ystadegau ar gyfer cymru statistics for wales

Statistical Bulletin

Llywodraeth Cymru Welsh Government

National Survey for Wales, 2016-17
Further analysis of mental well-being

28 March 2018
SB 17/2018

During 2016-17, the National Survey included questions to assess people's mental health. These were 14 positively worded statements designed to measure mental well-being, which were taken from the Warwick-Edinburgh Mental Well-being scale. Scores range from 14-70, with a higher score representing better mental well-being.

Key findings

Mental well-being is strongly related to loneliness and other subjective dimensions of well-being.

When controlling for a range of factors, better mental wellbeing was found to be associated with each of the following:

- being older
- being male
- good general health
- not having a long-term limiting illness
- feeling a strong sense of community
- being satisfied with the local area
- being religious
- being married or in a civil partnership
- having young children in the household
- participating in sport
- eating more fruit and vegetables
- not drinking alcohol
- being physically active
- not being in material deprivation
- having higher levels of qualifications

Mental wellbeing was **not** found to be associated with:

- the health board area people lived in
- smoking status
- having a healthy weight
- the type of household
- economic status
- tenure
- speaking Welsh
- level of deprivation in the local area

About this bulletin

This bulletin provides more detailed analysis of the 2016-17 results from the National Survey on **mental well-being**.

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

Mental well-being is an essential component of a happy, healthy and productive life. Its importance across a range of social, economic and cultural outcomes means it is a prominent topic for various policy strategies in Wales. Information on mental well-being from the National Survey provides a resource to monitor progress against these national outcomes and strategies, and to inform future services and policies.

Relevant strategies include Prosperity for All: the National Strategy. Mental health is a priority area in this strategy, in recognition of the prevalence of mental ill health in Wales and the impact that poor mental well-being has for both general health and social life. Greater understanding and monitoring of mental health will provide evidence to help to improve the well-being of individuals, families and communities, and to support the development of the healthy and active Wales that Prosperity for All aims to deliver.

Together for Mental Health is the Welsh Government strategy for improving mental health and mental health services in Wales. Improving the mental health and well-being of people of all ages, backgrounds and situations is a major aim of the strategy, as is reducing the impact of mental ill-health.

Mental well-being is also one of the 46 National Indicators which are used to measure progress under the Well-being of Future Generations (Wales) Act 2015. This Act aims to improve the social, economic, environmental, and cultural well-being of Wales. The National Survey is the main source of data used to monitor progress on the mental well-being National Indicator. This feeds into the well-being goal 'A healthier Wales': see the Well-being of Wales report.

Mental well-being is recognised as a key component of achieving good health and social well-being. As such it is also included as one of the overarching measures in the Public Health Outcomes Framework for Wales. Mental health and well-being is of particular importance to vulnerable groups. The Social Services and Well-being (Wales) Act is designed to improve the well-being of carers, and people who need care and support, and mental well-being is an indicator for the Social Services National Outcomes Framework which supports this Act.

This bulletin provides more detailed analysis on the mental well-being results from the National Survey for Wales in 2016-17.

Mental well-being

In 2016-17, the National Survey for Wales included a series of questions taken from the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[1], to measure people's mental well-being.

Respondents (aged 16 or over) were shown a series of 14 positive statements (e.g. 'I've been feeling relaxed') and were asked how often they had experienced these feelings over the previous two weeks. There were five responses, ranging from 1, 'none of the time' to 5 'all of the time'. These scores were combined to give an overall score ranging from 14 to 70, where higher scores represented better mental well-being. The average mental well-being score for all adults was 50.9.

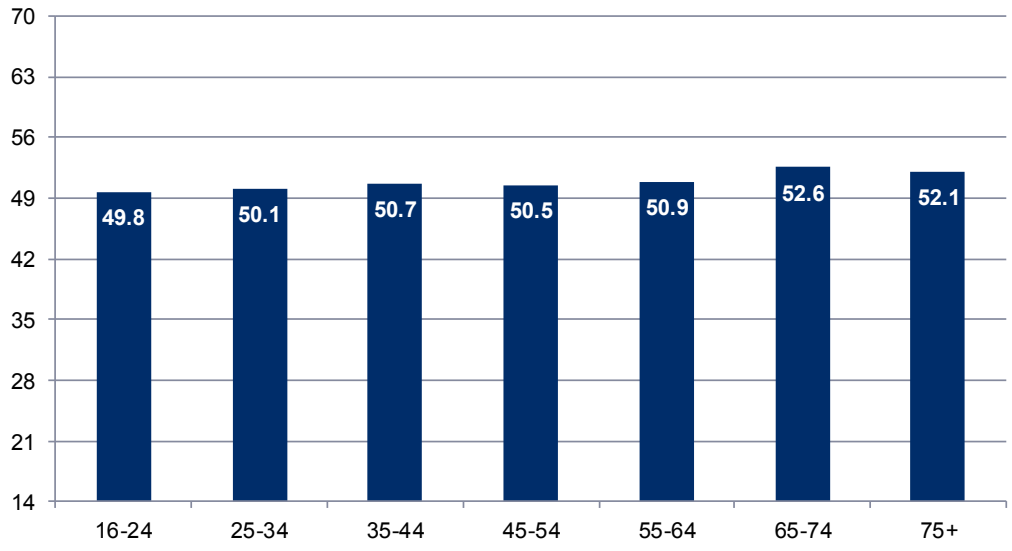
In this bulletin, we look at the relationships between mental well-being and a range of factors. In-depth analysis was carried out to assess the independent effect of each factor on mental well-being, taking account of the influence of the other factors. For instance, we found that general health status had an effect on mental wellbeing over and above other factors such as age and material deprivation. This builds on a previous bulletin[2] which provided an overview of the relationship between mental well-being and other characteristics while adjusting for age but not for any other factors.

Characteristics associated with mental wellbeing

When controlling for a range of factors[3], the following characteristics were associated with mental well-being.

Age – Older people had better mental well-being. People aged 65 or over showed significantly higher mental well-being than those in the younger age groups. The average well-being scores for each group range from 49.8 (for 16-24 year olds) to 52.6 for those aged 65-74.

Chart 1: Average mental well-being score by age

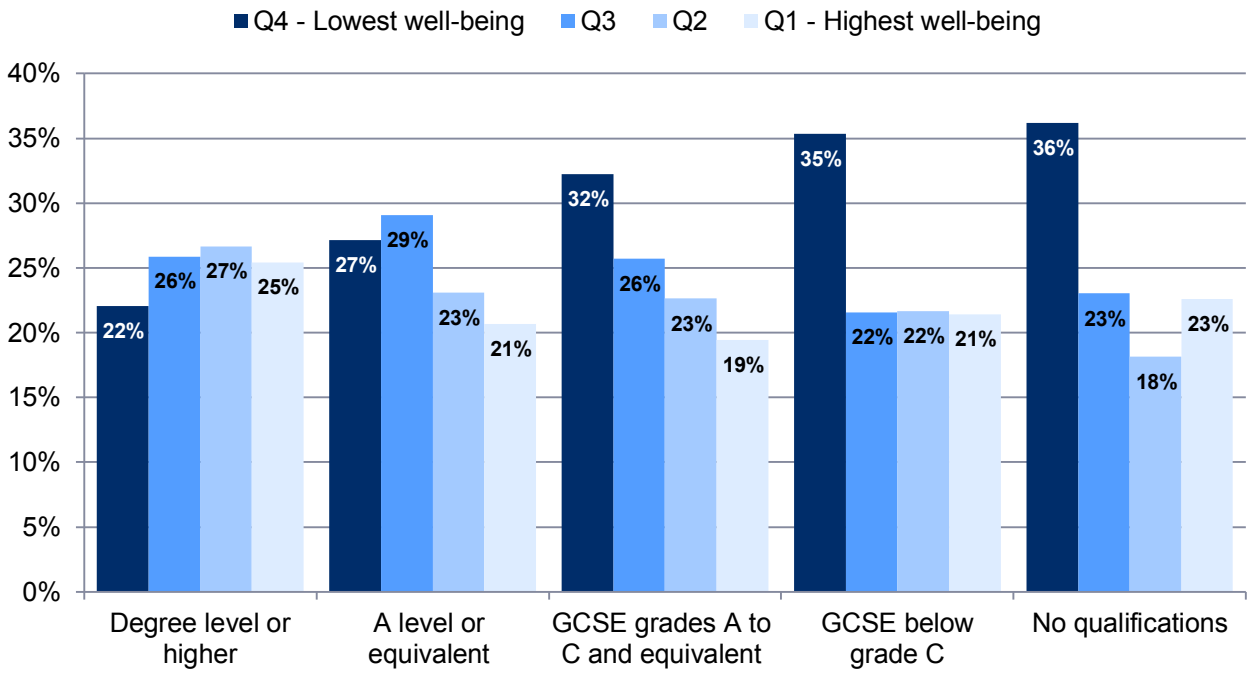


[1] To view the questions asked and how the mental well-being (WEMWBS) measure is defined, see Terms and definitions.
[2] National Survey for Wales, 2016-17: Mental Wellbeing.
[3] Using regression analysis - Note that the findings depend on which factors are available to take into account in the regression analysis. In this case these included – age, gender, alcohol consumption, area deprivation, economic status, fruit and vegetables consumption, general health, household type, limiting long-term illness, Local Health Board, marital status, material deprivation, sport participation, physical activity, qualifications, religion, satisfaction with local area, sense of community, smoking, speaking Welsh daily, tenure, healthy weight, urban or rural area, presence of young children in the home. More details can be found in the Key quality information.

Gender – Women (average score of 50.4) showed lower mental well-being scores than men (average score of 51.3).

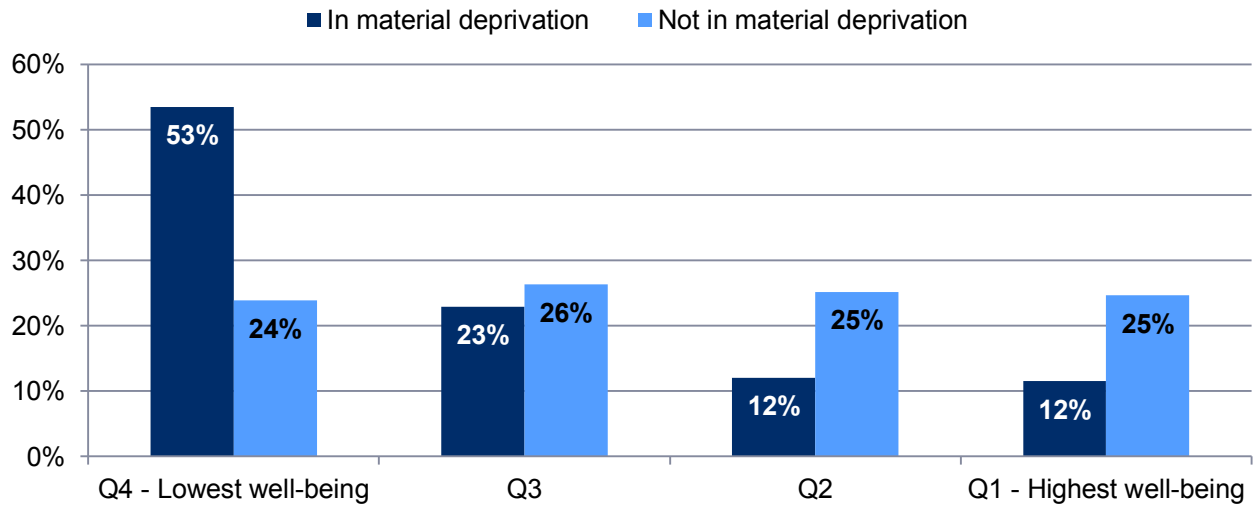
Qualifications – Mental well-being increased across qualification levels[4], from an average score of 49.1 for those with no qualifications, to an average score of 52.1 for those with qualifications at degree level or higher. Chart 2 shows the distribution of mental well-being by qualification level: a higher proportion of people with no qualifications fall into the quartile of lowest well-being, than do people with a degree level or higher qualification[5].

Chart 2: People in quartiles of mental well-being by highest qualification



Material deprivation[6] – Those in material deprivation had markedly lower mental well-being (average score of 45.0) than those not in material deprivation (average score of 51.8). A higher proportion of people in material deprivation were in the lowest quartile of well-being (see Chart 3).

Chart 3: People in quartiles of mental well-being by material deprivation



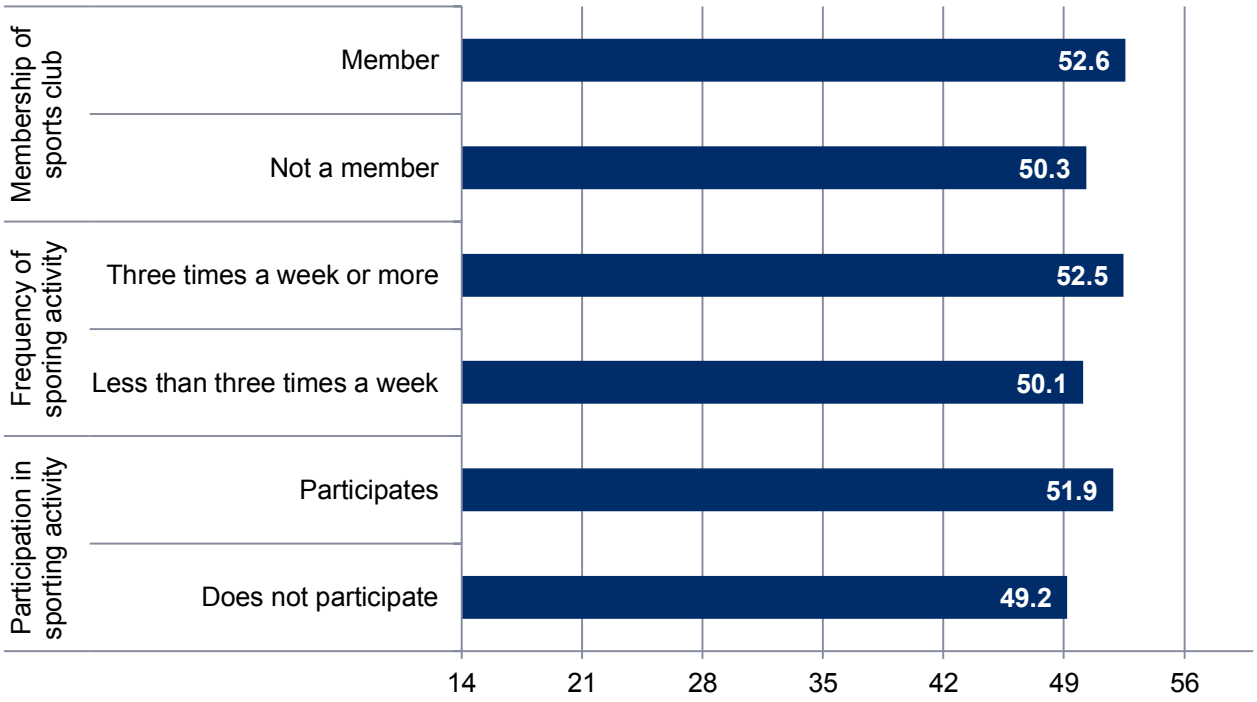
[4] Highest level of qualifications is grouped by the National Framework of Qualifications – see Terms and definitions.
[5] Each quartile represents a quarter of ranked well-being scores: Q4 (lowest well-being) is indicated by score of 16-46, Q3 by scores of 47-52, Q2 by scores of 53-57, and Q1 (highest well-being) is represented by scores of 58 or more.
[6] Material deprivation – see Terms and definitions.

Marital status – On average, people who were married or in a civil partnership had higher mental well-being (average score of 52.1), compared with those who were single, separated, divorced or widowed (average score of 49.6).

Religion - Those who reported having no religion had lower mental well-being than those who were Christian, or who had any other religion. The average mental well-being score was 49.9 for those without a religion, compared with 51.6 for those who were Christian and 52.0 for those reporting any other religion.

Participating in sport – Participating in any sporting activity was related to higher mental well-being when controlling for other factors. Those who participated in sporting activity had an average score of 51.9, compared with 49.2 for those who did not participate in any sporting activity. Similar associations with higher mental well-being were also present in descriptive analysis for being a member of a sports club, and participating in sporting activity more frequently, as shown in Chart 4. As with volunteering, the association between sport and mental well-being may operate in either direction or be due to some factor that we haven't measured.

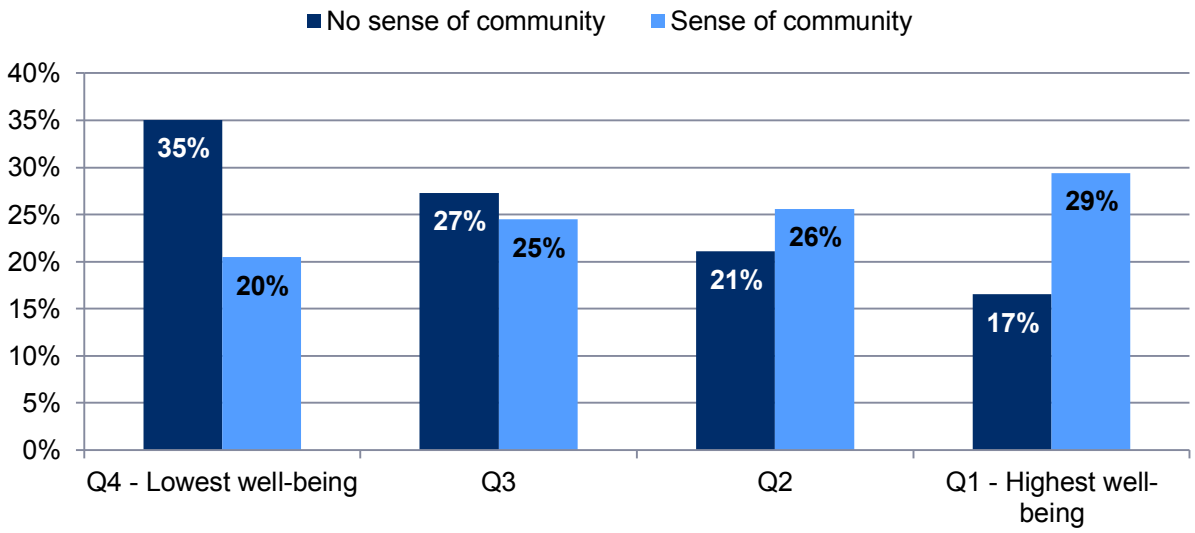
Chart 4: Average mental well-being score by sport club membership, frequency of activity and sport participation



Satisfaction with local area – People who were fairly satisfied or very satisfied with their local area as a place to live had better mental well-being. The average mental well-being score for those who were satisfied with their local area was 51.4, compared with 48.3 for those who were neither satisfied nor dissatisfied with the area and 46.9 for those who were dissatisfied. Satisfaction with the local area may contribute to positive mental well-being, or conversely higher mental well-being could be a factor in being satisfied with the local area as a place to live.

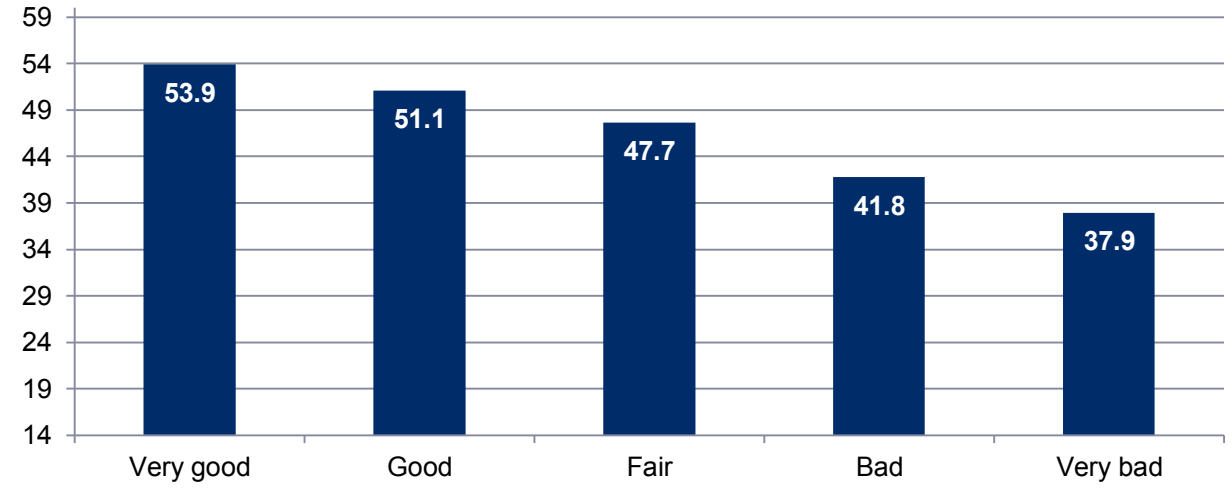
Sense of community[7] - When controlling for other factors, people who felt that they belonged to their local area, that people from different backgrounds got on well and that people treated each other with respect and consideration had higher mental well-being, with an average score of 52.7 compared with those who didn't feel the same about their community (average score of 49.0). Those who did not feel a strong sense of community had a higher proportion in the lower quartiles of mental well-being, and a lower percentage in the quartiles representative of the best well-being, as seen in Chart 5. Not having a sense of community may contribute to lower mental well-being, or lower mental well-being may hinder the development of a sense of community.

Chart 5: People in quartiles of mental well-being by sense of community



General health – Different dimensions of health are closely interlinked and this was reflected in the association of general health with mental well-being, as shown in Chart 6[8]. When controlling for other factors, being in good or very good health was related to a higher mental well-being score, compared with being in fair, bad or very bad health.

Chart 6: Average mental well-being score by general health



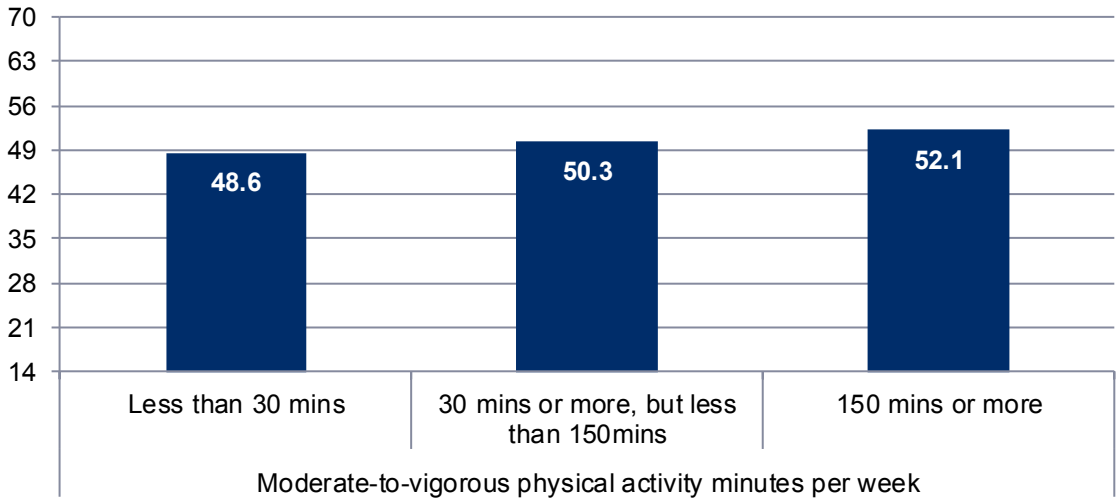
[7] Sense of community – see Terms and definitions.
[8] Figures in Chart 6 are slightly different from those in the previous report due to not being age-standardised.

Limiting long-term illness (LLTI) – People were asked whether they had conditions or illnesses, including mental illnesses, lasting or expecting to last for 12 months or more, and also whether any of their conditions or illnesses reduced their ability to carry-out day-to-day activities. People were defined as having a limiting long-term illness if they had such a condition.

Similar to the pattern found for general health, LLTI was also associated with mental well-being. The average mental well-being score for those with a LLTI was 47.4, compared with 52.4 for those without a LLTI. The direction of the relationship between LLTI and mental well-being could operate in either direction.

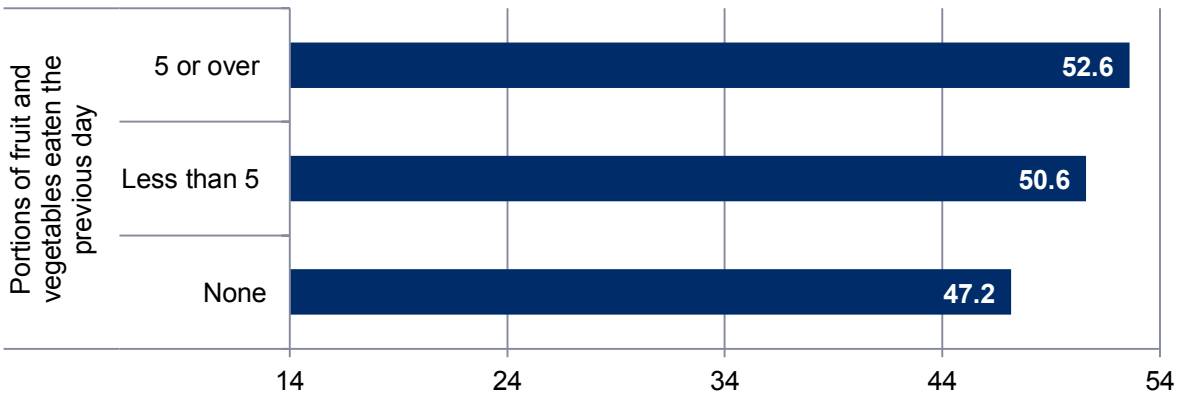
Physical activity – People who were physically active for more than two and a half hours a week, had better mental well-being than those who were less physically active. This association is shown in Chart 7 below, and is significant even after controlling for other characteristics.

Chart 7: Average mental well-being score by physical activity.



Fruit and vegetables consumption – People who reported that they had eaten five or more portions of fruit and vegetables the previous day had higher well-being than those who had not met the 5-a-day target. The average mental well-being score of those who had eaten five or more portions of fruit and vegetables was 52.6, compared with 50.3 for those who had not. There was a noticeable decrease in mental well-being for those who said they had not eaten any fruit or vegetables the day before interview, as shown in Chart 8.

Chart 8: Average mental well-being score by fruit and vegetable consumption



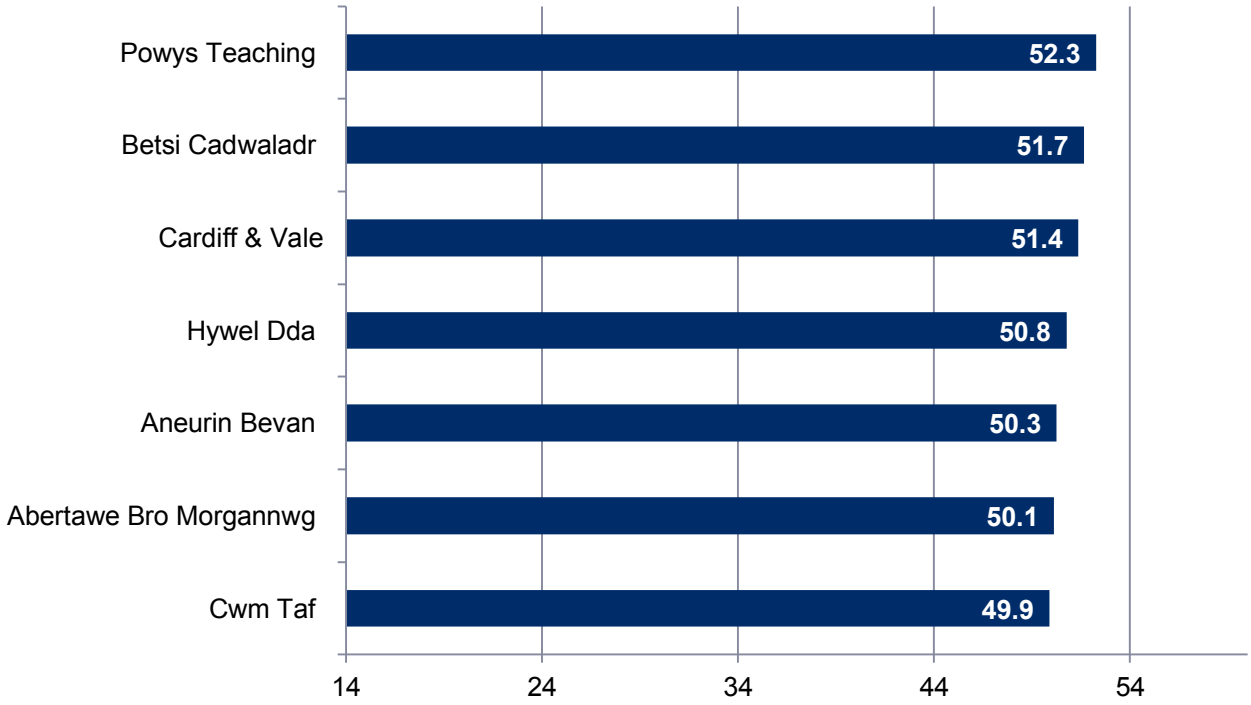
Alcohol consumption – The difference in the average mental well-being of those who did not usually drink alcohol (49.9), those who usually drank within the alcohol guidelines (51.1) and those who usually drank above the guidelines (50.9) did not appear to be significant when looking at cross-tabulations. However when other characteristics were controlled for, those who did not usually drink had significantly better mental wellbeing, when compared with those who usually drank (within and above guidelines).

Young children in the home – People in households containing children younger than five years old had an average mental wellbeing score of 51.1, compared with 50.8 for those who didn't. Looking at cross-tabulations this doesn't appear to be a significant difference; however when other characteristics were controlled for, people in households containing children younger than five years old were found to have significantly better mental wellbeing, when compared with those who didn't.

Characteristics not found to be associated with mental wellbeing

A number of other variables displayed relationships with mental well-being when using simple analysis, but when controlling for the other characteristics, they were found **not** to have a significant relationship. For example, the **local health board** that the respondents lived in. Chart 9, shows that average mental well-being scores was lowest for those who lived in Cwm Taf local health board and highest for those in Powys. However, our in-depth analysis found that the local health board area was not associated with mental well-being once factors other than the health board area were controlled for. This means that the differences in well-being scores between the areas are better explained by the characteristics of people who live in these areas.

Chart 9: Average mental well-being score by health board[9]



[9] Figures in Chart 9 are slightly different from those in the previous bulletin as these results are not age-standardised.

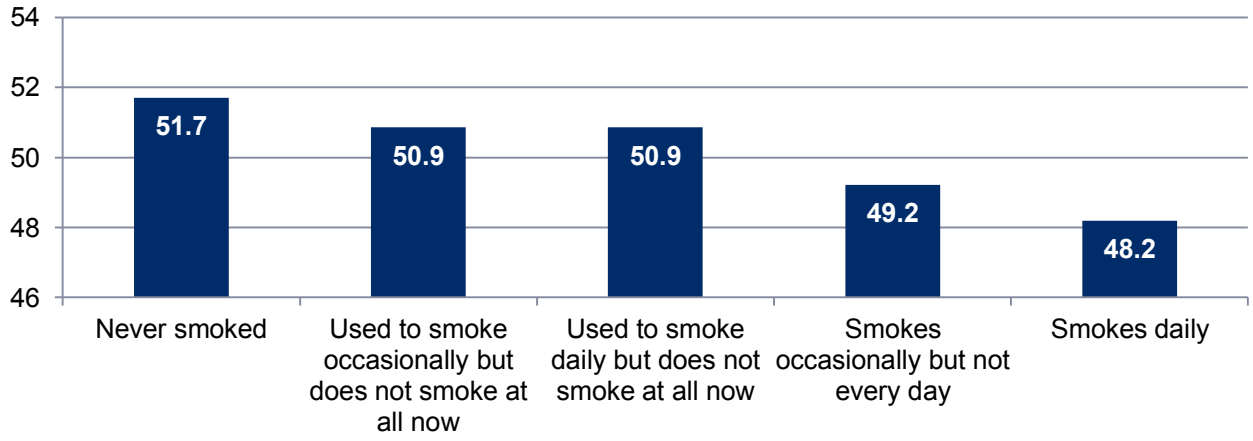
Healthy lifestyle behaviours - smoking and weight

A number of healthy lifestyle behaviours (not drinking alcohol, being physically active and eating five or more portions of fruit and vegetables a day) were found to be associated with mental well-being after controlling for other factors.

However, **smoking** and being a **healthy weight** were **not** found to be associated with mental well-being after controlling for other factors, as discussed below.

Smoking – Cross tabulations suggested that higher mental wellbeing scores were seen in non-smokers. Chart 10 below shows the decrease in mental well-being according to smoking status. Smokers had poorer mental well-being (average score of 48.4), compared to both ex-smokers (50.9) and those who had never smoked (51.7).

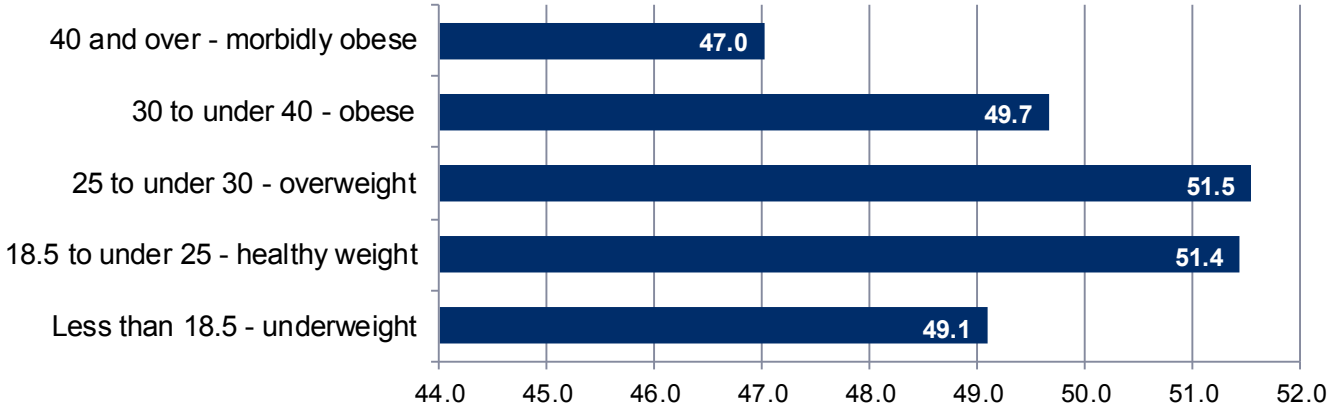
Chart 10: Average mental well-being score by smoking status



A previous bulletin[10] also looked at the relationship between mental well-being and smoking when controlling for age but not other factors, which also appeared to show a relationship between smoking status and mental well-being. However, when we tested whether smoking had a separate effect on mental well-being when controlling for other factors, no relationship was identified once other factors (demographic, socioeconomic and health variables) were controlled for.

Weight – Simple analysis suggested that those who were overweight or obese and those who were underweight had lower average mental wellbeing scores as shown in chart 11.

Chart 11: Average mental well-being score by weight (measured by BMI)



[10] National Survey for Wales, 2016-17: Mental Wellbeing.

However, once more, when we tested whether people's weight had a separate effect on mental well-being when controlling for other factors, no relationship was identified.

Other characteristics not found to be associated with mental wellbeing

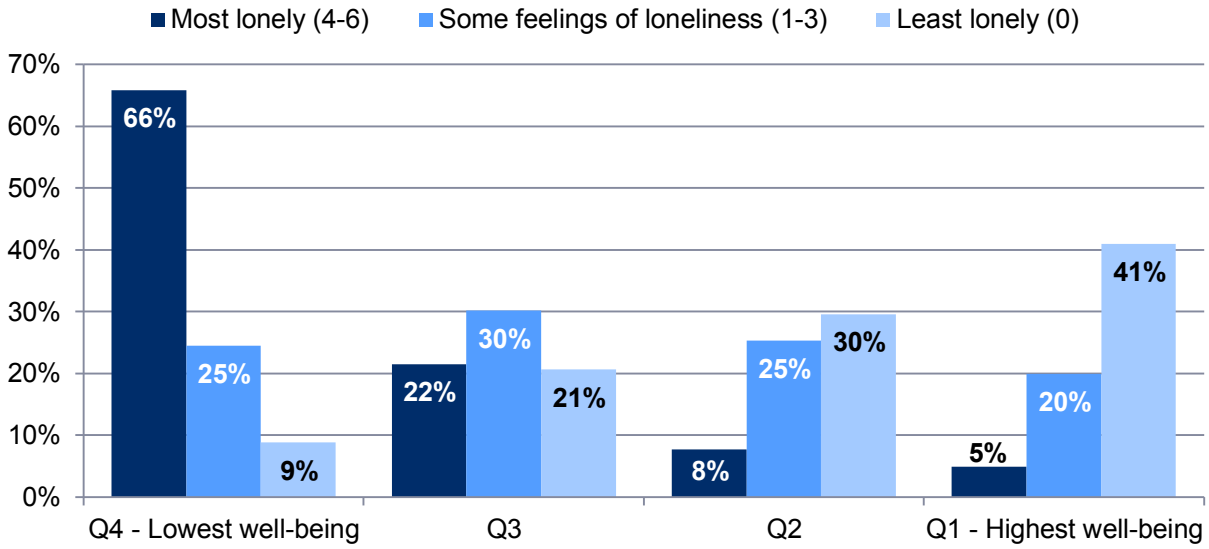
When controlling for the other factors above, characteristics that did **not** have a link with mental well-being were: **household type, economic status, tenure, speaking Welsh** daily**,** whether the area they lived in was **urban or rural,** and the level of local **area deprivation**. All of these factors displayed relationships with mental well-being in descriptive analysis. However, in our in-depth analysis other characteristics were found to better explain their relationships to mental well-being, which demonstrates the usefulness of carrying out the in-depth analysis.

Loneliness and subjective well-being

Loneliness and subjective well-being have a very strong relationship with mental well-being. There is an overlap between the constructs of mental well-being, loneliness, and some other aspects of well-being (satisfaction with life, feeling that things in life are worthwhile, happiness and anxiousness). Because of this, the analysis presented here does not control for loneliness and subjective well-being. These factors would have dominated the analysis, making it more difficult to identify the other characteristics that were associated with mental well-being.

Loneliness[11] - Those who were the most lonely had the lowest mental well-being, with an average score of 42.3, compared with 51.2 for those experiencing some feelings of loneliness and 55.8 for those who were least lonely. The relationship between loneliness and mental well-being is stronger than other demographic or social factors such as age or feeling a sense of community. Chart 12 demonstrates how the distribution of mental well-being changes by degree of loneliness; for the loneliest people, a greater proportion fall into the quartiles of lowest mental well-being.

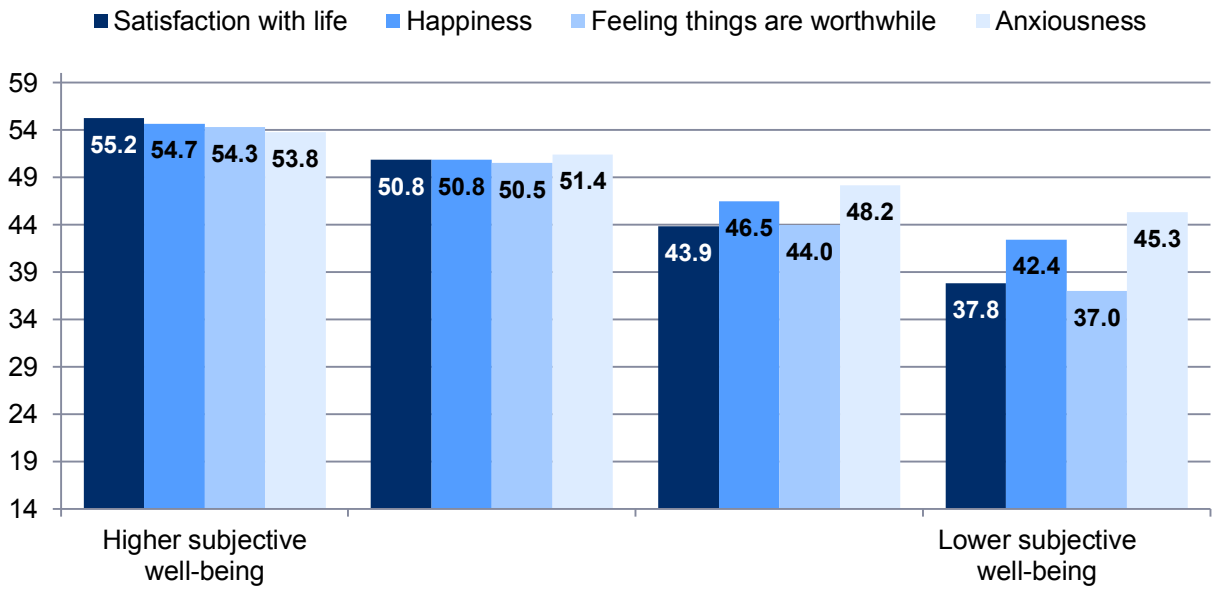
Chart 12: People in quartiles of mental well-being by loneliness



[11] Loneliness was measured using the De Jong Gierveld loneliness scale, which scores loneliness on a scale of 0 to 6, from least to most lonely. In this bulletin scores 4 to 6 were taken to indicate loneliness – see Terms and definitions.

Subjective well-being - Mental well-being is highly correlated with other dimensions of well-being, particularly other subjective evaluations of circumstance and feeling. People responding to the National Survey were asked a series of questions about subjective well-being[12], relating to satisfaction with life, feeling that things done in life are worthwhile, happiness and anxiousness. Lower subjective well-being was related to lower mental well-being across all these dimensions, as presented in Chart 13.

Chart 13: Average mental well-being score by subjective well-being



Health and care services

For policies such as Together for Mental Health and under the Social Services and Well-being (Wales) Act, supporting and promoting the well-being of those who access and use health and social services is an important outcome. In the National Survey for Wales during 2016-17, people were asked about their use of GP services, hospitals and of social care. The next section looks at the relationship between mental well-being and health and care service use, however it does not control for other factors which may influence mental well-being (such as age, health status and material deprivation), and so any association may result from other factors such as these.

GP services

People were asked about whether they had seen a GP or family doctor about their own health over the previous 12 months. Those who didn't need to see a GP had higher mental well-being (average score of 52.5) than those who had seen a GP (average score of 50.4).

Those who had seen a GP in the last 12 months were asked about their experience at their last visit. Mental well-being was highest for those who were very or fairly satisfied with the care they received. Those who were satisfied had an average mental well-being score of 50.8, compared with 48.0 for those who were dissatisfied, or neither satisfied nor dissatisfied. People were also asked whether they felt they were treated with dignity and respect the last time they had seen a GP. Those who did not agree they were treated with dignity and respect had lower mental well-

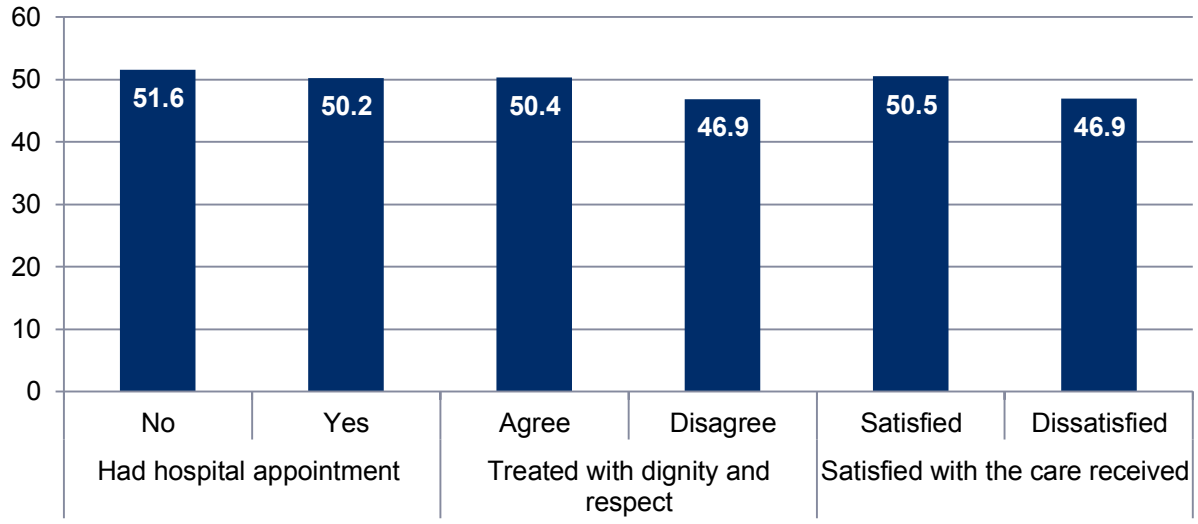
[12] See Terms and definitions for more information on the well-being measures.

being than those who agreed. Of course, it is not possible from the survey results to say that lower mental well-being leads to lower satisfaction nor vice versa. These results do not imply any causality. Other factors such as age, health status and material deprivation have not been controlled for here, so any association may result from other factors such as these.

Hospitals

People who had had an appointment at an NHS hospital in the previous 12 months had lower well-being (average mental well-being score of 50.2) than those who had not had an appointment (51.6). For people who had had an appointment at a hospital, those who felt more dissatisfied with the care they received, and those who did not agree that they were treated with dignity and respect had lower mental well-being, as shown in Chart 14. Again, these results do not imply any causality; any association may be due to other factors such as age, health status and material deprivation, which have not been controlled for.

Chart 14: Average mental well-being score by hospital appointments and experiences



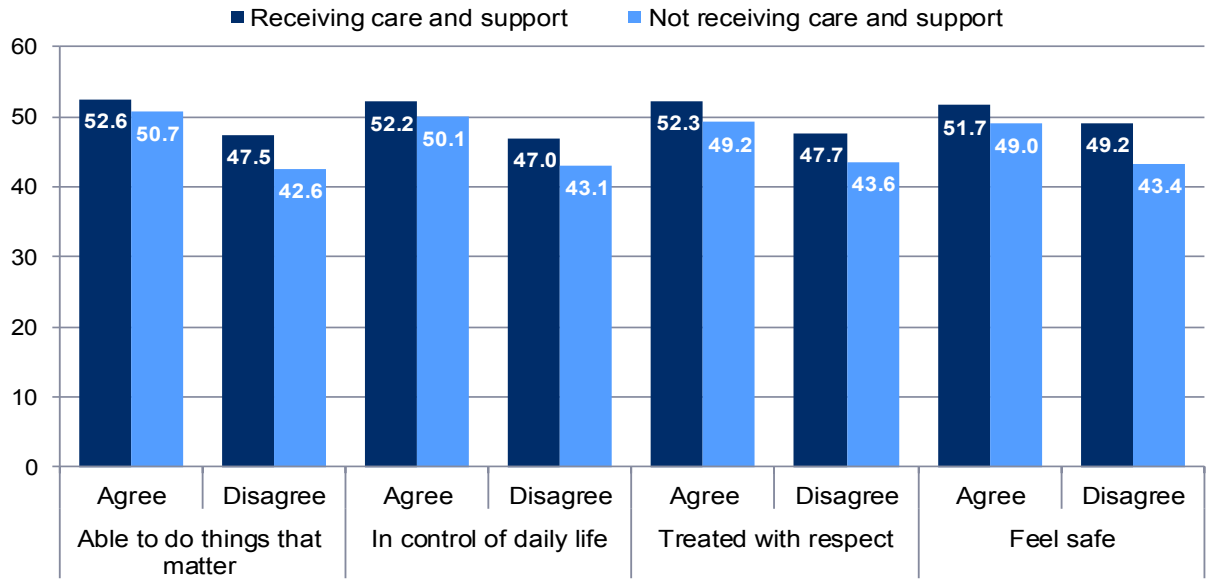
It should be noted that a large majority of people were satisfied with their care for both GP services (90%) and hospitals (91%) and felt that they were treated with dignity and respect (96% agreed for both GP services and hospital services).

Social care services

People who reported receiving help for themselves from care and support services in Wales in the previous 12 months had lower mental well-being, with an average score of 47.7 compared with 51.0 for those who had not received any help from care and support services.

People were asked about their agreement with a series of statements that related to the well-being interests of those who received care from care and support services for themselves as a ‘user’ or as a ‘carer’. Social care ‘users’ had lower scores than non-users and disagreeing with the statements made more of a difference for social care users (see Chart 15). Again, other factors such as age, health status and material deprivation have not been controlled for here, so any association may results from other factors such as these.

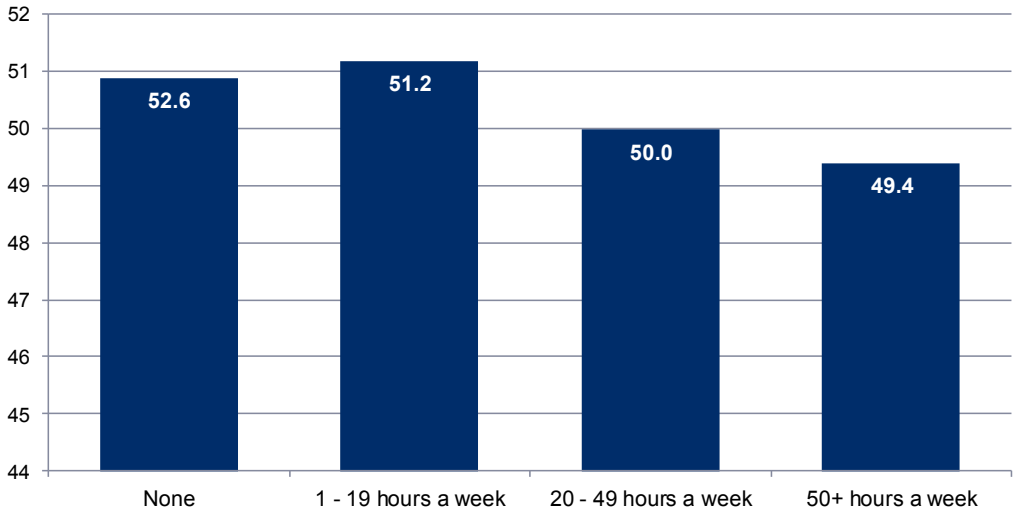
Chart 15: Average mental well-being score by well-being statements and use of care and support services



There was no difference found in the mental well-being of those who received help from care and support services as a 'carer' and those who didn't.

The National Survey also identifies carers as those who said that they looked after, or gave help and support to family members, friends, neighbours or others because of long-term physical or mental ill-health or disability, or problems related to old age. Whilst there was no significant difference found in the mental well-being of those who were carers and those who weren't, when looking at how much time people reported spending giving care, those spending 50 hours or more a week reported poorer mental well-being, when compared with those who spent less than 20 hours a week caring. This is shown in Chart 16.

Chart 16: Average mental well-being score by hours of care provided



Again, other factors such as age, health status and material deprivation have not been controlled for here.

Terms and definitions

Mental well-being (WEMWBS)

The Warwick-Edinburgh Mental Well-being Scale is a standard scale composed of 14 questions designed to measure respondents' mental well-being. These questions were not asked by the interviewer, respondents were provided with a laptop in order to answer these sensitive questions themselves. The statements covered both "feeling" and "functioning" aspects of well-being.

Respondents were shown the following statements and asked how often they experienced these feelings over the previous 2 weeks

- 'I've been feeling optimistic about the future'
- 'I've been feeling useful'
- 'I've been feeling relaxed'
- 'I've been feeling interested in other people'
- 'I've had energy to spare'
- 'I've been dealing with problems well'
- 'I've been thinking clearly'
- 'I've been feeling good about myself'
- 'I've been feeling close to other people'
- 'I've been feeling confident'
- 'I've been able to make up my own mind about things'
- 'I've been feeling loved'
- 'I've been interested in new things'
- 'I've been feeling cheerful'

These questions have 5 responses, and corresponding scores:

1. None of the time
2. Rarely
3. Some of the time
4. Often
5. All of the time

Scores from the 14 questions are combined to give an overall score ranging from 14 to 70, where higher scores suggest higher mental well-being.

Sense of community

Respondents were asked to respond to what extent they agreed or disagreed with the following statements:

- 'I belong to my local area.'
- 'This local area is a place where people from different backgrounds get on well together.'
- 'People in my local area treat each other with respect and consideration.'

Responses were combined, with those agreeing to all three statements deemed as having a sense of community.

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.

In this bulletin the non-pensioner and pensioner measures of deprivation are combined to provide an 'adult' deprivation variable. The terms 'adult' and 'household' deprivation may be used interchangeably depending on context.

Qualifications

Respondents' highest qualifications have been grouped according to the National Qualification Framework (NQF) levels, where level 1 is the lowest level of qualifications and level 8 is doctoral degree or equivalent. For the National Survey respondents have been grouped into 5 categories, those with no qualifications are in the lowest category and respondents with qualifications at levels 4 to 8 have been grouped together in the highest qualification category. More information about the NQF levels.

To provide more meaningful descriptions of the qualifications, these short descriptions have been used in this bulletin.

National Qualification Framework levels	Description used in bulletin
NQF levels 4-8	Degree level or higher
NQF level 3	'A' level and equivalent
NQF level 2	GCSE grades A to C and equivalent
Below NQF level 2	GCSE below grade C
No Qualifications	No Qualifications

Subjective well-being

Respondents were asked to reply to a series of questions concerning their feelings on aspects of their lives, scoring their responses on scales of 0 to 10, where 0 indicates 'not at all' and 10 represents 'completely'. The following four questions were asked:

- 'Overall, how satisfied are you with your life nowadays?'
- 'Overall, to what extent do you feel that the things you do in your life are worthwhile?'
- 'Overall, how happy did you feel yesterday?'
- 'Overall, how anxious did you feel yesterday?'

For life satisfaction, worthwhileness of life and happiness scales, scores 0-4 were classed as low, 5-6 as medium, 7-8 as high, and scores 9-10 as very high. For anxiety the scale was grouped so that scores 0-1 were classed as very low, scores 2-3 as low, 4-5 as medium and scores 6-10 as high levels of anxiety.

Loneliness

Various measures of loneliness can be used for data analysis purposes and in this bulletin we use the De Jong Gierveld six-point loneliness scale. This scale has three statements about emotional loneliness (EL) and three about social loneliness (SL).

1. 'I experience a general sense of emptiness' (EL)
2. 'I miss having people around' (EL)
3. 'I often feel rejected' (EL)
4. 'There are plenty of people I can rely on when I have problems' (SL)
5. 'There are many people I can trust completely' (SL)
6. 'There are enough people I feel close to' (SL)

The scale uses three response categories: **'Yes' / 'More or less' / 'No'** - where **'**Yes' and 'More or less' are scored as '1' on the negatively worded questions (in this instance, questions 1-3). On the positively worded items (questions 4-6), 'More or less' and 'No' are scored as '1'. This means that an answer of 'more or less' is given the same score as either 'yes' or 'no', depending on the question.

The scores for each individual question are added together to provide an overall loneliness measure. This gives a possible range of scores from 0 to 6, **where 0 is least lonely and 6 is most lonely**. For reporting purposes in this bulletin we have considered people who have a score of 4 to 6 as being lonely.

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 they reflect the age and sex distribution of the Wales.

Regression

After considering the survey results, factors we considered likely to have an influence on mental well-being were incorporated into multiple linear regression models. The final model 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’.

We are confident that the regression analysis presented here is valuable in understanding the drivers of mental well-being. It was helpful that a wide range of factors (e.g. demographic and health information) were available to use in this analysis. However regression findings do depend on which factors are considered in the regression model. 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 are available in the Technical Report: Approach to regression analysis and models produced.

Quality report

A Quality Report is available, containing more detailed information on the quality of the survey, which includes 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.

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 and this release includes results for the indicator: 'mean mental well-being score for people'. This indicator is discussed in the chapter entitled 'A healthier Wales' within the Well-being of Wales report.

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

As a national indicator under the Act they must be referred to in the analyses of local well-being produced by public services boards when they are analysing the state of economic, social, environmental and cultural well-being in their areas.

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/?tab=current

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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