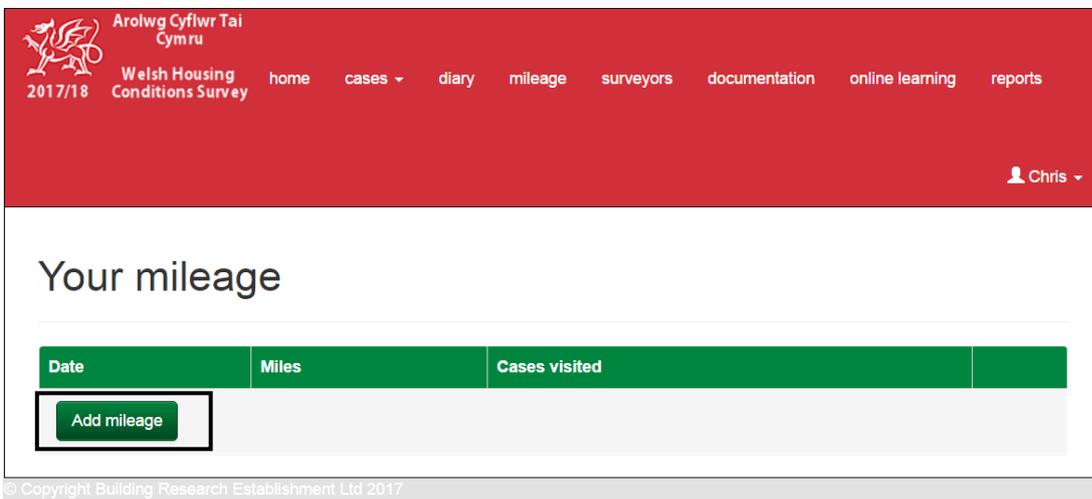
Mileage and expense payments

During the fieldwork, surveyors will be entitled to claim for mileage travelled to each address at a rate of £0.40 per mile, as set out in the contract. Total mileage should be entered into the system for total mileage incurred on each surveying day. Mileage should be added for any surveys worked that day whether they were full or non surveys. Click on the 'mileage' tab in the red banner to get started.



Case number	Address	Next appointment
330800801	[REDACTED]	Book an appointment
70805101	[REDACTED]	Book an appointment

Click on the green 'add mileage' button to add your mileage for the day



Date	Miles	Cases visited
Add mileage		

© Copyright Building Research Establishment Ltd 2017

Add the date the mileage was undertaken, clicking into the date bar will automatically add 'today's date'. This can be changed if the mileage took place in the past by selecting the correct date from the calendar.

The screenshot shows a web application interface. At the top, there is a navigation bar with a red background and white text. Below the navigation bar, a calendar for June 2017 is displayed, with the date 25th highlighted in blue. Below the calendar, there is a date input field containing '25/06/2017'. To the right of the date input field is a 'Miles' input field containing '0'. Below these fields is a 'Select cases visited' dropdown menu, which is currently empty.

After selecting the date, add the total mileage for that day in the miles box. Then click on the addresses you visited that day from the 'select cases visited' box and they will move into the 'cases visited on this day' box. If you make a mistake and select the wrong case then clicking on it will send it back to the 'select cases visited' box.

The screenshot shows the same web application interface as the previous one, but with the 'Miles' input field now containing '55'. The 'Select cases visited' dropdown menu is still empty. Below it, the 'Cases visited on this day' dropdown menu is now populated with a single blacked-out case.

Continue to add any cases / addresses visited on the day. Add any notes you wish before clicking the green 'save' button at the bottom of the page.

Cases visited on this day

Comments

Your mileage for the day will now be saved and can be edited or deleted at any time.

Arolwg Cyflwr Tai Cymru
Welsh Housing Conditions Survey

[home](#)
[cases](#)
[diary](#)
[mileage](#)
[surveyors](#)
[documentation](#)
[online learning](#)
[reports](#)

Chris

Your mileage

Date	Miles	Cases visited	
25/6/2017	55		<input type="button" value="edit"/> <input type="button" value="delete"/>

Any other expenses, such as toll bridges, must be agreed in advance with BRE.

When selecting the date range of your monthly invoice any mileage added during the date range will be added to your invoice. Please see below for more information on Invoicing.

Invoicing BRE

BRE will make payments to surveyors in accordance with the terms of the contract within 10 working days of the receipt of an invoice.

BRE expect to receive 10 invoices from each surveyor over the course of the fieldwork period.

1. Attendance at briefing
2. Work done in August 2017
3. Work done in September 2017
4. Work done in October 2017
5. Work done in November 2017
6. Work done in December 2017
7. Work done in January 2018

8. Work done in February 2018
9. Work done in March 2018
10. Work done in April 2018

Invoices 2-10 for fieldwork will be automatically generated for you by using the invoice generator on the Surveyor website. This will create a PDF of all your work sent to BRE that month including any mileage that you've undertaken.

Instructions on how to do this can be found in the annex at the back of the manual and on the 'documentation' tab of the Surveyor website.

This invoice must include the following information.

1. It must be headed with your name and address and addressed to BRE at our address below.
2. Date the document,
3. Quote an invoice number, (Invoice #1)
4. Quote your WHCS contract number (these start with the letters EMC and can be found on your contracts).
4. Provide a description of what you are claiming for; "attendance at surveyor briefing"
5. The total amount being claimed (see surveyor contract)
6. The amount of mileage undertaken.

BRE address:

Building Research Establishment
Bucknalls Lane
Watford
Hertfordshire
WD25 9XX

QUALITY CONTROL

For quality control purposes, surveyors' performance will be monitored throughout the survey in a number of ways, which are set out below.

Supervision and Supervisor assessment

Supervisors will monitor survey performance in a variety of ways including accompaniment at the briefing and in the field, and checking completed survey forms for quality and completeness. Supervisors will also monitor response rates and work patterns.

Back-checking addresses

BRE may undertake a telephone back-check on a random sample of addresses that have been returned over the course of the fieldwork period. The call will verify that the surveyor completed the survey and ask the household about how the survey was conducted.

Validation of survey forms

Surveyors will validate their own survey forms, using the BRE digital pen system. Their validated forms are then submitted to the Supervisor who undertakes further checks. Once the forms are lodged on the surveyor website as being complete, they undergo further checks at BRE to ensure that they are fully complete, consistent and plausible. Surveyors will be notified if their survey forms show persistent and unacceptable error levels.

Progress

Surveyor's progress will be closely monitored during fieldwork, by their Supervisor and BRE. If BRE is unhappy with the progress that the surveyor is making, improvements will need to be demonstrated or the contract may be terminated.

CODE OF CONDUCT

The Welsh Housing Condition Survey and BRE require surveyors to conduct themselves professionally whilst carrying out survey work on their behalf. The code of conduct for Market research society is outlined in the following pages (**for interviewer, read surveyor; for interview, read survey**). These should be used as a guideline and considered best practice. These principles should be aligned with those of the professional bodies to which surveyors belong – such as the CIEH, RICS, and RIBA.

Introduction

This statement of the responsibilities of research interviewers towards the people they interview, and the clients who commission the surveys on which they work, is based on the Code of Conduct issued by the Market Research Society (MRS).

It is intended for:

- New interviewers – to help with learning the key Do's and Don'ts of the job; and
- Experienced interviewers – as a quick reference guide.

MRS has issued this as part of its policy of supporting people in the profession, so that they are able to maintain the reputation of market research and ensure that it prospers by the professionalism they bring to their work.

The formal code is supplemented by a '**Code of Common-sense**' for interviewers – something suggested by experienced market researchers who were consulted when this version was in preparation.

Market and social research principles

These are the principles which market and social research seeks to follow:

- It must be based on willing cooperation between the public and business organisations.
- Both parties must be able to have confidence that the research is carried out honestly and objectively, without intruding on the people who take part, or harming them.
- Its purpose is to collect and analyse information, not to sell, and not to influence the opinions of those taking part.
- The rights of privacy must be respected; people who take part must not be identified without their agreement; and they must not be harmed or embarrassed as a result of taking part.
- Wherever possible, those who take part must be told the purpose of the research.
- The findings must be reported accurately and must never be used to mislead.

The people concerned

Four sets of people are primarily concerned in market and social research:

1. The clients who commission research
2. The researchers who carry it out: interviewers, their managers, the companies that employ them;
3. The people they interview;
4. The public who see interviewers at work and the wider public in general.

Before you begin a project

You must be properly trained so that you fully comply with the Code and all legal requirements. You must also be briefed on the particular job to enable you to understand the project. This may include the following:

Client supplied lists

Knowing whether the client supplied the sample list. In this instance, if requested by the respondent, the client's identity must be revealed at some point in the research (**Welsh Government**).

Confidentiality vs. non-confidentiality

Understanding whether the research you are administering is confidential or non-confidential as this will affect what you say to the respondent in the introduction.

What is confidential research?

Confidential research means research projects based on the anonymity of the people who supply the information; in which their identity and personal details are used only with their consent, and only for purposes of the research project in which they take part.

What is non-confidential research?

Non-confidential research means research projects that require personal data to be passed back to the client for a particular reason. You must get permission from the respondents to be able to do this and the permission statement must include what the client wishes to do with this data and who (in general) is likely to see it.

When introducing a survey

- Don't mislead or pressurise a respondent when asking them to take part.
- State your name and the name of the research supplier.
- Show your identity card.
- Make it clear that the interview will be carried out according to the MRS Code of Conduct
- State what the interview is about
- If asked, state how long it will take.
- Tell them where you got their name from (if appropriate).
- If the respondent is to be monitored during the research let them know so they can make an informed decision whether to continue (unless it is for internal quality control/supervision purposes in which case you do not need to tell respondents they are being monitored).

During the project

Your responsibility to the people you interview

The following responsibilities must be adhered to:

- Researchers must take all reasonable precautions to ensure that respondents are not directly harmed or adversely affected as a result of participating in a research project.
- Any assurance you give about the interview, including how long it will take, must be factually correct.
- If you promise an incentive to respondents this promise must be honoured.
- Avoid criticism or disparagement of other researchers.
- Tell the trust about your own skills and experience and about the organisation you are working for and never make false claims.
- Always act to maintain the good name of market and social research, and public confidence in it.

After the project

If you are storing the data (or any confidential material) for any length of time you must keep this secure. If anything were to happen to the data in your care the Office of the Information Commissioner (the body responsible for data protection legislation in the UK) would expect that the data was kept adequately secure.

Code of Common Sense

Preparing for research interviewing

Don't be afraid to ask your Supervisor about anything that isn't clear in the instructions for the research. If you understand fully you will work with confidence and that communicates itself to the people you interview and will make the experience more successful for both them and you.

Seeking interviews

Approach people courteously when you request an interview: show your identity card and introduce yourself as a market or social researcher and give the name of your company.

Respect their convenience: in the street do not force them to step into the road, or stop anyone who is about to go into a shop or get on to a bus.

Accept a refusal without question, at once, and with a smile.

Courtesy to the general public

Show good manners to other street users; don't obstruct the pavement, or block access to shop windows or entrances.

Look good: dress appropriately for the place and circumstances where you are working; don't eat or smoke on the street.

Taking care of yourself

Take common-sense precautions for your own security; always tell your family and/or the company where you are going before starting work on interviews.

Leave your bag/wallet at home, and carry the minimum of essential possessions and cash.
Keep your car keys in your pocket.

Annex A – Fieldwork Invoicing BRE

Here are instructions for sending monthly invoices to BRE over the fieldwork period. For information on sending the invoice for the Swansea Marriott briefing please see page 38.

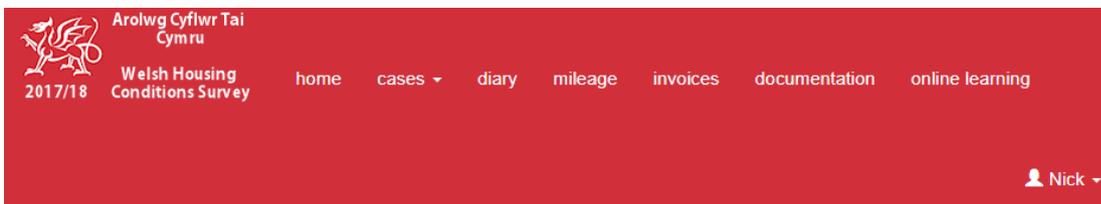
BRE expects surveyors to submit a monthly invoice during the fieldwork period for work done and mileage incurred in the previous month. We have set up an automatic invoice generator on the surveyor website to make this process easier for you. This will include any work sent to BRE. Surveys currently in progress or recently sent to your RM will not be included. This creates a PDF which you can download to your machine and then send electronically to BRE.

To get started click on the 'invoices' tab at the top of screen in the red banner.



This will then bring up the screen below which will include any previous invoices sent to BRE.

To create a new invoice please click the **green** 'create invoice' icon



Your invoices

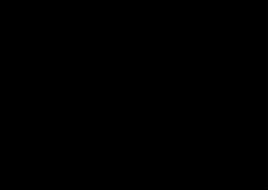
Date	Invoice number	Total	
Create invoice			

© Copyright Building Research Establishment Ltd 2017

This will take you to the screen shot below which shows the 'invoice preview', detailing the work and mileage completed since you last submitted an invoice.

In the scenario below, the surveyor has submitted one full survey and has only worked on 1 day, submitting 10 miles for the day. You will notice that the work done and mileage are separated and a total amount is displayed. The case numbers of those submitted to BRE are displayed for your reference.

Invoice preview



INVOICE

Invoice number	Date
Preview	4/7/2017

Bill to

BRE
Bucknalls Lane
Watford
Herts
WD25 9XX

Description	Amount
Full survey, case number 1098765442	£90.00
Mileage for 4/7/2017; 10 miles @ £0.40	£4.00
TOTAL	£94.00

Finalise invoiceCancel

If you are happy with the invoice please click on the **green** 'finalise invoice' tab. This will create your PDF invoice. You will note the invoice has been given a number and you can now download it to your computer.

Invoice number 2

INVOICE

Invoice number	Date
2	4/7/2017

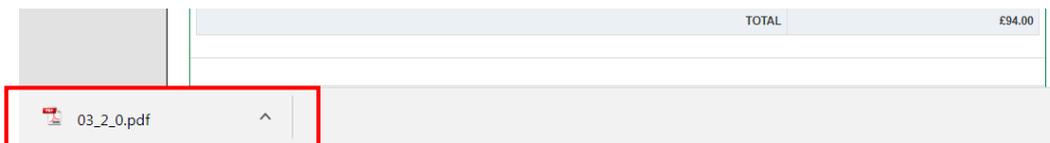
Bill to

BRE
Bucknalls Lane
Watford
Herts
WD25 9XX

Description	Amount
Full survey, case number 1098765442	£90.00
Mileage for 4/7/2017; 10 miles @ £0.40	£4.00
TOTAL	£94.00

Download invoice

Clicking 'download invoice' will download it to your machine, the way the download appears will vary between internet browsers but Google Chrome looks like the screen shot below.



Click on the PDF to open it and then save it in a safe place on your computer before emailing it to BRE.



INVOICE

Invoice number	Date
2	4/7/2017

Bill to

BRE
Bucknalls Lane
Watford
Herts
WD25 9XX

Description	Amount
Full survey, case number 1098765442	£90.00
Mileage for 4/7/2017; 10 miles @ £0.40	£4.00
TOTAL	£94.00

If you click back in the 'invoices' tab you will see the invoice you have just submitted. Here you can view it in full or download it again if you have previously lost it.

Arolwg Cyflwr Tai Cymru
Welsh Housing Conditions Survey
2017/18

home cases - diary mileage invoices documentation online learning Alan -

Your invoices

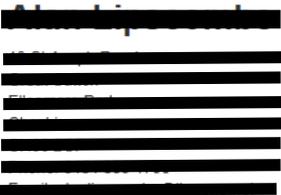
Date	Invoice number	Total	
4/7/2017	2	£94.00	view download

[Create invoice](#)

© Copyright Building Research Establishment Ltd 2017

For information on sending your invoice for the training at the Swansea Marriott hotel and associated mileage please see page 38 of this manual.

Invoice number 2

		INVOICE
Contract number: EMC 17-45		
	Invoice number	Date
	2	4/7/2017
Bill to		
BRE Bucknalls Lane Watford Herts WD25 9XX		
Description	Amount	
Full survey, case number 1098765442		£90.00
Mileage for 4/7/2017; 10 miles @ £0.40		£4.00
	TOTAL	£94.00
Download invoice		

Appendix P WHCS Incentive voucher



VARIABLE NAME	LABEL
CHIMNEY	Chimney - present
DBBALC	Dormers and bays: Balconies - present
DBBAY	Dormers and bays: Bays - present
DBCONS	Dormers and bays: Conservatories - present
DBDORM	Dormers and bays: Dormers - present
DBPORCH	Dormers and bays: Porches - present
DWAGE4X	Dwelling description - dwelling age
DWAGE5X	Dwelling description - dwelling age
DWAGE6X	Dwelling description - dwelling age
DWAGE7X	Dwelling description - dwelling age
DWAGE10X	Dwelling description - dwelling age
ALLTYPEX	Dwelling description - dwelling age and type (10 categories)
DWTYPE3X	Dwelling description - dwelling type
DWTYPE7X	Dwelling description - dwelling type
DWTYPE8X	Dwelling description - dwelling type
DWTYPEPX	Dwelling description - dwelling type
HOUSEX	Dwelling description: Dwelling type - house or flat
STOREYX	External dimensions - number of floors above ground
DAMPALF	Interior: Damp - any damp in one or more rooms
DAMPPNF	Interior: Damp - penetrating damp in one or more rooms

DAMPRSF	Interior: Damp - rising damp in one or more rooms
DAMPCDF	Interior: Damp - serious condensation in one or more rooms
SECURE	Interior: Security - secure windows and doors
NEIVISX	Local area - appearance of area
LVANYX	Local area: Poor quality environment - any problems from 3 categories
LVNUMX	Local area: Poor quality environment - number of liveability problems
LV2TRAFX	Local area: Poor quality environment - traffic problems
LV1UPKPX	Local area: Poor quality environment - upkeep problems
LV3UTILX	Local area: Poor quality environment - utilisation problems
ARNATX	Nature of area
PARKING	Parking - parking provision of survey dwelling
PLOTSIZ	Plot - area (sqm)
ACSENLIT	Plot: Accessibility - entrance adequately lit
ACSENCOV	Plot: Accessibility - entrance covered
ACSSTEP	Plot: Accessibility - number of steps from gate/pavement to entrance
ACSPATH	Plot: Accessibility - path firm and even
ACSRAMP	Plot: Accessibility - space for ramp
TYPERCOV	Roof covering - predominant type
TYPERSTR	Roof structure - predominant type
AREA3X	Type of area
TYPEWFIN	Wall finish - predominant type
TYPEWSTR2	Wall structure - predominant type
TYPEDOOR	Doors - predominant type

DBLGLAZ2	Windows - extent of double glazing (2 categories)
DBLGLAZ4	Windows - extent of double glazing (4 categories)
TYPEWIN	Windows - predominant type
RFFASC	Roof features: Fascias - present
RFGUTDP	Roof features: Gutters/down-pipes - present
RFPARA	Roof features: Party parapets - present
RFSTWAS	Roof features: Stacks/wastes - present
RFVGUT	Roof features: Valley gutters/flashings - present
CONSTX	Material and construction - original construction type
SYSAGE	Space heating - age of heating system
BOILER	Space heating - boiler type
FUELX	Space heating - main fuel type (4 categories)
MAINFUEL	Space heating - main heating fuel (17 categories)
HEAT4X	Space heating - main heating system (4 categories)
HEAT7X	Space heating - main heating system (7 categories)
HEATSEC	Space heating - secondary heating type (8 categories)
FLOORX	Total useable floor area m2 - original EHS definition
FLOORY	Total useable floor area m2 - building regulations definition

Dear Mr Collins

Rydym yn ysgrifennu atoch yn rhinwedd eich rôl fel Prif Gwnstabl o Heddlu Dyfed-Powys, i'ch atgoffa y bydd gwaith maes Arolwg Cenedlaethol Cymru yn mynd rhagddo ledled Cymru hyd at fis Mawrth 2021. Yn ystod 2017-18, rydym hefyd yn cynnal Arolwg Cyflwr Tai Cymru.

Mae'r llythyr hwn a'r taflenni¹ amgaeedig yn cynnwys manylion yr arolygon hyn, a byddwn yn ddiolchgar pe gallech anfon yr wybodaeth ymlaen at eraill yn eich sefydliad, fel y bo'n briodol.

Y Swyddfa Ystadegau Gwladol sy'n cynnal yr Arolwg Cenedlaethol ar ein rhan, a'r Sefydliad Ymchwil Adeiladu, BRE, sy'n cynnal yr Arolwg Cyflwr Tai. Mae pawb sy'n gwneud y gwaith cyfweid ac arolygu i'r Arolygon hyn wedi eu clirio gan Disclosure Scotland, ac maent yn cario cerdyn adnabod sy'n dangos eu henw, llun ohonynt, enw'r sefydliad, a'u manylion cyswllt.

Mae'r [Arolwg Cenedlaethol](#) yn gofyn cwestiynau am amrywiaeth eang o bynciau, gan gynnwys llesiant, iechyd, ysgolion, y celfyddydau a diwylliant, chwaraeon, gwasanaethau cynghorau, a'r ardal leol. Mae'r canlyniadau'n helpu Llywodraeth Cymru a sefydliadau eraill yn y sector cyhoeddus i ddeall ac i fynd i'r afael â'r materion sy'n bwysig i bobl Cymru. Bob blwyddyn, cynhelir hyd at 12,000 o gyfweiliadau wyneb yn wyneb gyda sampl o bobl 16 oed ac yn hŷn sy'n cynrychioli trigolion pob rhan o Gymru.

Mae [Arolwg Cyflwr Tai Cymru](#) yn arolwg o gyflwr pob math o gartrefi – yn dai ac yn fflatiau, rhai y mae'r perchnogion yn byw ynddynt ac eraill sy'n cael eu rhentu – ar draws Cymru. Y nod yw creu darlun clir o gyflwr ac effeithlonrwydd ynni cartrefi Cymru.

Mae'r canlyniadau o flwyddyn gyntaf lawn maes gwaith yr Arolwg Cenedlaethol (Mawrth 2016 –

Dear Mr Collins

We are writing to you in your capacity as Chief Constable of Dyfed-Powys Police Force, to remind you that fieldwork for the National Survey for Wales is taking place across Wales until March 2021. During 2017-18 we are also conducting the Welsh Housing Conditions Survey.

This letter and the enclosed leaflets¹ contain details about the surveys and I should be grateful if you would circulate the information as appropriate within your organisation.

The National Survey is carried out on our behalf by the Office for National Statistics. The Housing Conditions Survey is carried out by the Building Research Establishment, BRE. All interviewers and surveyors working on the surveys have been Disclosure Scotland cleared and carry identification displaying their name, photo, organisation name, and contact details.

The [National Survey](#) covers a wide range of topics including well-being, health, schools, arts and culture, sports, council services and the local area. The findings help the Welsh Government and other public sector organisations to understand and tackle the issues that are important to people in Wales. Each year, up to 12,000 face-to-face interviews will be carried out with a representative sample of people aged 16 and over across Wales.

The [Welsh Housing Conditions Survey](#) is a survey of the condition of all types of housing – houses and flats, owned and rented – across Wales. It will give a clear picture of the condition and energy efficiency of housing in Wales.

Results from the first full year of National Survey fieldwork (March 2016 – March 2017) are available [here](#), with further reports on specific topics published throughout the year. Initial

Mawrth 2017) ar gael [yma](#), a chaiff adroddiadau pellach ar bynciau penodol eu cyhoeddi yn ystod y flwyddyn. Bydd canlyniadau cyntaf yr Arolwg Cyflwr Tai ar gael o hydref 2018 ymlaen.

Cysylltwch â ni drwy arolygon@llyw.cymru os hoffech chi gael rhagor o wybodaeth.

Yn gywir,

Steven Marshall

Glyn Jones

**Prif Swyddog Ymchwil
Gymdeithasol**

Prif Ystadegydd

¹ National Survey for Wales [advance leaflet](#) and [respondent leaflet](#) – Welsh

results from the Housing Conditions Survey will be available from autumn 2018.

Please contact us via surveys@gov.wales if you would like further information.

Yours faithfully,

Steven Marshall

Glyn Jones

Chief Social Research Officer

Chief Statistician

¹ National Survey for Wales [advance leaflet](#) and [respondent leaflet](#) - English

Annwyl X

Rydym yn ysgrifennu atoch yn rhinwedd eich rôl fel «F5» o «F7», i'ch atgoffa y bydd gwaith maes Arolwg Cenedlaethol Cymru yn mynd rhagddo ledled Cymru hyd at fis Mawrth 2021. Yn ystod 2017-18, rydym hefyd yn cynnal Arolwg Cyflwr Tai Cymru.

Mae'r llythyr hwn a'r taflenni¹ amgaeedig yn cynnwys manylion yr arolygon hyn, a byddwn yn ddiolchgar pe gallech anfon yr wybodaeth ymlaen at eraill yn eich sefydliad, fel y bo'n briodol.

Y Swyddfa Ystadegau Gwladol sy'n cynnal yr Arolwg Cenedlaethol ar ein rhan, a'r Sefydliad Ymchwil Adeiladu, BRE, sy'n cynnal yr Arolwg Cyflwr Tai. Mae pawb sy'n gwneud y gwaith cyfweled ac arolygu i'r Arolygon hyn wedi eu clirio gan Disclosure Scotland, ac maent yn cario cerdyn adnabod sy'n dangos eu henw, llun ohonynt, enw'r sefydliad, a'u manylion cyswllt.

Mae'r [Arolwg Cenedlaethol](#) yn gofyn cwestiynau am amrywiaeth eang o bynciau, gan gynnwys llesiant, iechyd, ysgolion, y celfyddydau a diwylliant, chwaraeon, gwasanaethau cynghorau, a'r ardal leol. Mae'r canlyniadau'n helpu Llywodraeth Cymru a sefydliadau eraill yn y sector cyhoeddus i ddeall ac i fynd i'r afael â'r materion sy'n bwysig i bobl Cymru. Bob blwyddyn, cynhelir hyd at 12,000 o gyfweiliadau wyneb yn wyneb gyda sampl o bobl 16 oed ac yn hŷn sy'n cynrychioli trigolion pob rhan o Gymru.

Mae [Arolwg Cyflwr Tai Cymru](#) yn arolwg o gyflwr pob math o gartrefi – yn dai ac yn fflatiau, rhai y mae'r perchnogion yn byw ynddynt ac eraill sy'n cael eu rhentu – ar draws Cymru. Y nod yw creu darlun clir o gyflwr ac effeithlonrwydd ynni cartrefi Cymru.

Mae'r canlyniadau o flwyddyn gyntaf lawn maes gwaith yr Arolwg Cenedlaethol (Mawrth 2016 – Mawrth 2017) ar gael [yma](#), a chaiff adroddiadau pellach ar bynciau penodol eu cyhoeddi yn ystod

Dear X

We are writing to you in your capacity as «F5» of «F7», to remind you that fieldwork for the National Survey for Wales is taking place across Wales until March 2021. During 2017-18 we are also conducting the Welsh Housing Conditions Survey.

This letter and the enclosed leaflets¹ contain details about the surveys and I should be grateful if you would circulate the information as appropriate within your organisation.

The National Survey is carried out on our behalf by the Office for National Statistics. The Housing Conditions Survey is carried out by the Building Research Establishment, BRE. All interviewers and surveyors working on the surveys have been Disclosure Scotland cleared and carry identification displaying their name, photo, organisation name, and contact details.

The [National Survey](#) covers a wide range of topics including well-being, health, schools, arts and culture, sports, council services and the local area. The findings help the Welsh Government and other public sector organisations to understand and tackle the issues that are important to people in Wales. Each year, up to 12,000 face-to-face interviews will be carried out with a representative sample of people aged 16 and over across Wales.

The [Welsh Housing Conditions Survey](#) is a survey of the condition of all types of housing – houses and flats, owned and rented – across Wales. It will give a clear picture of the condition and energy efficiency of housing in Wales.

Results from the first full year of National Survey fieldwork (March 2016 – March 2017) are available [here](#), with further reports on specific topics published throughout the year. Initial results from the Housing Conditions Survey will be available from autumn 2018.

y flwyddyn. Bydd canlyniadau cyntaf yr Arolwg
Cyflwr Tai ar gael o hydref 2018 ymlaen.

Cysylltwch â ni drwy arolygon@llyw.cymru os
hoffech chi gael rhagor o wybodaeth.

Yn gywir,

Steven Marshall

Glyn Jones

**Prif Swyddog Ymchwil
Gymdeithasol**

Prif Ystadegydd

¹ National Survey for Wales [advance leaflet](#) and
[respondent leaflet](#) – Welsh

Please contact us via surveys@gov.wales if you
would like further information.

Yours faithfully,

Steven Marshall

Glyn Jones

Chief Social Research Officer

Chief Statistician

¹ National Survey for Wales [advance leaflet](#) and
[respondent leaflet](#) - English

Element	Primary / Secondary	Definition of element	Pass Criteria	WHCS page no	variable name and number	Pass Criteria explained
In a Good State of Repair						
1 (a)	Primary	Key building components, which have an immediate impact on a dwelling's integrity, must be in good condition by being free from fault, deficiency and not result in an HHSRS Category 1 Hazard.	Structural collapse and falling elements = significantly lower risk than average OR average risk	19	fsthssco= 1 or 2	Structural collapse and falling elements (fsthssco)- Significantly lower risk than average OR Average risk.
1 (b)	Primary	HHSRS Hazard- Damp and mould growth (modelled by BRE)	Category 1 hazard - no.	-	hsrdamp=0	Category 1 hazard - no.
Safe and Secure						
2 (a)	Primary	HHSRS Hazard- Falls associated with stairs (modelled by BRE)	Category 1 hazard - no.	-	hsrstair=0	Category 1 hazard - no.

2 (b)	Is there adequate space for kitchen appliances?	Secondary	The dwelling should have a 500mm min. wide space for a cooker AND a 600mm min. wide space and power for a refrigeration appliance (this could be in a utility room). Enough clear space i.e. 1200mm (cooker) or 1000mm (refrigeration) present in front of appliances.	[Cooking provision present- yes AND Adequate cooker space - yes.] AND [Refrigerator provision - yes OR Refrigerator provision clear space- yes]	4	fincokpr= 1and fincookr=1and (finrfppr=1 or finrfpcs=1)	Cooking provision present- yes. (fincokpr) = Y, AND Adequate cooker space - yes (fincookr=Y) AND (Refrigerator provision- yes (finrfppr=y) OR Refrigerator clear space (finrfpcs=y))
2 (c)	Is the work surface sufficient for safe food preparation?	Secondary	Kitchen worktops should be permanent, non porous and be a min of 500mm deep worktop with a 800mm front edge (1000mm if L shaped).	Worktop present - yes. AND Working - yes.	4	finwrkpr=1 and finwrkwk=1	Worktop present - yes. AND Worktop Working - yes.
2 (d)	Is the cupboard storage convenient and adequate?	Secondary	Kitchens should have convenient and adequate storage. 1.1m3 in two person dwelling (as determined by Nominal Occupancy) + 0.2 m3 for each additional person.	Adequate cupboard space- yes.	4	fincupun=1	Adequate cupboard space - yes (fincupun)

2 (e)	Are the number of convenient power sockets in the kitchen sufficient?	Secondary	At least one convenient power socket close to main food preparation worktop in addition to that used for the refrigerator.	Number of convenient power sockets ≥ 1 .	4	$finpowso \geq 1$	Number of convenient power sockets ≥ 1 (finpowso)
2 (f)	Is the flooring in the kitchen and bathroom safe and suitable for use?	Secondary	Kitchen and bathroom should have suitable and safe flooring.	Kitchen and bathroom floors free from faults	3	$finflrfl = 2$ (where Type = Kitchen AND Bathroom)	Kitchen and bathroom floors free from faults
2 (g)	Is there an external fire escape?	Secondary	This element is not to be measured through the Welsh Housing Conditions Survey.				
2 (h)	Are there adequate fire alarms and equipment?	Primary	Common areas of flats must have adequate fire alarms and equipment	Overall fire safety of common parts (if exist) - acceptable. OR Overall fire safety of common parts (if exist) - satisfactory.		$fcphsfir = 1$ OR 2	HHSRS fire (of common areas) = average or lower

2 (i)	Do bedrooms have escape routes not passing through another room?	Secondary	Dwellings should have an escape route from the bedrooms to an external door which may be via a landing and staircase to a front door, back door or fire escape. Bedrooms which cannot be normally exited except by passing through another room should be capable of providing an alternative means of escape agreed by the Fire Officer.	Fire safety escape route - Protected route. OR Fire safety escape route - Enclosed hall.	3	finescap=1 or 2	Fire safety escape route - Protected route. OR Fire safety escape route - Enclosed hall.
2 (j)	Are mains powered smoke detectors on each floor?	Primary	Dwellings must have suitably located, mains powered (with a back up secondary power source such as a sealed lithium battery) smoke alarm on each floor.	Mains powered smoke detector on each floor - yes.	3	finsecsd=1 and finsecbw=1	Mains powered smoke detector on each floor - yes AND Mains powered smoke detector on each floor working - yes.
2 (k)	Are bedroom window locks without automatic locking action?	Secondary	This element is not to be measured through the Welsh Housing Conditions Survey - measurement would need to be intrusive and there is a risk of locking the windows permanently.				

2 (l)	Is the gas, solid fuel or oil service and safety certificate up to date, and have all heating installations and appliances been certified safe by an appropriately qualified person as required by law	Primary	This element is not to be measured through the Welsh Housing Conditions Survey.				
2 (m)	Have electrical lighting and power installations been checked and certified safe by an appropriately qualified person?	Primary	This element is not to be measured through the Welsh Housing Conditions Survey.				
2 (n)	Do external doors and windows give a reasonable level of physical security?	Primary	External doors and windows must have a reasonable level of physical security. A “reasonable level of security” is defined as being capable of complying with Secured By Design (SBD), although may not necessarily have an SBD certificate	(Security of dwelling) [Main entrance door - high OR fairly high] AND [Other external doors - high or fairly high] AND [Accessible windows - high OR fairly high]	3	finsecme= 1 or 2 or 8 and finsecot= 1 or 2 or 8 and finsecwn= 1 or 2 or 8	Main entrance door - high OR fairly high (finsecme= 1 or 2) AND Other external doors - high or fairly high (finsecot=1 or 2) AND Accessible windows - high OR fairly high (finsecwn=1 or 2)

2 (o)	Is the rear garden easy to maintain, reasonably private, safe and suitable for young children to play in?	Primary	The rear garden must easy to maintain and reasonably private. The rear garden must be safe and suitable for young children to play in and allow supervision from the dwelling.	Easy to maintain - Yes. AND Reasonable private - Yes. AND Safe and Suitable - Yes.	16	fexmaint=1 and fexpriva=1 and fexsuita=1	Easy to maintain (fexmain=y) AND Reasonable private (fexpriva=y) AND Safe and Suitable (fexsuita=y)
Adequately heated, Fuel Efficiency and Well Insulated							
3 (a)	Is the heating system reasonably economical and capable of heating the dwelling to a reasonable level?	Primary	SAP 2012	SAP2 ≥65 (AS MODELLED BY bre)	-	≥65	SAP ≥65
3 (b)	Are external doors and windows adequately draught proofed?	Primary	External doors and windows must be sufficiently well fitting so not to cause severe draughts but without reducing background ventilation.	Are all external doors and windows adequately draft proofed =y	17	fexdfdpr=1 or 7 or 8	Are all external doors and windows adequately draft proofed =y
3 (c)	Is the living room separated from the main entrance door?	Secondary	The main entrance door should not open directly into the living room.	Entrance door leads directly into living room - no.	3	finseced=2	entrance door leads directly into living room (finseced= n)

3 (d)	Is the hot water tank effectively insulated?	Primary	The hot water tank must be effectively insulated. A factory foam jacket is considered adequate. Existing unlagged hot water tanks should have good jacket. If there is a jacket fitted to the hot water tank, it should be at least 75mm (3") thick.	IF cylinder present - yes AND IF cylinder seen - yes THEN [cylinder insulation - foam (factory insulated)] OR [cylinder insulation - jacket (loose jacket) AND cylinder insulation thickness ≥ 75mm]	7	finwhcyl=1 AND finwhcsn=1 THEN finwhins=1 OR finwhins=2 AND finwhmms= 6 or 7 or 8	IF cylinder present (finwhcyl=y) AND IF cylinder seen (finwhcsn=y) THEN [cylinder insulation = foam factory insulated (finwhins=1)] OR [cylinder insulation = loose jacket (finwhins=2) AND cylinder insulation thickness ≥ 75mm (finwhmms= 6 or 7 or 8)]
3 (e)	Is there adequate mechanical extract ventilation in the kitchen and bathroom?	Secondary	There should be adequate mechanical extract ventilation in the kitchen and bathroom.	[Extractor fan (kitchen) present - yes. AND Extractor fan (kitchen) working - yes]. AND [Extractor fan (bathroom) present - yes. AND Extractor fan (bathroom) working - yes].	4	finkxtpr=1 and finkxtwk=1 and finbxtpr=1 and finbxtwk=1	Extractor fan (kitchen) present (no code= y) AND Extractor fan kitchen working (no code=y) AND Extractor fan bathroom present (finbxtpr=y) AND Extractor fan (bathroom) working (finbxtwk=y)
Contain up to date Kitchens and Bathrooms							
4 (a)	Is the kitchen 15 years old or less, unless in good condition?	Primary	Dwellings must have a Kitchen that is free from deficiencies. It should be reasonably modern i.e. less than 15 years old. However, it is accepted that a kitchen may not need replacing if it is older than 15 years and it is in good condition.	Final Fitness Assessment (Kitchen) - Acceptable OR Satisfactory.	2, 4	(finhsfod= 1 or 2) OR (((fodconst=11 and finkitlr=9) or (finkitlr=6 or 7 or 8) or finktre GE 2002) and finhsfod= 1 or 2)).	[HHSRS (food safety)= 1 or 2] OR [[[construction date=11 and kitchen last refurbished=9] or [kitchen last refurb= 6 or 7 or 8] or actual date of refurb GE 2002] and [HHSRS food safety= 1 or 2]].

4 (b)	Are there adequate facilities for washing, drying and airing clothes?	Secondary	There should be space, power and plumbing for a washing machine AND provision for an external drying line AND airing cupboard. These may be communal. In the absence of an external drying line, and no communal drying facilities, there should be provision for space, power and external venting for a 600mm tumble dryer positioned to be vented outside. May be in utility area. In dwellings with a hot water tank there should be a heated airing cupboard with at least 1 m ² of internal slatted shelving provided.	[Washing machine provision - yes. OR Laundry present (shared facilities) - yes.] AND [(Drying area/space (shared) - yes. OR Provision for external line - yes.) OR [(Drying area/space (shared) - no. OR Provision for external line - no.) AND Drying room (shared) - yes.] OR (Drying area/space (shared) - no. OR Provision for external line - no.) AND Drying room (shared) - no. AND Tumble dryer provision - yes.]] AND [IF Cylinder present - yes. THEN Airing cupboard present - yes. AND Sufficient shelving - yes.]	4, 7, 12 and 17	(finwmpcs=1) OR (ffclaupr=1 AND ffcdarpr=1) OR fexexdry=1 OR ffcdarpr=2 OR fexexdry=2 AND ffcdrypr=1 OR ffcdarpr=2 OR fexexdry=2 AND ffcdrypr=2 AND fintdpcs=1 AND [IF finwhcyl=1 THEN finwhair=1 finwhass=1.	Washing machine provision - yes (finwmpcs) OR Laundry present (shared facilities) - yes (ffclaupr=y) AND (Drying area/space (shared) - yes (ffcdarpr=y) OR Provision for external line - yes (fexexdry=y) OR [(Drying area/space (shared) - no (ffcdarpr=n) OR Provision for external line - no (fexexdry=n) AND Drying room (shared) - yes (ffcdrypr=y) OR (Drying area/space (shared) - no (ffcdarpr=n) OR Provision for external line - no fexexdry=n) AND Drying room (shared) - no (ffcdrypr=n) AND Tumble dryer provision - yes (fintdpcs) AND [IF Cylinder present - yes (finwhcyl=y) THEN Airing cupboard present - yes (finwhair=y) AND Sufficient shelving - yes finwhass=y.
----------	---	-----------	---	--	-----------------	---	--

4 (c)	Are the bathroom and WC facilities 25 years old or less, unless in good condition?	Primary	Dwellings must have a bathroom and WC that are free from deficiencies. They should be reasonably modern i.e less than 25 years old. However, it is accepted that a bathroom may not need replacing if it is older than 25 years and free from deficiencies.	[HHSRS personal hygiene, sanitation and drainage -Significantly lower risk than average OR Average risk] OR less than 15 years old (bathroom or dwelling).	2, 4	(Finhsphy = 1 or 2) OR (((fodconst= 9 or 10 or 11) and finbatlr= 9) or (finbatlr = 5 or 6 or 7 or 8) or finbatre GE 1992) and (finhsphy= 1 or 2))	[HHSRS (personal hygiene, sanitation and drainage)= 1 or 2] OR [[[construction date= 9 or 10 or 11 and bathroom last refurbished= 9] or [bathroom last refurb= 6 or 7 or 8] or actual date of refurb GE 1992] and [HHSRS personal hygiene, sanitation and drainage= 1 or 2]].
4 (d)	Is there a shower as well as a bath?	Primary	The dwelling must have a bath and shower, which may be an over bath shower	[(Bath present - yes AND bath working -yes) OR (Second bath present AND second bath working-yes)] AND [(Shower in bathroom present - yes AND Shower in bathroom working- yes) OR (Second shower present - yes. AND Second shower working -yes)]	4	[(finbatpr=1 and finbatwk=1) or (fin2btpr=1 and fin2btwk=1)] AND [(finshwpr=1 and finshwwk=1) OR (fin2shpr=1 and fin2shwk=1)]	[[Bath present - yes (finbatpr=y) AND Bath working - yes (finbatwk=y)] OR [Second bath present - yes (fin4btpr=y) AND Second bath working - yes (fin2btwk=y)]] AND [[Shower in bathroom present - yes (finshwpr=y) AND Shower in bathroom working - yes (finshwwk=y)] OR [Second shower present - yes (fin2shpr=y) AND Second shower working - yes (fin2shwk=y)]].
Well Managed (for rented housing)							
5 (a)	Is the dwelling fairly, efficiently	Not Assessed	NOT TO BE ASSESSED AS PER GUIDANCE				

	and well managed?					
Located in Attractive and Safe Environments						
6 (a)	Are roads and footpaths accessible, providing safety for residents, pedestrians and children?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
6 (b)	Is there soft and hard landscaping with planting in protected areas?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
6 (c)	Is there adequate street lighting?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
6 (d)	Is there adequate and safe play space for young children?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
6 (e)	Are there adequate, practical and maintainable communal areas?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
6 (f)	Are dwellings clearly identifiable with definable boundaries?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			

6 (g)	Are utility services practically located and well identified?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
6 (h)	Is there adequate and practically located car parking clearly visible to residents?	Secondary	This section cannot be assessed through the Welsh Housing Conditions Survey.			
As Far as Possible, Suit the Specific Requirements of the Household (e.g. Specific Disabilities)						
7 (a)	Is there sufficient space within the dwelling for every day living?	Secondary	The dwelling should provide sufficient space for Nominal Occupancy and every day living. Nominal Occupancy is determined by bedroom and living space floor area.	Nominal occupancy = 1 (modelled by BRE)	-	occupancy=1 occupancy= yes.
7 (b)	Is internal and external general storage space adequate?	Secondary	All dwellings should have adequate and convenient internal and external storage.	Internal storage - yes. AND [IF cylinder present - yes. THEN Airing cupboard present - yes. AND Sufficient shelving - yes.] AND [IF private plot exists - yes. THEN External storage - yes.]	3, 7, 16	finstosp=1 AND finwhcyl=1 THEN finwhair=1 AND finwhass=1 AND IF fexpltyp=1 THEN fexexsto=1 Internal storage - yes (finstosp=y) AND IF cylinder present - yes (finwhcyl=y) THEN Airing cupboard present - yes (finwhair=y) AND Sufficient shelving - yes (finwhass=y) AND IF fexpltyp=y THEN External storage - yes (fexexsto=y)

7 (c)	Does the dwelling layout meet the special cultural needs of the residents?	Secondary	This element is not to be measured through the Welsh Housing Conditions Survey.				
7 (d)	Does the dwelling have the necessary physical aids to suit the requirements of the residents?	Secondary	The dwelling should have the necessary physical adaptations to suit the professionally assessed requirements of the residents.	Accommodation meets the individual needs of the occupier (modelled by BRE using interview variable SCAccom2R) = yes.	-	acconeed= 1 or 8 or 9	accommodation meets the individual needs of the occupier= yes.
7 (e)	Does the garden have a level area no smaller than 10m2 directly accessible from the dwelling?	Secondary	This element can no longer be measured as relevant variable was removed from the 2017 WHCS form.				
7 (f)	Is there a paved access to the drying line and any garden gate?	Secondary	Where a dwelling has a garden that requires access from the front or rear boundary to an entrance door the access to them should be fully paved. Where a dwelling has a garden with an area with provision for a drying line the access to this should be fully paved.	[IF private plot exists= yes] THEN [Is path firm and even? (Accessibility) - Yes] AND [IF rear plot exists- yes THEN provision for external drying line- yes AND paved access to drying area - yes.] AND [rear exit from plot exists -yes THEN is path to exit fully paved-yes]	17	If fexpltyp = 1 THEN fexdfirm=1 and if fexplotr= 1 THEN if fexxdry=1 AND fexpadry=1. if fexrexpe=1 AND fexexifp=1	If private plot exists (fexpltyp=y) then is path firm and even=y and if rear plot exists then is there provision for external drying line (fexxdry=y) and is access to drying line paved (fexpadry=y). If rear exit exists (fexrexifp=y) then is path to exit fully paved (fexexifp=y)

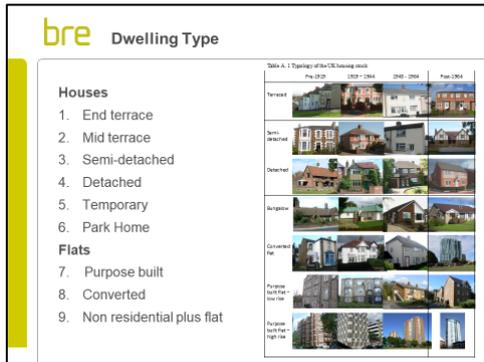
Slide 1



To help link the NSW Interview with the WHCS survey there are two observations that we ask you to make on your first visit, before you make contact with the household. These are:

- A simple assessment of dwelling type
- A first impression of the condition of the building.

Slide 2



Before you go into the home we ask you to record what type of dwelling it is using this 9 category question.

For the most part, it is very simple. These homes will be familiar and obvious to you, although they come in all shapes and sizes.

For the purposes of this survey, bungalows are houses. You should record whether they are terraced, semi-detached or detached.

Slide 3



Over 90% of homes are straightforward to categorise.

Perhaps the most difficult are converted flats, because they often look like houses from the outside.

For example, at first sight this looks like a detached house.

But, on closer inspection it looks like a pair of semi-detached houses – there is a front door at each side and a fire break parapet between them.

And then your survey address is given as 4A Valley Road..... And this is confirmed by the doorbells.

So this is a converted flat.

Slide 4



You will be very unlikely to come across a 'non-residential plus flat these days. Quite simply, it is where the address you have been given – say 24 Church Road - turns out to be a shop with living accommodation above. Both the residential and commercial accommodation are part of the same rateable unit and they share the same front door. The shopkeeper and his family live in the flat and it is not sub-let.

Other situations like this may include family owned pubs!

Again, the important thing is to match up the address with what you are looking at.

Slide 5



A temporary dwelling will usually be an individual portable building. It must match up with the address that you have been given.

A park home may be similar in structure to a temporary dwelling but will be on a managed site with other similar homes. Sometime these are holiday homes but the fact that it has come up as an address in the survey suggests that someone is living there permanently.

Slide 6

bre First impressions

External Walls	
No evidence of disrepair	1
Moderate disrepair	2
Major disrepair	3

Doors and windows	
No evidence of disrepair	1
Moderate disrepair	2
Major disrepair	3

Roofs/roof structure	
No evidence of disrepair	1
Moderate disrepair	2
Major disrepair	3
Not visible	4

Also, before you enter the house, you will be asked to give a first impression of three external building elements: the walls, the doors/windows, and the roof.

This is a very quick assessment which should be recorded surreptitiously before you make contact with the household.

Slide 7

bre Why do we need the information?

- To collect some basic information for homes where we do not obtain an interview or survey
- To use this to compare homes where we obtain an interview with those that we do not – are they representative?
- To collect some basic information about vacant homes
- To use this as a filter to over-sample poor condition housing for the physical inspection.
- To help understand and weight the final results



The photo is of a vacant end-terrace house. It is quite clearly in major disrepair under all three elements.

There is no household to make contact with and hence no interview is forthcoming. But it still forms part of the Welsh housing stock and even if we are unable to collect any further information we know some basic information about it.

Slide 8

bre How do we collect the information?

Before making contact with the household:

- Stand in front of the front of the house/block of flats
 - Look at the walls
 - Look at the doors and windows
 - Look at the roof
- Score each on a scale of 1 - 3:
 1. No evidence of disrepair
 2. Moderate disrepair
 3. Major disrepair



Tip – always worse than first glance

We would expect over 80% of homes to come out as ‘no evidence of disrepair’ under all three measures, but this will depend on where you are working.

The important thing is that you do not miss those homes that are in major repair under any of the three elements – because we will always try to send a surveyor to these.

Slide 9

bre External walls

This is a subjective assessment – you are not building surveyors. Look for evidence of:

- Cracks in brickwork and render
- Old stained, flaking paint
- Need for re-pointing
- Poor maintenance and repairs
- Signs of dampness
- Chimney leaning

External Walls	
No evidence of disrepair	1
Moderate disrepair	2
Major disrepair	3



In this case you are just looking at part of a wall which shows some disrepair – with some missing pointing, signs of dampness and decay. If this pattern is repeated across the wall that you are looking at, it would most definitely be in major disrepair.

Slide 10

bre External walls – No evidence of disrepair



Just because a wall is old does not mean that it is in disrepair. This stone-walled cottage has many faults, but its walls are nearly a metre thick and will last for many more years without requiring repair.

You would not expect modern homes to have wall problems – in particular a luxury apartment block like this one in Cardiff Bay.

Slide 11

bre External walls – Moderate disrepair



Moderate disrepair can include:

TL Flaking render and paint

TR Minor cracking

BL General shabbiness

BR Slipped or broken tile hanging, stained concrete.

Slide 12



Major disrepair should be obvious at a quick glance. It might include:

TL Crumbling brickwork, missing render.

TR Cracked or leaning walls

BL Damaged or loose brickwork

BR Signs of rising damp or sulphate attack.

Slide 13



The home on the right clearly has windows in major disrepair.

The home on the left has replacement double glazed windows which show no evidence of disrepair.

Slide 14



Most modern homes will have double glazed windows in good condition, including these flats.

Also, most older homes will also have had their windows changed – sometimes very recently like this cottage.

Slide 15



Original windows and doors are more likely to be in disrepair.

On the left, this 1950's detached house is in a fine location but requires improvements. It has single glazed steel windows and doors which need re-painting.

The terraced cottage on the right also needs the windows and doors repainting, although they are structurally sound.

Slide 16



Major disrepair usually leaps out at you.

There is rotten wood visible on all these three photos.

Slide 17

Look for evidence of:

- Sagging roofs
- Holes, missing covering
- Old uneven roof slates and tiles
- Slipped and broken tiles
- 'Tingles'
- Temporary repairs
- Missing and broken gutters

Roofs/roof structure

No evidence of disrepair	1
Moderate disrepair	2
Major disrepair	3
Not visible	4

Roofs are the most difficult to assess because they are often only partly visible.

This house has sagging roof timbers and slipped/missing slates.

Slide 18



If a house is well kept and the windows and doors are in good condition, the likelihood is that the roof will be also.

The house at bottom right has been in poor repair but has recently had the roof replaced with shiny new artificial slates.

Slide 19



The semi-detached house was built in around 1935 and has the original slate roof. There is no evidence of major damage but if you look closely you can see that some of the slates have slipped and have been held in place by metal hooks called 'tingles'. This is evidence that the roof is nearing the end of its useful life and should be recorded as moderate disrepair.

A good thatched roof can last 50 years and this one is nearing the end of its life. The ridge is fraying and the thatch is green and stained. But the lovely condition of the rest of the home suggest that such replacement is not an urgent requirement.

Slide 20



Again, major disrepair should advertise itself to you immediately.

The roof on the left has been covered with a tarpaulin to keep the water out.

The house on the right has so many broken, slipped and damaged tiles that it requires urgent replacement.

Slide 21



Some roof are just not visible and should not be assessed.....

Even though the one on the left has a tree growing out of it, which is not a good sign.

Slide 22



For the remaining slides we are going to play the first impressions game.

What do you think of this house?

- 1
- 1
- 1

Yes, it has no signs of disrepair. It is the average house – a 50 year old semi-detached house which has been well maintained and improved over the years.

Slide 23



What about this one?

- 1
- 1
- 1

Yes, it is the same. It was built 90 years ago and still has many original features, including the windows. But it very well maintained and shows no signs of disrepair.

Slide 24



3.
3.
3.

Yes it is in disrepair under all three elements. It is occupied too!

Slide 25



3.
3.
3.

Don't let the value of a house influence you. This vacant home is in major disrepair under all three elements. Even though you cannot fully see the roof you can see that it is flat and it is leaking.

Slide 26



1
1
2

This cottage has been modernised and has good walls and windows.

But there are some slipped slates on the roof which require attention.

Slide 27



3.
3.
3.

Another run down house requiring complete modernisation.

Slide 28



You are given the address of a converted flat. But from the outside you do not know which is your flat. For the first impression assessment you should look at the whole building.

In this case it is a:

3
2
2

Slide 29



2
3
1

The wall boarding needs replacing, as do all of the windows and doors. The roof looks OK.

Slide 30



3

3

3

The windows are clearly in need of major repair. The walls have been repaired but show signs of dampness and cracking – possibly they should be rendered like the neighbours.

If this roof was on a good house you might say ‘moderate’. But because the home is poorly maintained overall this would tip you towards major repair for the roof.

Slide 31



As with the conversion, you will not know which flat is yours until you go inside.

You should make your first impression judgements of the whole building.

In this case:

2.

1.

4.

There is a problem with drainage which is staining and damaging the walls.

The windows look OK.

You can't see the roof.