ystadegau ar gyfer cymru statistics for wales

Statistical Bulletin

Llywodraeth Cymru Welsh Government

National Survey for Wales, 2016-17
Hearing and eye care

27 March 2018
SB 16/2018

The National Survey for Wales asked a number of questions relating to eye care, including how often people have their eyes tested and why they don't have them tested more frequently. The survey also asks about people's vision, hearing, and how many natural teeth they have. The bulletin is one of a set reporting on different health services in Wales; one on the Emergency ambulance service has been published and further bulletins on GP services and on hospital services will be published shortly.

Key findings

- 29% of people seldom or never had their eyes tested and 65% of this group said this was because they hadn't had any eye problems.
- People were found to be more likely to have their eyes tested every two years if they are older; female; not materially deprived; have an eye complaint; and/or live in an urban area.
- 52% of people said they would contact their GP for help with eye pain and redness (compared with 60% in 2014-15).

- In 2016-17, 97% of people were able to easily see someone's face across the room (with glasses or contact lenses if usually worn), 2% with difficulty, and 1% would not be able to.
- 21% of men had hearing difficulties compared with 17% of women.
- Of people with hearing difficulties 30% wore a hearing aid most or some of the time. 52% had difficulties with their hearing even when wearing a hearing aid.
- People were found to be more likely to have fewer than 21 natural teeth if they are over 65; male; live in social housing; live in the most deprived areas; are in bad or very bad general health; are a smoker or ex-smoker; have diabetes; and/or have heart or circulatory problems.

About this bulletin

This bulletin provides more detailed analysis of National Survey 2016-17 results for the questions on **eye care, vision, hearing and teeth**.

The full questionnaire is available on the National Survey web pages.

Additional tables can be accessed via the Results viewer

In this bulletin

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Introduction

The Welsh Government's Eye Health Care Delivery Plan for Wales 2013-2020 aims to improve services for people with poor eye health by providing high quality care and support. The main aim of the plan is to raise awareness of eye health and the need for regular sight tests. The plan highlights the importance of detecting sight and eye health problems early on by making people aware of where they can access services and support in their local area.

The National Survey questions on eye care and vision provide evidence to track progress of the delivery plan. The questions help to establish whether people in Wales are accessing eye care examinations at the recommended intervals and help to identify the reasons why people don't have their eyes tested regularly. The survey results feed into strategies to raise awareness of the health benefits of sight tests and the importance of having a sight test every 2 years.

The Eye Health Examination Wales service shows the importance of visiting the optometrist for eye care purposes. Choose Well campaigns highlight the importance of patients accessing eye care through their optometrist rather than their GP who is unlikely to have the required equipment or experience to deal with all eye problems. Welsh Government wishes to raise awareness of Eye Health Examination Wales services in order to balance demands on GP primary care services and to ensure correct diagnosis of eye related problems. The Low Vision Service Wales aims to provide appliances for people who cannot see clearly through prescribed spectacles or contact lenses.

The questions on hearing were included to provide information on reported hearing difficulties together with the uptake and use of hearing aids. Hearing loss at any age can negatively impact on levels of communication and as a result can leave people feeling isolated and detached from the world around them. Independence and employment opportunities for adults with hearing loss can be adversely affected and can lead to loneliness and depression. The incidence and prevalence of people with hearing loss is anticipated to increase in the next decade, particularly given demographic changes to the population. The Welsh Government's Audiology: Framework of Action for Wales, 2017-2020 was introduced to monitor such changes within Wales, and to help develop appropriate strategies. The National Survey results help gauge use and effectiveness of hearing aids as a form of health intervention.

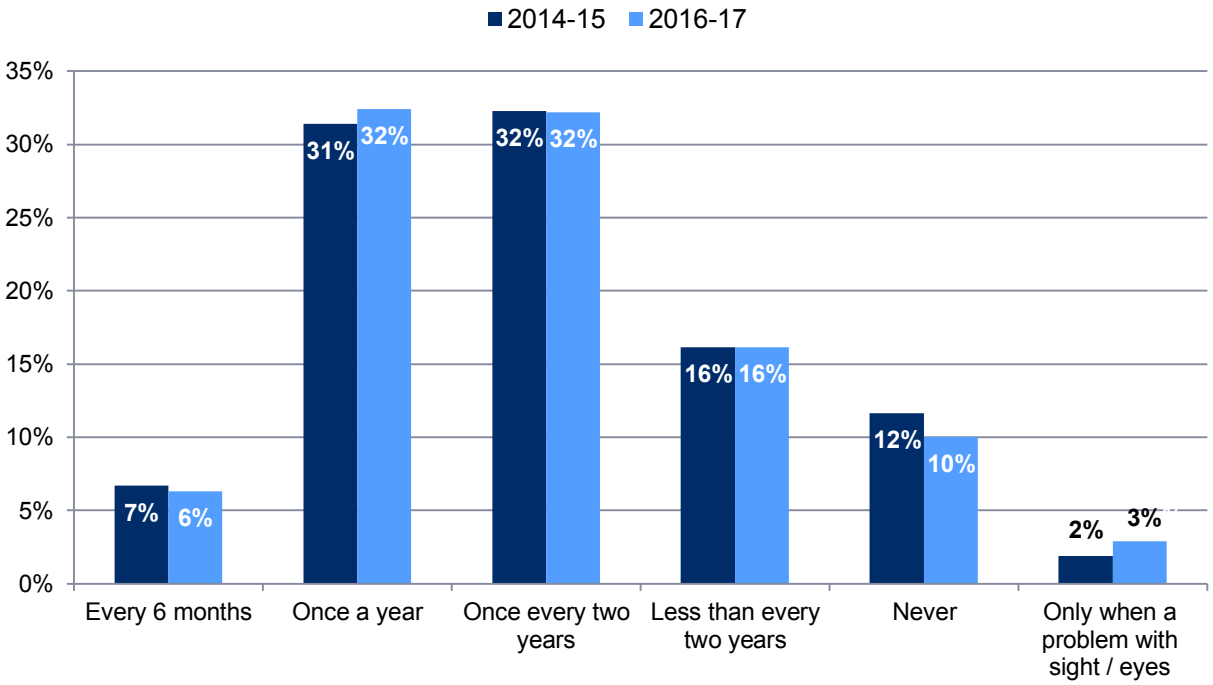
A statistical first release on sensory health is published each year (twice a year from 2017). That release summarises statistics in relation to primary care eye services (including the General Ophthalmic Service (GOS) data and targeted Welsh eye care services such as the Eye Health Examination Wales (EHEW) and the Diabetic Eye Screening Wales), the Hospital Eye Service, sight impairment registration, certification and the Low Vision Service Wales and workforce. The release also includes selected statistics on the numbers of people suffering from hearing loss, using hearing aids, and accessing hospital care for hearing related conditions.

Eye care

Frequency of eye tests

The survey asked how often people have their eyes tested. 39% had their eyes tested at least once a year (6% every 6 months and 32% once a year) and 10% never had their eyes tested, in 2016-17. Chart 1 shows the frequency of people having eye tests with a similar pattern shown for the 2014-15 results.

Chart 1: How often individuals have their eyes tested



Individuals with existing eyesight problems were more likely to have their eyes tested at least once a year (65%) than those with no eyesight difficulties (38%). Similarly, people who had eye complaints were more likely to have their eyes tested at least once a year (83%) than those with no complaints (38%).

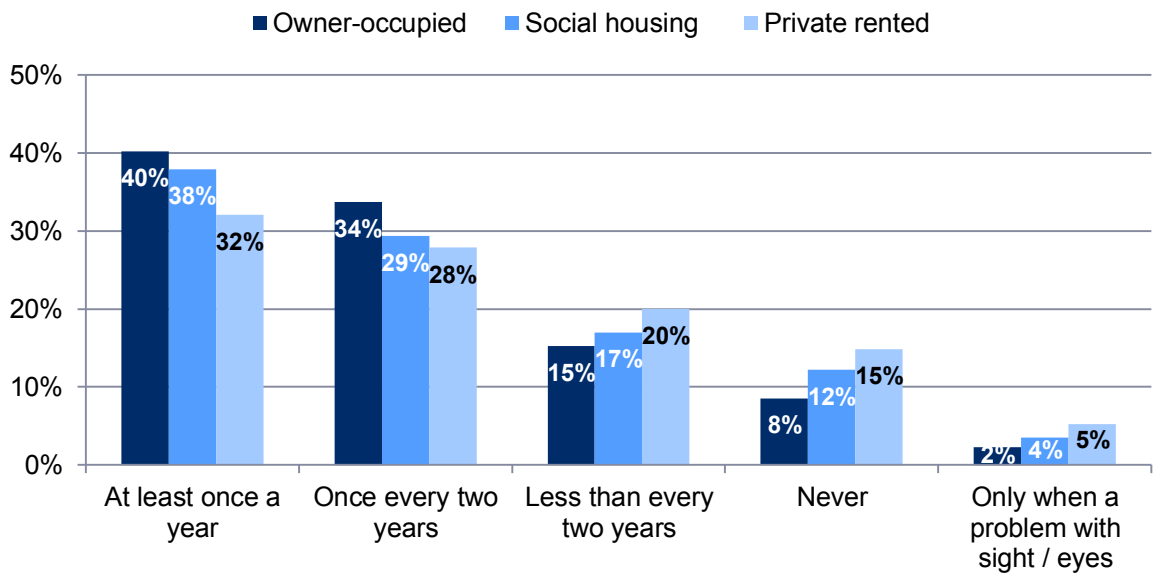
The results showed that those aged 75 and over were most likely to have their eyes tested at least once a year (70%) compared with 25-44 year olds who were the age group least likely to do this (29%). The age group most likely to never have an eye test was 16 – 24 year olds (19%), followed by 25-44 year olds (16%). Also, men were more likely to never have their eyes tested (13%) than women (8%).

Those who were economically inactive[1] were more likely to visit the opticians at least once a year (49%) than those who were unemployed (34%) or in employment (31%). Pensioner households were most likely to visit the opticians once a year (60%) compared with two adult households with children and single person households with no children (29%).

Those who owned their house were more likely to have their eyes tested at least once a year (40%) or once every two years (34%) than those who lived in private-rented accommodation (32% and 28% respectively). Chart 2 shows how frequency of eye tests varies with tenure type.

[1] Economic Status – see Terms and definitions

Chart 2: How often individuals have their eyes tested, by tenure



People with good or very good health were less likely to visit their opticians at least once a year (35%) than those with bad or very bad health (53%). Similarly, those with a limiting long term illness, disability or infirmity were more likely to have their eyes tested at least once a year (48%) than those without a long-term illness (35%).

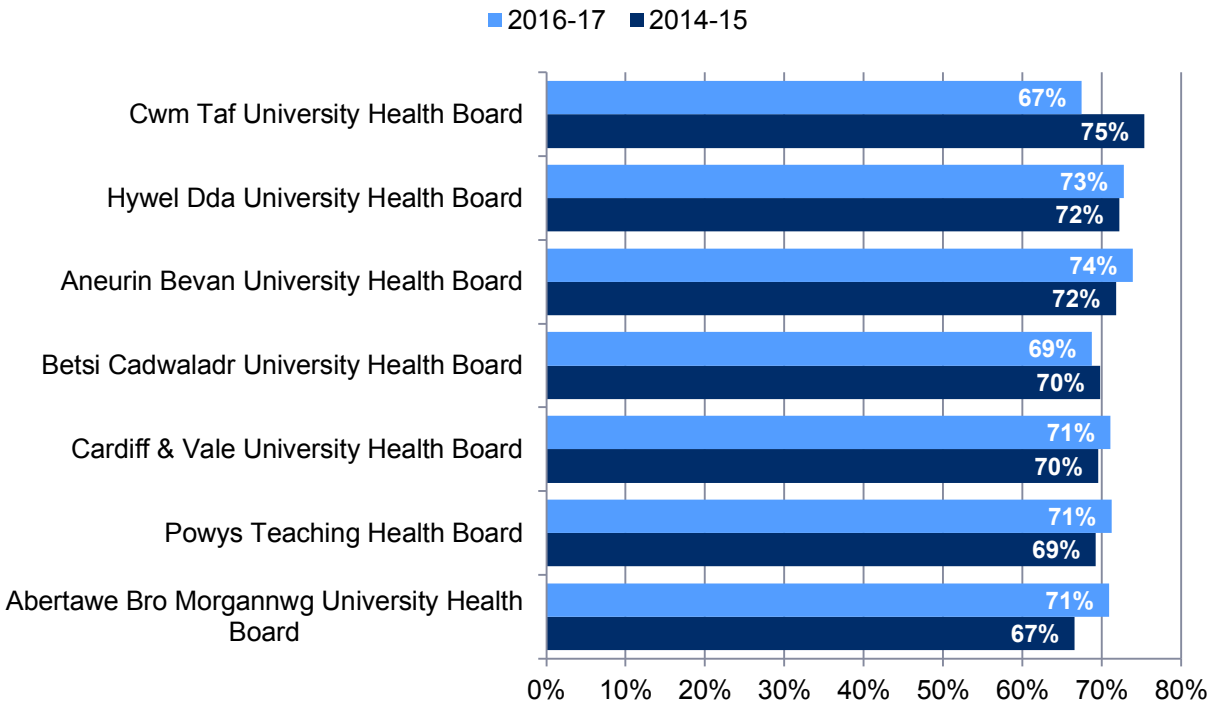
There also appeared to be a link between people's satisfaction with other health services and the regularity of them having an eye test. People who were highly satisfied with the health service were more likely to have their eyes tested at least once a year (42%) than those who were less satisfied (36%). 41% of people who had seen a GP or family doctor in the past 12 months also had their eyes tested at least once a year, compared with 30% of those who had not seen the GP in the past 12 months.

Adults in material deprivation[2] were more likely to never have their eyes tested (9%) than people not in material deprivation (4%). Similarly, people living in the 20% most deprived areas in Wales were more likely to never have their eyes tested (13%) than those living in the 20% least deprived areas (8%)[3].

Chart 3 shows the variation across health boards for both survey years. In 2016-17, those living in the Aneurin Bevan University Health Board area were more likely to have their eyes tested at least once every two years (74%) than those in the Cwm Taf University Health Board area (67%). However, in 2014-15, 75% of those in the Cwm Taf University Health Board area had their eyes tested at least once every two years compared with 67% of those in the Abertawe Bro Morgannwg University Health Board area. As highlighted in the further analysis below, it does not seem to be the local health board area itself that affects the frequency that people have their eyes tested. Instead, it is the grouping of similar personal characteristics shown by people, living within different health board areas, which better explains the variation.

[2] Material Deprivation – see Terms and definitions
[3] WIMD – see Terms and definitions

Chart 3: Eyes tested at least once every two years, by local health board and year



Frequency of eye tests – further analysis

More in-depth analysis[4] was carried out to find who was most likely to have their eyes tested at least once every 2 years. A number of factors[5] were considered as possible predictors. When these were held constant, the following factors were linked to who was most likely to have their eyes tested at least once every 2 years:

- Being older;
- Being female;
- Not being in material deprivation;
- Having a limiting, long-standing illness;
- Having eye complaints; and
- Living in an urban area.

Although cross-analysis found that having eyes tested at least every 2 years was associated with general health and economic status, this in-depth analysis showed that other factors are actually behind the apparent differences by health and economic status. For example, age is linked to both declining general health and to being economically inactive but it is age that is the main driver associated with eye tests.

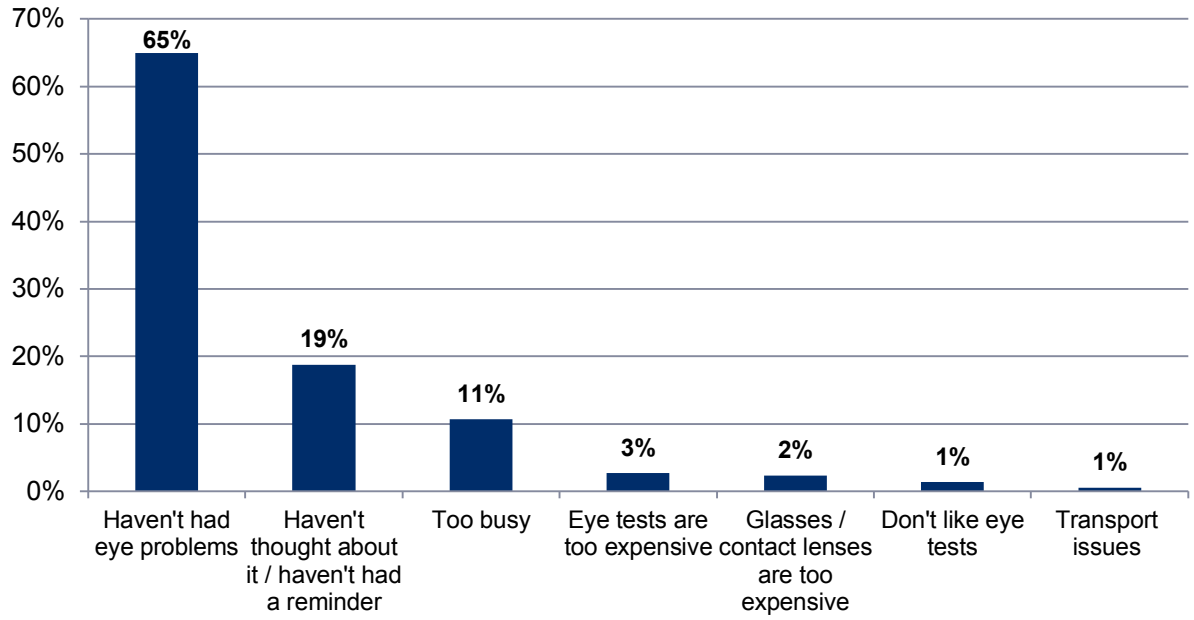
In analysis of this type whilst we are unable to identify cause and effect the results are useful for policy purposes in helping to target groups who do not have their eyes tested regularly.

[4] Logistic regression – for details see Key quality information
[5] Factors included in the final regression model were: Age, gender, ethnicity, employment status, tenure type, use of a car, material deprivation, area deprivation (WIMD) general health, limiting long-term illness, urban/rural location, local health board, eye complaints, household type, volunteering.

Reasons for not having eyes tested

People who had had their eyes tested less than every two years or never were asked why they did not have their eyes tested more often. The most common reason given was that they hadn't had eye problems (65%), followed by 'they hadn't thought about it or had a reminder' (19%). Chart 4 shows the results.

Chart 4: Reasons for not having eyes tested more frequently[6]



Not surprisingly, 16-44 year olds were more likely to say that they hadn't had any eye problems (71%) than 45-64 year olds (53%) or those aged 65 and over (54%).

The survey results show that those with very good or good general health were more likely to not have had any eye problems (68%) than those with fair (56%) or bad / very bad health (52%). Similarly, those without a limiting long-standing illness were more likely to have not had any eye problems (68%) than those with a limiting illness (56%).

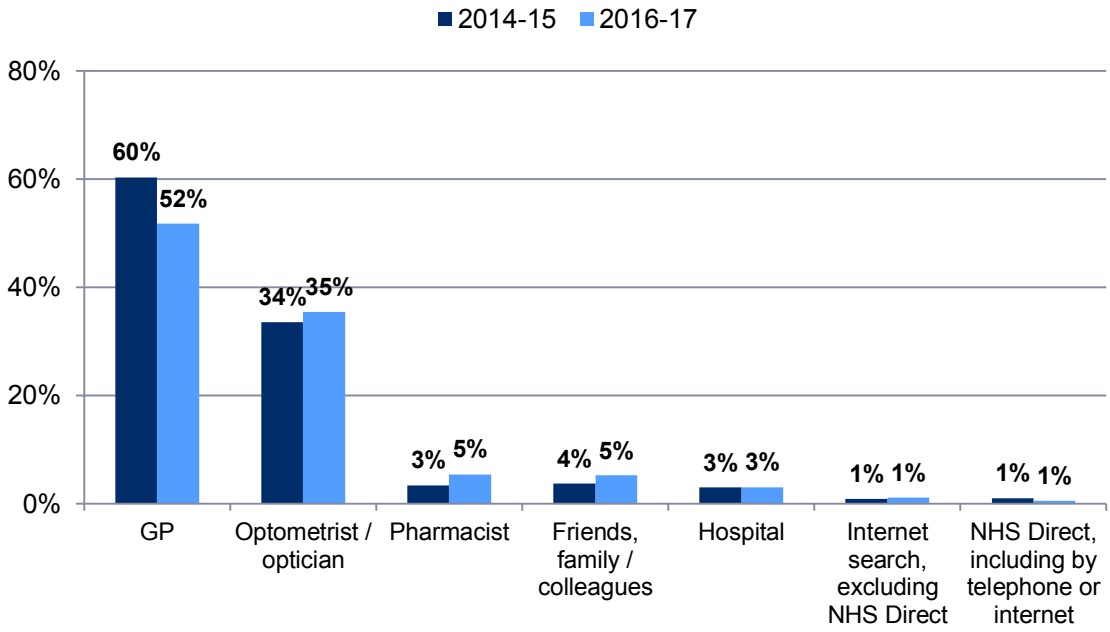
7% of people living in material deprivation gave the reason that eye tests were too expensive, this compares with 2% of those not in material deprivation. Similarly, 5% of those in material deprivation said that glasses and contact lenses were too expensive compared with those who were not in material deprivation (2%).

[6] People were able to choose more than one reason if they wished.

Pain and redness in the eye

In the event of pain and redness in the eye, individuals were asked who they would contact for help. Chart 5 shows that in 2014-15, 60% of people said they would be likely to contact their GP for help. This compares with 52% of people giving this answer in 2016-17. There was also an increase in the proportion of people contacting a pharmacist in 2016-17 (5%) compared with 3% in 2014-15.

Chart 5: Who to contact for pain and redness in eye, by survey year



Men were more likely to say they would contact their GP for help (55%) than women (49%). 40% of women said they would contact an optometrist or optician, compared with 31% of men. 42% of those aged 65 and over said they would contact an optician, compared with 33% of 16-44 year olds. 45-64 year olds were more likely to say they would contact a pharmacist than younger or older age groups.

Previous visits to the GP may have an effect on who people would contact in the event of eye pain and redness. Those who said they found it easy to get an appointment at the GP at a convenient time were more likely to contact the GP (54%) than those who found it difficult to get an appointment (47%). Also, those who were satisfied with the care they received by their GP within the last 12 months were more likely to contact their GP (52%) than those who were dissatisfied with the care they received (41%).

Affordability may also be a factor when people decide who to contact for pain and redness in the eye. 56% of those in material deprivation contacted their GP compared with 51% of those who were not. People who were materially deprived were less likely to contact their optometrist or optician (31%) than those not in material deprivation (36%).

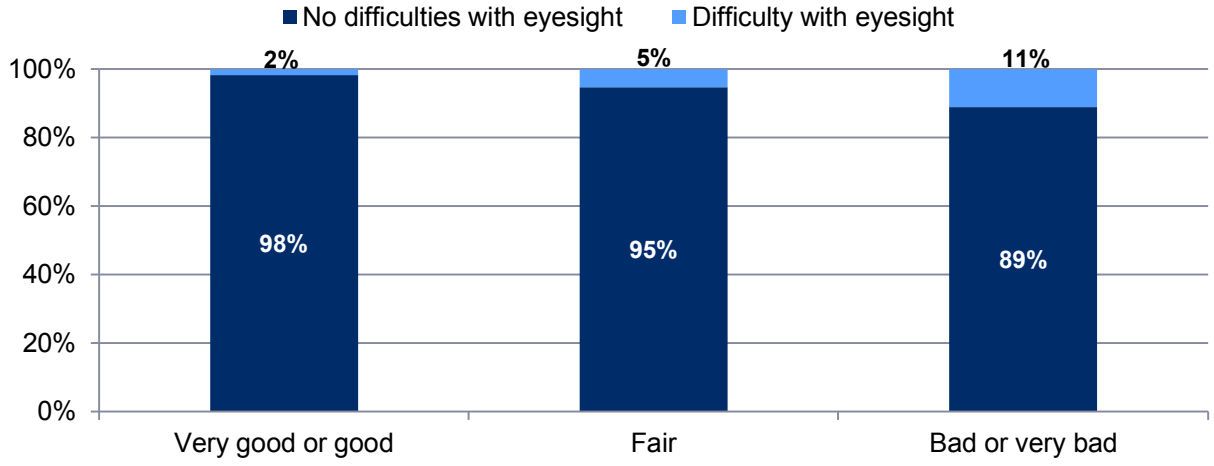
Vision

People were asked if their eyesight was good enough to see the face of someone across a room (with glasses or contact lenses if they were usually worn). 97% of people would be able to see someone's face easily, 2% with difficulty, and 1% would not be able to.

As might be expected, people who had difficulty with their vision were most likely to have their eyes tested more frequently than every two years. Increasing age was also linked with people having vision problems even when wearing their glasses or contact lenses. 7% of those aged 65 and over had difficulties with eyesight compared with 3% of 45-64 year olds and 1% of 16-44 year olds.

Poor general health may also be linked with eyesight difficulties. Chart 6 shows how those with bad or very bad general health were more likely to experience vison problems (11% of people in bad / very bad health) than those with very good or good health (2%) or those with fair health (5%). It is likely that in some cases illness and/or medication affects vision; also, when people are unwell they may not prioritise their eyesight.

Chart 6: Eyesight difficulty, by general health



Similarly, those with a limiting long-standing illness, disability or infirmity were significantly more likely to have a problem with their vision (7%) than those without a limiting illness (1%). People with a limiting long-standing illness were asked questions relating to the accessibility of buildings that they wanted to visit (offices, shops, schools, public buildings, people's homes, etc.). Of people who had difficulty seeing someone's face across a room (even when wearing glasses) 37% also had difficulty, at least sometimes, going into buildings that they needed to enter.

Hearing

19% of people reported that they had difficulty with their hearing, even with a hearing aid if they normally wore one.

Men were more likely to have poor hearing (21%) than women (17%). As with eyesight problems, poor hearing increased with age. Those aged 75 and over were more likely to have hearing difficulties (48%) than 65-74 year olds (33%) and 45-64 year olds (18%). Only 5% of 16-24 year olds and 9% of 25-44 year olds had hearing difficulties.

People with bad or very bad general health (which becomes more common with age) were more likely to have a hearing difficulty (35%) than those with fair health (28%) or good health (15%). As might be expected, 85% of people with specific ear complaints also said they had hearing difficulties.

Hearing aids

People with hearing problems were asked if they wore a hearing aid. 19% of people with hearing problems wore one most of the time, 11% wore one some of the time, and 7% did not wear a hearing aid but had tried one. 64% did not wear a hearing aid. Those who wore a hearing aid some or most of the time were asked if they still had difficulties with hearing whilst wearing the aid; 52% said they did.

59% of people aged 75 and over wore a hearing aid some or most of the time, compared with 32% of people aged 65-74 and 16% of 45-64 year olds.

People with bad or very bad general health were more likely to wear a hearing aid (35%) than those with very good or good health (27%). Also, people with a limiting long-standing illness were more likely to wear a hearing aid (35%) than those without a limiting illness (24%).

Chart 7: Use of hearing aids, by WIMD areas of deprivation

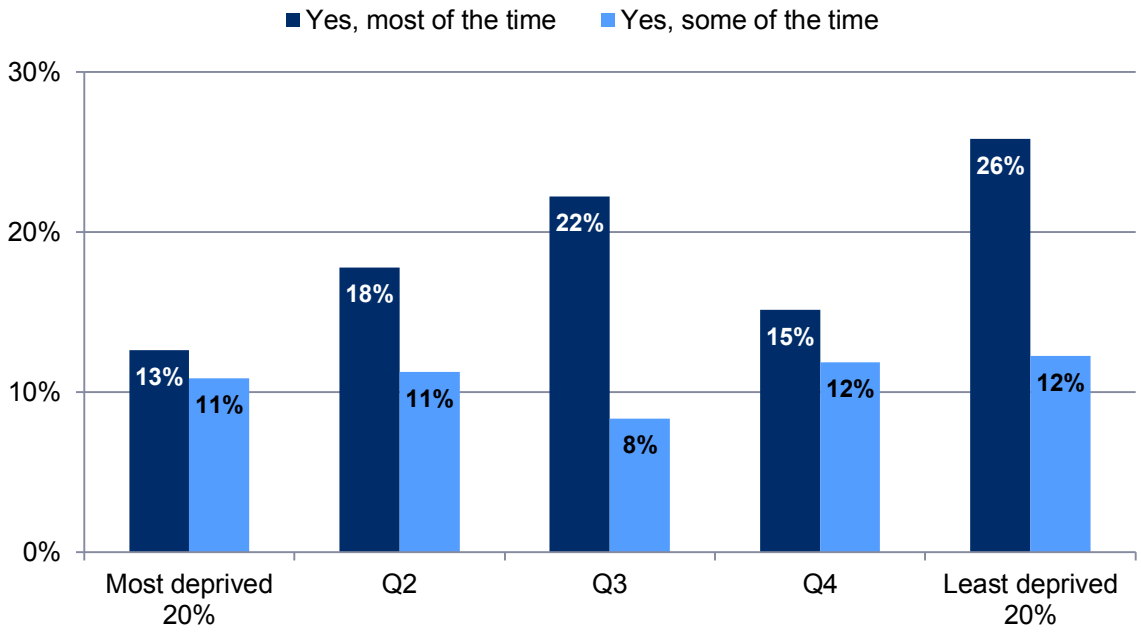


Chart 7 shows that in the 20% most deprived areas in Wales[7] areas, 24% of people with self-stated hearing problems wore a hearing aid some or most of the time. This compares with 38% of people with a hearing problem who wear an aid and live in the least deprived 20% of Wales. Similarly, those with a hearing difficulty and living in material deprivation were less likely to use a hearing aid (14%) than those not in material deprivation (32%).

[7] WIMD – see Terms and definitions

Hearing aid use – further analysis

Again, we carried out further analysis looking at a range of factors[8] that may be associated with the people who despite experiencing hearing problems don't wear a hearing aid. Holding each factor constant the results showed that the people least likely to be wearing an aid were those:

- under 45;
- in employment; and/or
- living in the most deprived areas.

Other factors (e.g. reasons why someone doesn't wear an aid) are not collected in the National Survey and may further explain why hearing aid usage is limited to 30% of people who say they have difficulty with their hearing.

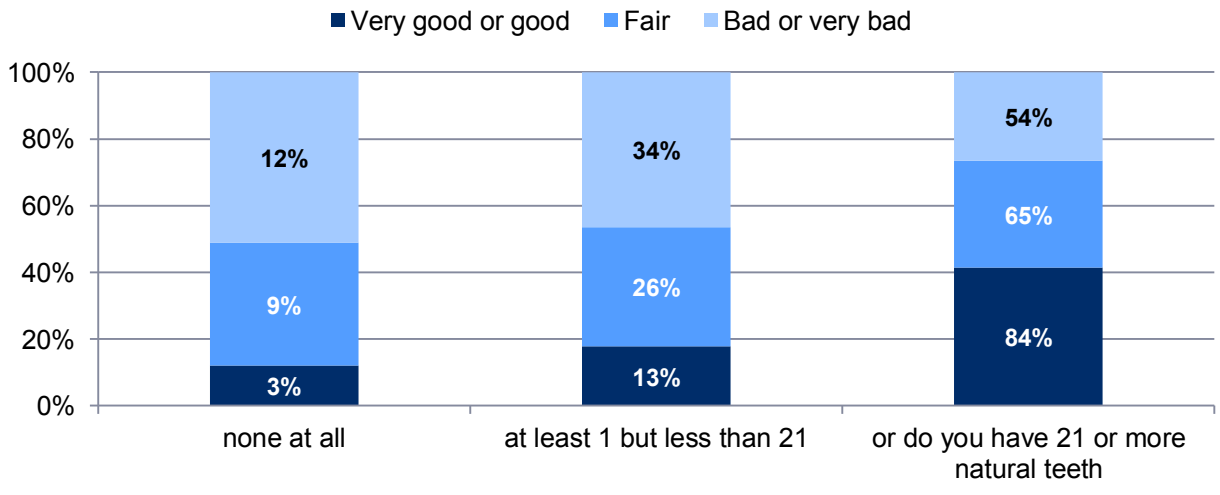
Teeth

People were asked how many natural teeth they had; 5% had none, 17% had at least one but fewer than 21 of their own teeth and 78% had 21 or more.

53% of those aged 65 and over had fewer than 21 teeth compared with 21% of those aged 45-64 and 6% of 16-44 year olds. 15% of people aged 65 and over had no natural teeth.

General health may affect the loss of natural teeth. Those with bad or very bad general health were more likely to have no natural teeth (12%) than those with good or very good health (3%). Chart 8 shows how the number of natural teeth a person has is associated with their general health. Those with a limiting long-standing illness were also more likely to have no natural teeth (9%) than those without a long-standing illness (2%). People with diabetes (including hyperglycaemia) were more likely to have no natural teeth (13%) than those without diabetes (4%). Smoking may impact on tooth decay and subsequent loss. 22% of people who smoked or used to smoke had fewer than 21 teeth compared with 13% of those who had never smoked.

Chart 8: Number of natural teeth, by general health



[8] Factors included in the regression modelling were: Age, gender, ethnicity, economic status, tenure type, material deprivation, area deprivation (WIMD) general health, limiting long-term illness, urban/rural morphology, sense of community, feelings of loneliness, feeling safe/unsafe.

Number of teeth – further analysis

To get a clearer understanding of the effect of an individual factor we have again used statistical methods to separate out the effects of selected factors[9] that are independently associated with a person having fewer than 21 natural teeth.

Each of the following factors has a separate influence on the likelihood of having a reduced number of teeth, after the other factors are controlled for.

- being over 65;
- being male;
- living in social housing;
- living in the most deprived areas;
- being in bad or very bad general health;
- being a smoker or ex-smoker;
- having diabetes; and
- having heart and circulatory problems.

These results correspond with and confirm the cross-analysis but as with all analysis of this kind we are unable to attribute cause and effect or take into account any factors that weren't measured.

[9] Factors included in the regression modelling were: gender, age, ethnicity, material deprivation, economic status, housing tenure, general health, WIMD areas of deprivation, urban/rural, whether limiting long-standing illness, heart & respiratory illness, smoking status, diabetic.

Terms and definitions

Economic status

Respondents were classified into the following three economic statuses according to how they described what they were doing in the previous 7 days.

In employment	Unemployed	Economically inactive
• In any paid employment or self-employment (or away temporarily) • On a government sponsored training scheme • Doing unpaid work for a business that you or a relative owns • Waiting to take up paid work already obtained	• Unemployed and looking for work • Intending to look for work but prevented by temporary sickness or injury (28 days or less)	• Full-time student (including on holiday) • Unable to work because of long-term sickness or disability • Retired • Looking after home or family • Doing something else

Material deprivation

Material deprivation is a measure which is designed to capture the consequences of long-term poverty on households, rather than short-term financial strain.

Non-pensioner adults were asked whether they had things like ‘a holiday away from home for at least a week a year’, ‘enough money to keep their home in a decent state of decoration’, or could ‘make regular savings of £10 a month or more’. The questions for adults focussed on whether they could afford these items. These items are really for their ‘household’ as opposed to them personally which is why they were previously called ‘household material deprivation’.

Pensioners were asked slightly different questions such as whether their ‘home was kept adequately warm’, whether they had ‘access to a car or taxi, when needed’ or whether they had their hair done or cut regularly’. These also asked whether they could afford them, but also focussed on not being able to have these items for other reasons, such as poor health, or no one to help them etc. these questions were less based on the household and more about the individual.

Those who did not have these items were given a score, such that if they didn’t have any item on the list, they would have a score of 100, and if they had all items, they had a score of 0. Non-pensioners with a score of 25 or more were classed as deprived and pensioners with a score of 20 or more were classed as deprived.

Parents of children were also asked a set of questions about what they could afford for their children.

Welsh Index of Multiple Deprivation

The Welsh Index of Multiple Deprivation (WIMD) is used as the official measure of deprivation in Wales. Deprivation is a wider concept than poverty. Deprivation refers to wider problems caused by a lack of resources and opportunities. The WIMD is constructed from eight different types of deprivation. These are: income, housing, and employment, access to services, education, health,

community safety and physical environment. Wales is divided into, 1,909 Lower-Layer Super Output Areas (LSOA) each having about 1,600 people. Deprivation ranks have been worked out for each of these areas: the most deprived LSOA is ranked 1, and the least deprived 1,909. For this bulletin, we have grouped the people living in the 20 % of LSOAs that are most deprived based on WIMD score and compared them against the 20% of the LSOAs that are least deprived.

Key quality information

Background

The National Survey for Wales is carried out by The Office for National Statistics on behalf of the Welsh Government. The results reported in this bulletin are based on interviews completed in 2016-17 (30 March 2016 – 31 March 2017).

The sample was drawn from the Royal Mail Small Users Postcode Address File (PAF), whereby all residential addresses and types of dwellings were included in the sample selection process as long as they were listed as individual addresses. If included as individual addresses on the PAF, residential park homes and other dwellings were included in the sampling frame but community establishments such as care homes and army barracks are not on the PAF and therefore were not included.

The National Survey sample in 2016-17 comprised 21,666 addresses chosen randomly from the PAF. Interviewers visited each address, randomly selected one adult (aged 16+) in the household, and carried out a 45-minute face-to-face interview with them, which asked for their opinions on a wide range of issues affecting them and their local area. A total of 10,493 interviews were achieved.

Interpreting the results

Percentages quoted in this bulletin are based on only those respondents who provided an answer to the relevant question. Some topics in the survey were only asked of a sub-sample of respondents and other questions were not asked where the question is not applicable to the respondent. Missing answers can also occur for several reasons, including refusal or an inability to answer a particular question.

Where a relationship has been found between two factors, this does not mean it is a causal relationship. More detailed analysis is required to identify whether one factor causes change in another.

The results are weighted to ensure that the results reflect the age and sex distribution of the Welsh population.

Quality Report

A summary Quality Report is available, containing more detailed information on the quality of the survey, which includes the relevance, accuracy, timeliness and punctuality, accessibility and clarity and comparability and coherence of the data. It also includes a summary of the methods used to compile the results.

Sampling variability

Estimates from the National Survey are subject to a margin of uncertainty. Part of the uncertainty comes from the fact that any randomly-selected sample of the population will give slightly different results from the results that would be obtained if the whole population was surveyed. This is known as sampling error. Confidence intervals can be used as a guide to the size of the sampling error. These intervals are calculated around a survey estimate and give a range within which the true value is likely to fall. In 95% of survey samples, the 95% confidence interval will contain the 'true' figure for the whole population (that is, the figure we would get if the survey covered the entire population). In general, the smaller the sample size the wider the confidence interval. Confidence intervals are included in the tables of survey results published on Statswales.

As with any survey, the National Survey is also subject to a range of other sources of error: for example, due to non-response; because respondents may not interpret the questions as intended or may not answer accurately; and because errors may be introduced as the survey data is processed. These kinds of error are known as non-sampling error, and are discussed further in the quality report for the survey.

Significant differences

Where the text of this release notes a difference between two National Survey results (in the same year), we have checked to ensure that the confidence intervals for the two results do not overlap. This suggests that the difference is statistically significant (but as noted above, is not as rigorous as carrying out a formal statistical test), i.e. that there is less than a 5% (1 in 20) chance of obtaining these results if there is no difference between the same two groups in the wider population.

Checking to see whether two confidence intervals overlap is less likely than a formal statistical test to lead to conclusions that there are real differences between groups. That is, it is more likely to lead to "false negatives": incorrect conclusions that there is no real difference when in fact there is a difference. It is also less likely to lead to "false positives": incorrect conclusions that there is a difference when there is in fact none. Carrying out many comparisons increases the chance of finding false positives. Therefore, when many comparisons are made the conservative nature of the test is an advantage because it reduces (but does not eliminate) this chance.

Where National Survey results are compared with results from other sources, we have not checked that confidence intervals do not overlap.

Regression analysis

After considering the survey results, factors we considered likely to have an influence on the frequency of eye tests, hearing aid use and loss of natural teeth were incorporated into each of the relevant regression models. In each case the selection of the initial variables used in the regression was based on; the results from cross-analysis, policy direction, and the practicality of using the variable. The results for some factors were only available for a sub-sample of respondents, or there were a large number of 'missing' results which resulted in a substantial drop in the sample size on which the regression model could be tested. For this reason some variables/factors were omitted from the investigation. The final models consisted of those factors

that remained significant even after holding the other factors constant. These significant factors are those that have been discussed in this bulletin and the use of regression analysis is indicated by the statement that we have 'controlled for other factors'. It is worth noting that had a different range of factors been available to consider from the survey, then some conclusions about which factors were significant may have been different.

More details on the methodology used in the regression analysis in this report are available in the Technical Report: Approach to regression analysis and models produced.

National Statistics status

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the UK Statistics Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Welsh Government's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the Well-being of Wales report.

Further information on the Well-being of Future Generations (Wales) Act 2015.

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Further details

The document is available at: http://gov.wales/statistics-and-research/national-survey/?lang=en

Next update

Not a regular output

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to surveys@gov.wales

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