



Public Health  
England

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PUBLIC HEALTH  
LIVERPOOL JOHN MOORES UNIVERSITY

# North West Mental Wellbeing Survey 2012/13

# About Public Health England

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

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# Key findings

## Across both survey years

- In general, mental wellbeing reduces as deprivation increases. However, respondents living in the second most deprived quintile reported significantly higher mental wellbeing than the North West average.
- Those in the younger age groups (those aged 16 to 24 and 25 to 39 years) reported higher levels of mental wellbeing compared with older groups. The lowest levels of wellbeing are found among those aged 40 to 54 years.

## Comparing 2012/13 with 2009

- There was no significant change in average mental wellbeing (as measured by mean WEMWBS score) across the North West between 2009 (27.70) and 2012/13 (27.66). The proportion of respondents in the 'low' and 'high' mental wellbeing categories fell slightly in the current survey, with more people shifting into the 'moderate' wellbeing group (2009, 62.8%; 2012/13, 64.3%).
- Life satisfaction has improved, with 10.5% more people reporting that they were satisfied with their lives than in 2009, a significant difference.<sup>i</sup>
- More people reported being in very good health in 2012/13 (18.2% more than 2009) and there was an improvement in overall health and social care needs, with the EQ-5D mean score increasing from 0.84 in 2009 to 0.87 in 2012/13 (a 3.8% increase) with many elements that make up EQ-5D seeing improvements.
- The proportion of people 'definitely' agreeing they have time to do the things they really enjoy fell by 9.1% (from 35.7% in 2009 to 32.5% in 2012/13).
- Neighbourhood belonging reduced significantly, with 12.7% fewer respondents saying they felt 'very strongly' that they belong to their immediate neighbourhood.
- The proportion of respondents who were current smokers has fallen from 29.8% in 2009 to 27.7% in 2012/13.
- The number of respondents who are meeting the physical activity standard has reduced from 30.4% in 2009 to 27.1% in 2012/13.
- There was an improvement in level of financial worry, with 16.4% fewer respondents feeling worried about money 'almost all of the time' during the last few weeks. However, 5.2% fewer respondents felt that they were living comfortably on their present income.
- The number of people reporting that they talk to neighbours on most days has fallen by 35.2%. Approximately 1 in 20 of those surveyed never talk to their neighbours.

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<sup>i</sup> Having scored 8, 9 or 10, where 1 is extremely dissatisfied and 10 is extremely satisfied.

The proportion of people who meet friends and family on most days has also declined from 53.9% in 2009 to 41.2% in 2012/13.

## 2012/13 results

- People with long-term conditions had a significantly lower level of mental wellbeing than average. Conditions most strongly associated with lower mental wellbeing include depression and anxiety, liver disease and stroke.
- In total 11.7% of respondents reported being financially better off than a year ago, while 29.8% stated that they were worse off.
- Social capital is linked to a range of outcomes, including mental health and wellbeing. Across the North West, 24.3% of respondents were classified as having high social capital while 28.4% had low levels of social capital. Those with high social capital have significantly higher mental wellbeing than those with low or moderate levels of social capital.

# 1. Introduction

In 2009, in response to the growing need to improve the population's mental wellbeing and understand more about the positive mental wellbeing of people in the region, the former North West Public Health Observatory (NWPHO)<sup>ii</sup> was commissioned to undertake the first *North West Mental Wellbeing Survey*.<sup>1</sup> The results from this survey provided a baseline measure of the region's mental health and wellbeing, as well as a description of the factors that influence wellbeing.

The baseline enabled the ongoing measurement of average mental wellbeing in the population over time and provided evidence for the commissioning and evaluation of local interventions and services. Since the first survey there has been an increase in the measurement of mental wellbeing outcomes locally. The survey has supported local joint strategic needs assessments (JSNA) and commissioning of interventions to improve mental wellbeing.

In 2012/13, a repeat of the survey was commissioned to provide updated local and regional data, and to allow comparison with the 2009 baseline. Some new questions were also included to gain further insight into current mental health and wellbeing across the region. In this report we present some of the key results from the 2012/13 survey along with a comparison with the 2009 results (where possible).<sup>iii</sup>

## 1.1 Why is measuring mental wellbeing important?

It is important to understand the difference between mental health and mental illness. Mental illness encompasses a broad range of mental health problems ranging from common mental disorders (CMDs) such as anxiety and depression to severe forms such as psychosis. At least one in four people will experience a mental health problem each year,<sup>2</sup> while results from the 2007 Adult Psychiatric Morbidity in England Survey revealed that one in six (17.6%) adults aged 16-64 years met the criteria for at least one common mental disorder.<sup>3</sup> Mental health, or mental wellbeing, is more than the absence of mental illness. It encompasses good mental functioning and how we think, feel and behave. The World Health Organization (WHO) defines mental health as:

*“a state of wellbeing in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.”<sup>4</sup>*

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<sup>ii</sup> NWPHO became part of the Public Health England Knowledge and Intelligence Team (North West) on 1 April 2013.

<sup>iii</sup> Ten questions from the 2009 survey were not repeated in 2012/13, while 22 new questions were added in 2012/13. Questions (29 in total) that are directly comparable with 2009 are highlighted in Appendix B.



Mental health and wellbeing focus on positive aspects of a person's attitude and situation that can support human flourishing (that is, being happy, healthy and prosperous).<sup>5</sup> Mental health and wellbeing can be promoted by participating in activities and being an active citizen.<sup>6</sup> Mental wellbeing has also been defined simply as feeling good and functioning well.<sup>7</sup> Feeling good incorporates positive emotions such as happiness and contentment but also interest, engagement, confidence and affection. Functioning effectively refers to the development of potential, having control over your life, having a sense of purpose and sharing positive relationships.

Improving positive mental health has become an increasingly important government priority over the last decade. In 2008, the Government Office for Science published a comprehensive report, *Mental Capital and Wellbeing: Making the most of ourselves in the 21st century*,<sup>8</sup> which detailed the best available evidence on the impact of mental capital and wellbeing on the healthy functioning of families, communities and society. Mental wellbeing is defined as:

*“a dynamic state, in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community”<sup>8</sup>*

The report concluded that high economic and social returns could be made by improving mental capital and wellbeing. The Government Office for Science suggests that by improving the average level of wellbeing, the percentage of people with mental disorders and those with low levels of wellbeing would decrease.<sup>8</sup> The increased focus on wellbeing has developed through health policies that have focussed on establishing standards and models for mental health delivery<sup>9</sup> and improving mental health.<sup>10</sup>

## 1.2 What is the current policy context?

The government strategy *No Health Without Mental Health*<sup>11</sup> aims to improve mental health. The strategy prioritises cross-government action to work with all sectors of the community in order that “more people will have good mental health”. The 2010 white paper *Healthy Lives, Healthy People*<sup>12</sup> also emphasises the centrality of mental wellbeing to physical health, healthy lifestyles and life expectancy. It aims to put “local communities at the heart of public health”<sup>p2,12</sup> by devolving power to local government. Local government will have more freedom, responsibility and funding to incentivise innovation and develop individual ways of improving public health. Both documents emphasise the need to improve mental health and reduce health inequalities.

The WHO *Commission on the Social Determinants of Health* calls for achieving health equity through a focus on the circumstances in which people grow, live, work and age.<sup>13</sup> Addressing the social determinants of health is difficult during good economic times<sup>14</sup>

but it is even more difficult during a recession. A 2012 literature review by the Institute for Health Equity evaluates the impact of the recession and welfare reforms on health inequalities.<sup>15</sup> The review highlights key challenges: rising unemployment, poorer working conditions, depressed incomes and an inability to pay for decent housing and basic needs. These challenges will impact on mental and physical health. Evidence from previous recessions details the link between economic recession and:

- higher numbers of suicides and fewer road traffic accidents<sup>16</sup>
- an increase in mental health problems, including depression and lower levels of wellbeing<sup>16</sup>
- more negative infectious disease outcomes
- possible negative long-term health effects<sup>17</sup>

The effects of a recession on health will not be shared equally. Inequalities in health, linked to socioeconomic group, level of education and geographic area are likely to increase after an economic crisis.<sup>18</sup>

The government has implemented a series of changes that will impact the commissioning and delivery of mental health services<sup>19</sup> and levels of mental health.<sup>20</sup> The three largest reforms are:

- changes to design, delivery and amount of welfare benefits
- changes to local government funding
- changes to the delivery of healthcare and the public health system in England

A report that investigated the experiences of general practitioners and health professionals in socioeconomically deprived areas in Scotland described the direct and indirect effects of the government's welfare reforms and cutbacks on vulnerable populations and individuals. It highlights a concern that patients are presenting with deteriorating mental health due to increased financial worries. Those in work are facing increasing stress in their job role due to cutbacks and/or increased job insecurity, while some may be taking on additional work or jobs. Those who have been deemed 'fit for work' and faced benefits cuts are struggling to make ends meet, increasing contact with GPs, increasing use of antidepressants and increasing self-medication with drugs and alcohol.<sup>20</sup>

Government policies and the extent of social protection can amplify or mitigate the negative health and inequality impacts of economic decline, particularly for the most vulnerable.<sup>21,22</sup> In 2012, the government announced £18 billion of welfare savings to be made as part of its austerity programme and has indicated that an additional £10 billion will need to be achieved by 2016.<sup>23</sup> Key aspects of welfare reform include a change in the assessment and delivery of welfare; a change in the amount of tax credits; a decrease in the amount of housing allowance; and a change to child benefits. The

welfare changes are likely to impact low-income households and vulnerable groups, including:

- workless households and households in more than 16 hours per week of low paid work
- households with children
- lone parents, more than 90% of whom are women
- larger families
- some ethnic minority households
- disabled people who are reassessed and considered ineligible for personal independence payment<sup>15</sup>

### 1.2.1 Local government and the promotion of wellbeing<sup>24</sup>

Local government expenditure is subject to severe real term cuts. Funding to local authorities will shrink significantly; therefore, the size of the pot available to spend on services will also be reduced. It is likely that the largest impact of such service reductions will be felt by people living in deprived areas because they rely most heavily on public services. The impact of the cuts on the poor and vulnerable will be determined by the extent to which services vital to their wellbeing are protected. At the same time as the government cuts, the NHS is being restructured. The Health and Social Care Act<sup>25</sup> transferred financial control over the purchasing of services from primary care trusts (PCTs) to general practice (GP) commissioners, grouped into clinical commissioning groups (CCGs).<sup>26</sup> In addition to changing the commissioning structure, the reforms shift the public health responsibility and funding from PCTs to local government, where public health funding will be ringfenced initially for two years.<sup>12</sup> The Health and Social Care Act also established health and wellbeing boards that are responsible for providing leadership to improve health and wellbeing across local authorities, achieving democratic legitimacy and accountability, addressing health inequalities and identifying key priorities for health and local government commissioning.<sup>27</sup>

### 1.2.2 Public health outcomes

In addition to these changes, as of 1 April 2013, public health services were transferred into the newly-established Public Health England (PHE). This new public health service aims to protect and improve the health and wellbeing of the population, and to reduce inequalities in health and wellbeing outcomes. One of the tools introduced to measure progress is the Public Health Outcomes Framework (PHOF)<sup>28</sup> which sets out a vision for public health along with outcomes and indicators that will benchmark success. The idea that it is not just how long we live, but how well we live forms the basis of this framework as reinforced by the two high level outcomes:

- an increase in healthy life expectancy
- reduced differences in life expectancy and healthy life between communities

The framework has four domains: improving the wider determinants of health; health improvement; health protection; and healthcare public health and preventing premature mortality. The health improvement domain focuses on actions to help people make healthy choices and lead healthier lifestyles. One of the indicators within this domain is self-reported wellbeing.<sup>28</sup> This indicator is being developed in line with the Office for National Statistics' (ONS) Measuring National Wellbeing Programme that aims to complement traditional measures of society with holistic views about how society is developing.<sup>29</sup> It will require repeated measurement utilising the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). Both the WEMWBS tool and four ONS subjective wellbeing questions<sup>iv</sup> were included in the *North West Mental Wellbeing Survey 2012/13*.

Detailed background information about the impacts and determinants of mental wellbeing can be found in Appendix A.

## 1.3 Measuring mental wellbeing

### 1.3.1 Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) is a tool that was developed to assess positive mental wellbeing via a 14-item scale. It has been validated for use in face-to-face interviews and showed good content validity.<sup>30</sup> The tool covers aspects of positive mental health that broadly involve perspectives on pleasure and happiness. These include:

- positive affect (feelings of optimism, cheerfulness, and relaxation)
- satisfying interpersonal relationships
- positive functioning (energy, clear thinking, self-acceptance, personal development, mastery and autonomy)<sup>31</sup>

A shorter, seven-item version has more recently been developed as a practical alternative to the full version of WEMWBS.<sup>32</sup> While the shorter version offers a more limited assessment of mental wellbeing, it has other advantages and has proved to be a valid and robust tool. This is the version used within the North West Mental Wellbeing Survey questionnaire.

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<sup>iv</sup> From April 2011, ONS introduced four subjective wellbeing questions on their household surveys, including the Annual Population Survey (the largest constituent survey of the Integrated Household Survey) and the Opinions Survey. For further information see: [www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html](http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html)

The seven-item WEMWBS (SWEMWBS) uses a five-point Likert scoring system, with responses ranging from 'none of the time' (1) through to 'all of the time' (5). A score is attributed to each response for each of the items in the scale. The score for each response is summed, thus a respondent can score between 7 and 35. If 'don't know' is selected then the respondent is excluded from analysis. The seven items are:

- I've been feeling optimistic about the future
- I've been feeling useful
- I've been feeling relaxed
- I've been dealing with problems well
- I've been thinking clearly
- I've been feeling close to other people
- I've been able to make up my own mind about things

## 2. Survey methodology

### 2.1 The questionnaire

The former North West Public Health Observatory designed and developed the 2012/13 North West Mental Wellbeing Survey questionnaire in collaboration with steering group members drawn from the local areas who commissioned the survey. The questionnaire includes the seven-item Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS, but referred to throughout this report as WEMWBS). In addition, the questionnaire asks about an individual's socioeconomic position, personal demographic information, lifestyle choices, financial situation, and social capital (a representation of community participation and sense of social cohesion). The questionnaire was based upon the 2009 version, with some questions removed or slightly amended (as a result of an evaluation of the original survey instrument), and new questions added based on areas of emerging interest. The full questionnaire, highlighted to show which questions were included across both survey years and which were new for 2012/13, is available in Appendix C.

### 2.2 Sampling

#### 2.2.1 Sample sizes and sampling method

Households were selected using a clustered random sample. The Post Office Address File (PAF) was the sampling frame as this provided an up to date list of all the households in the North West. Lower super output areas (LSOAs) were the primary sampling unit. An LSOA is the smallest geographic unit into which an area is divided, containing between 1,000 and 3,000 individuals and 400 and 1,200 households. The LSOAs were listed by quintile of deprivation from the Index of Multiple Deprivation 2010, and a random selection of LSOAs was made for each quintile in line with their proportion in the local authority/PCT area. Households were then selected at random within the selected LSOAs. Individuals within the household were then selected on the basis of the person next having a birthday.

A total of 11,500 face-to-face interviews were undertaken with a household member using computer assisted personal interviewing (CAPI).<sup>v</sup> The computers allow people to answer questions confidentially and anonymously and the survey was conducted within the Market Research Society's (MRS) Code of Conduct. Interviewers were given a letter to introduce the survey on the doorstep. This was signed by local directors of public

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<sup>v</sup> The former NWPFO commissioned MRUK research to undertake the interviews.

health and displayed local NHS logos (see Appendix B). Fieldwork was conducted between September 2012 and March 2013.

The sample size for each local area needed to be sufficiently large enough to be able to provide a useful analysis of the geography of interest for each of the questions in the survey. A 'regionally representative' sample was also commissioned to gather information from the seven local authority areas in the North West that did not commission a survey.

Sample calculations to obtain representative sample surveys at a local level suggested 500 would be a sufficient sample size for populations of around 200,000 with an assumption of proportion of 0.5 and a 4.4% confidence interval.<sup>vi</sup> That is, we could be confident that for any response value the true answer could be +/- 4.4% of what is reported, or we could be 95% confident that we can attribute any given response to a question as being true of the population.

Of the 18 areas that commissioned the survey, three opted to purchase additional 'boost' samples in order to compare subgroups of the population such as the most deprived populations.

Table 1 lists the areas and subareas sampled. Each commissioning area receives their own dataset to allow them to conduct further analysis.

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<sup>vi</sup> Calculations from [www.dssresearch.com/toolkit/spcalc/power\\_a2.asp](http://www.dssresearch.com/toolkit/spcalc/power_a2.asp)

**Table 1. Survey samples by area.**

Sample area	Sample coverage	Sample size	Total sample
Blackburn with Darwen	Across local authority area	500	500
Blackpool	Across local authority area	500	500
Central Lancashire	Across PCT area	500	500
Cheshire West and Chester	Across local authority area	500	500
Cheshire East	Across local authority area	500	500
Cumbria	West: Allerdale and Copeland districts	500	1,500
	South: Barrow-in-Furness and South Lakeland districts	500	
	East: Carlisle and Eden districts	500	
East Lancashire	Across PCT area	500	500
Halton	Across local authority area	500	500
Heywood, Middleton and Rochdale	Across PCT area	500	1,000
	3% most deprived SOAs	500	
Knowsley	Across local authority area	500	500
Liverpool	Across local authority area	500	500
Manchester	Across local authority area	500	500
North Lancashire	Across PCT area	500	500
Sefton	Across local authority area	500	500
St Helens	Across local authority area	500	500
Tameside and Glossop	Across PCT area	500	500
Warrington	Across local authority area	500	500
Wirral	Across local authority area	500	1,000
	Most deprived quintile	500	
Representative sample from non-participating areas	Ashton, Leigh and Wigan, Bolton, Bury, Oldham, Salford, Stockport, Trafford	500	500

## Notes:

- Across the Cheshire and Merseyside public health network area, samples were taken at local authority geographies as requested although the commissioning organisations were PCTs. In most cases, current local authority and former PCT geographies are coterminous. However, the former Halton and St Helens PCT area comprises two local authority areas (Halton and St Helens), therefore two samples were taken across the whole area. In addition, the former Central and Eastern Cheshire and Western Cheshire PCT areas are not an exact match to Cheshire East and Cheshire West and Chester local authority areas respectively – with Central and Eastern Cheshire PCT area covering a small part of Cheshire West and Chester local authority and Western Cheshire PCT area covering a small part of Cheshire East local authority.
- Elsewhere, the commissioning organisation in Manchester was Manchester City Council, therefore the sample coverage is listed as local authority area, but local authority and former PCT areas are coterminous. In the former Cumbria PCT area, three samples were taken (West, South and East), but these were also combined to provide overall results for the Cumbria PCT area as a whole.



## 2.2.2 Weighting and confidence limits

A weighting variable was added to the survey dataset to equalise the sample characteristics with population characteristics, so the resulting analysis more accurately reflects the population under study. Every respondent that has a valid gender, age group and national Index of Multiple Deprivation (IMD) 2010 quintile entered in the dataset was assigned a weighting value.

When performing analysis on the weighted dataset only the respondents that have been assigned a weighting variable were included in the analysis. This meant a loss of a small number of respondents (0.3%) from the dataset.

During analysis, when subgroups of the population were compared, 95% confidence intervals<sup>vii</sup> were applied to the results to indicate where there were 'significant' differences.

### Weighting calculation

- a three-way crosstab (gender, age group, IMD 2010 quintile) was produced for the North West region. This was obtained from lower super output area (LSOA) single year of age population estimates for 2010, which IMD 2010 quintiles had been matched with. The proportion of the total population that each cell represented was then calculated (for example, the proportion of the total population that males, aged 16-24 years, living in the least deprived quintile comprised)
- a three-way crosstab (gender, age group, IMD 2010 quintile) was also performed on the dataset. The proportion of the overall sample that each cell represented was then calculated
- for each subgroup (gender, age group, IMD 2010 quintile), the proportion of the population was divided by the proportion of the sample to produce weighting values

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<sup>vii</sup> Confidence intervals indicate the reliability of the survey results. Sample surveys are always subject to some error, but it is possible to be 95% confident that the true result for the particular population segment in question is within the confidence limits calculated. In other words, where one measure is 'significantly' higher or lower than another, we are 95% confident that this is not due to random error or chance.

## 3. Overall wellbeing

### 3.1 Distribution of WEMWBS scores

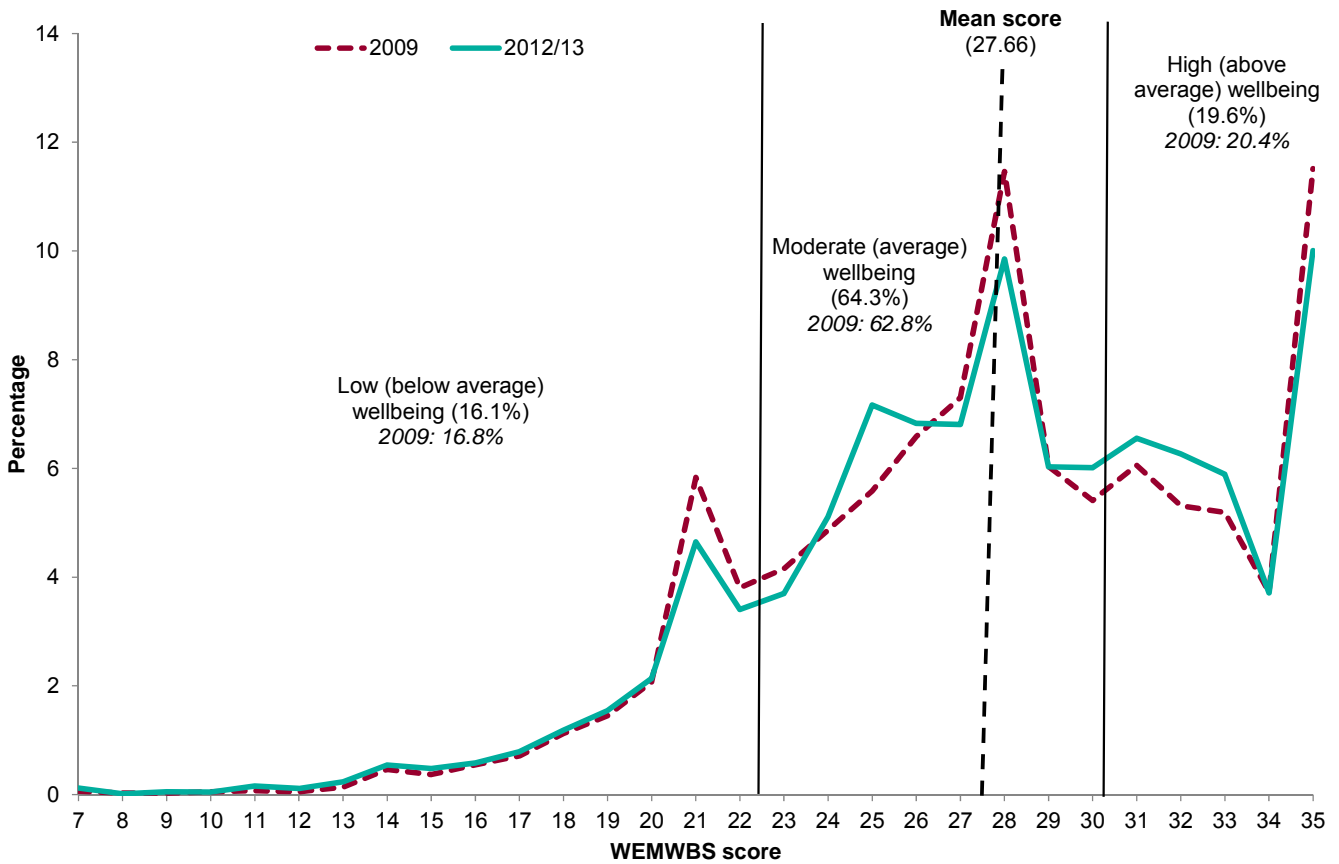
#### 3.1.1 North West

A total WEMWBS score for each respondent was calculated by summing their responses to the seven WEMWBS questions. The highest possible score is 35 and the lowest is 7. The distribution of scores from the 2012/13 survey is shown in Figure 1.

The mean score was 27.66 with a standard deviation of 5.04. Cut-off points were applied to the distribution to show high and low levels of wellbeing based on one standard deviation above or below the mean. The distribution is non-normal with a clear peak at 35. This type of distribution may indicate a ceiling effect. The ceiling effect is when responses cluster together at the upper end of a measurement instrument. It may be overcome by the extension of the scale. There is also the possibility that peaks repeated at multiples of 7 due to a blocking effect where respondents mark the same score for each item. The blocking effect is more pronounced on a seven-item scale than a fourteen-item scale.

Overall, the 2012/13 mean WEMWBS score (27.66) is slightly lower than that in 2009 (27.70), but this difference is not statistically significant. A larger proportion of the sample fell into the 'moderate wellbeing' category in 2012/13 (64.3%) than in 2009 (62.8%) with fewer people falling to the extremes of low (16.1%; 2009, 16.8%) and high mental wellbeing (19.6%; 2009, 20.4%) (Figure 1).

**Figure 1. Regional distribution of WEMWBS scores, 2009 and 2012/13.**



### 3.1.2 Local area

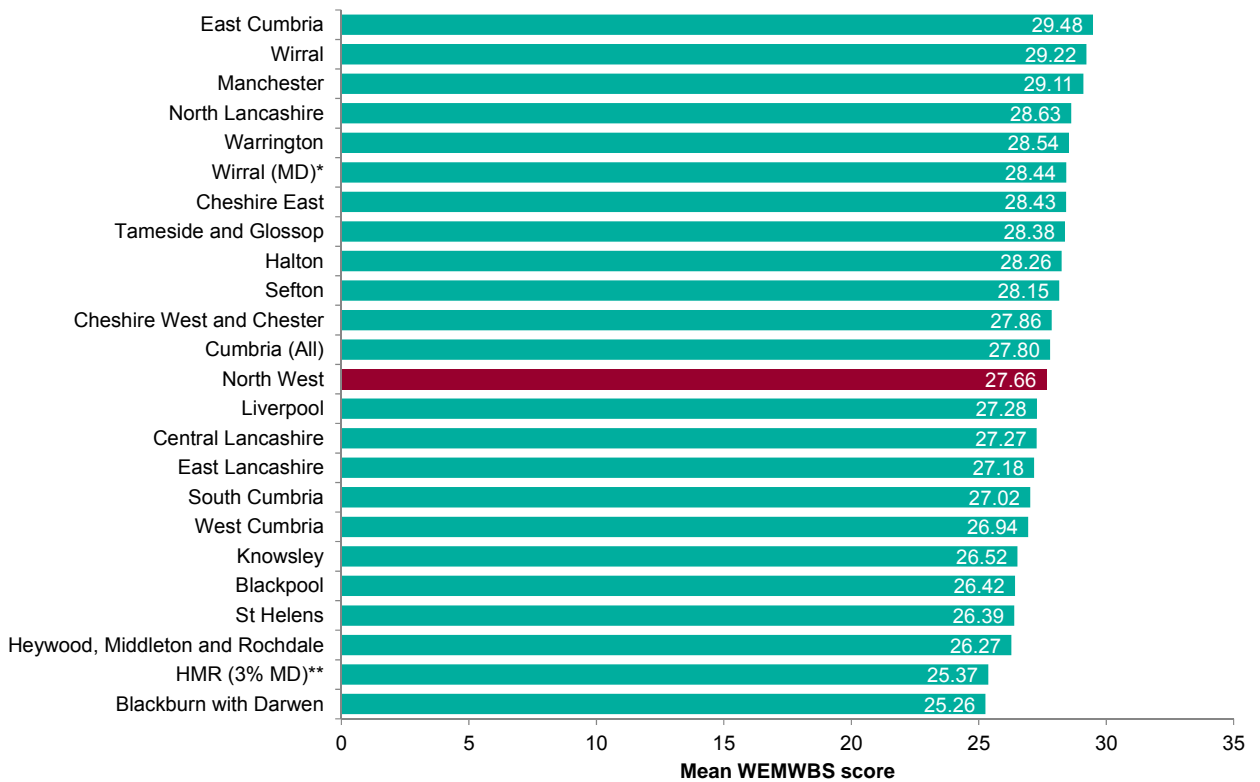
Local mean WEMWBS scores were calculated for the areas that participated in the survey. The values for 2012/13, along with the North West regional mean score, are shown in Figure 2a. The results from 2009 are shown in Figure 2b, while Figure 2c displays a comparison between the two survey years.<sup>viii</sup> As the distributions are non-normal it is not possible to perform statistical tests to infer which areas had significantly higher or lower scores than others. Areas with a sample of more than 500, however, will have a mean score with lower potential variation than those with a sample of 500. For this reason, suitable caution should be taken when interpreting the results. Local mean scores from 2009 have been included for reference. However, significance of these differences could not be provided.

As the survey uses the short (seven-item) version of WEMWBS, adjusted scores have also been generated in line with an internal construct validity study conducted by Stewart-Brown et al in 2009.<sup>32</sup> See Appendix D for further information.

<sup>viii</sup> In 2009, all samples were taken across PCT geographical areas, however in 2012/13 a number of samples were taken at local authority areas. Please see the explanatory notes on page 16 and page 22.

An alternative way to compare wellbeing levels in local areas is to assess the proportions of the population that have low, moderate or high mental wellbeing according to the North West cut-offs (Figure 3). This provides further insight into local areas, as local distribution of scores can be different and therefore can pull the mean score one way or the other. For example, in 2012/13 Manchester has the third highest mean score across the areas, but the seventh lowest proportion of people with high mental wellbeing. This is because a higher than average proportion of those surveyed in Manchester had a moderate level of mental wellbeing.

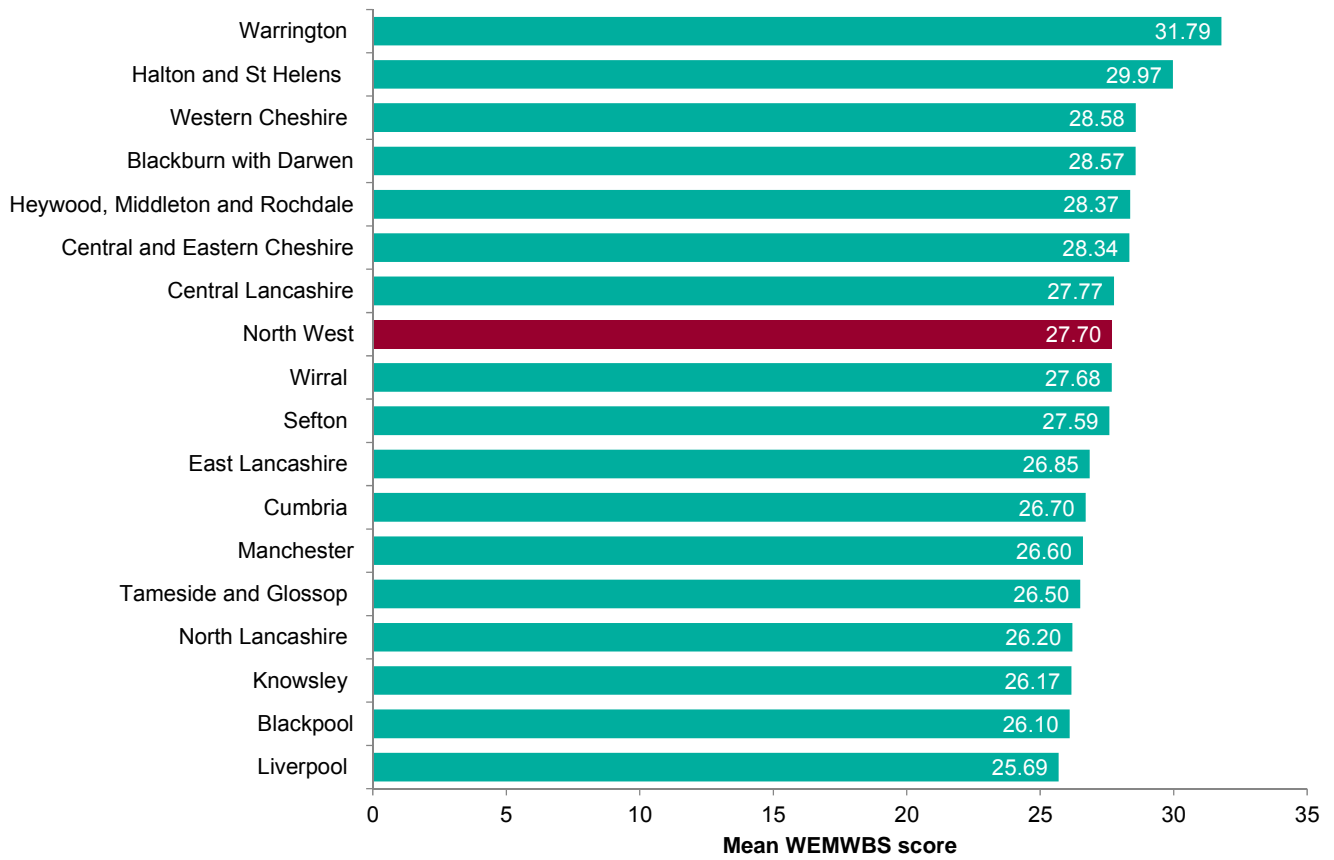
**Figure 2a. Mean WEMWBS scores, local areas. North West, 2012/13.**



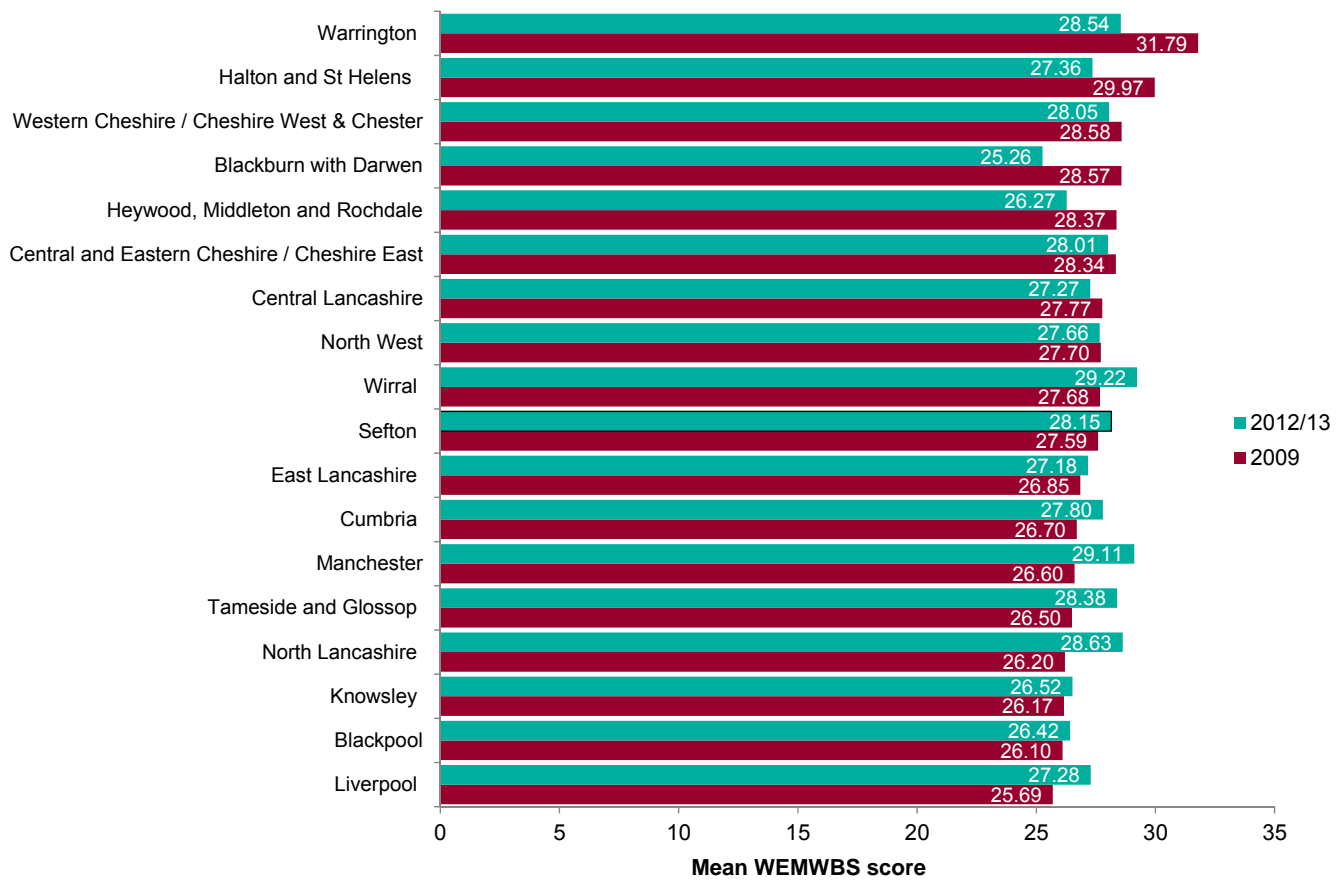
\*Wirral boost sample, most deprived quintile

\*\*Heywood, Middleton and Rochdale, boost sample of 3% most deprived LSOAs

**Figure 2b. Mean WEMWBS scores, North West PCT areas, 2009.**



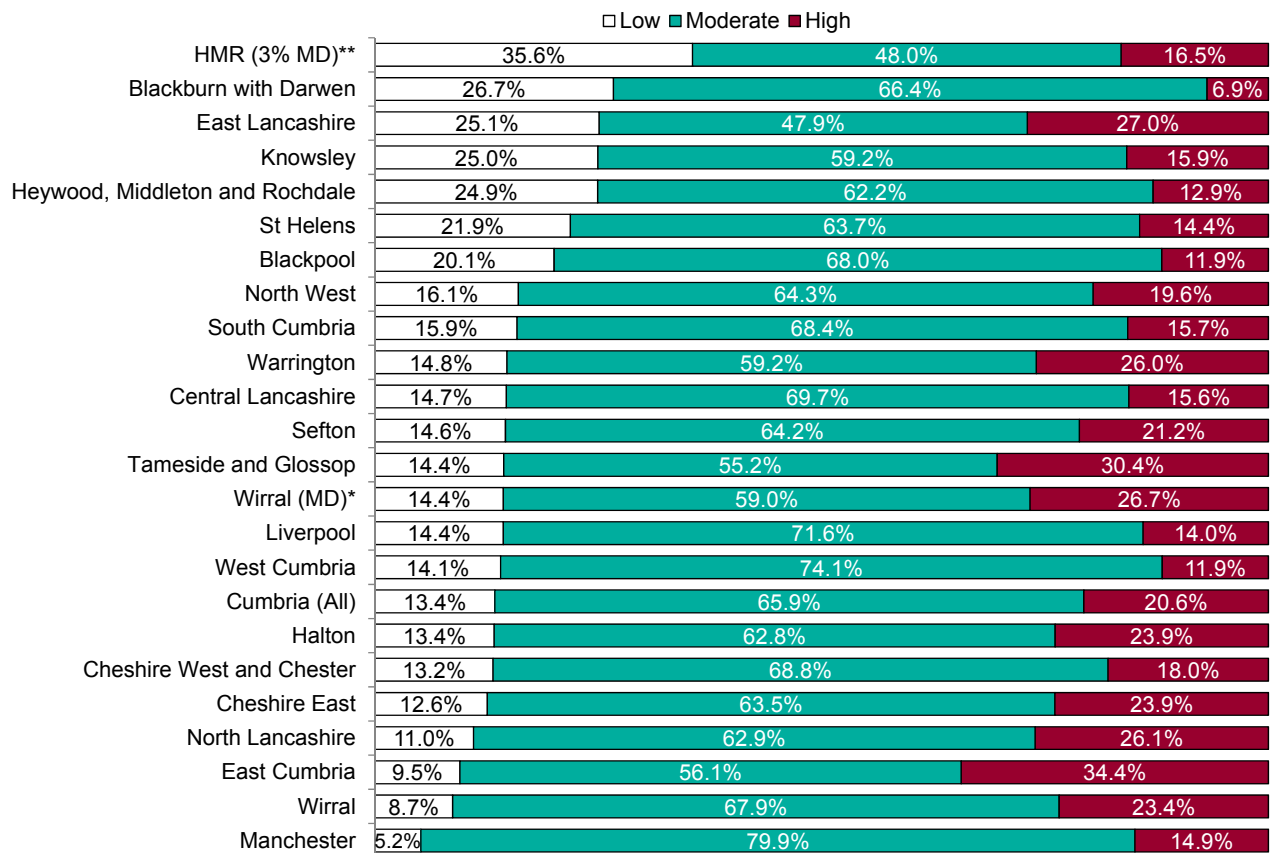
**Figure 2c. Mean WEMWBS scores, comparison of 2009 and 2012/13 local area results.**



**Note:**

- Please see explanatory notes on page 16. To enable comparisons, we combined the local authority samples for Halton and St Helens local authorities in 2012/13 so a comparison against the 2009 results for the Halton and St Helens PCT area could be made. We were unable to adjust the sample area in either survey for Central and Eastern Cheshire PCT (2009) / Cheshire East local authority (2012/13) and Western Cheshire PCT (2009) / Cheshire West and Chester local authority (2012/13), so small geographical discrepancies between these areas remain.

**Figure 3. Proportion of respondents with low, moderate or high mental wellbeing by local areas. North West, 2012/13.**



\*Wirral boost sample, most deprived quintile

\*\*Heywood, Middleton and Rochdale, boost sample of 3% most deprived LSOAs

## 4. Comparative analysis with 2009 baseline

### 4.1 General linear modelling

Differences in the two key outcome measures from this survey, mean WEMWBS score and mean life satisfaction score, were examined using general linear modelling (GLM).<sup>ix</sup> This allowed us to determine significant changes from 2009 and 2012/13 by accounting for differences in the sampled population, in this case age, gender, ethnicity and Index of Multiple Deprivation. Please note that these values are unweighted, therefore do not match the mean values quoted elsewhere in this or the previous (2009) report.

The results of this analysis revealed no significant difference in mean WEMWBS score from 2009 to 2012/13 [28.25; 28.21, NS] (Table 2), therefore we are able to say that there was no significant change in wellbeing between the two surveys.

However, when examining life satisfaction, the mean score was significantly lower in 2009 than in 2012/13 [7.69; 8.01  $p < 0.001$ ]; therefore, people were reporting to be more satisfied with life in 2012/13 than in 2009.

**Table 2. Generalised linear modelling results for mean WEMWBS and mean life satisfaction scores across 2009 and 2012/13.**

Outcome variable	Survey year	Mean score	95% Confidence intervals		P value
			Lower	Upper	
WEMWBS	2009	28.25	28.10	28.39	NS
	2012/13	28.21	28.05	28.37	~
Life satisfaction	2009	7.69	7.63	7.74	<0.001
	2012/13	8.01	7.95	8.07	~

<sup>ix</sup> Analysis conducted in SPSS version 18.



## 4.2 Comparing key results

Responses to key questions from the surveys undertaken in 2009 and 2012/13 and the percentage difference between the two are shown in Table 3. To determine whether results from 2012/13 were significantly different from those in 2009, confidence intervals were examined to see whether they overlapped. Those with no overlap were either significantly higher or lower than in 2009. Depending on the question, a significantly higher or lower value may be considered significantly better, worse, or just different (neutral) than in the 2009 survey. Caution should be taken when making comparisons between the two survey years, as confounding factors have not been accounted for. The percentage difference cells have been coloured to reflect whether a value is significantly better or worse than in 2009. Where no judgement can be made as to whether a significantly different value is better or worse, a neutral (amber) colour has been applied.

### Key to percentage differences cells.

Cell format	Definition	Number
	Significantly better	23
	Significantly worse	19
	Significantly different/neutral	4
	No significant difference	31
~	No comparison possible	54

Some key findings when examining the percentage change from 2009 to 2012/13 were:

- life satisfaction has improved, with significantly more people (an increase of 10.5%) reporting that they were satisfied with their lives<sup>x</sup>
- over 18.2% more people reported being in very good health
- sense of belonging has declined with 12.7% fewer respondents feeling very strongly that they belong to their immediate neighbourhood
- the number of respondents who were current smokers has fallen by 7.1%<sup>xi</sup>
- the proportion of respondents meeting the physical activity fell by 11.0%
- there was an improvement in financial worry, with over 16.4% fewer respondents feeling worried about money almost all of the time during the last few weeks
- the number of people reporting that they talk to neighbours on most days has fallen by 35.2%
- compared with 2009, 4.7% fewer respondents have lived in the local area for ten years or more

<sup>x</sup> Those who gave a response score of 8, 9 or 10 where 1 is extremely dissatisfied and 10 is extremely satisfied.

<sup>xi</sup> Please note that in 2009 'current smoker' status was based on responses to three questions, while in 2012/13 smoking status has been determined based on a single question.

Table 3 also presents the 2012/13 results by different levels of mental wellbeing. For example, in row 1 it is reported that overall in 2012/13, 37.4% of respondents reported having very good health. However, 14.8% of those with low mental wellbeing had very good health, compared with 36.8% of those with moderate mental wellbeing and 57.7% of those with high mental wellbeing.

**Table 3. Key survey results by levels of mental wellbeing.**

		2009	2012/13	% change 2009 to 2012/13	Results by level of wellbeing 2012/13		
					Low	Moderate	High
<b>Health (physical and mental)</b>							
1	How is your health in general?: Very good	31.6%	37.4%	+18.2%	14.8%	36.8%	57.7%
2	How is your health in general?: Bad	6.3%	5.3%	-16.0%	12.4%	4.5%	2.0%
3	How is your health in general?: Very bad	1.6%	2.0%	+23.3%	7.0%	1.2%	0.4%
4	Mobility: No problems in walking about	80.7%	83.4%	+3.3%	70.9%	84.1%	91.1%
5	Mobility: I am confined to bed	0.2%	0.1%	-35.5%	0.3%	0.1%	0.0%
6	Self-care: I have no problems with self-care	95.1%	95.2%	+0.1%	87.6%	96.1%	98.6%
7	Self-care: I am unable to wash or dress myself	0.4%	0.2%	-42.1%	0.8%	0.2%	0.0%
8	Usual activities: I have no problems with performing my usual activities	83.7%	86.1%	+2.8%	72.4%	87.2%	93.5%
9	Usual activities: I am unable to perform my usual activities	1.7%	1.4%	-16.7%	4.0%	1.1%	0.5%
10	Pain/discomfort: I have no pain or discomfort	70.6%	74.3%	+5.2%	59.9%	74.7%	84.6%
11	Pain/discomfort: I have extreme pain or discomfort	6.7%	4.1%	-38.4%	9.2%	3.4%	2.3%
12	Anxiety/depression: I am not anxious or depressed	81.8%	84.5%	+3.3%	57.0%	87.7%	96.5%
13	Anxiety/depression: I am extremely anxious or depressed	3.5%	2.8%	-18.7%	12.0%	1.3%	0.4%
14	EQ-5D mean score	0.84	0.87	+3.8%	0.73	0.89	0.94
15	Happiness score: happy (those that gave a score of 7, 8, 9 or 10 where 1 = not at all happy and 10 = completely happy)	n/a	81.0%	~	49.9%	84.7%	94.4%
16	Happiness mean score (where 1 = not at all happy and 10 = completely happy)	n/a	7.89	~	6.13	8.01	8.93
17	Anxiousness score: anxious (those that gave a score of between 4 and 10 where 1 = not at all anxious and 10 = completely anxious)	n/a	25.3%	~	55.2%	22.4%	10.1%
18	Anxiousness mean score (where 1 = not at all anxious and 10 = completely anxious)	n/a	2.66	~	4.41	2.50	1.77
19	Been told by a doctor or nurse that you have high blood pressure (hypertension)	n/a	19.4%	~	24.0%	19.3%	16.2%
20	Been told by a doctor or nurse that you have angina	n/a	3.7%	~	5.9%	3.6%	1.9%
21	Been told by a doctor or nurse that you have coronary heart disease or heart attack	n/a	4.2%	~	5.8%	4.2%	2.6%
22	Been told by a doctor or nurse that you have had a stroke	n/a	2.4%	~	4.5%	2.1%	1.4%

27

		2009	2012/13	% change 2009 to 2012/13	Results by level of wellbeing 2012/13		
					Low	Moderate	High
23	Been told by a doctor or nurse that you have asthma	n/a	9.7%	~	11.3%	9.8%	8.1%
24	Been told by a doctor or nurse that you have a respiratory disease	n/a	4.3%	~	7.9%	3.9%	2.7%
25	Been told by a doctor or nurse that you have diabetes	n/a	6.7%	~	8.6%	6.8%	4.8%
26	Been told by a doctor or nurse that you have a digestive disease	n/a	4.4%	~	6.3%	4.3%	2.9%
27	Been told by a doctor or nurse that you have liver disease	n/a	0.7%	~	1.4%	0.5%	0.7%
28	Been told by a doctor or nurse that you have cancer	n/a	3.8%	~	4.3%	3.9%	2.9%
29	Been told by a doctor or nurse that you have depression, anxiety or stress	n/a	14.8%	~	34.3%	12.6%	6.2%
30	Have heard of the five ways to wellbeing	n/a	23.9%	~	16.0%	23.1%	33.0%

**Life satisfaction**

31	Life satisfaction score: satisfied (those that gave a score of 8, 9 or 10 where 1 = extremely dissatisfied and 10 = extremely satisfied)	60.1%	66.4%	+10.5%	28.4%	68.3%	91.3%
32	Life satisfaction mean score (where 1 = extremely dissatisfied and 10 = extremely satisfied)	7.58	7.88	+4.0%	6.18	7.99	8.93
33	Life worthwhile score: worthwhile (those that gave a score of 7, 8, 9 or 10 where 1 = not at all worthwhile and 10 = completely worthwhile)	n/a	84.8%	~	51.2%	89.1%	98.0%
34	Life worthwhile mean score (where 1 = not at all worthwhile and 10 = completely worthwhile)	n/a	8.07	~	6.31	8.18	9.14

**Lifestyles and life events****Activities**

35	To what extent do you agree that you have time to do the things that you really enjoy?: Definitely agree	35.7%	32.5%	-9.1%	15.3%	31.7%	49.0%
36	To what extent do you agree that you have time to do the things that you really enjoy?: Tend to disagree	14.9%	14.0%	-6.1%	22.7%	13.3%	9.2%
37	To what extent do you agree that you have time to do the things that you really enjoy?: Definitely disagree	6.1%	6.6%	+7.9%	13.7%	5.8%	3.4%
38	Meeting physical activity target	30.4%	27.1%	-11.0%	18.0%	25.2%	40.7%
39	Time spent sitting or reclining on a typical day: Up to and including two hours	23.0%	23.0%	-0.2%	17.9%	23.3%	25.8%
40	Time spent sitting or reclining on a typical day: More than eight hours	7.5%	7.7%	+2.4%	17.0%	6.5%	3.8%
41	Voluntary work in the past 12 months	n/a	14.3%	~	9.0%	14.5%	18.0%

		2009	2012/13	% change 2009 to 2012/13	Results by level of wellbeing 2012/13		
					Low	Moderate	High
42	Thinking about the last 12 months, how often, on average, have you spent your leisure time out of doors? (every day)	n/a	21.6%	~	15.5%	20.9%	29.0%
43	Thinking about the last 12 months, how often, on average, have you spent your leisure time out of doors? (several times a week)	n/a	34.7%	~	25.6%	36.3%	36.9%
44	Thinking about the last 12 months, how often, on average, have you spent your leisure time out of doors? (once or twice a month)	n/a	10.6%	~	15.3%	9.9%	9.0%
45	Thinking about the last 12 months, how often, on average, have you spent your leisure time out of doors? (never)	n/a	2.5%	~	6.9%	1.9%	0.8%
<b>Substance use</b>							
46	Current smoker≠	29.8%	27.7%	-7.1%	42.7%	25.8%	21.7%
47	Increasing risk drinker	n/a	10.4%	~	10.1%	10.2%	11.2%
48	Higher risk drinker	n/a	3.7%	~	7.4%	3.1%	2.5%
49	Cannabis use: used but not in last 12 months	n/a	11.6%	~	14.3%	11.1%	10.7%
50	Cannabis use: used in the last month	3.0%	3.0%	-0.3%	5.4%	2.9%	1.4%
51	Abstainer	n/a	29.5%	~	37.1%	28.9%	25.2%
52	Lower risk drinker	n/a	56.5%	~	45.4%	57.8%	61.1%
53	Cannabis use: used in past 12 months	n/a	2.5%	~	5.2%	2.2%	1.5%
<b>Diet</b>							
54	Portions of fruit and vegetables eaten on a normal day (none)	n/a	4.6%	~	9.9%	3.6%	3.7%
55	Portions of fruit and vegetables eaten on a normal day (five or more)	n/a	20.3%	~	12.9%	20.8%	25.0%
56	Prefer foods that are good for my long-term health	n/a	46.5%	~	38.6%	47.2%	50.5%
57	Prefer foods that make me feel good when I eat them	n/a	53.5%	~	61.4%	52.8%	49.5%
<b>Childhood</b>							
58	Childhood happiness score: happy (those that gave a score of 8, 9 or 10 where 1 = extremely unhappy and 10 = extremely happy)	n/a	73.3%	~	53.1%	74.5%	85.7%
59	Childhood happiness mean score (where 1 = extremely unhappy and 10 = extremely happy)	n/a	8.23	~	7.16	8.30	8.88
60	Childhood home violence score: free from violence (those that gave a score of 1, 2 or 3 where 1 = free from violence and 10 = very violent)	n/a	86.2%	~	70.0%	87.9%	92.2%

		2009	2012/13	% change 2009 to 2012/13	Results by level of wellbeing 2012/13		
					Low	Moderate	High
61	Childhood home violence mean score (where 1 = free from violence and 10 = very violent)	n/a	1.95	~	2.85	1.85	1.56

**Parenting/caring**

62	Caring responsibilities: caring for someone with long term ill health or problems related to old age, other than as part of job	10.2%	9.5%	-7.1%	8.3%	9.9%	9.0%
63	Been pregnant, or got someone pregnant in the last 12 months	n/a	5.3%	~	4.3%	5.1%	7.0%

**Social connections**

**Relationships**

64	Currently in a long term sexual relationship	n/a	59.2%	~	41.9%	60.7%	68.8%
65	How often do you talk to any of your neighbours?: On most days	51.9%	33.6%	-35.2%	22.8%	33.3%	43.8%
66	How often do you talk to any of your neighbours?: Less often than once a month	4.1%	6.5%	+59.7%	12.3%	5.9%	3.9%
67	How often do you talk to any of your neighbours?: Never	2.6%	4.7%	+81.0%	10.1%	3.9%	3.1%
68	How often do you meet friends or relatives who are not living with you?: On most days	53.9%	41.2%	-23.6%	26.3%	41.1%	53.5%
69	How often do you meet friends or relatives who are not living with you?: Less often than once a month	2.7%	3.2%	+18.8%	7.5%	2.8%	1.1%
70	How often do you meet friends or relatives who are not living with you?: Never	0.6%	1.1%	+79.2%	3.5%	0.7%	0.4%
71	All things considered, how satisfied are you with your personal relationships?: Very satisfied	61.6%	58.3%	-5.3%	29.2%	58.1%	82.9%
72	All things considered, how satisfied are you with your personal relationships?: Fairly dissatisfied	1.8%	1.9%	+3.2%	7.4%	1.0%	0.1%
73	All things considered, how satisfied are you with your personal relationships?: Very dissatisfied	0.8%	1.0%	+31.2%	4.6%	0.4%	0.1%

**Social support**

74	Able to ask someone for help if needed a lift to be somewhere urgently	89.6%	86.6%	-3.3%	73.7%	88.6%	91.0%
75	Able to ask someone for help if ill in bed and need help at home	89.6%	85.5%	-4.6%	71.9%	87.0%	91.5%

		2009	2012/13	% change 2009 to 2012/13	Results by level of wellbeing 2012/13		
					Low	Moderate	High
76	Able to ask someone for help if in financial difficulty and need to borrow £100	75.1%	70.6%	-6.0%	53.9%	71.8%	80.6%
77	Have people to turn to for comfort and support if had a serious personal crisis	93.6%	89.7%	-4.2%	73.6%	91.5%	96.8%

**Trust**

78	Trust score: anxious (those that gave a score of 8, 9 or 10 where 1 = can't be too careful and 10 = most people can be trusted)	n/a	27.6%	~	11.6%	27.7%	40.6%
79	Trust mean score where 1 = can't be too careful and 10 = most people can be trusted)	n/a	5.74	~	4.56	5.84	6.40

**Employment and finances****Employment status**

80	Working status of respondent: Paid work: full-time	34.6%	32.3%	-6.6%	19.7%	33.3%	39.4%
81	Working status of respondent: Self-employed	1.9%	3.2%	+68.4%	1.8%	2.9%	5.3%
82	Working status of respondent: Full-time education	3.2%	4.6%	+45.2%	2.3%	4.8%	6.0%
83	Working status of respondent: Out of work, registered unemployed and actively seeking work	5.9%	6.7%	+13.2%	12.0%	6.2%	4.0%
84	Working status of respondent: Out of work, registered unemployed but not actively seeking work	4.1%	1.7%	-57.7%	4.4%	1.3%	0.9%
85	Working status of respondent: Permanently sick or disabled	5.7%	5.7%	+0.8%	15.9%	4.3%	2.1%
86	Household economic status: Employed	60.8%	61.5%	+1.2%	55.6%	63.2%	70.4%
87	Household economic status: Unemployed	7.6%	7.3%	-4.5%	14.9%	6.2%	4.3%
88	Household economic status: Retired	22.7%	22.5%	-0.8%	23.9%	23.1%	19.4%
89	Household economic status: Full-time student	1.9%	3.9%	+106.8%	4.2%	3.9%	3.7%
90	Household economic status: Inactive (domestic)	2.7%	1.6%	-41.0%	3.3%	1.3%	1.0%
91	Household economic status: inactive (sick)	3.1%	2.8%	-8.1%	8.9%	1.9%	0.9%

**Financial worries**

92	Living comfortably on present income	31.8%	30.1%	-5.2%	14.2%	29.8%	44.4%
93	Finding it very difficult on present income	4.3%	4.3%	-0.4%	12.6%	3.2%	1.1%
94	Worried about money during the last few weeks: almost all of the time	9.9%	8.3%	-16.4%	20.4%	6.9%	3.0%
95	Never worried about money during the last few weeks	35.2%	35.5%	+0.8%	17.8%	34.9%	51.8%
96	Compared to a year ago, currently financially: better off	n/a	11.7%	~	7.2%	11.0%	17.6%

		2009	2012/13	% change 2009 to 2012/13
97	Compared to a year ago, currently financially: worse off	n/a	29.8%	~
98	Looking ahead, a year from now I will be financially: better off than now	n/a	16.2%	~
99	Looking ahead, a year from now I will be financially: worse off than now	n/a	26.3%	~

Results by level of wellbeing 2012/13		
Low	Moderate	High
43.0%	29.8%	19.0%
9.0%	15.6%	24.4%
37.9%	25.7%	18.8%

#### Education

100	No qualifications	32.7%	24.6%	-24.8%
101	Highest qualification level: Level 4+	17.0%	19.5%	+14.6%

38.9%	23.7%	15.8%
9.5%	19.3%	28.1%

#### Housing and environment

102	Definitely agree that you can influence decisions affecting your local area	7.9%	7.7%	-2.6%
103	Tend to disagree that you can influence decisions affecting your local area	24.0%	27.9%	+16.3%
104	Definitely disagree that you can influence decisions affecting your local area	27.0%	24.6%	-8.9%
105	Home ownership status: owns outright	n/a	30.1%	~
106	Home ownership status: owns with a mortgage or loan	n/a	30.6%	~
107	Home ownership status: shared ownership (part rent, part mortgage)	n/a	0.2%	~
108	Home ownership status: rents from council	n/a	11.4%	~
109	Home ownership status: rents from housing association	n/a	8.9%	~
110	Home ownership status: rents from private landlord	n/a	17.4%	~
111	Very satisfied with home	n/a	57.7%	~
112	Fairly dissatisfied with home	n/a	2.5%	~
113	Very dissatisfied with home	n/a	1.5%	~

4.6%	7.0%	12.5%
28.3%	29.1%	23.8%
34.1%	23.5%	20.5%
25.8%	31.1%	30.1%
17.0%	32.2%	36.7%
0.4%	0.2%	0.4%
20.1%	10.2%	8.4%
13.7%	8.5%	6.2%
22.4%	16.8%	15.5%
36.7%	57.6%	75.4%
6.4%	2.0%	0.9%
3.5%	1.2%	1.0%

#### Neighbourhood attachment

114	Lived in local area less than one year	7.7%	8.0%	+3.3%
115	Lived in local area ten years or more	61.9%	59.0%	-4.7%
116	Very satisfied with local area as a place to live	55.6%	56.6%	+1.8%
117	Fairly dissatisfied with local area as a place to live	3.5%	3.4%	-2.9%
118	Very dissatisfied with local area as a place to live	1.5%	1.6%	+7.7%
119	How strongly do you feel you belong to your immediate neighbourhood?: Very strongly	43.5%	38.0%	-12.7%
120	How strongly do you feel you belong to your immediate neighbourhood?: Not very strongly	12.9%	16.0%	+24.1%

9.7%	7.1%	9.3%
55.3%	60.3%	57.8%
39.0%	55.6%	74.1%
7.8%	2.8%	1.8%
3.0%	1.5%	1.0%
25.8%	36.9%	51.3%
21.7%	16.4%	10.0%



		2009	2012/13	% change 2009 to 2012/13	Results by level of wellbeing 2012/13		
					Low	Moderate	High
121	How strongly do you feel you belong to your immediate neighbourhood?: Not at all strongly	6.2%	6.8%	+9.5%	12.2%	6.1%	4.5%
<b>Personal security</b>							
122	Feel very safe outside after dark	37.4%	41.3%	10.5%	25.5%	39.6%	60.0%
123	Feel very unsafe outside after dark	10.1%	6.4%	-37.1%	13.3%	5.5%	3.5%
124	Feel very safe outside during the day	79.5%	74.5%	-6.3%	53.8%	74.5%	91.2%
125	Feel very unsafe outside during the day	0.8%	0.4%	-50.7%	1.6%	0.1%	0.2%
126	Feel very safe home alone at night	71.9%	68.5%	-4.7%	46.9%	68.0%	87.9%
127	Feel very unsafe home alone at night	1.6%	1.3%	-16.2%	3.3%	1.0%	0.7%
<b>Household</b>							
128	Household type: One adult	23.9%	23.5%	-1.6%	38.6%	22.1%	15.9%
129	Household type: Small family	19.8%	21.2%	+7.1%	15.0%	21.6%	25.1%
130	Household type: Large family	5.1%	4.9%	-4.2%	3.6%	4.9%	5.9%
131	Household type: Lone parent	4.4%	6.0%	+35.4%	8.1%	5.8%	4.6%

Note: 2009 results exclude those who failed to answer all seven WEMWBS questions and therefore could not be allocated a WEMWBS score.

≠ In 2012/13 smoking status was collected via a single question, whilst in 2009 the same information was gathered via two questions. Across both years, the responses were allocated to the same three categories: non-smoker, current smoker, ex-smoker. Despite the differences in collection method, data are still comparable.

## 5. Analysis of 2012/13 survey data

### 5.1 Demographics

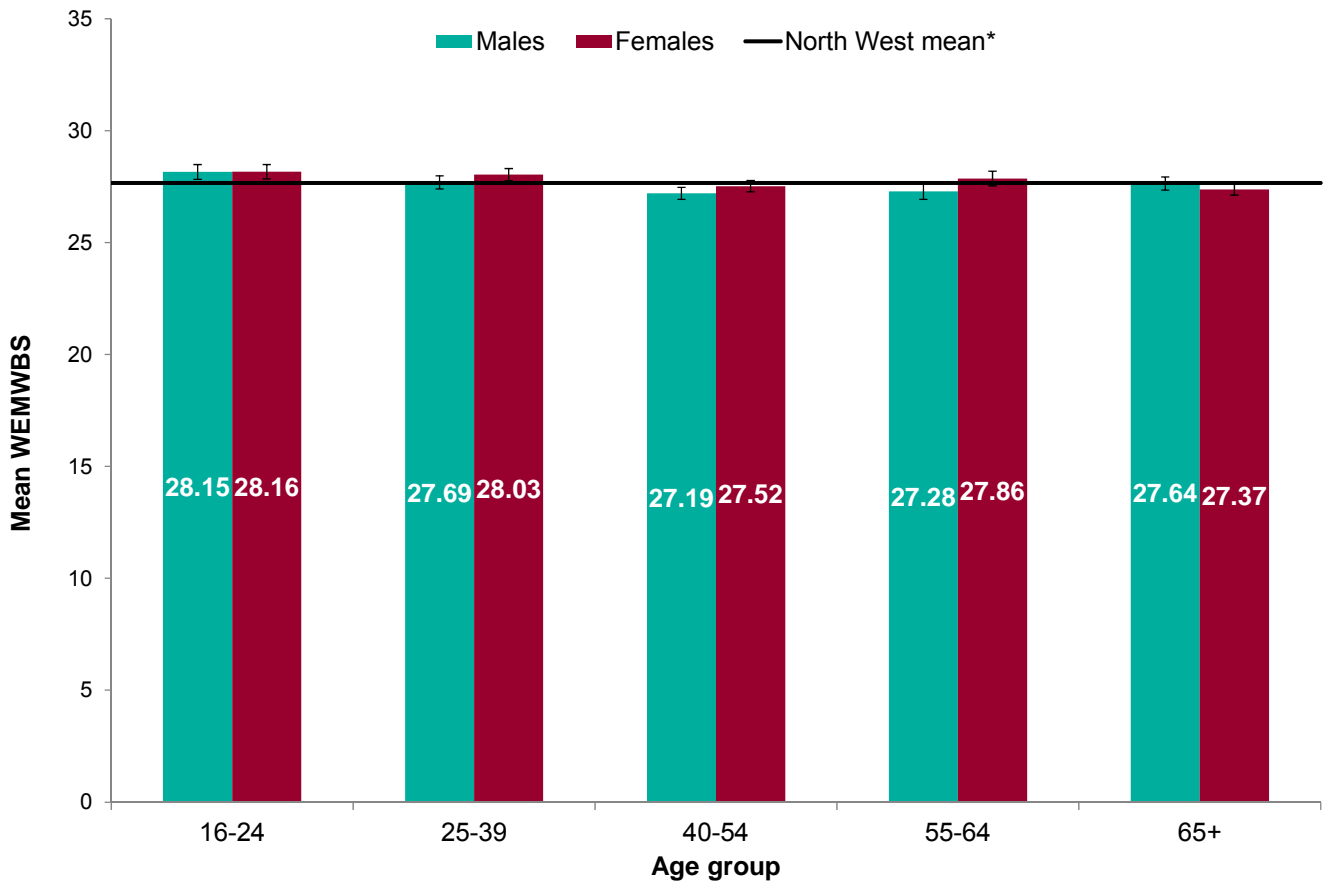
#### 5.1.1 Age and gender

All respondents were asked for their age (in years) and gender (male, 48.8%; female, 51.2%). Responses were allocated to the following age groups: 16-24 years (15.5%), 25-39 years (23.0%), 40-54 years (26.0%), 55-64 years (14.9%) and 65+ years (20.6%).

The results from the survey showed some evidence of a U-shaped relationship between age and wellbeing (that is, higher wellbeing among the younger and older age groups and lower wellbeing among the middle age groups) which supports the findings from previous research.<sup>44,45</sup> The relationship is clearer for males than females. Overall, females generally had higher levels of mental wellbeing than their male counterparts of the same age group (with the exception of the 65+ years group where male scores were higher), although these differences between sexes were not significant.

Across both genders, the youngest respondents reported the highest levels of mental wellbeing (mean WEMWBS scores: 28.15 for males and 28.16 for females aged 16-24 years), both significantly higher than the North West mean score of 27.66 (Figure 4). Females aged 25-39 years also had a mean WEMWBS score (27.69) that was significantly higher than the North West mean. However, the mean WEMWBS score for males aged 40-54 years (27.19) was significantly lower than the North West mean.

**Figure 4. Mean WEMWBS scores by gender and age group, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 5.1.2 Ethnicity

All respondents were asked to provide details of their ethnicity from a choice of 16 named ethnic categories.<sup>xii</sup>

Given the small numbers of respondents from ethnic minorities included in the survey (4.7% of the total sample) there were wide confidence intervals and it is not possible to comment upon any significant differences in average WEMWBS scores between different ethnic groups across the North West. In 2009 there were a similar proportion of non-white respondents. However, further analysis published in the North West Mental

<sup>xii</sup> These included white British, white-Irish, white-Eastern European, white-other white background, mixed-white and black Caribbean, mixed - white and black African, mixed - white and Asian, mixed - any other mixed background, Asian or Asian British - Indian, Asian or Asian British - Pakistani, Asian or Asian British - Bangladeshi, Asian or Asian British - other Asian background, black or black British - Caribbean, black or black British - African, black or black British - other black background or Chinese.

Wellbeing Survey: Focus on Ethnicity<sup>49</sup> showed significant differences in average levels of reported mental wellbeing between respondents from different ethnic groups.<sup>xiii</sup>

### 5.1.3 Deprivation

Respondents were allocated to an Index of Multiple Deprivation 2010 quintile, based on their lower super output area (LSOA) of residence.

There were significant differences in average levels of mental wellbeing by deprivation (Figure 5). In general, mental wellbeing decreased as deprivation increased. Those respondents living in the least deprived fifth of areas<sup>xiv</sup> had the highest levels of mental wellbeing (mean WEMWBS score 28.53); significantly higher than the North West average. Mental wellbeing levels then gradually decreased until the second most deprived fifth of areas where there was a significant rise in wellbeing levels (mean WEMWBS score 27.89). Respondents living in the most deprived areas had the lowest levels of wellbeing overall (mean WEMWBS score 27.01).

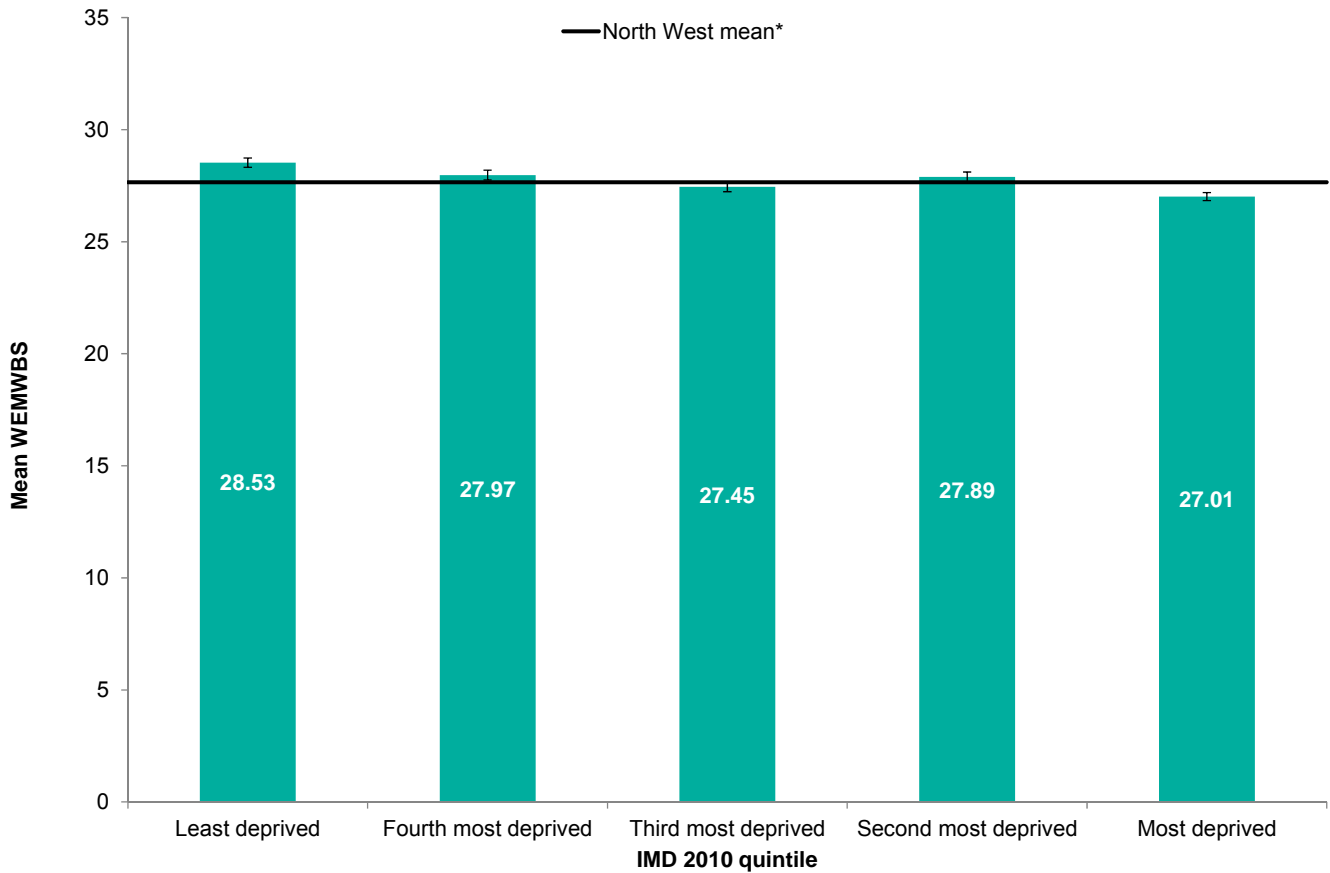
Compared with the North West mean (27.66), both the least deprived and fourth most deprived fifth of areas had significantly higher mental wellbeing levels. Those living in the most deprived fifth of areas had significantly lower mental wellbeing than the North West mean.

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<sup>xiii</sup> The report can be viewed at: [www.nwph.net/nwpho/Publications/NWMWS\\_Ethnicity.PDF](http://www.nwph.net/nwpho/Publications/NWMWS_Ethnicity.PDF)

<sup>xiv</sup> Across the North West lower super output areas (LSOAs) can be grouped together by deprivation level. LSOAs are small geographical areas with a mean total population of 1,500. LSOAs can be grouped into one of five categories depending on their relative national deprivation level in the Index of Multiple Deprivation (IMD) 2010 (ordered from the least deprived national fifth of areas to the most deprived national fifth of areas).

**Figure 5. Mean WEMWBS scores by Index of Multiple Deprivation 2010 quintiles, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

## 6. Factors influencing wellbeing

Information relating to the survey questions, along with the proportion of people providing each response are given in each section. Charts present mean WEMWBS scores for each question and error bars represent 95% confidence intervals. The North West mean WEMWBS score is presented as a black line across each chart for comparison purposes.

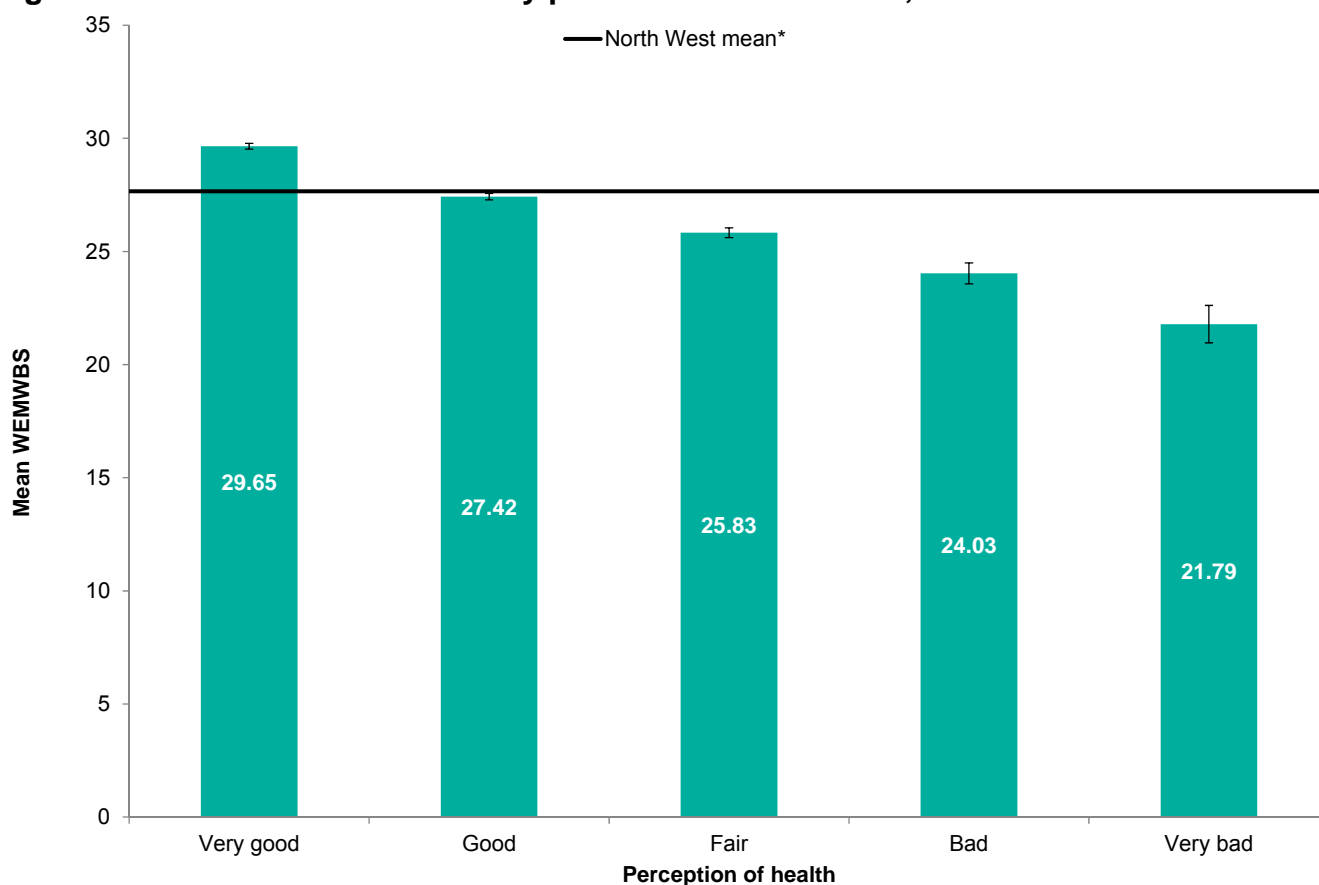
### 6.1 Health (physical and mental)

#### 6.1.1 General health

Respondents were asked how their health was in general. Respondents stated their health was: very good (37.4%), good (36.2%), fair (19.1%), bad (5.3%), very bad (2.0%), don't know (0.1%). Thus, 7.3% of respondents were in 'not good' health (stated they had bad or very bad health).

There was a clear relationship between perceived health status and wellbeing, with very good health increasing and bad health decreasing as mental wellbeing increased (Figure 6). The mean WEMWBS score ranged from 21.79 among those who rated their health as very bad to 29.65 among those who rated their health as very good. The mean WEMWBS score of respondents with very good health was significantly higher than the North West mean (27.66), while all other categories were significantly lower.

**Figure 6. Mean WEMWBS scores by perceived health status, 2012/13.**



Error bars represent the 95% confidence intervals. Don't know responses = 11; mean WEMWBS score 23.94 (95% CI; lower limit, 19.24/upper limit, 28.63). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.1.2 Medical conditions

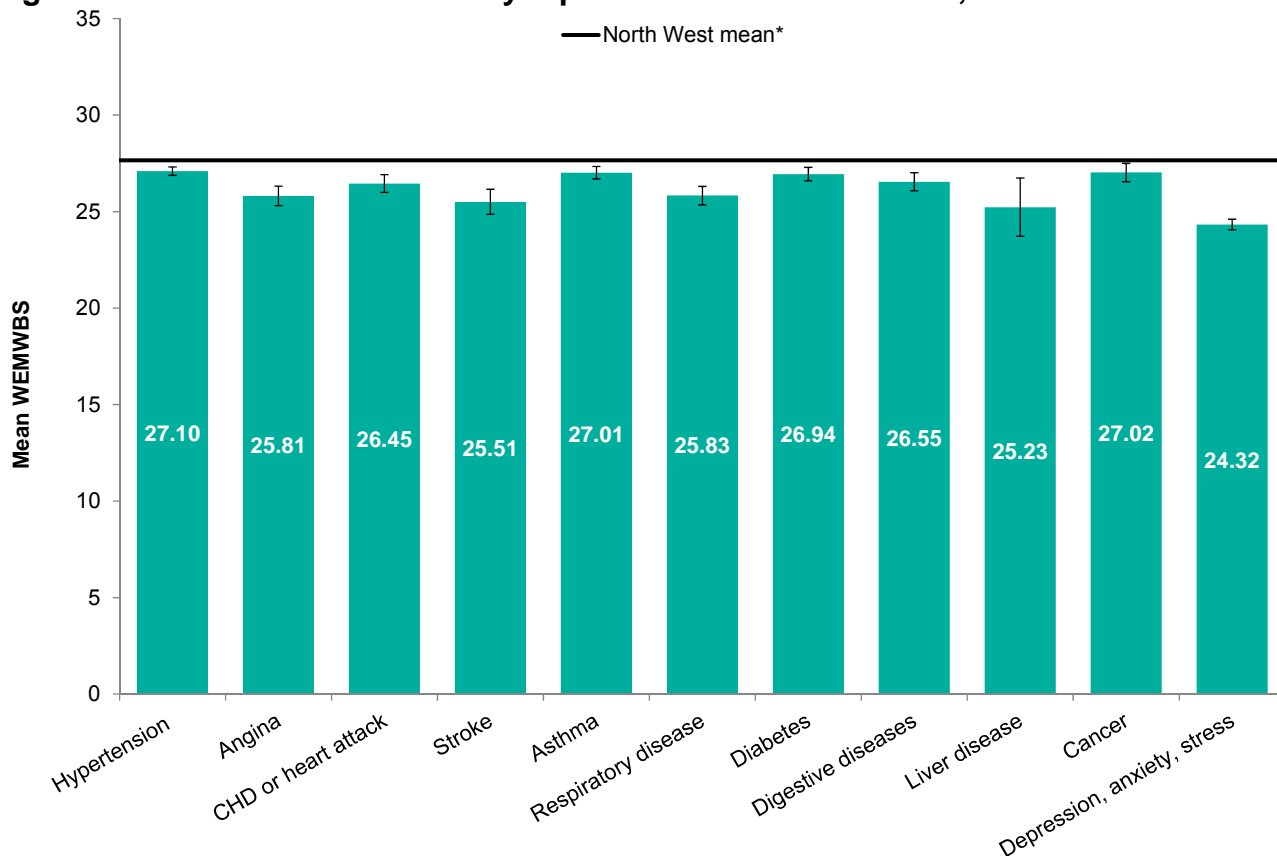
Respondents were asked whether they had ever been told by a doctor or nurse that they had one of a list of 11 health conditions. Those who answered 'yes' were categorised as having a recorded condition.

The most common recorded conditions among respondents were high blood pressure (hypertension, 19.4%) and depression, anxiety or stress (14.8%). Other recorded conditions were: angina (3.7%); coronary heart disease or heart attack (4.2%); stroke (2.4%); asthma (9.7%); respiratory disease such as chronic bronchitis/emphysema/chronic obstructive pulmonary disease (4.3%); diabetes (6.7%); digestive disease such as gastritis, ulcer, Crohn's disease, colitis (4.4%); liver disease (0.7%); cancer (3.8%).

Across each of the categories, those with a recorded condition had a significantly lower mean WEMWBS score than the North West mean (27.66; Figure 7). Those who were

recorded as having depression, anxiety or stress had the lowest mean WEMWBS score (24.32), followed by those with liver disease (25.23) and stroke (25.51).

**Figure 7. Mean WEMWBS score by reported medical conditions, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.1.3 Health state (EQ-5D)

The EQ-5D provides a means of measuring health outcomes that allows for comparison across a range of conditions and is most frequently used to measure health states and the values placed on these states. Respondents were asked a series of five questions, each with a choice of three responses, which make up the EQ-5D.<sup>xv</sup> Responses were analysed in accordance with guidelines,<sup>xvi</sup> allowing a health state for each respondent to be compiled and allocated a health score index (ranging from -0.59; worst imaginable health, to 1; best imaginable health/full health). The mean EQ-5D score in 2012/13 was 0.87, significantly higher than that reported in 2009 (0.84).

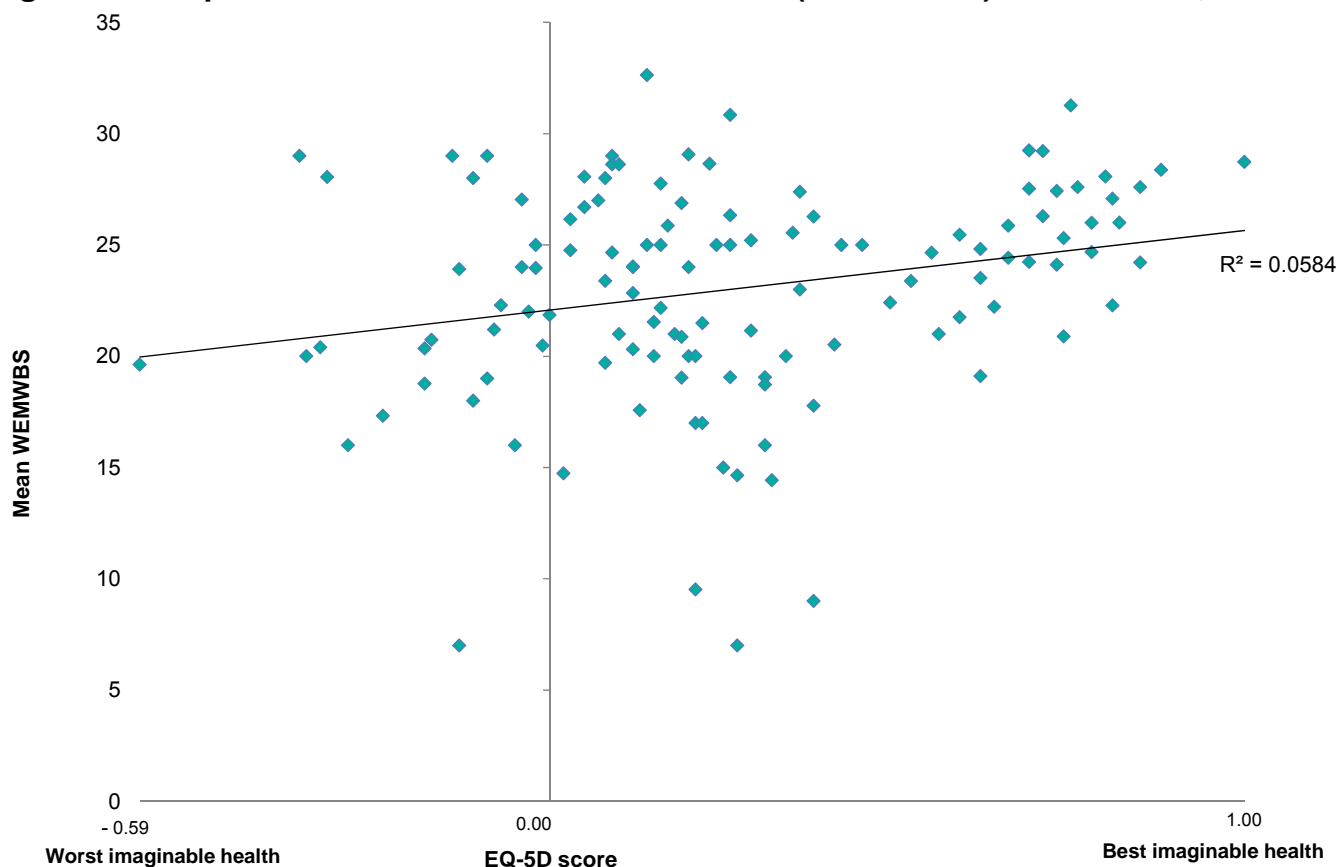
<sup>xv</sup> The five measures include physical mobility, self-care, performance of usual activities, pain and discomfort and anxiety and depression. Full questions are available in Appendix B.

<sup>xvi</sup> Guidelines and information about index values are available at: [www.euroqol.org/home.html](http://www.euroqol.org/home.html)



A very weak association was found between EQ-5D index scores and WEMWBS scores ( $R^2=0.0584$ ; Figure 8). Therefore, as health state increased there was no significant change in mental wellbeing. The survey found that 64.9% of respondents had an EQ-5D score of 1 and were, therefore, in 'best imaginable health'. This group had a mean WEMWBS score of 28.72 (95% CI; lower limit, 28.62/upper limit, 28.83), significantly higher than the North West mean (27.66).

**Figure 8. Comparison of mean WEMWBS and EQ-5D (health state) index scores, 2012/13.**



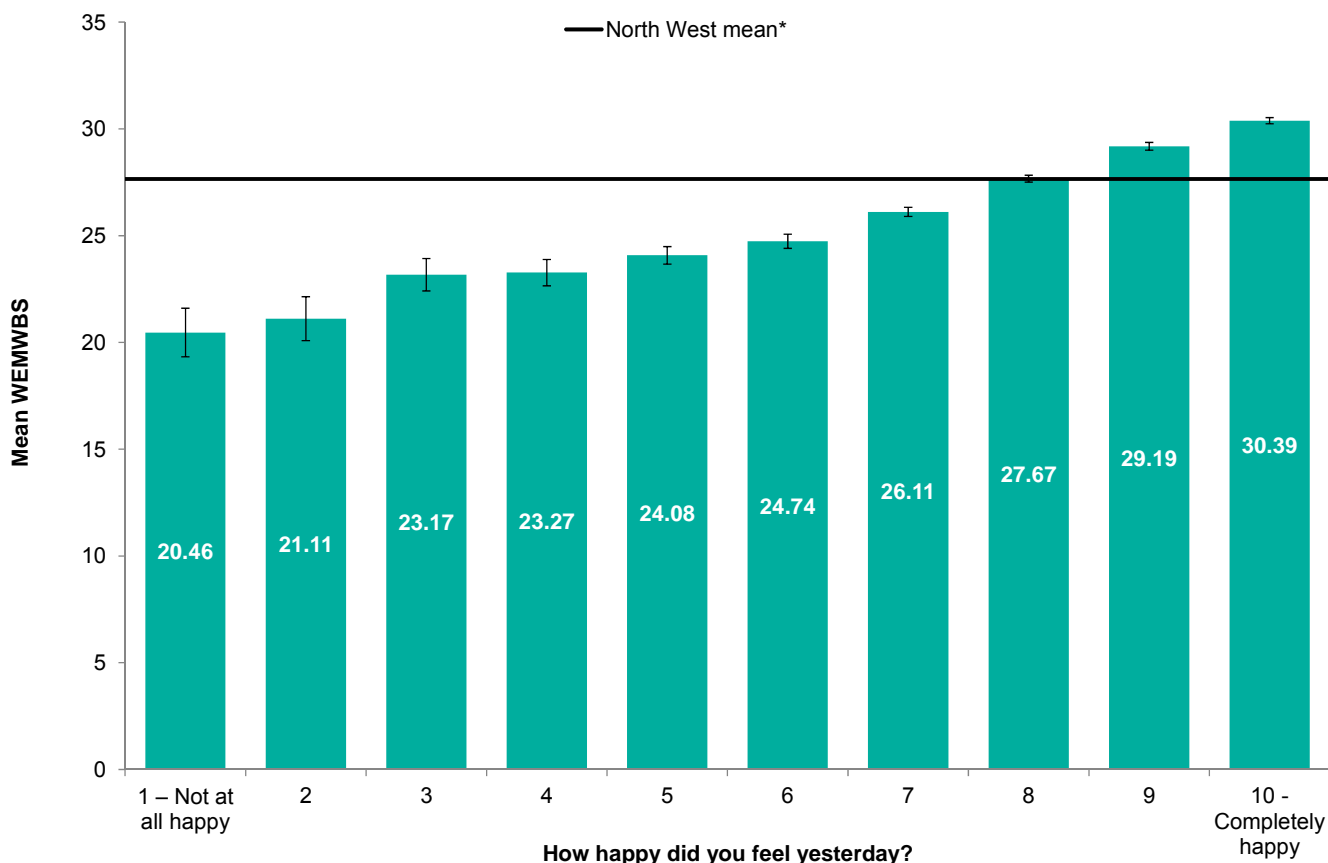
#### 6.1.4 Happy yesterday (ONS wellbeing question)

Respondents were asked to rate how happy they felt overall yesterday on a scale of 1 (not at all happy) to 10 (completely happy). Overall, the mean 'happy yesterday' score was 7.89 (95% CI; lower limit, 7.86/upper limit, 7.93). In total, 81.0% of respondents had high or very high 'happy yesterday' scores (scores of 7 to 10).

There was a clear relationship between overall happiness and wellbeing, with mental wellbeing increasing with increasing 'happy yesterday' score (Figure 9). The mean WEMWBS score ranged from 20.46 among those who said they were not at all 'happy yesterday', to 30.39 among those who said they were completely 'happy yesterday'.

The mean WEMWBS score of respondents who selected 9 or 10 on the ‘happy yesterday’ scale was significantly higher than the North West mean (27.66), while those who rated their happiness as 7 or less had significantly lower WEMWBS than the North West mean (27.66).

**Figure 9. Mean WEMWBS score by ‘happy yesterday’ score, 2012/13.**



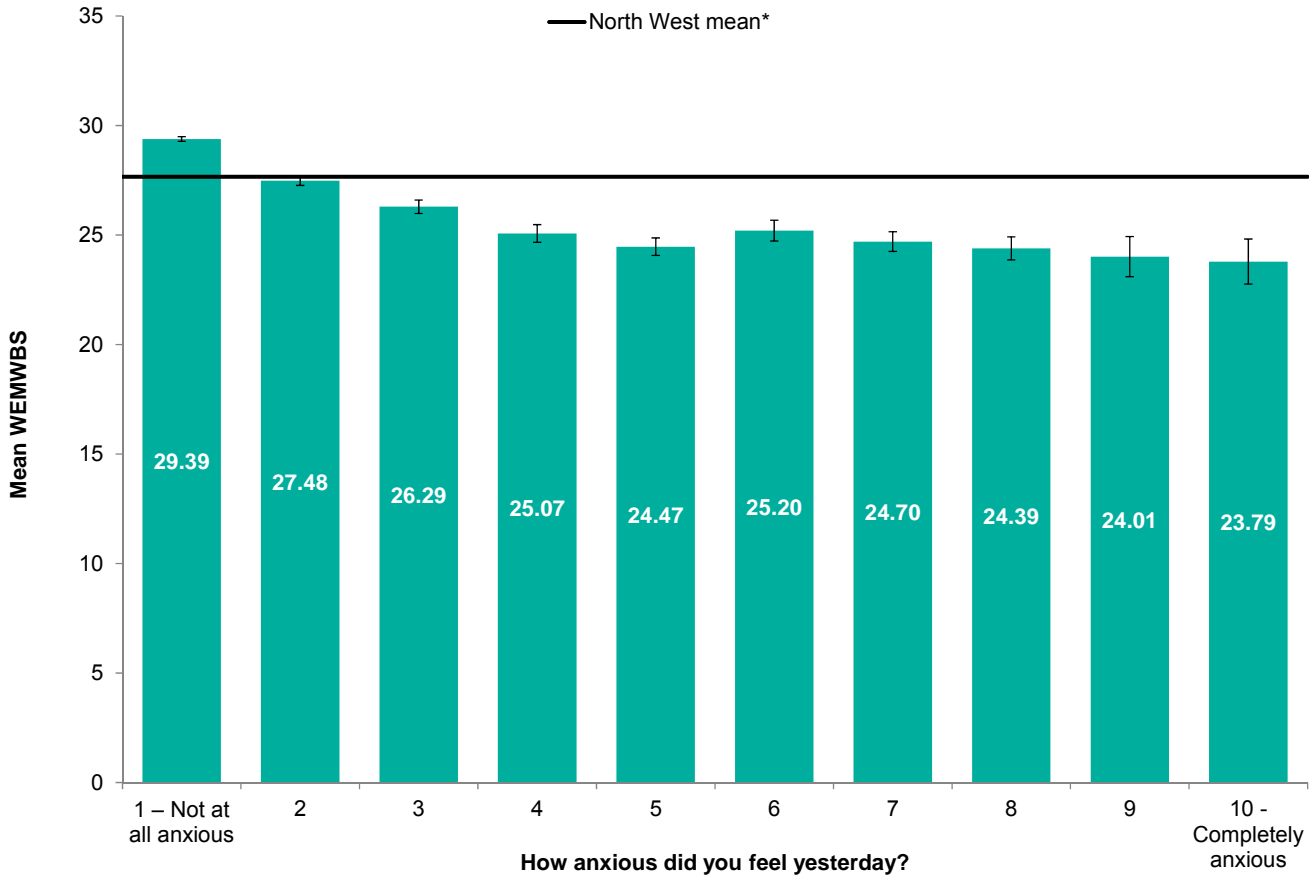
Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.1.5 Anxious yesterday (ONS wellbeing question)

Respondents were asked to rate how anxious they felt overall yesterday on a scale of 1 (not at all anxious) to 10 (completely anxious). Overall, the mean ‘anxious yesterday’ score was 2.66 (95% CI; lower limit, 2.61/upper limit, 2.70). The proportion of respondents who had high or very high ‘anxious yesterday’ scores (those who gave a score of 4 to 10) was 25.3%. Higher levels of anxiety were seen among those with lower mental wellbeing (Figure 10). The mean WEMWBS score ranged from 23.79 among those who said they were completely ‘anxious yesterday’, to 29.39 among those who said they were not at all ‘anxious yesterday’. The mean WEMWBS score of respondents who were not at all ‘anxious yesterday’ was significantly higher than the North West

mean (27.66), all other groups, with the exception of those who scored 2, were significantly lower.

**Figure 10. Mean WEMWBS score by ‘anxious yesterday’ score, 2012/13.**



Error bars represent the 95% confidence intervals.\*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

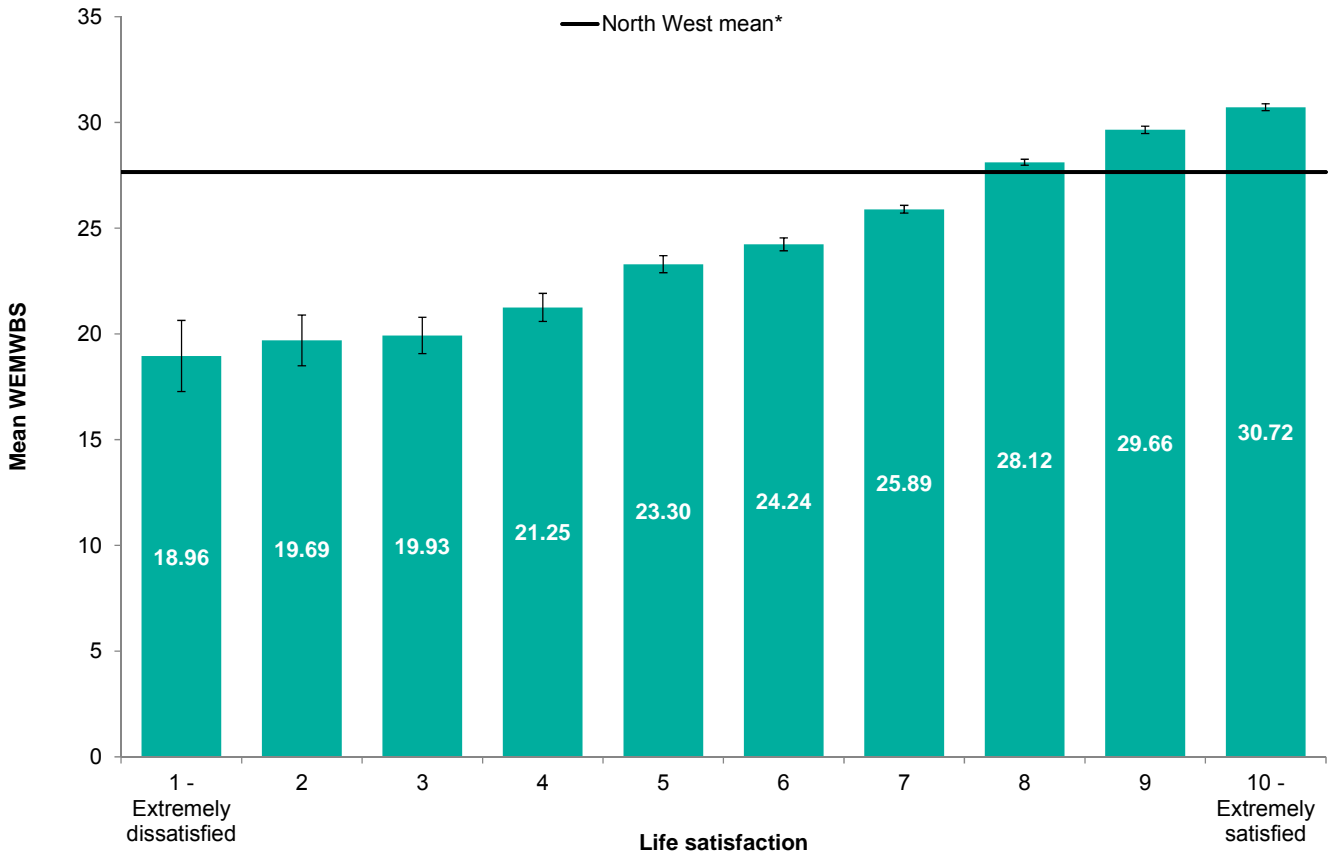
## 6.2 Satisfaction and sense of worth

### 6.2.1 Life satisfaction

Respondents were asked to rate how satisfied they felt with their life overall yesterday on a scale of 1 (extremely dissatisfied) to 10 (extremely satisfied). Overall, the mean life satisfaction score was 7.88 (95% CI; lower limit, 7.85/upper limit, 7.92). The proportion of respondents who had high or very high satisfaction with life (those who gave a score of 7 to 10) was 83.3%. There was a clear, strong relationship between life satisfaction and wellbeing, with mental wellbeing increasing with increasing life satisfaction (Figure 11). The mean WEMWBS score ranged from 18.96 among those who said they were extremely dissatisfied with their life, to 30.72 among those who said they were extremely satisfied. The mean WEMWBS score of respondents who rated their satisfaction as an 8, 9 or 10 on the scale was significantly higher than the North West

mean (27.66), while those who rated their satisfaction as 7 or lower had a significantly lower WEMWBS score than the North West average.

**Figure 11. Mean WEMWBS score by life satisfaction score, 2012/13.**

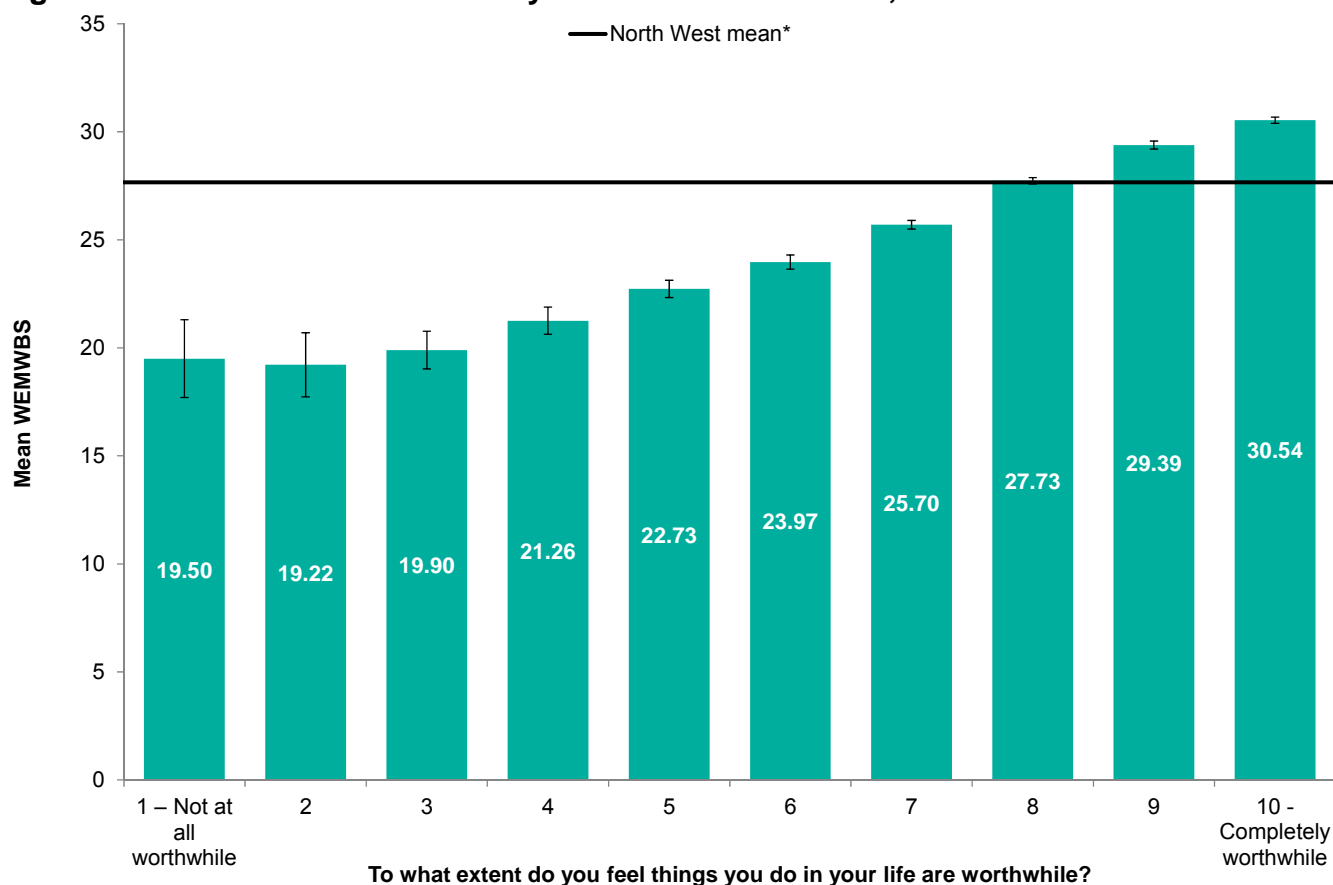


Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.2.2 Sense of worth

Respondents were asked to rate to what extent they feel the things they do in life are worthwhile on a scale of 1 (not at all worthwhile) to 10 (completely worthwhile). Overall, the mean ‘life worthwhile’ score was 8.07 (95% CI; lower limit, 8.03/upper limit, 8.10). The proportion of respondents who had high or very high ‘life worthwhile’ score (those who gave a score of 7 to 10) was 84.8%. There was a clear, strong relationship between respondents’ feeling their lives are worthwhile and wellbeing, with mental wellbeing increasing with increasing ‘life worthwhile’ score (Figure 12). The mean WEMWBS score ranged from 19.50 among those who rated their life as not at all worthwhile, to 30.54 among those who rated their life as completely worthwhile. The mean WEMWBS score of respondents whose ‘life worthwhile’ score was 9 or 10 on the scale was significantly higher than the North West mean (27.66), while those who scored 7 or lower had significantly lower WEMWBS than the North West average.

**Figure 12. Mean WEMWBS score by 'life worthwhile' score, 2012/13.**



Error bars represent the 95% confidence intervals.\*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

## 6.3 Lifestyle and life events

### 6.3.1 Activities

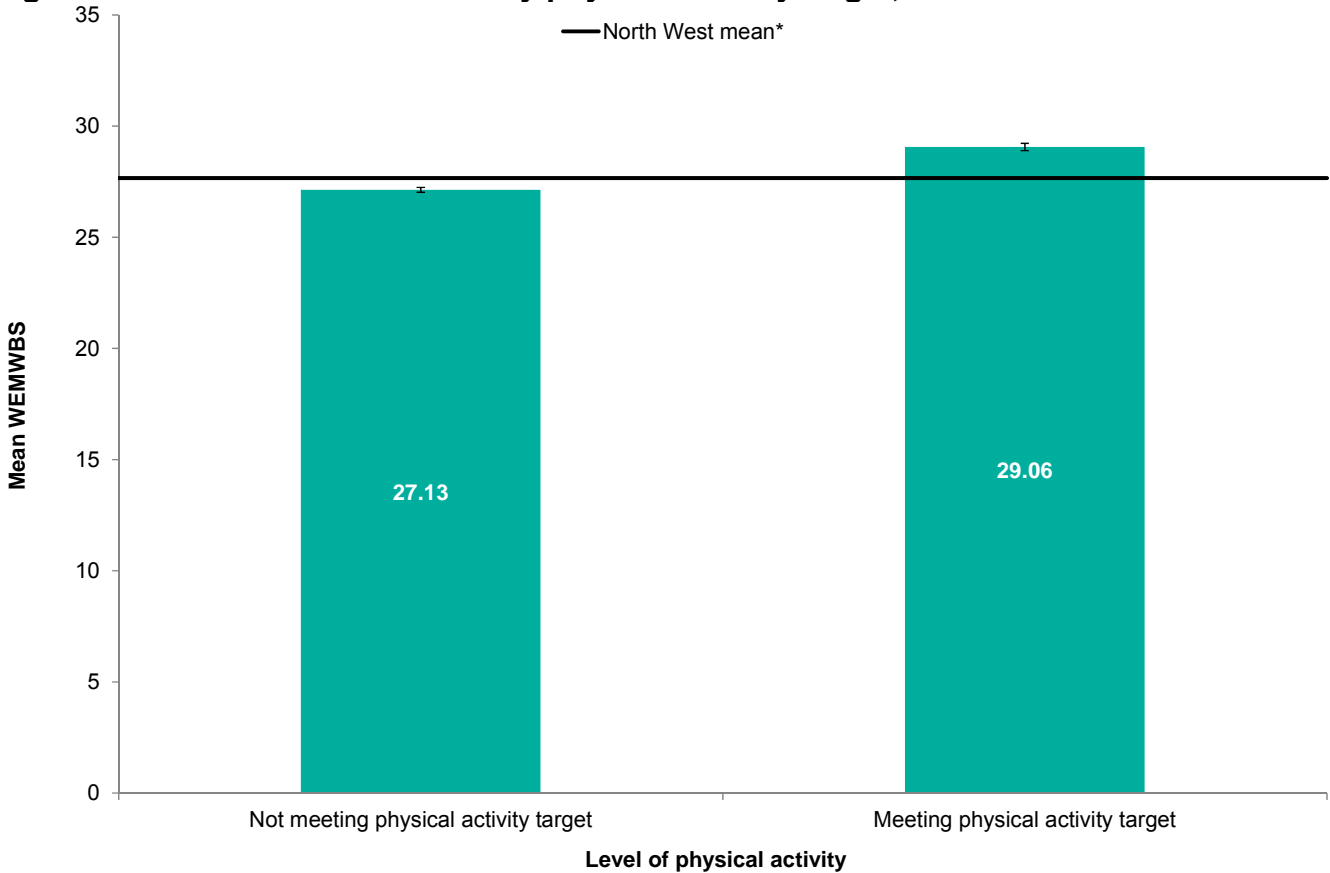
#### 6.3.1.1 Physical activity

Respondents were asked how many days in the past week they had accumulated at least 30 minutes of moderate intensity physical activity. Responses given were: 0 days (29.7%), 1 day (7.2%), 2 days (14.8%), 3 days (13.3%), 4 days (7.5%), 5 days (7.6%), 6 days (2.4%), 7 days (17.1%), don't know/refused (0.4%). Responses were grouped to indicate whether they were achieving 30 minutes of moderate activity on at least five days. Those who reported activity on between 0 and 4 days were categorised as 'not meeting physical activity target' (72.8%), while those who reported activity on 5 to 7 days were categorised as 'meeting physical activity target' (27.2%).

The relationship between physical activity and wellbeing is clear (Figure 13). Respondents who are meeting the physical activity target had a significantly higher

mean WEMWBS score than those who were not meeting the target (29.06 and 27.13 respectively). Those meeting the physical activity target have significantly higher mental wellbeing as compared with the North West average (27.66), while those not meeting the target have significantly lower mental wellbeing.

**Figure 13. Mean WEMWBS score by physical activity target, 2012/13.**



Error bars represent the 95% confidence intervals. Don't know responses = 46; mean WEMWBS score 26.92 (95% CI; lower limit, 25.67/upper limit, 28.18). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

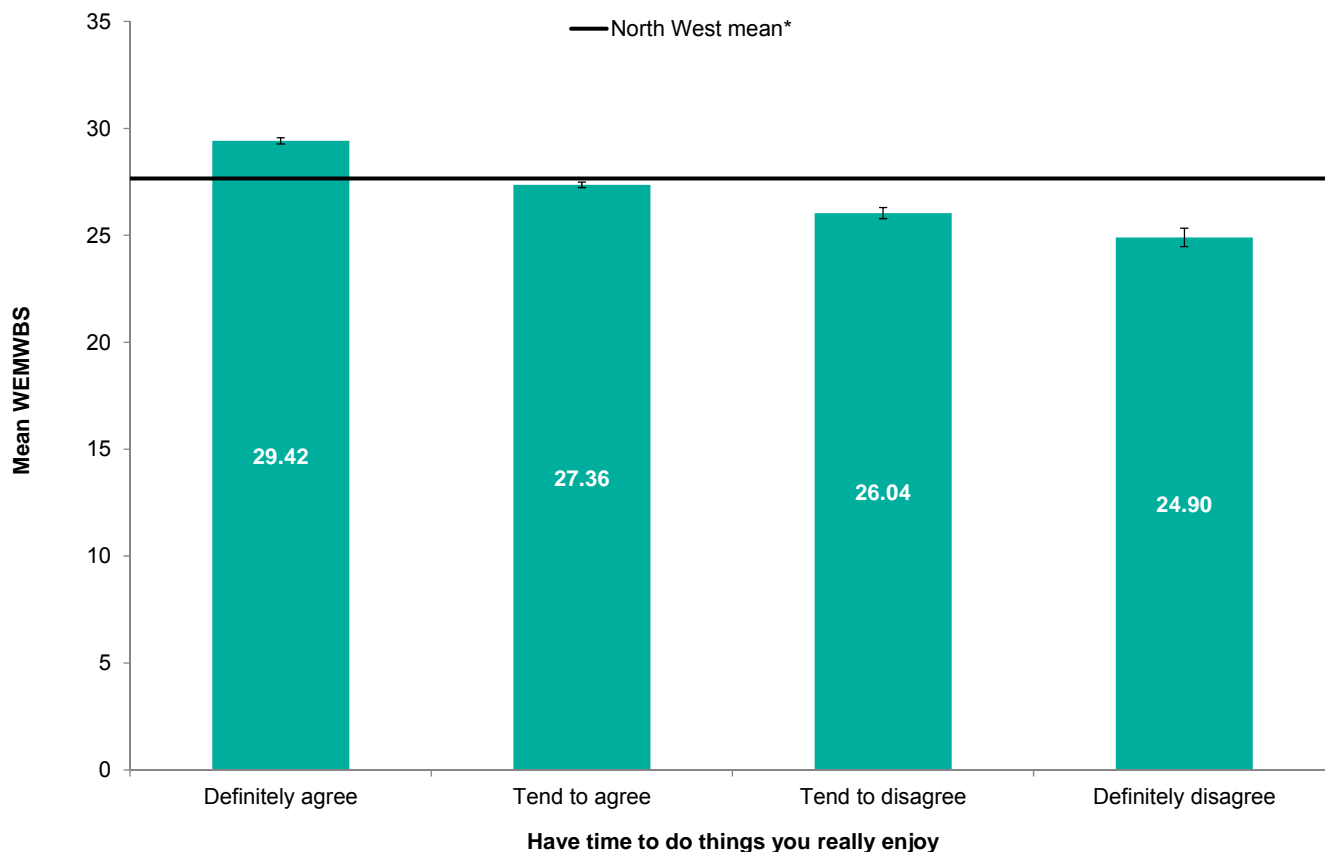
### 6.3.1.2 Time to enjoy

Respondents were asked to what extent they agree that they have the time to do things that they really enjoy, and replied that they definitely agree (32.5%), tend to agree (46.2%), tend to disagree (14.0%), definitely disagree (6.6%) or don't know (0.8%).

There was a clear, strong relationship between agreement that they have the time to do things that they really enjoy and wellbeing, with definite agreement increasing and definite disagreement decreasing as mental wellbeing increased (Figure 14). The mean WEMWBS score ranged from 24.90 among those who definitely disagreed that they had time to do things they really enjoy, to 29.42 among those who definitely agreed.

The mean WEMWBS score of respondents who definitely agreed was significantly higher than the North West mean (27.66), while the other three categories were significantly lower.

**Figure 14. Mean WEMWBS score by time to do things you really enjoy, 2012/13.**



Error bars represent the 95% confidence intervals. Don't know responses = 89; mean WEMWBS score 23.78 (95% CI; lower limit, 22.35/upper limit, 25.22). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

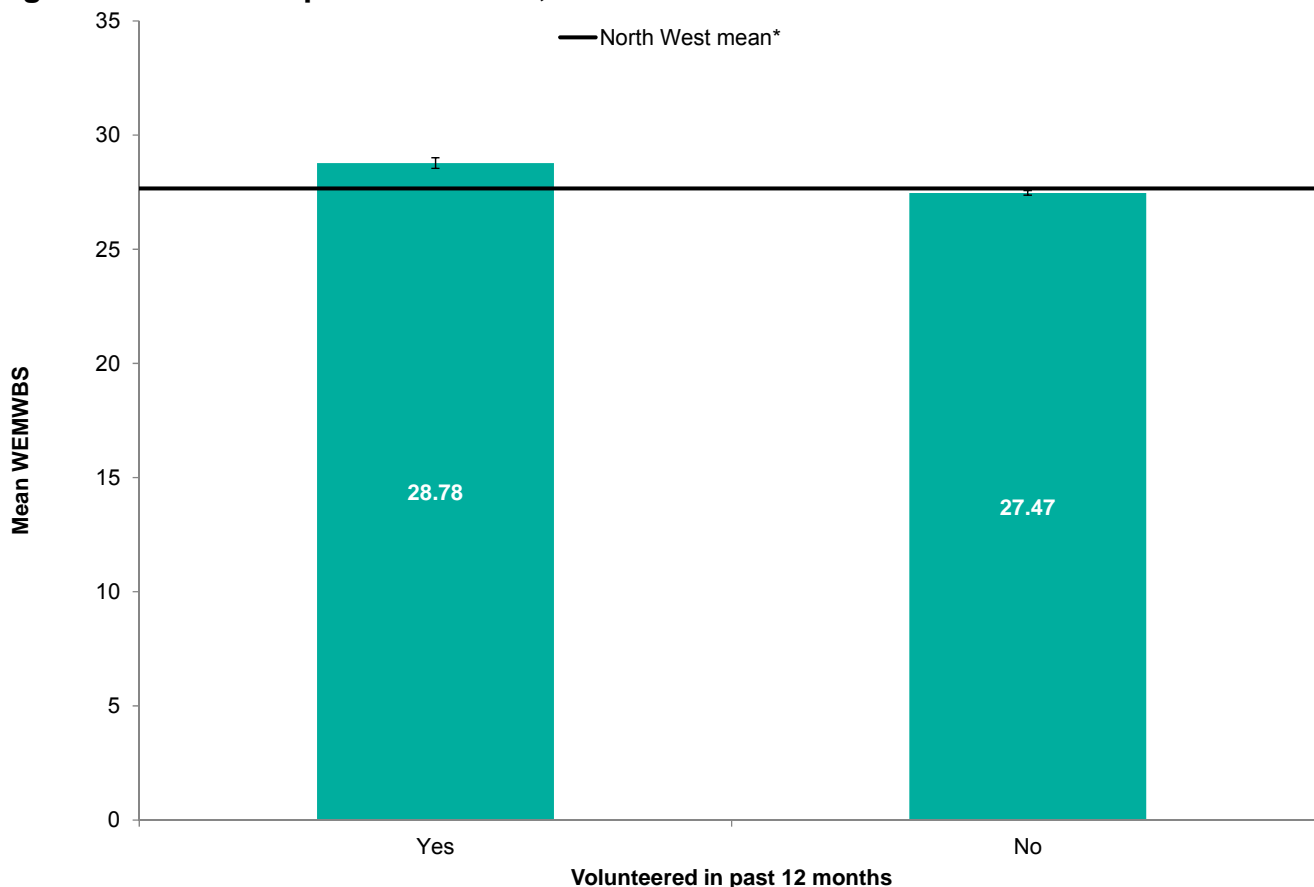
### 6.3.1.3 Voluntary work

All respondents were asked whether they had done any volunteer work for any groups, clubs or organisations in the past twelve months. Volunteering was defined as any unpaid work done to help people besides your family or friends or people you work with. Responses: Yes (14.3%), No (85.7%).

Respondents who said that they had done some voluntary work in the last year reported a significantly higher level of mental wellbeing than those who had done no volunteering (mean WEMWBS scores of 28.78 and 27.47 respectively; Figure 15). The mean scores among those who had volunteered in the last twelve months were also significantly

higher than the North West average (27.66) while the scores among those who had not volunteered were significantly lower.

**Figure 15. Mean WEMWBS score by volunteering for groups, clubs or organisations in the past 12 months, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

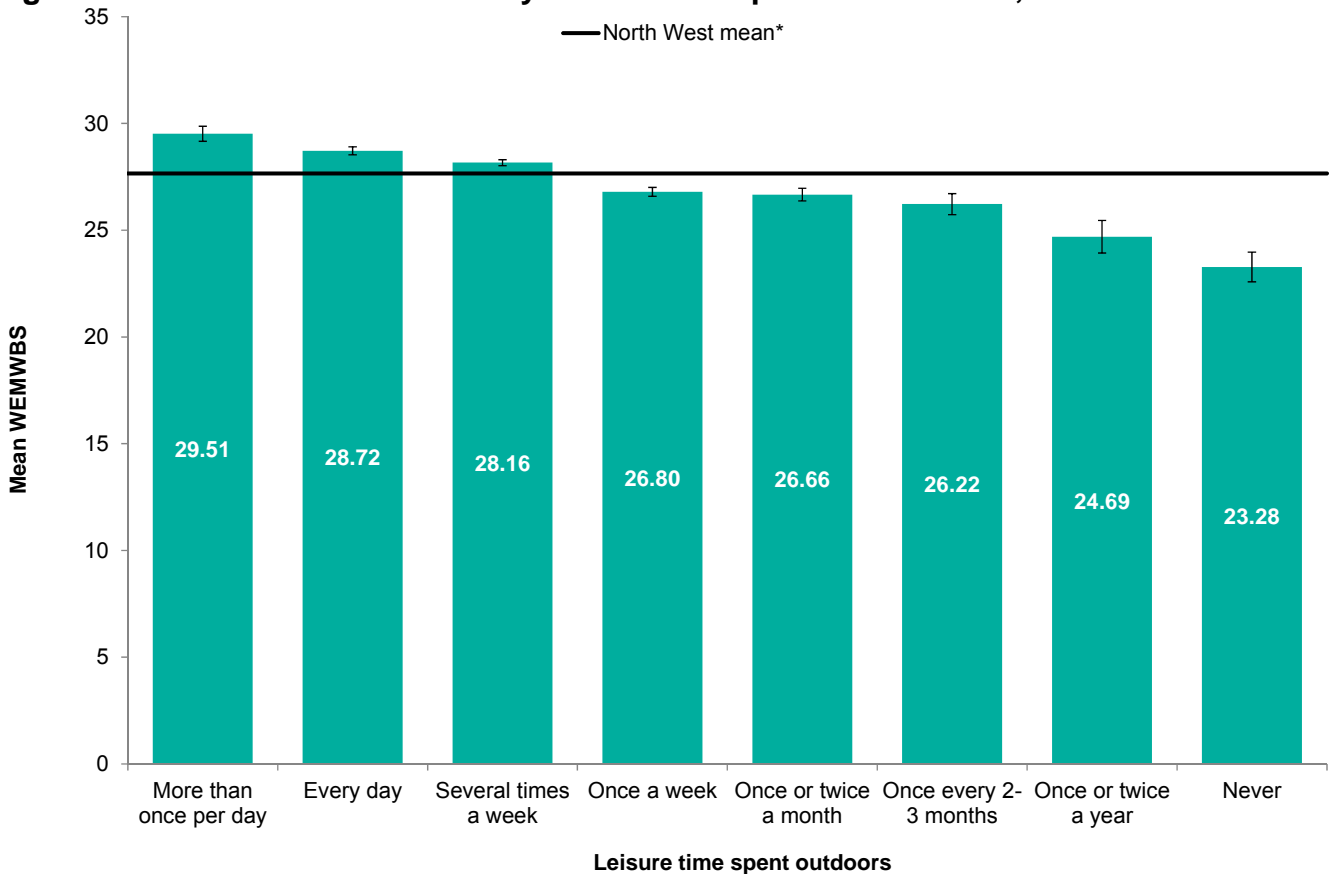
### 6.3.1.4 Natural environment

Respondents were asked to think about how often on average, in the last 12 months, they had spent their leisure time out of doors. Out of doors was defined as open spaces in and around towns and cities, the coast and the countryside. Respondents were told that time spent could be anything from a few minutes to all day and may include time spent in one’s own garden, close to home, further afield or while on holiday. However, this definition did not include routine shopping trips. Responses given were: more than once per day (5.3%), every day (21.6%), several times a week (34.7%), once a week (18.9%), once or twice a month (10.6%), once every 2-3 months (4.3%), once or twice a year (2.2%) or never (2.5%).



The results show a strong relationship between the amount of leisure time spent outdoors and mental wellbeing. Mean mental wellbeing scores gradually decreased with declining leisure time spent outdoors (Figure 16). Those who spent leisure time out of doors more than once per day (in the last 12 months) had the highest average levels of mental wellbeing (mean WEMWBS score 29.51) and those who never spent any leisure time outdoors had the lowest level of wellbeing (mean WEMWBS score 23.28). Levels of mental wellbeing among the three groups who spent their leisure time outdoors several times a week or more were all significantly higher than the regional average (mean WEMWBS scores of 29.51, 28.72 and 28.16 respectively). Conversely, levels of wellbeing among the five groups who spent leisure time outdoors once a week or less were all significantly below the average for the North West.

**Figure 16. Mean WEMWBS score by leisure time spent out of doors, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.3.1.5 Participation in activities

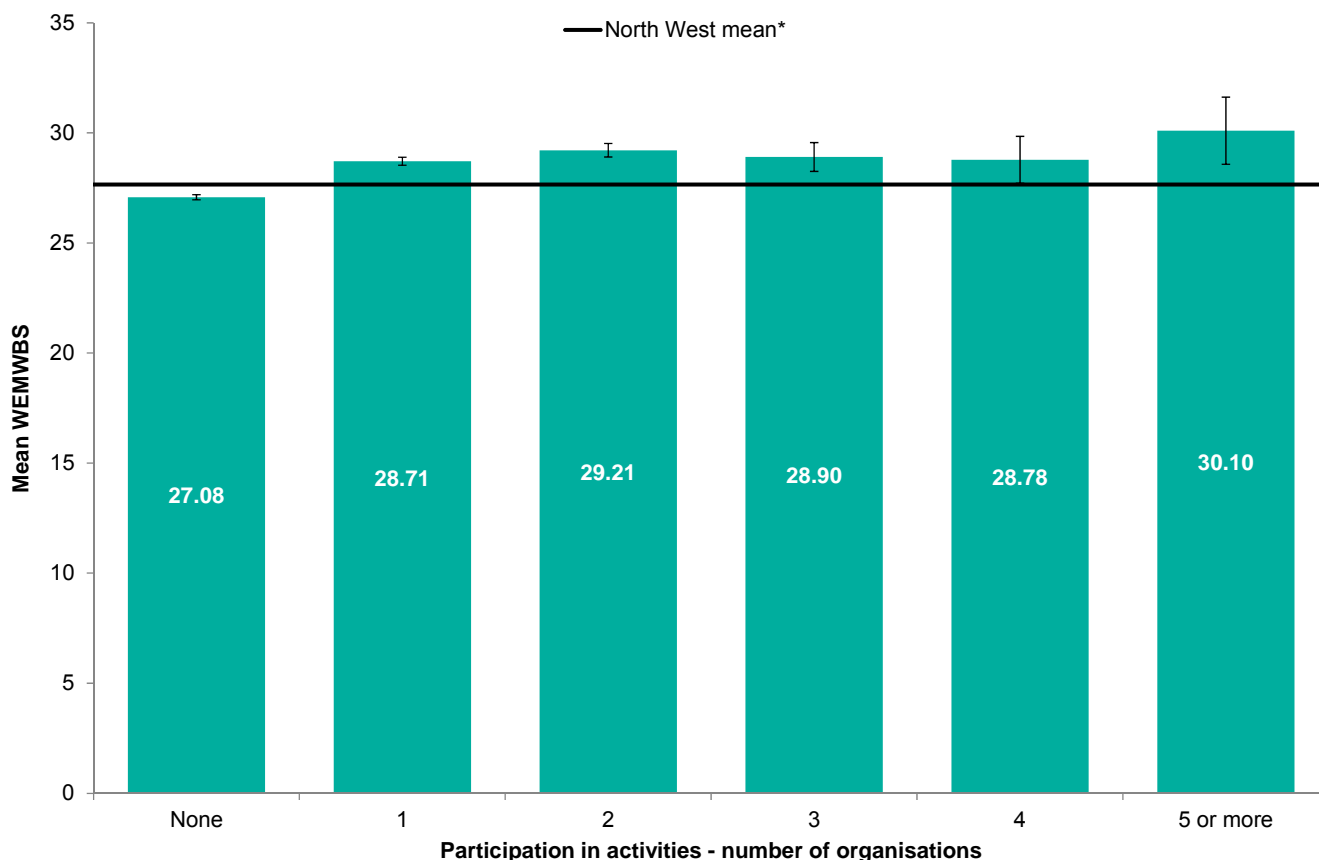
Respondents were asked whether they join in the activities of any organisations on a regular basis, and those organisations<sup>xvii</sup> which they listed were counted. The majority of respondents did not participate in the activities of any organisation (67.0%). Of those who did participate, the number of organisations with which they were involved were: one (71.7%), two (19.7%), three (5.6%), four (2.1%), five or more (0.8%). There was a moderate relationship between the number of organisations joined and wellbeing, with higher levels of mental wellbeing among those who participate in the activities of at least one organisation (Figure 17). The mean WEMWBS score ranged from 27.08 among those who didn't join in the activities of any organisations, to 30.10 among those who joined in the activities of five or more organisations. The level of mental wellbeing among those who didn't join in the activities of any organisations was significantly lower than all other categories and also significantly lower than the North West mean (27.66). There were no significant differences observed between those groups who participated in the activities of one or more organisation.

Compared with the North West mean (27.66), respondents who didn't join in the activities of any organisations had significantly lower mental wellbeing. Levels of mental wellbeing were significantly higher than the North West average among those who participated in the activities of at least one organisation (with the exception of those who join in the activities of four organisations, who showed no significant difference).

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<sup>xvii</sup> Respondents selected organisations from the following list/: political parties; trade unions; environmental group; credit union; parents'/school association; parenting support group/mums and toddlers group; tenants'/residents' group or Neighbourhood Watch; education, arts or music group/evening class; choir, reading groups/book club; religious group or church organisation; support/self-help group; group for elderly people (eg lunch clubs); youth group (eg Scouts, Guides, youth clubs, etc); women's group; social work/working men's club; sports club/sports group (eg swimming, Zumba); slimming group (eg Weight Watchers, Slimming World); none of the above; other (respondent specified).

**Figure 17. Mean WEMWBS score by participation in organisations, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.3.2 Substance use

#### 6.3.2.1 Alcohol

Respondents were asked how often they drank alcohol and how much alcohol they consumed (if any) each day of the week. Based on this information, individuals were classified into the following drinking categories: abstainer (29.5%), lower risk (56.5%),<sup>xviii</sup> increasing risk (10.4%)<sup>xix</sup> and higher risk (3.7%).<sup>xx</sup> The proportion of abstainers reported here are higher than the synthetic estimates<sup>xxi</sup> for the North West presented in the Local

<sup>xviii</sup> Those engaged in lower risk drinking, defined as consumption of less than 22 units of alcohol per week for males, and less than 15 units of alcohol per week for females.

<sup>xix</sup> Those engaged in increasing risk drinking, defined as consumption of between 22 and 50 units of alcohol per week for males, and between 15 and 35 units of alcohol per week for females.

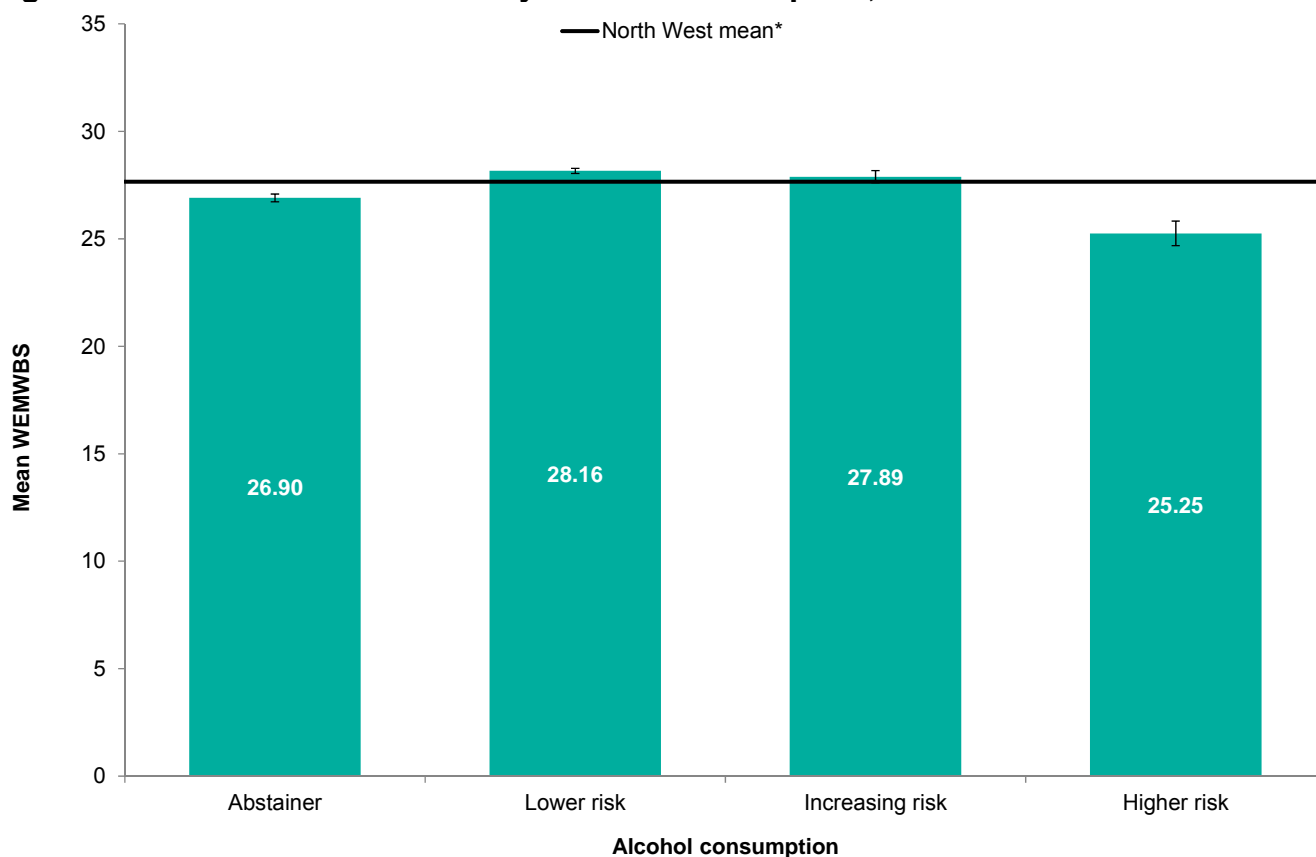
<sup>xx</sup> Those engaged in higher risk drinking, defined as more than 50 units of alcohol per week for males, and more than 35 units of alcohol per week for females.

<sup>xxi</sup> Mid 2009 synthetic estimates were derived from a statistical model developed to estimate the percentage of abstainers, lower risk, increasing risk and high risk drinkers in local authority populations. Details of methodology can be found in the online User Guide at [www.lape.org.uk](http://www.lape.org.uk)

Alcohol Profiles for England (LAPE – [www.lape.org.uk](http://www.lape.org.uk), 15.4%), while all other categories are lower (LAPE lower risk, 75.5%; increasing risk, 19.9%; higher risk, 6.6%).

Abstainers reported significantly lower mental wellbeing (mean WEMWBS score 26.90) than both lower risk and increasing risk drinkers (28.16 and 27.89 respectively), but significantly higher mental wellbeing than higher risk drinkers, the group with the lowest mean WEMWBS score overall (25.25; Figure 18). The highest mean WEMWBS score was among lower risk drinkers (28.16). Compared with the North West mean (27.66), lower risk drinkers had significantly higher mental wellbeing levels, while abstainers and higher risk drinkers had significantly lower mental wellbeing.

**Figure 18. Mean WEMWBS score by alcohol consumption, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

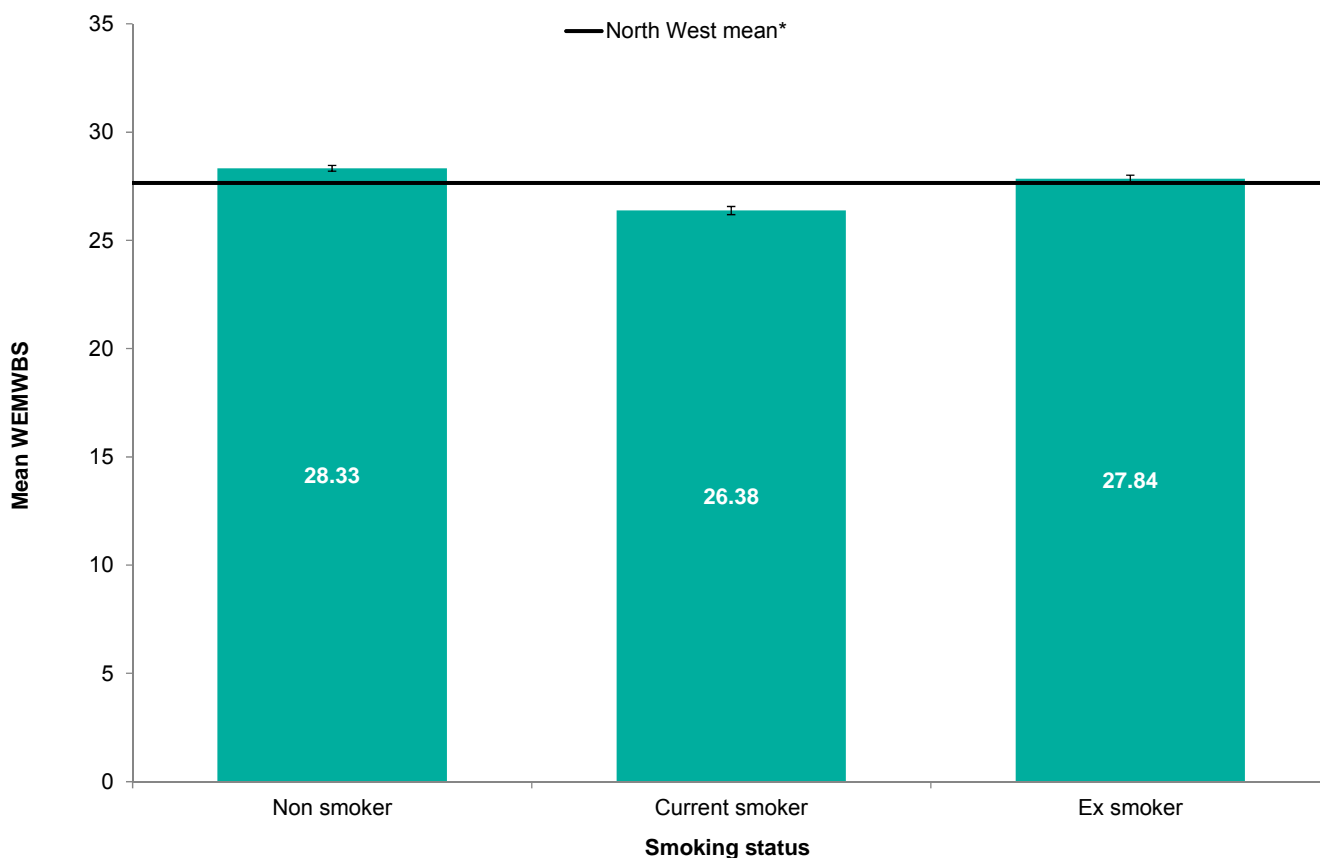
### 6.3.2.2 Smoking

Respondents were asked their smoking status and were given response options: I have never smoked, I used to smoke occasionally but do not smoke at all now, I used to smoke daily but do not smoke at all now, I smoke occasionally but not daily, I smoke

daily. Responses were analysed and respondents classified as non-smokers (45.0%), current smokers (27.7%) or ex-smokers (27.2%). The proportion of current smokers is higher than that reported for the North West in the 2011 General Lifestyle Survey (21%).<sup>33</sup>

Current smokers had lower mental wellbeing than both non-smokers and ex-smokers, while non-smokers had the highest wellbeing across the three categories (Figure 19). The mean WEMWBS score ranged from 26.38 among current smokers to 28.33 among non-smokers. The mean WEMWBS score of non-smokers was significantly higher than the North West mean (27.66), while the mean score for current smokers was significantly lower.

**Figure 19. Mean WEMWBS score by smoking status, 2012/13.**



Error bars represent the 95% confidence intervals.\*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

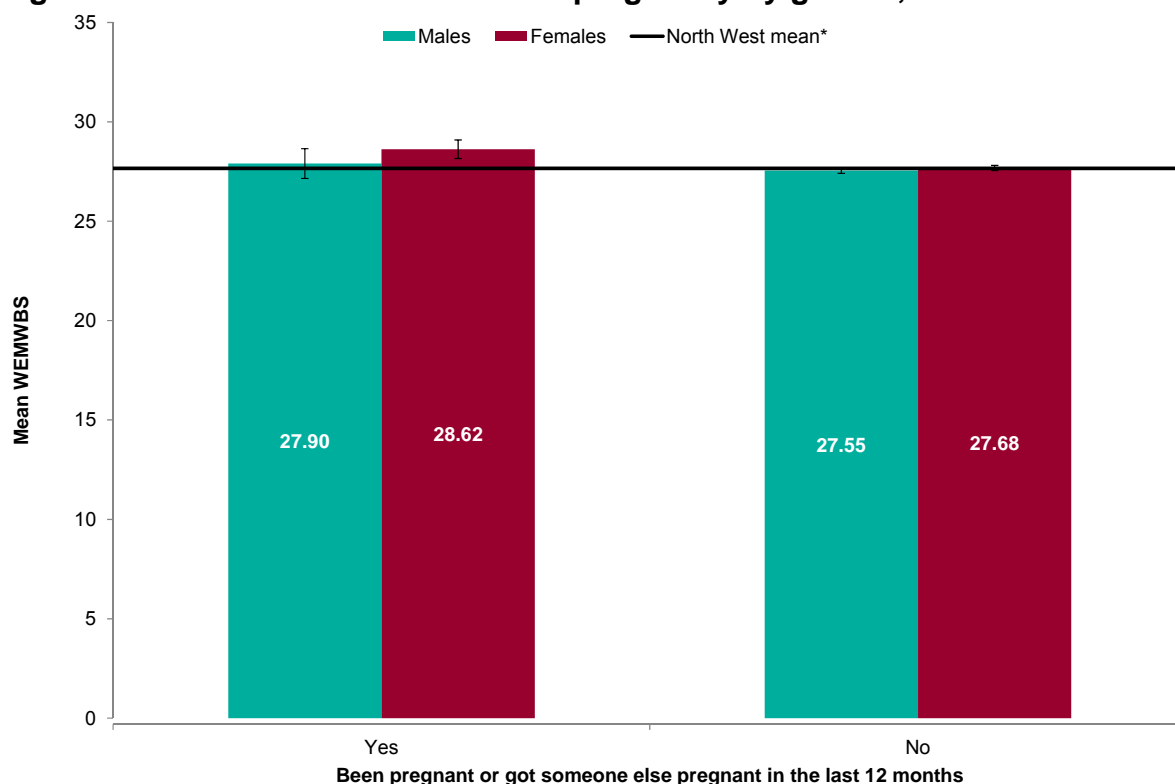
### 6.3.3 Parenting

#### 6.3.3.1 Pregnancy

Respondents were asked if they had been pregnant, or got someone else pregnant in the last 12 months. Responses were: yes (5.3%), no (94.5%), refused (0.2%).

The mental wellbeing among females who had been pregnant in the last 12 months (28.62) was significantly higher than both those who had not been pregnant (27.68) and the overall North West mean (27.66). No significant differences were seen among males who had got someone pregnant in the last 12 months (27.90) compared with those who had not got someone pregnant (27.55) or the North West mean (Figure 20).

**Figure 20. Mean WEMWBS score and pregnancy by gender, 2012/13.**



Error bars represent the 95% confidence intervals. Refused responses = 11 male; mean WEMWBS score 26.35 (95% CI; lower limit, 24.47/upper limit, 28.23); 9 female; mean WEMWBS score 29.68 (95% CI; lower limit, 26.98/upper limit 32.38). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

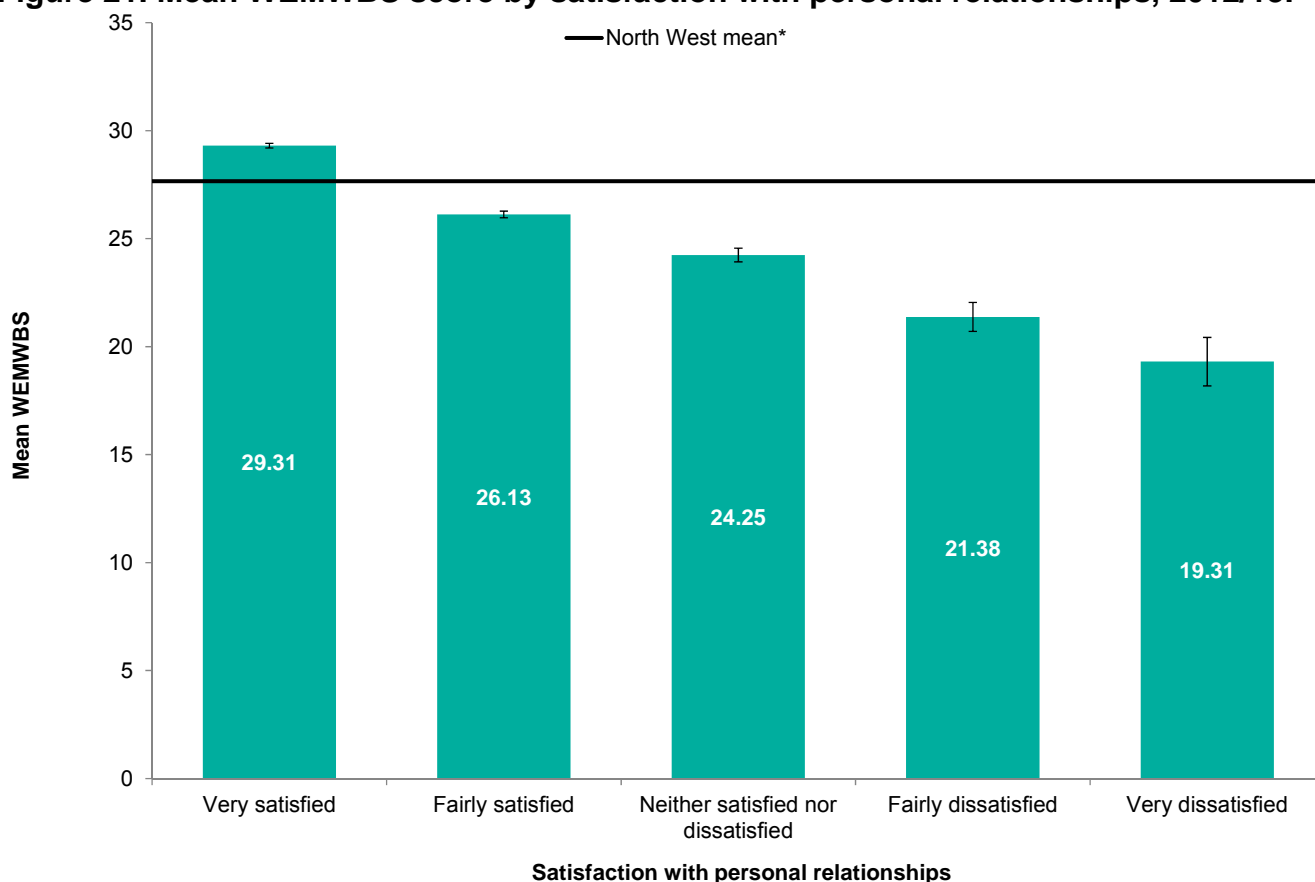
## 6.4 Social connections

### 6.4.1 Relationships

Respondents were asked how satisfied they were with their personal relationships and reported that they were: very satisfied (58.3%), fairly satisfied (29.4%), neither satisfied nor dissatisfied (8.5%), fairly dissatisfied (1.9%), very dissatisfied (1.0%), don't know (0.8%).

There was a clear, strong relationship between satisfaction with personal relationships and wellbeing, with mental wellbeing increasing as satisfaction with personal relationships increased (Figure 21). The mean WEMWBS score ranged from 19.31 among those very dissatisfied with their personal relationships, to 29.31 among those who were very satisfied with their personal relationships. The mean WEMWBS score of respondents who were very satisfied with their personal relationships was significantly higher than the North West mean (27.66), while all other categories were significantly lower.

**Figure 21. Mean WEMWBS score by satisfaction with personal relationships, 2012/13.**



Error bars represent the 95% confidence intervals. Don't know responses = 97; mean WEMWBS score 25.39 (95% CI; lower limit, 24.12/upper limit, 26.67). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.4.2 Social interaction

Respondents were asked two questions regarding social interaction: how often they talk to their neighbours and how often they meet friends or relatives (not living with them). Responses are detailed here:

	talk to neighbours	meet friends or relatives
on most days	33.6%	41.2%
once or twice a week	41.8%	45.4%
once or twice a month	13.3%	9.1%
less often than once a month	6.5%	3.2%
never	4.7%	1.1%

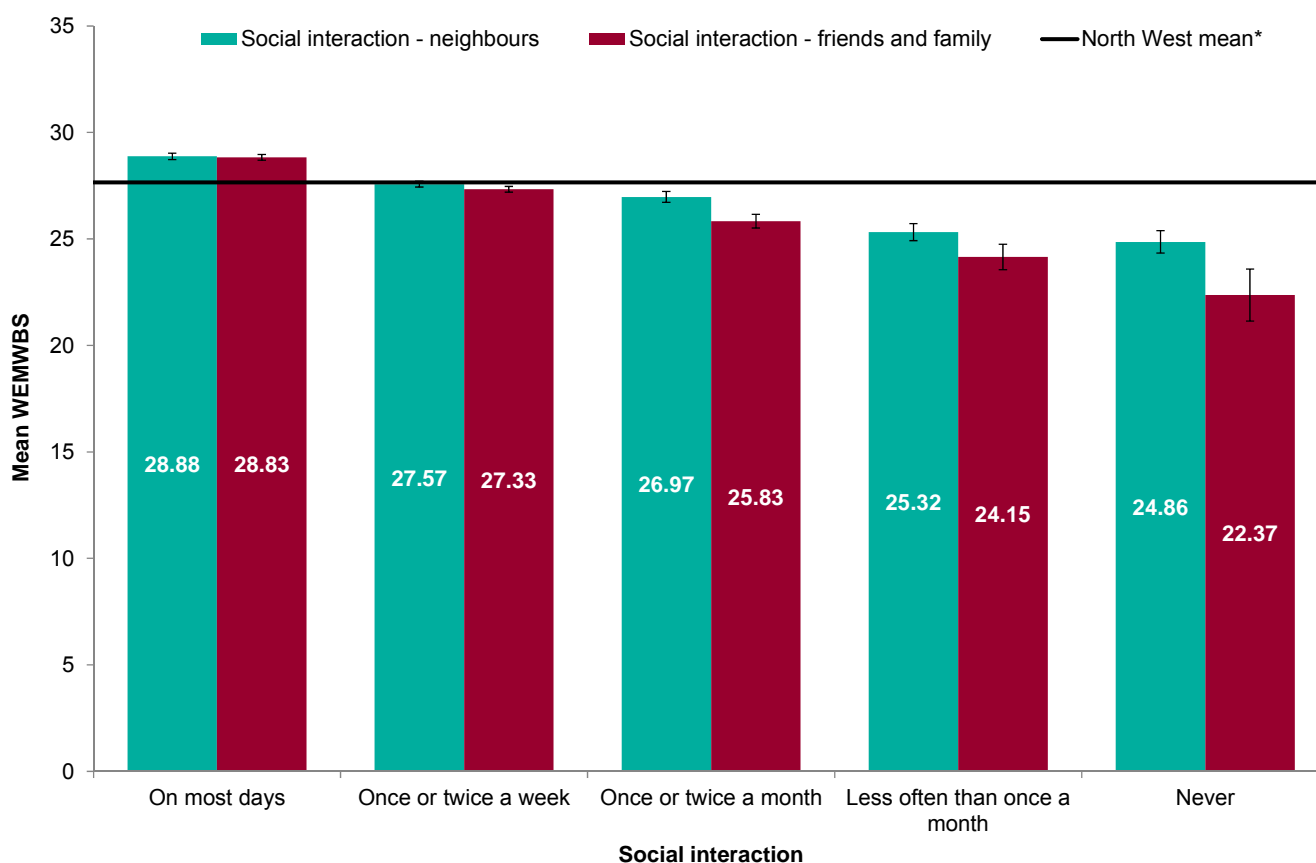
There was a clear relationship between both measures of social interaction and mental wellbeing, with mental wellbeing increasing as frequency of social interaction increased. The relationship was stronger for interaction with friends and family than it was for talking to neighbours. The mean WEMWBS score for social interaction with friends and family ranged from 22.37 among those who never interacted, to 28.83 among those



who interacted on most days. This range was smaller for social interaction with neighbours, with a mean WEMWBS score of 24.86 among those who never interacted, to 28.88 among those who interacted on most days.

The mean WEMWBS score of respondents who scored both questions as ‘on most days’ was significantly higher than the North West mean (27.66). For social interaction with friends and family all other categories were significantly lower than the North West average. For social interaction with neighbours there was no significant difference between the North West mean and the mean of respondents who answered ‘once or twice a week’. The other three categories were all significantly lower than the North West mean.

**Figure 22. Mean WEMWBS score by social interaction, 2012/13.**



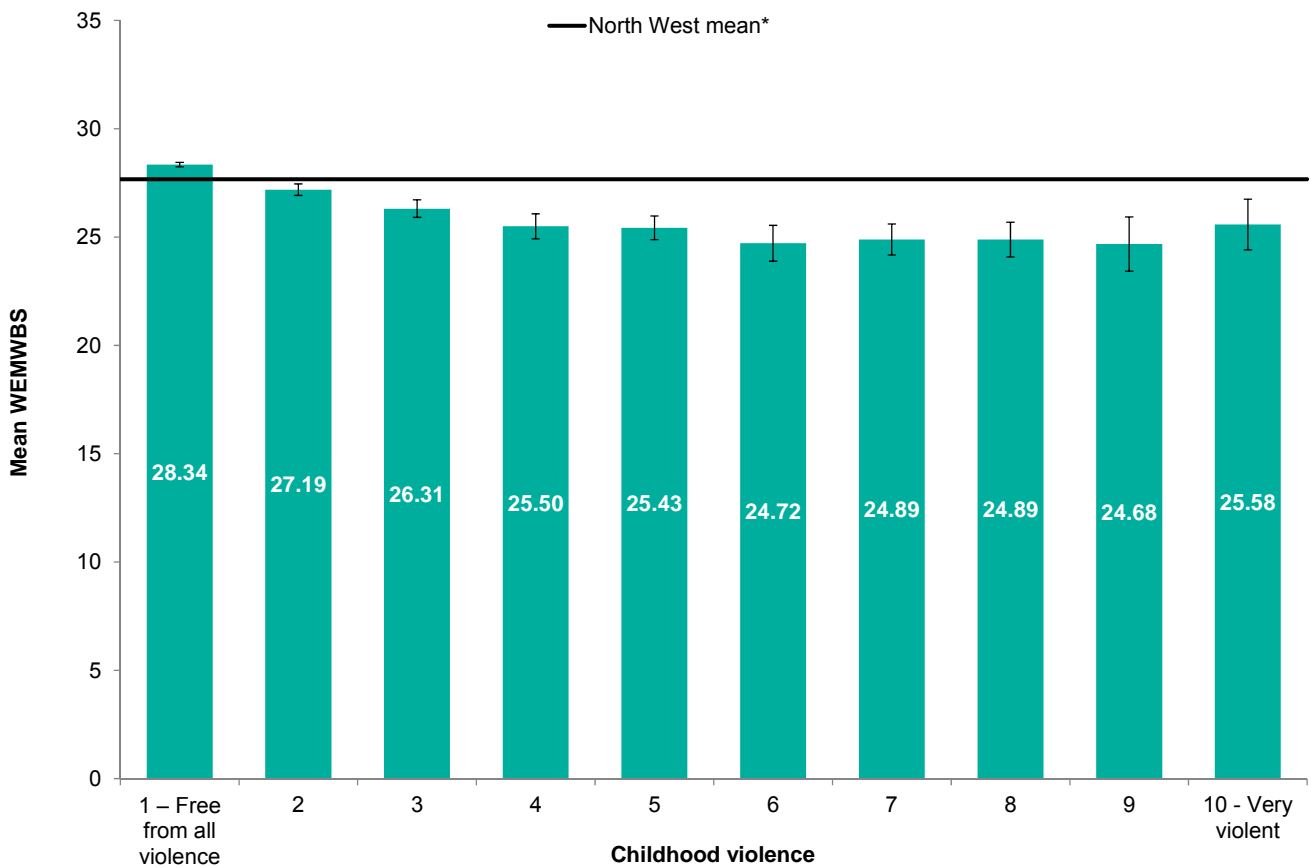
Error bars represent the 95% confidence intervals.\*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.4.3 Childhood violence

Respondents were asked to rate how violent their childhood was on a scale of 1 to 10, with 1 meaning free from all violence and 10 meaning very violent. Overall, the mean childhood violence score was 1.95 (95% CI; lower limit 1.92/upper limit, 1.99).

The highest mean WEMWBS score was among those who reported no experience of childhood violence (28.34), significantly higher than all other score categories and the North West mean (27.66; Figure 23). As levels of childhood violence increased (scores 4 to 10), mental wellbeing decreased, however, these categories were not significantly different from each other. Mean WEMWBS scores ranged from 28.34 for respondents who scored 1 for childhood violence (free from all violence), to 25.58 for respondents who scored 9. The presence of any violence in childhood (scores 2-10) resulted in mean WEMWBS scores that were significantly lower than the North West mean.

**Figure 23. Mean WEMWBS score by childhood violence, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

#### 6.4.4 Social support

Respondents were asked whether they would ask for help in the following four situations: you need a lift to be somewhere urgently; you are ill in bed and need help at home; you are in financial difficulty and need to borrow £100; if you had a serious personal crisis, do you have people you can turn to for comfort and support. Response options were: yes, no or don't know/it depends.

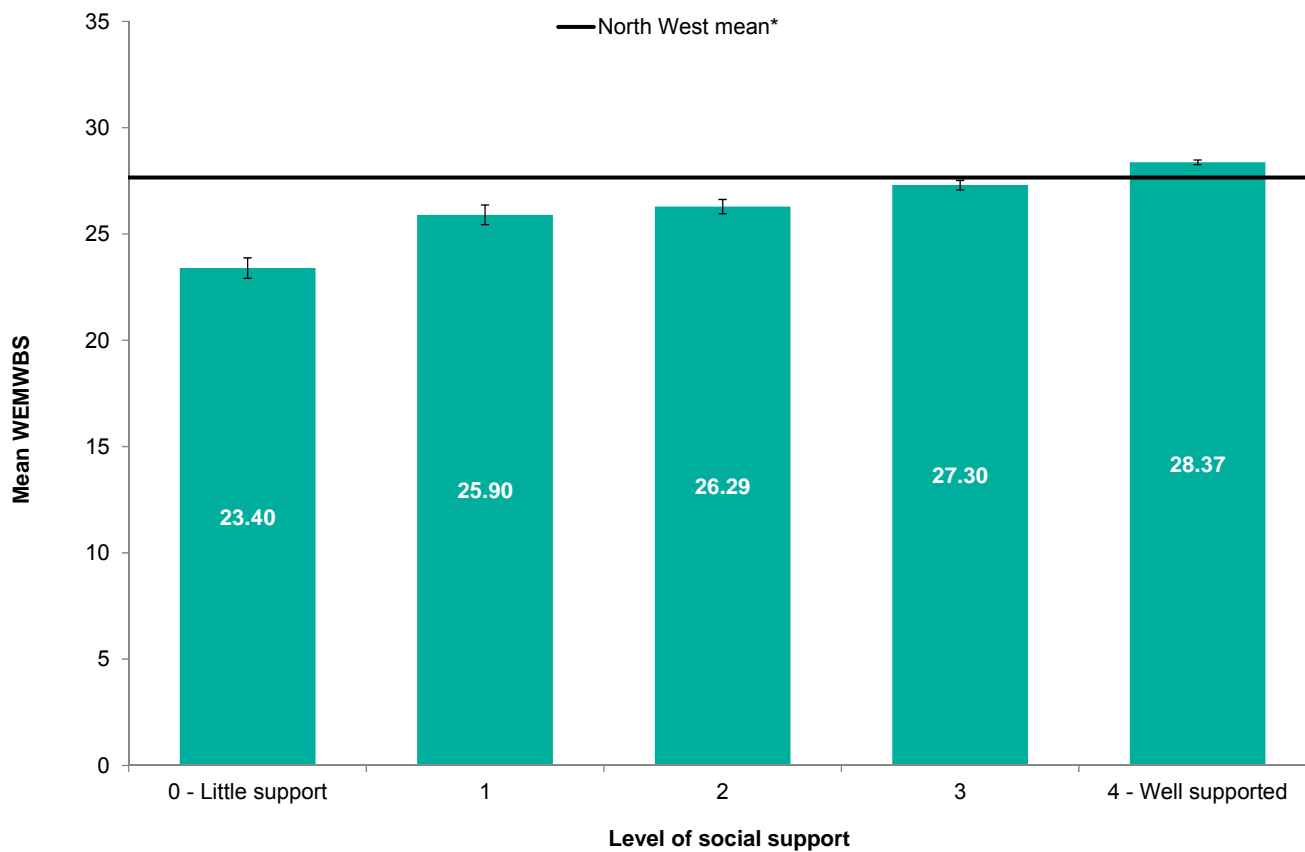
Proportions as follows:

	Yes	No	Don't know /it depends
Need a lift to be somewhere urgently	86.6%	7.3%	6.1%
Ill in bed and need help at home	85.5%	8.2%	6.3%
In financial difficulty and need to borrow £100	70.6%	16.1%	13.3%
Serious personal crisis: people you can turn to for comfort and support	89.7%	5.4%	5.0%

A total 'perception of social support' score (ranging from 0-4) was generated by allocating 'yes' responses a value of 1, while no/don't know responses were scored 0. A total score of 0 suggests little social support, while a score of 4 suggests the respondent is being well supported. The proportion of responses for each score were as follows: support score 0 (5.1%); 1 (5.2%); 2 (7.8%); 3 (15.7%); 4 (66.1%).

There was a clear relationship between perceived social support and mental wellbeing, with higher levels of mental wellbeing seen as social support increased (Figure 24). Mean WEMWBS score ranged from 23.40 among those who scored 0 (little support), to 28.37 for those who scored 4 (well supported). Respondents who were well supported reported significantly higher mean WEMWBS scores than the North West mean, while all other categories were significantly lower.

**Figure 24. Mean WEMWBS score by social support, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.4.5 Trust

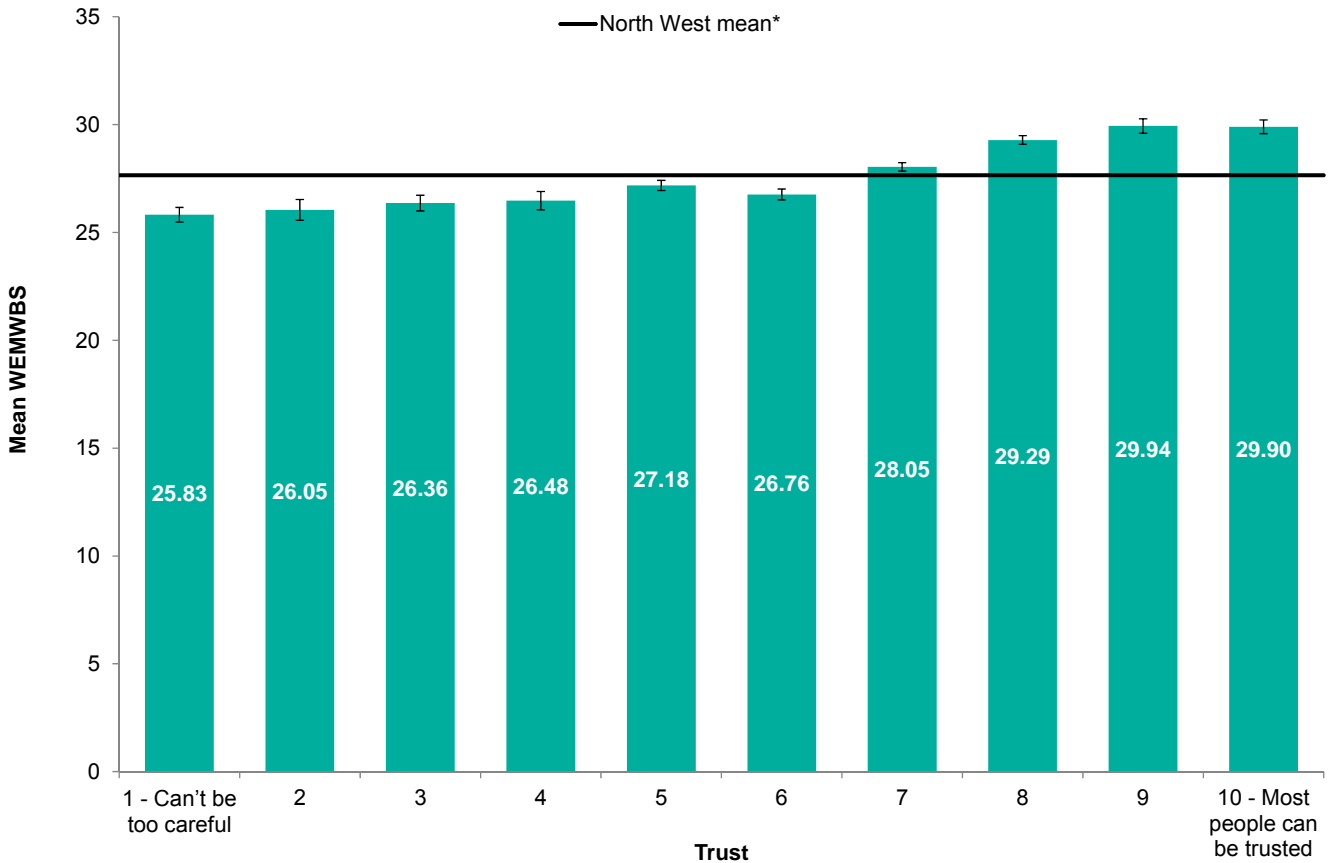
Respondents were asked to rate their level of trust in people<sup>xxii</sup> on a scale of 1 ‘can’t be too careful’ to 10 ‘most people can be trusted’. The mean trust score was 5.74 (95% CI; lower limit, 5.70/upper limit, 5.79).

There was a general trend between feelings of trust and mental wellbeing, with higher levels of trust tending to be associated with increased mental wellbeing (Figure 25). Mean WEMWBS score ranged from 25.83 for respondents with lowest score of trust (1), to 29.90 for those who scored trust at 10 (those with a score of 9 had a slightly higher mean WEMWBS score than those who scored 10, however this difference was not significant). Respondents who scored 7 or higher for trust had a significantly higher

<sup>xxii</sup> The question was ‘Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people? Please give a score of 1 to 10 where 1 means you can’t be too careful and 10 means that most people can be trusted.’

mean WEMWBS score than the North West mean (27.66), while all other scores were significantly lower.

**Figure 25. Mean WEMWBS score by level of trust, 2012/13.**



Error bars represent the 95% confidence intervals.\*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

## 6.5 Employment and finances

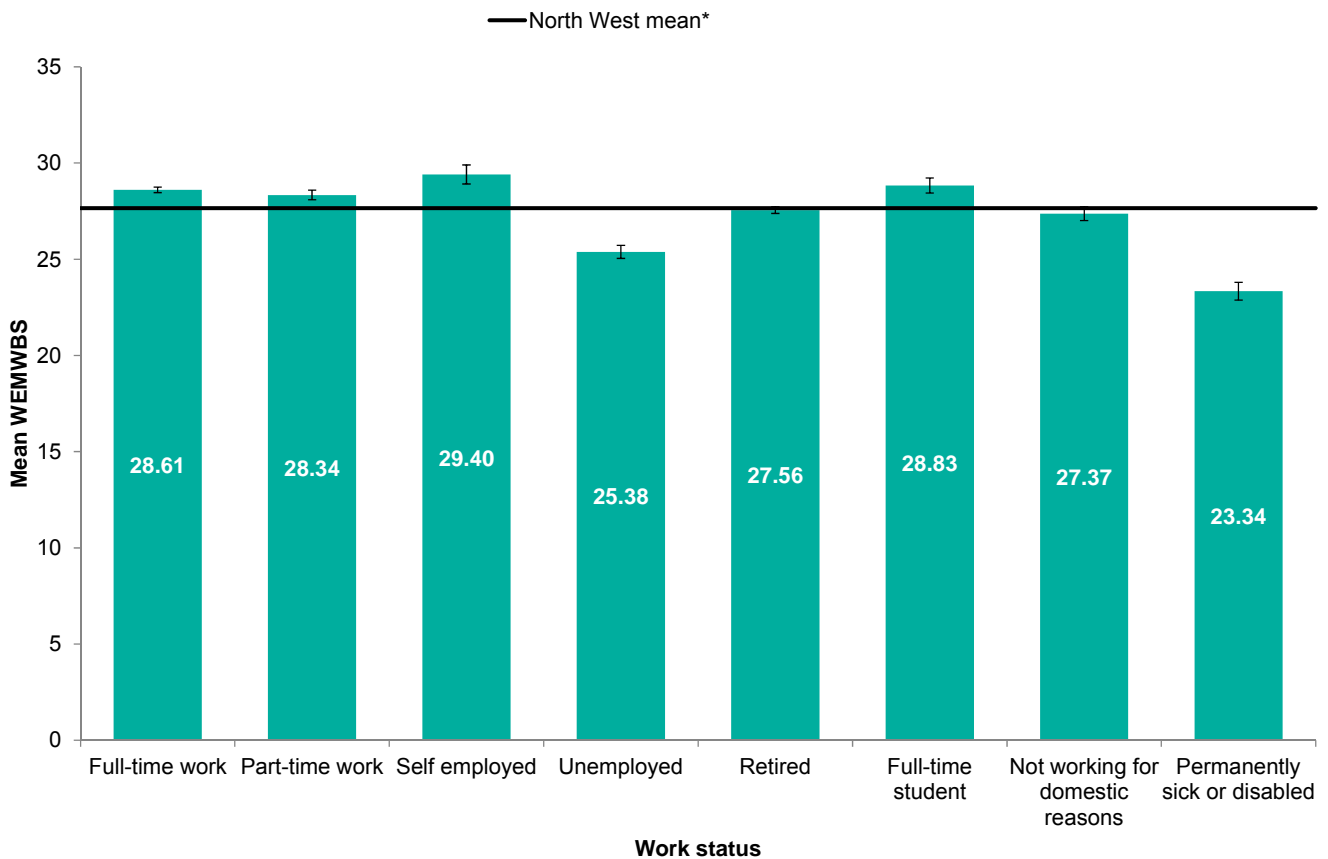
### 6.5.1 Working status of respondent

Respondents provided information relating to their working status. Response categories were: paid work full-time (32.3%); paid work part-time (11.7%); self-employed (3.2%); full-time student (4.6%), out of work registered unemployed and actively seeking work (6.7%); out of work, registered unemployed but not actively seeking work (1.7%); permanently sick or disabled (5.7%); not working for domestic reasons (7.2%); retired (25.3%), other (1.6%). The two 'out of work, registered unemployed' categories were combined into an 'unemployed' category for the purposes of this analysis.

Overall, respondents who were self-employed had the highest levels of wellbeing (mean WEMWBS score 29.40), significantly higher than the North West mean (27.66) and all

other working status groups (Figure 26). Full-time students (28.83) and those in full-time and part-time employment (28.61 and 28.34 respectively) also had wellbeing levels that were higher than the North West mean. Those who were permanently sick or disabled had the lowest levels of wellbeing (23.34), significantly lower than the North West mean and all other groups. Those who were unemployed also had low levels of wellbeing (25.38), again lower than the North West and all other groups (with the exception of those who were permanently sick or disabled).

**Figure 26. Mean WEMWBS score by working status of respondent, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

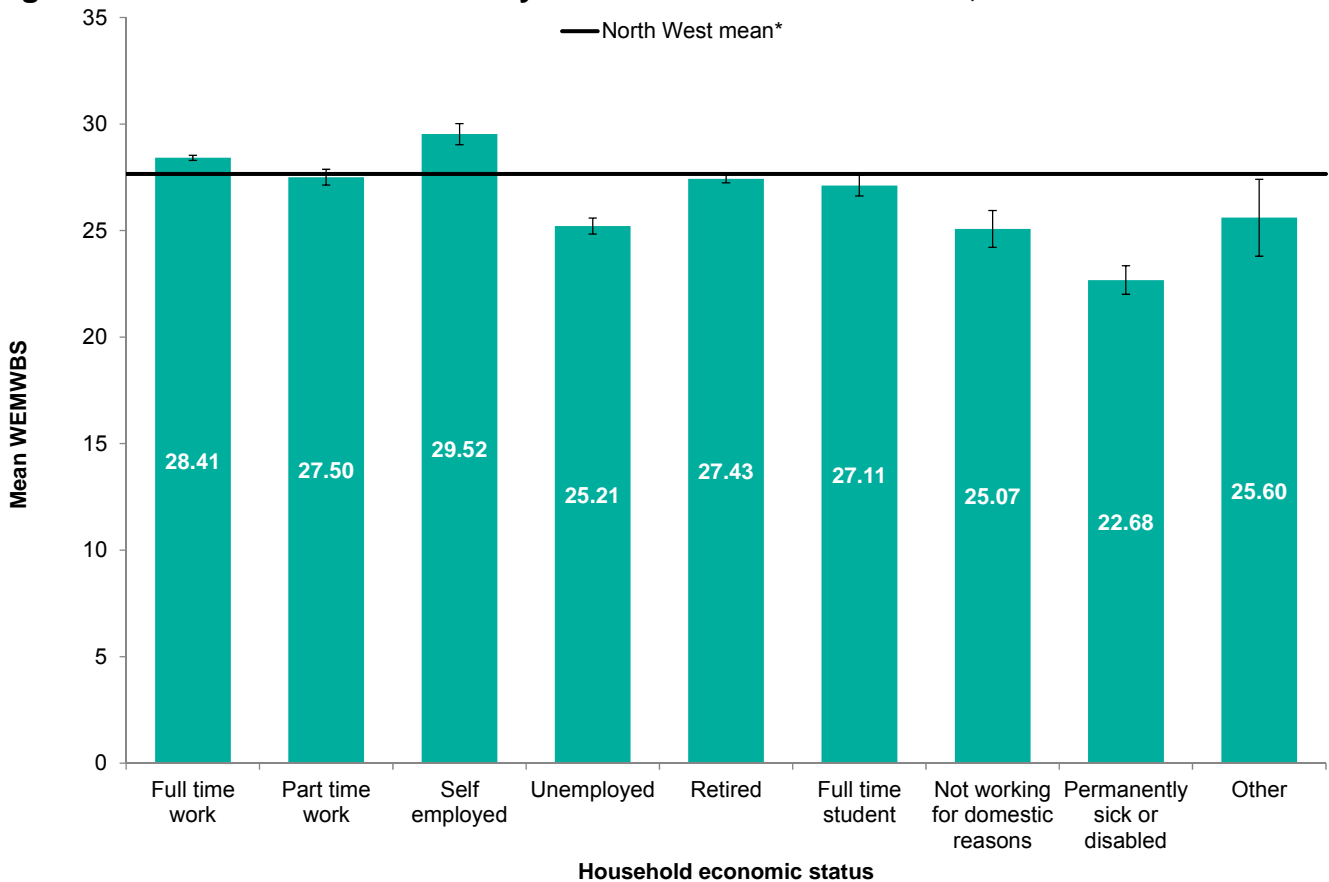
### 6.5.2 Household economic status

Respondents provided information relating to their own working status, along with that of all other adult household members to identify which of the following household economic status the respondent lived in: employed; unemployed; retired; full-time student; inactive due to domestic reasons; inactive due to sickness; and other. For households with more than one adult a priority order was developed from the 2001 Census: full-time work; self-employed; part-time work; unemployed; retired; full-time student; inactive: domestic; inactive: sickness or disability; and other.

The household economic status given is that of the adult in the household with the highest position on this list. For example, if the respondent was unemployed, but another adult in the household was employed, the household economic status would be employed. After 'retired' the Census would have taken account of adults' respective ages, so the household would be classified as 'student' if the older adult was a full-time student, and 'domestic' if the older adult was inactive domestic. The proportion of respondents in each category is as follows: full time work (52.5%), part time work (6.2%), self-employed (2.9%), unemployed (7.3%), retired (22.5%), full-time student (3.9%), not working for domestic reasons (1.6%), permanently sick or disabled (2.8%), other (0.3%).

Overall, those living in self-employed or full-time work status households had the highest levels of wellbeing (mean WEMWBS scores of 29.52 and 28.41 respectively), and were the only categories that were significantly higher than the North West mean (27.66) and all other groups (Figure 27). Households which had a status of permanently sick or disabled had the lowest overall wellbeing (22.68), significantly lower than the North West average and all other groups.

**Figure 27. Mean WEMWBS score by household economic status, 2012/13.**



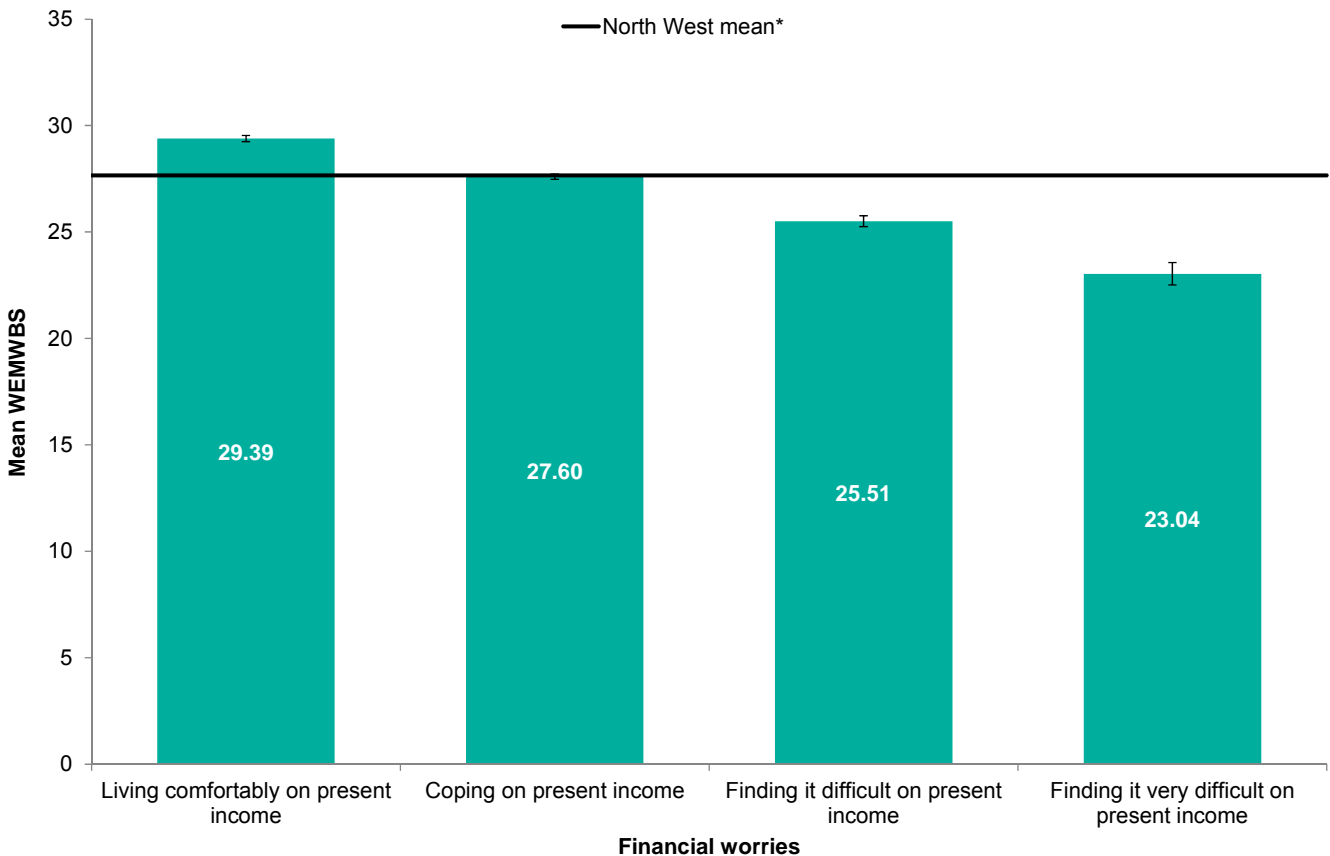
Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.5.3 Financial worries

Respondents were asked which phrase best described their feelings about their current household income, responses were: living comfortably on present income (30.1%), coping on present income (51.9%), finding it difficult on present income (13.7%), finding it very difficult on present income (4.3%).

There was a clear relationship between financial worries and mental wellbeing, as financial worry increased, mental wellbeing decreased (Figure 28). Mean WEMWBS scores ranged from 29.39 for those living comfortably on present income, to 23.04 for those finding it very difficult on present income. The mean WEMWBS score of those living comfortably was significantly higher than the North West mean (27.66), while no significant difference existed between respondents coping on present income and the North West mean. Those finding it difficult or very difficult to cope on their present income had mental wellbeing levels significantly lower than the North West average.

**Figure 28. Mean WEMWBS score by financial worries, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).



## 6.6 Education

### 6.6.1 Qualification level

Respondents were asked a multi-response question<sup>xxiii</sup> to determine their overall highest qualification level. Where possible, National Qualifications Framework (NQF) qualification levels<sup>xxiv</sup> were used. Apprenticeships were classed as Level 2. If a respondent had other vocational/work related qualifications or foreign qualifications, but no other qualifications, they were not assigned a qualification level. Instead, these categories (other, foreign) were carried across as they were. The proportion of respondents in each qualification category were as follows: none (24.6%), entry/level 1 (10.5%), level 2 (26.7%), level 3 (13.5%), level 4+ (19.5%), other vocational/work related qualifications (4.3%), foreign qualifications (0.8%).

The mental wellbeing of those with any form of qualification was significantly higher than those with none (Figure 29). In general, those with higher qualification levels had higher levels of wellbeing. Those with level 3 or 4+ qualification had significantly higher mean WEMWBS scores than those with entry/level 1 or 2. Those with vocational/work related qualifications or foreign qualifications also had significantly higher wellbeing than those with entry/level 1 or 2, however, while these groups had mean WEMWBS score that were lower than those with level 3 or level 4+ qualifications, the difference was only significant between level 4+ and vocational/work related qualifications.

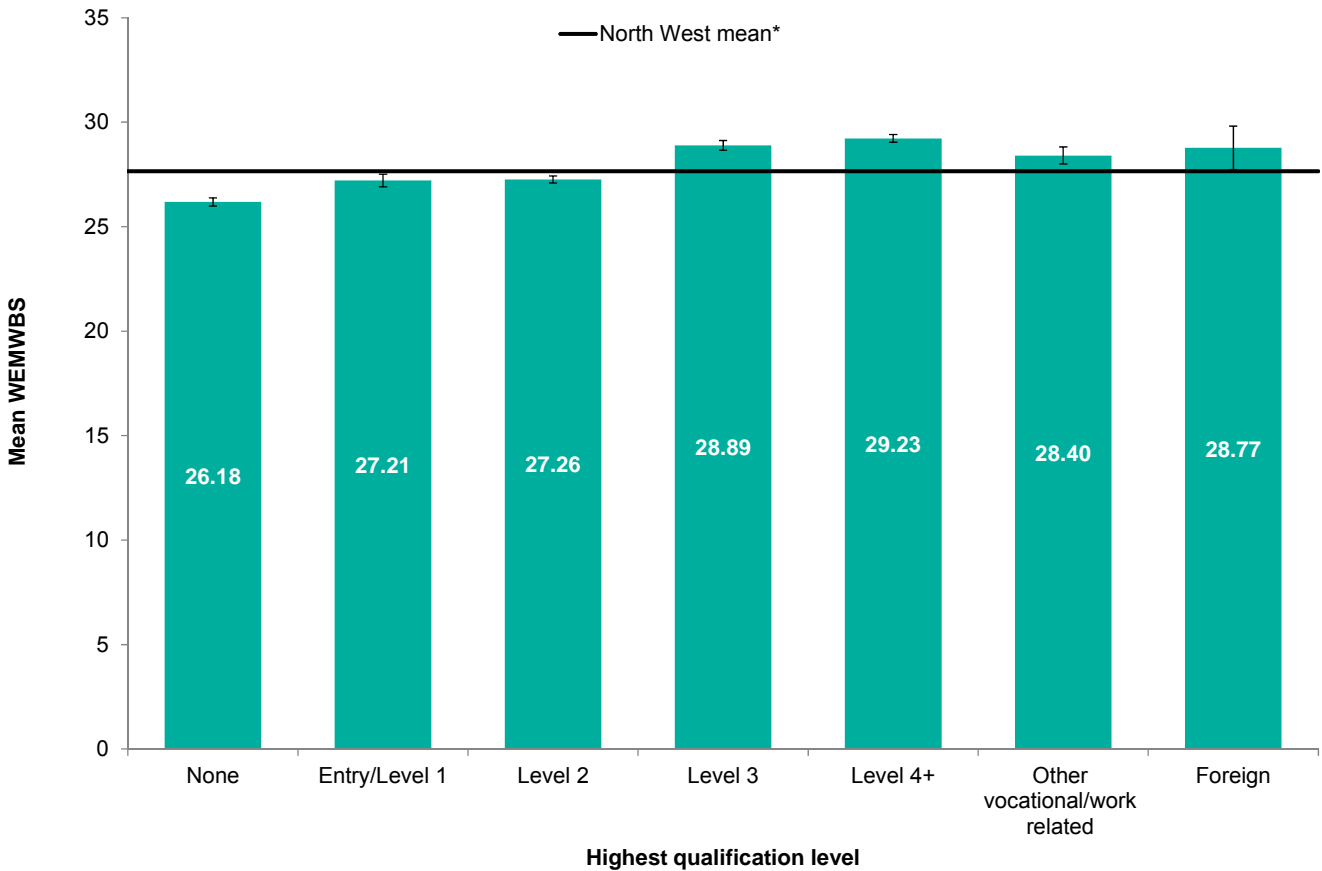
Mean WEMWBS scores were highest for respondents with level 4+ qualifications (29.23), and lowest for respondents with no qualifications (26.18). Compared with the North West mean, those with level 2 or lower qualifications all had mean WEMWBS scores that were significantly lower, while the other groups had significantly higher mean scores (with the exception of those with foreign qualifications which showed no significant difference).

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<sup>xxiii</sup> Qualification options were: None = No qualifications; Entry/Level 1 = 1+ O levels/CSEs/GCSEs (any grades), Basic Skills and/or NVQ Level 1, Foundation GNVQ AND no higher level qualification; Level 2 = 5+ O levels (any grade), CSEs (grade 1), GCSEs (grades A\*-C), School Certificate, 1+ A levels / AS levels / VCEs and/or NVQ Level 2, Intermediate GNVQ City and Guilds Craft, BTEC First/General Diploma, RSA Diploma and/or Apprenticeship AND no higher level qualification; Level 3 = 2+ A levels, 4+ AS levels, Higher School Certificate and/or NVQ Level 3, Advanced GNVQ, City and Guilds Advanced Craft, ONC, OND, BTEC National, RSA Advanced Diploma AND no higher level qualification; Level 4+ = First Degree (eg BA, BSc), Higher degree (eg MA, PhD, PGCE) and/or NVQ Level 4-5, HNC, HND, RSA, Higher Diploma, BTEC Higher level and/or Professional Qualifications (eg nursing, teaching, accountancy); Other vocational/work related qualifications = Other vocational/work related qualifications AND no other qualification; Foreign qualifications = Foreign qualifications AND no other qualification.

<sup>xxiv</sup> For further information see: [www.qcda.gov.uk/libraryAssets/media/qca-06-2298-nqf-web.pdf](http://www.qcda.gov.uk/libraryAssets/media/qca-06-2298-nqf-web.pdf)

**Figure 29. Mean WEMWBS score by highest qualification level, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

## 6.7 Housing and environment

### 6.7.1 Accommodation

#### 6.7.1.1 Home ownership

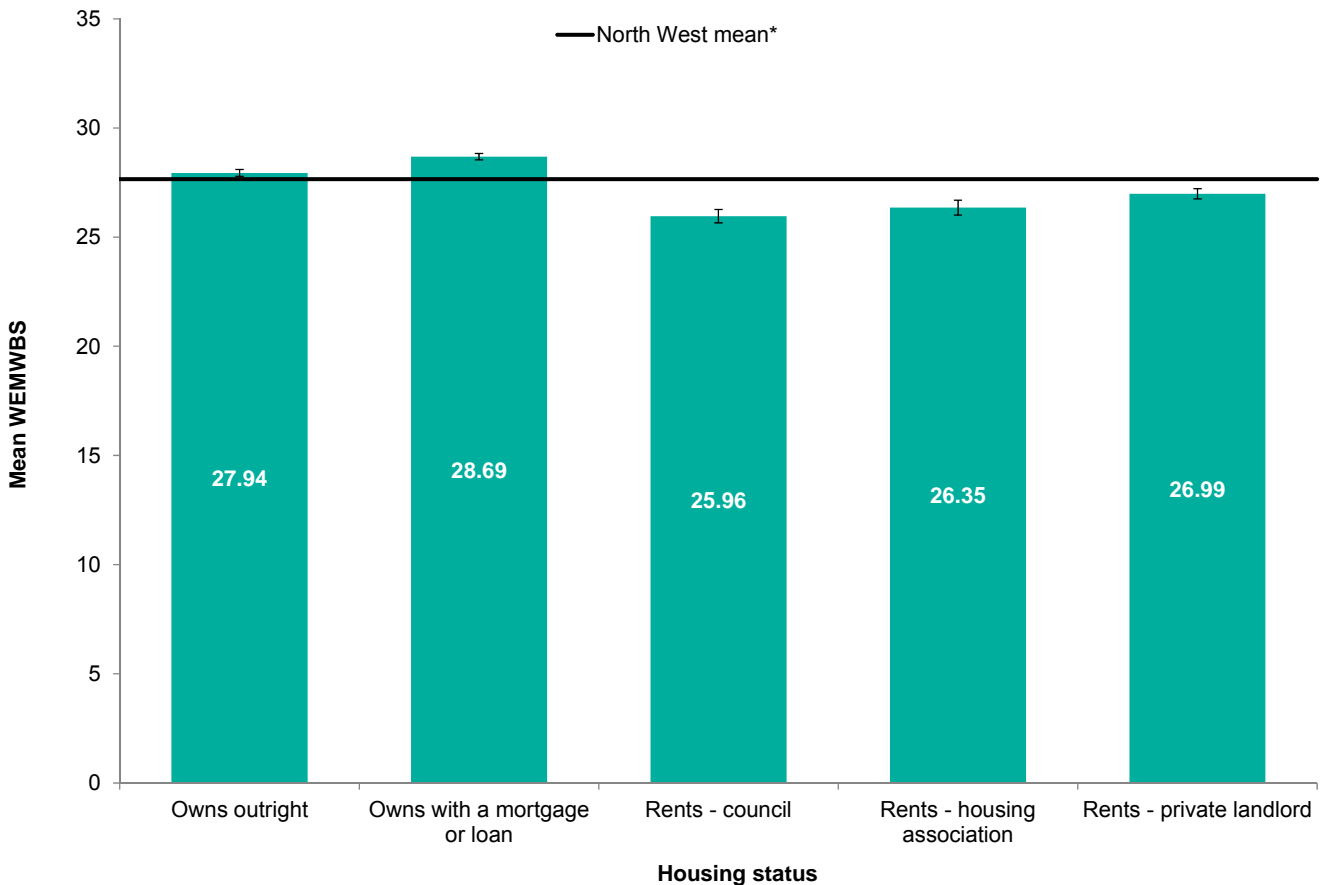
Respondents were asked whether they, or anyone living in their home, own or rent the accommodation in which they live. Responses were: owns outright (30.1%), owns with a mortgage or loan (30.6%), pays part rent and part mortgage (shared ownership – 0.2%), accommodation is a residential home or student halls (0.2%), rents from the council (11.4%), rents from a housing association (8.9%), rents from a private landlord (17.4%) or other (1.1%). Due to small numbers, data relating to residential home or student halls, shared ownership or ‘other’ accommodation had wide confidence intervals and have, therefore, not been displayed here.

There was a clear difference in wellbeing by type of home ownership, with those who rent their home having significantly lower mental wellbeing than those who own their

home outright or with a mortgage (Figure 30). The mean WEMWBS score among those who own their home with a mortgage or loan (28.69) was significantly higher than those who own their home outright (27.94) and all rental categories. For those respondents who rent their home, those who rent from a private landlord had significantly higher mean WEMWBS score (26.99) than those who rent from a housing association (26.35) or council (25.96).

Compared with the North West mean (27.66), those who owned their home outright or with a mortgage or loan had significantly higher levels of mental wellbeing, while those who rented their home from council, housing association or a private landlord all had significantly lower mental wellbeing levels.

**Figure 30. Mean WEMWBS score by home ownership status, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

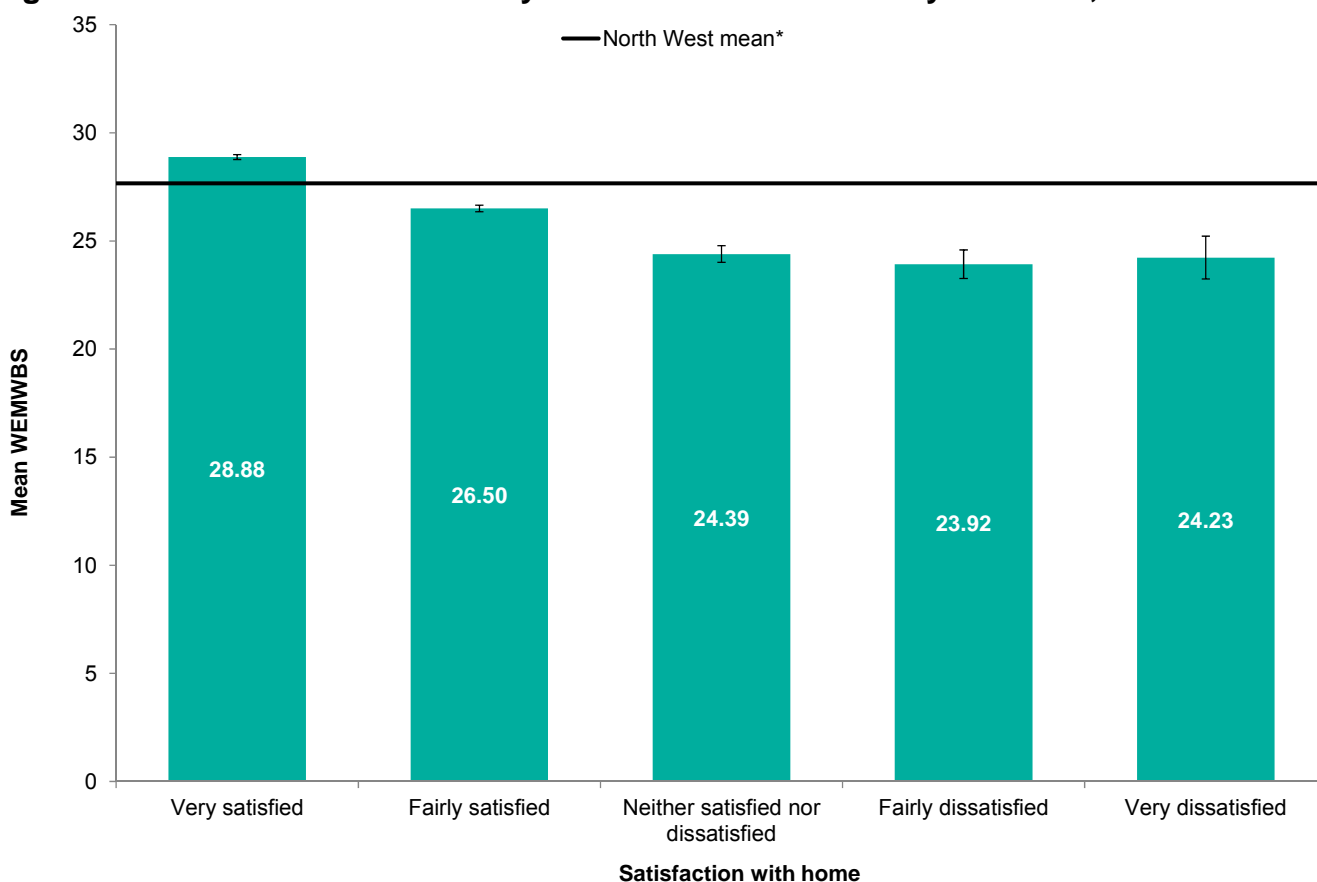
### 6.7.1.2 Satisfaction with home

Respondents were asked about their level of satisfaction with their home. Response options were: very satisfied (57.7%), fairly satisfied (32.2%), neither satisfied nor

dissatisfied (5.7%), fairly dissatisfied (2.5%), very dissatisfied (1.5%), no opinion (0.2%) or not answered (0.1%).

There was a clear relationship between mental wellbeing and home satisfaction (Figure 31), with those who were very satisfied with their home having the highest mean WEMWBS score (28.88), significantly higher than all other groups and the North West average (27.66). The lowest mean WEMWBS scores were for those in the fairly dissatisfied (23.92) and dissatisfied (24.23) groups, and while there was no significant difference between these two categories, they were both significantly lower than the North West average and the very/fairly satisfied categories.

**Figure 31. Mean WEMWBS score by level of satisfaction with your home, 2012/13.**



Error bars represent the 95% confidence intervals. No opinion/Not answered = 34; mean WEMWBS score 26.56 (95% CI; lower limit, 24.42/upper limit 28.70). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

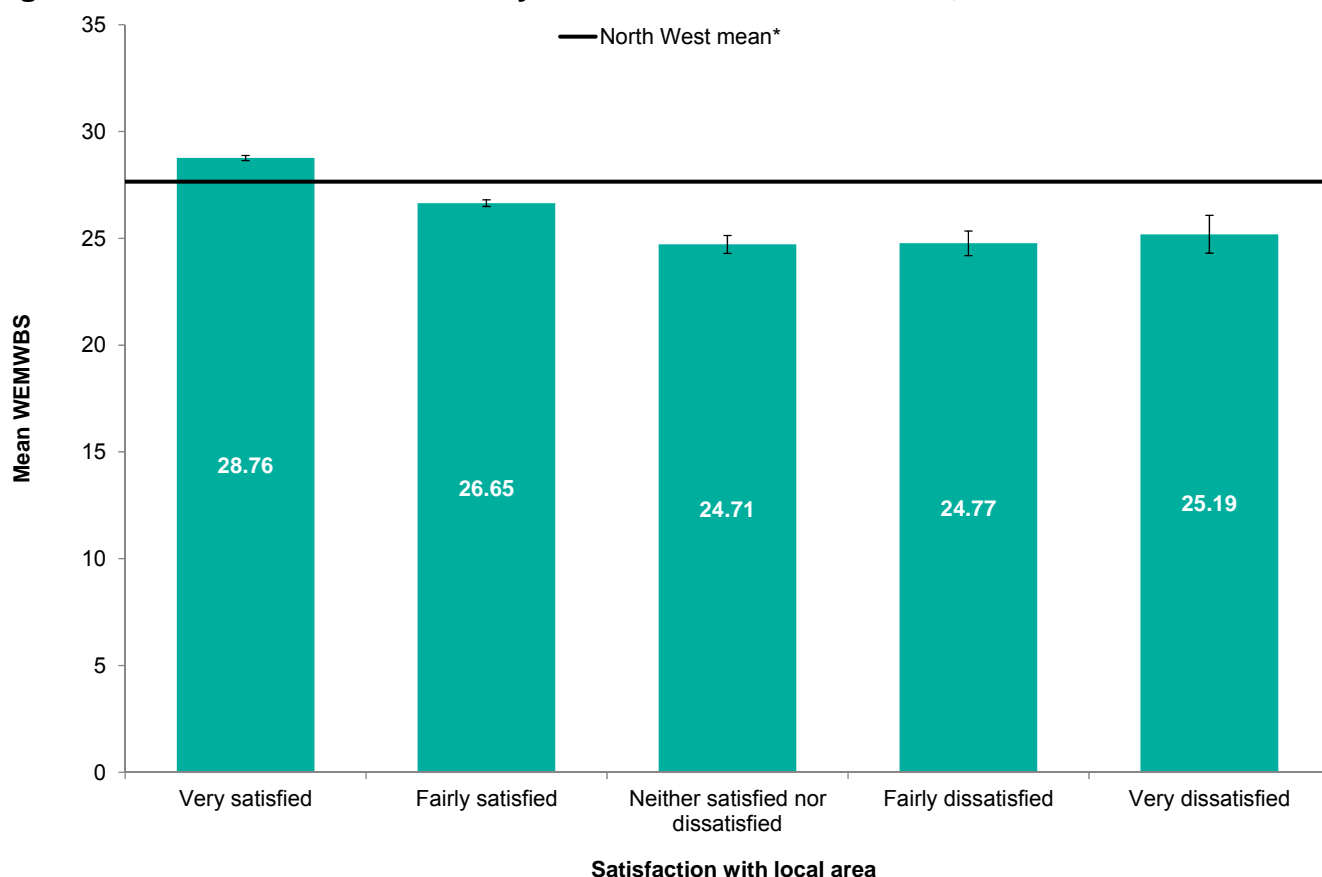
## 6.7.2 Local area

### 6.7.2.1 Satisfaction with local area

Respondents were asked about their satisfaction with the local area as a place to live, with response options: very satisfied (56.6%), fairly satisfied (33.2%), neither satisfied nor dissatisfied (5.2%), fairly dissatisfied (3.4%), very dissatisfied (1.6%).

Overall, respondents who were very or fairly satisfied with their local area as a place to live had significantly higher levels of wellbeing (mean WEMWBS scores of 28.76 and 26.65 respectively) than those who were fairly or very dissatisfied with their local area (mean WEMWBS scores of 24.77 and 25.19 respectively; (Figure 32). Those who were very satisfied with their local area as a place to live had the highest mean WEMWBS score (28.76), significantly higher than all other categories and the North West mean (27.66).

**Figure 32. Mean WEMWBS score by satisfaction with local area, 2012/13.**



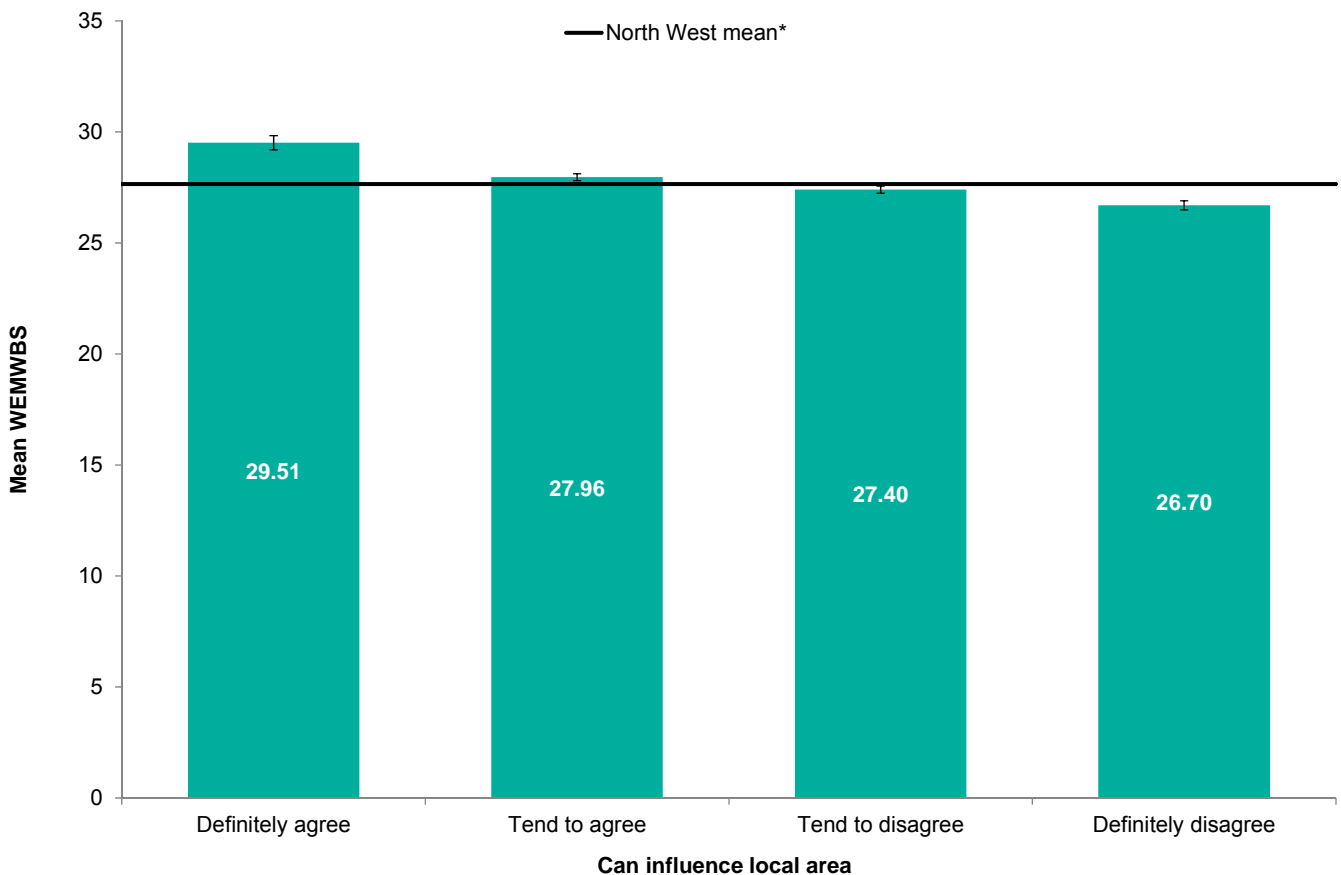
Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.7.2.2 Influence on local area

Respondents were asked whether they agreed that they can influence decisions affecting their local area. Response options were: definitely agree (7.7%), tend to agree (29.4%), tend to disagree (27.9%), definitely disagree (24.6%), don't know (10.4%).

There was a clear relationship between perceived ability to influence decisions affecting the local area and mental wellbeing (Figure 33). The highest mean WEMWBS score for those who definitely agree (29.51), followed by those who tend to agree (27.96), both being significantly higher than the North West average and the 'tend to disagree' and 'definitely disagree' categories (27.40 and 26.70 respectively). Only the definitely disagree group had a mean WEMWBS value that was significantly lower than the North West mean.

**Figure 33. Mean WEMWBS score by influence on local area, 2012/13.**



Error bars represent the 95% confidence intervals. Don't know responses = 1,186; mean WEMWBS score 28.37 (95% CI; lower limit, 28.08/upper limit, 28.66). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

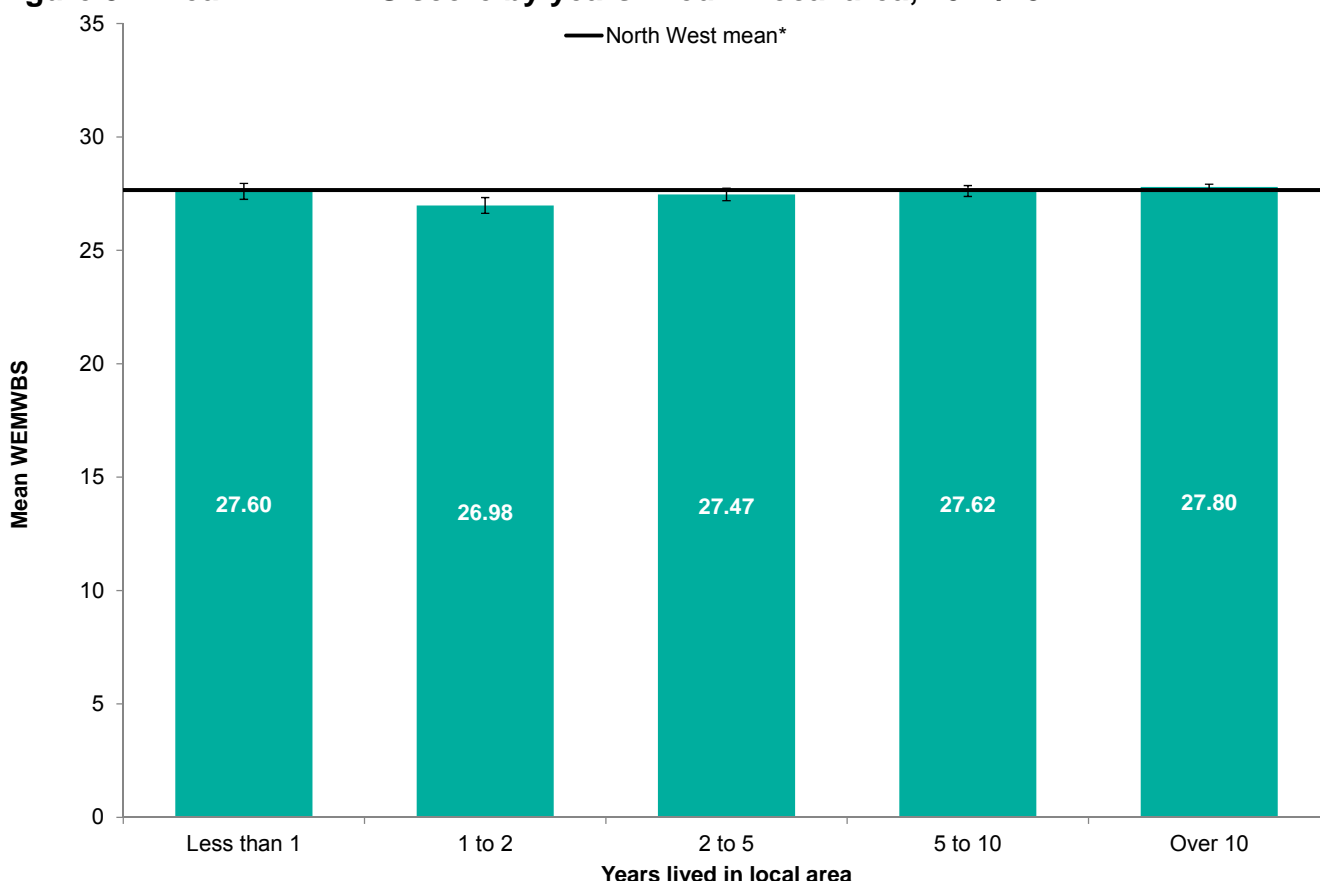
### 6.7.3 Neighbourhood attachment

#### 6.7.3.1 Time residing in the local area

Respondents were asked how many years they had lived in this local area with options of: less than one year (8.0%), 1 year but less than 2 years (7.8%), 2 years but less than 5 years (11.1%), 5 years but less than 10 years (14.2%) and 10 years or more (59.0%).

There was no clear relationship between mental wellbeing and the number of years lived in the local area (Figure 34). The mean WEMWBS ranged from 26.98 for those who had lived in the local area for 1 year but less than 2 years to 27.80 for those who had lived in the local area for 10 years or more. There were no significant differences in mean WEMWBS scores between the different categories, and only the 1 year but less than 2 years group showed any significant difference from the North West mean, being significantly lower.

**Figure 34. Mean WEMWBS score by years lived in local area, 2012/13.**



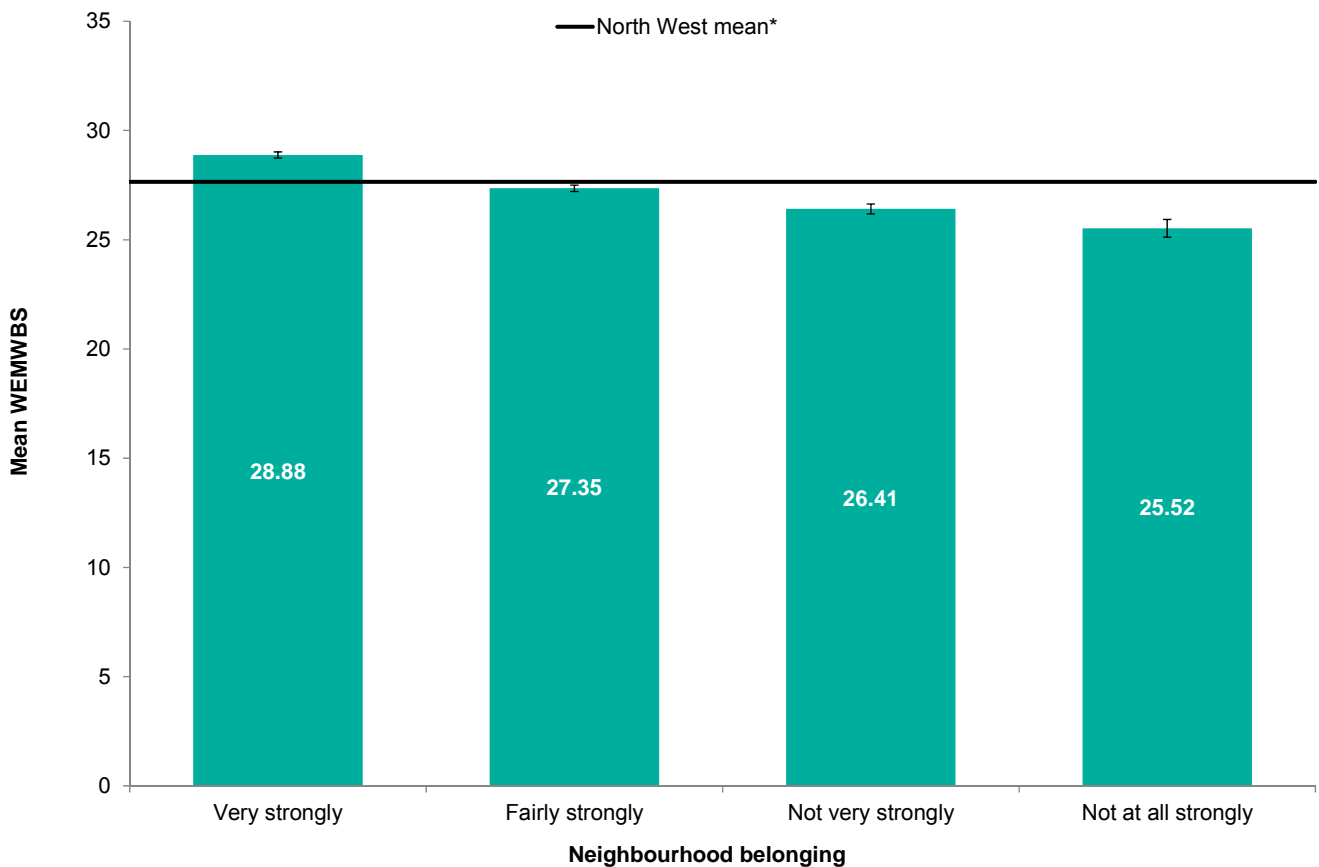
Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

### 6.7.3.2 Neighbourhood belonging

Respondents were asked how strongly they felt they belonged to their immediate neighbourhood.<sup>xxv</sup> Responses were: very strongly (38.0%), fairly strongly (37.7%), not very strongly (16.0%), not at all strongly (6.8%), don't know (1.6%).

There was a clear relationship between neighbourhood belonging and wellbeing, with higher wellbeing levels among those who reported a stronger sense of belonging (Figure 35). Mean WEMWBS scores ranged from 28.88 among respondents who felt a very strong belonging to their neighbourhood, to 25.52 among those whose sense of belonging was not at all strongly. Respondents who felt a very strong belonging reported a significantly higher WEMWBS score than the North West mean, while all other categories were significantly lower.

**Figure 35. Mean WEMWBS score by neighbourhood belonging, 2012/13.**



Error bars represent the 95% confidence intervals. Don't know responses = 179; mean WEMWBS score 27.29 (95% CI; lower limit, 26.42/upper limit, 28.16). \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

<sup>xxv</sup> Immediate neighbourhood was defined as being the local area, no more than a 15-20 minute walking distance from home.

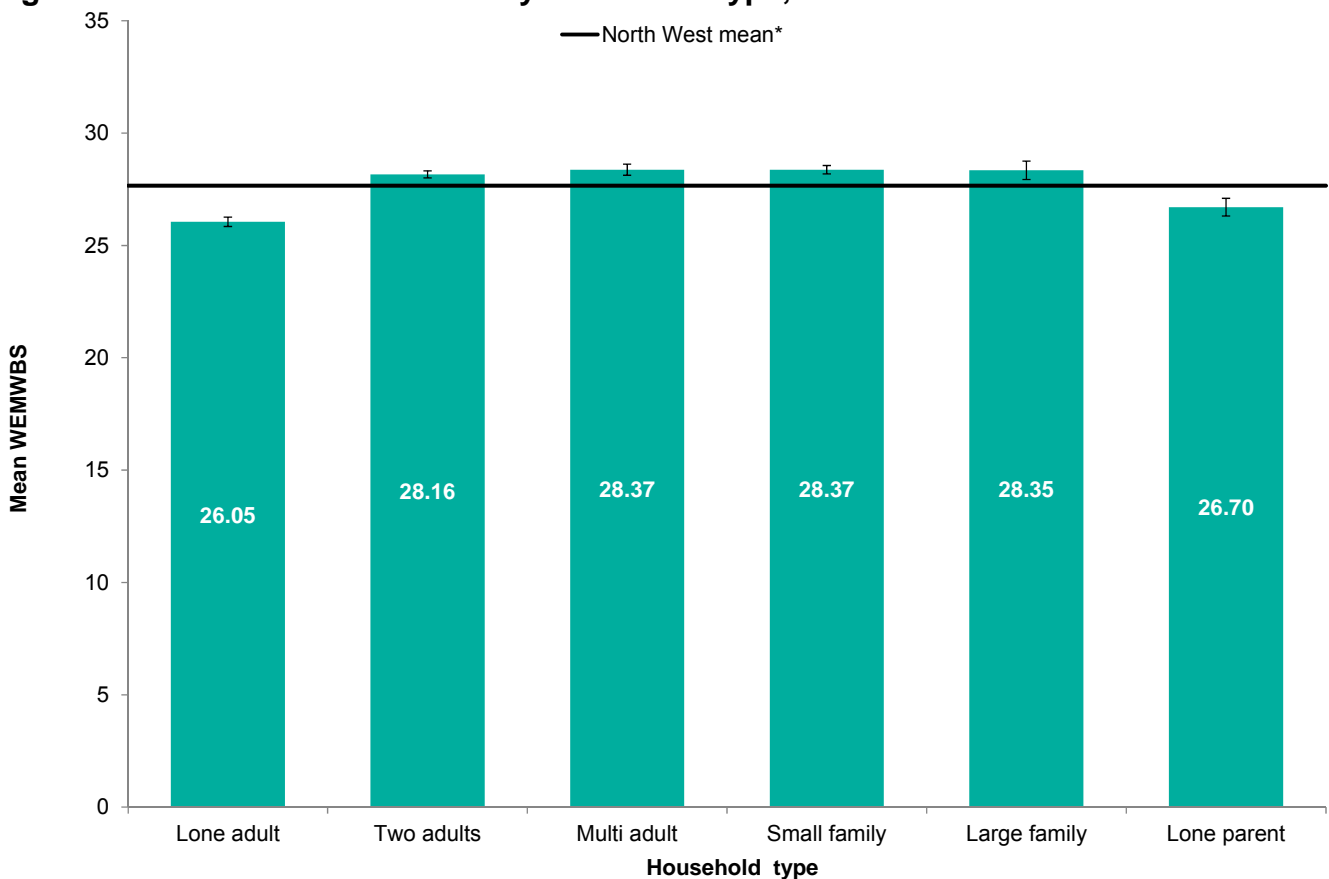


### 6.7.4 Household type

Respondents were asked who else lived in their household, and their ages. Responses were recoded to identify the type of household the respondent lived in as: one adult (23.5%), two adults (32.1%), multiple (multi) adults (12.4%), small family (21.2%), large family (4.9%), lone parent (6.0%).

There is a clear negative relationship between living alone and wellbeing (Figure 36). Across the household categories, both lone adult and lone parent households had the lowest wellbeing levels (26.05 and 26.70 respectively), both significantly lower than all other household categories and the North West mean. There were no significant differences between the remaining groups (two adult, multi adult, small family and large family), but all had mental wellbeing levels significantly higher than the North West average.

**Figure 36. Mean WEMWBS score by household type, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

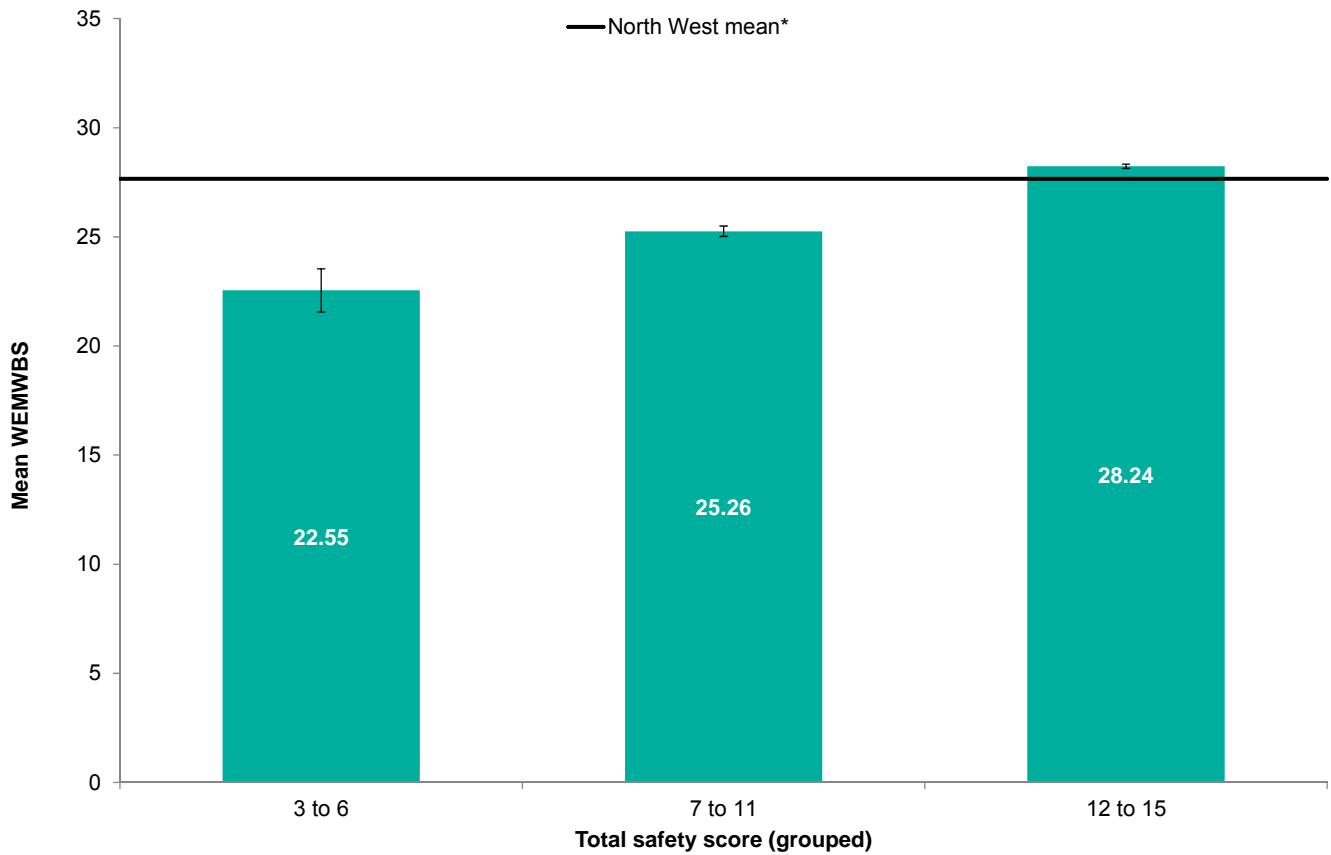
## 6.8 Personal security

### 6.8.1 Feelings of safety

All respondents were asked to rate how safe or unsafe they felt during each of three different situations, including when outside after dark, outside during the day and home alone at night. There were five options in relation to each scenario ranging from very safe, fairly safe, neither safe nor unsafe, fairly unsafe to very unsafe or don't know. The responses to each of these questions were then combined into a total safety score (ranging from 3 to 15) for each person (don't know responses were excluded). These responses were then grouped as scores of: 3 to 6 (1.5%), 7 to 11 (16.6%) and 12 to 15 (81.9%).

The results show a clear association between feelings of total safety and mental wellbeing level, with mental wellbeing increasing as feelings of total safety increased (Figure 37). Those respondents with the lowest total safety scores (3 to 6) had the lowest level of mental wellbeing (22.55) and those with the highest total safety scores (12 to 15) had the highest level of mental wellbeing (28.24), with each group being significantly different to each other. Across the three groups, only those with the higher safety scores (12 to 15) had mean WEMWBS scores that were significantly higher than the North West mean.

**Figure 37. Mean WEMWBS score by feelings of safety, 2012/13.**



Error bars represent the 95% confidence intervals. \*North West mean WEMWBS score 27.66 (95% CI; lower limit, 27.56/upper limit, 27.75).

## 7. Social capital

### 7.1 Method for generating social capital score

Scores for five key aspects of social capital were created, using the Office for National Statistics information on measuring social capital as a template.<sup>34</sup> The five areas were: social participation, social networks, social cohesion, civic participation and control, and local area views. Details of the questions used for each area can be found in Appendix E. Each area was scored as follows:

- social participation: variety and breadth of participation in community organisations
- social networks: frequency of contact with friends, relatives or neighbours, social support and social satisfaction
- social cohesion: length of residence in local area, sense of belonging to neighbourhood and trust
- civic participation: perception of local influence and life satisfaction
- local area views: satisfaction with local area and perception of safety in local area

Once a score for each aspect of social capital was determined, weighting was applied to provide scores out of 10. All five were then added together to provide a proxy measure of social capital. The social capital variable was then categorised into low (less than 27), moderate (greater than or equal to 27 and less than 32) and high (greater than or equal to 32).

### 7.2 Social capital analysis

Across the North West, 24.3% of people had high social capital,<sup>xxvi</sup> 47.3% had moderate social capital,<sup>xxvii</sup> and 28.4% had low social capital.<sup>xxviii</sup>

#### 7.2.1 Local distribution

Local area distribution of the proportion of the population with low, moderate or high social capital is shown in Figure 38. The proportions varied widely across areas. For example, 46.2% of respondents living in Blackpool had low social capital compared with

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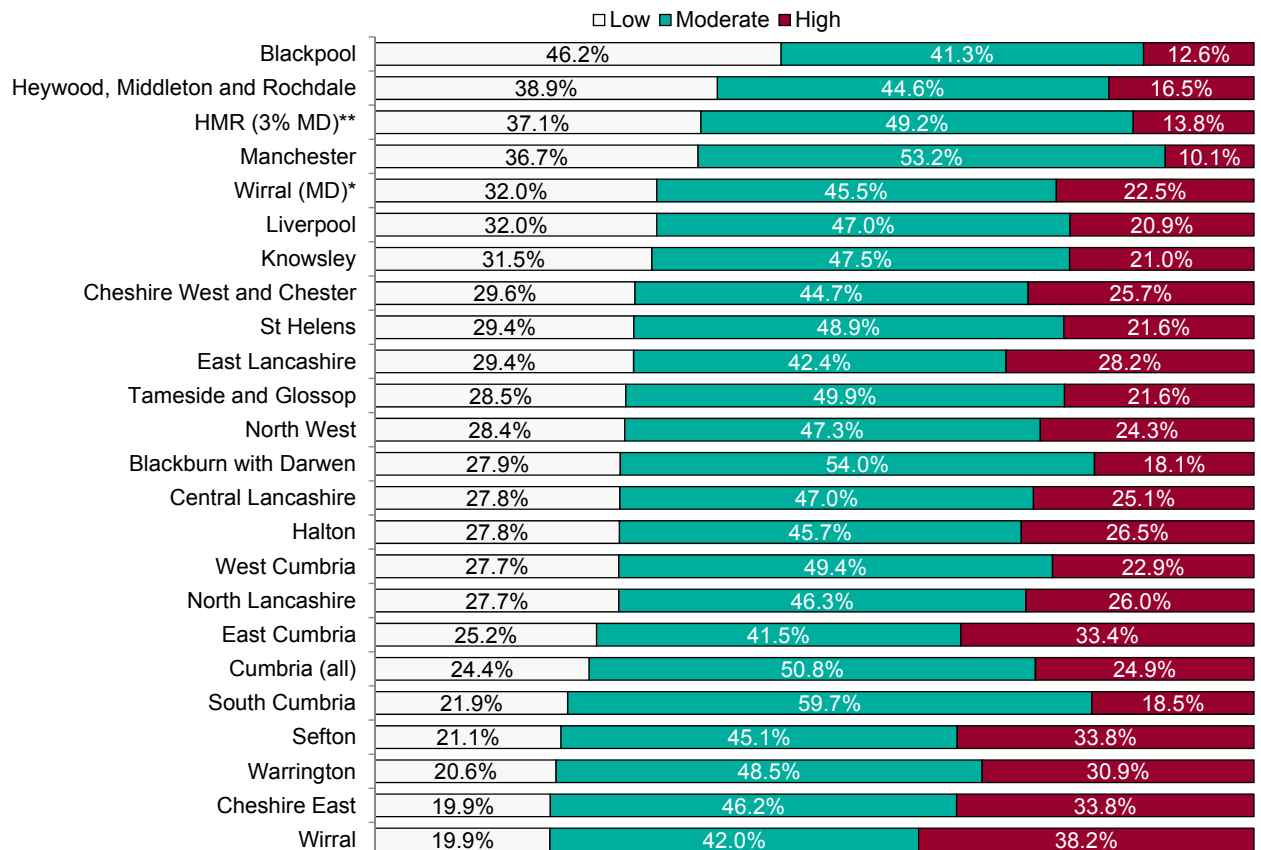
<sup>xxvi</sup> 95% CI; lower limit, 23.6% / upper limit, 25.1%

<sup>xxvii</sup> 95% CI; lower limit, 46.4% / upper limit, 48.2%

<sup>xxviii</sup> 95% CI; lower limit, 27.6% / upper limit, 29.2%

19.9% in Wirral and Cheshire East. Wirral had the highest proportion of high social capital (38.2%), while Manchester had the lowest (10.1%).

**Figure 38. Proportion of respondents with low, moderate or high social capital by local area. North West, 2012/13.**



\*Wirral boost sample, most deprived quintile \*\*Heywood, Middleton and Rochdale, boost sample of 3% most deprived LSOAs.

## 7.2.2 Level of social capital by demographics

### 7.2.2.1 Gender

A significantly higher proportion of females had high social capital (27.8%) than males (20.7%), while a significantly higher proportion of males had low social capital (31.8%) than females (25.1%; Figure 39). There was no significant difference by gender in the moderate social capital category.

### 7.2.2.2 Age group

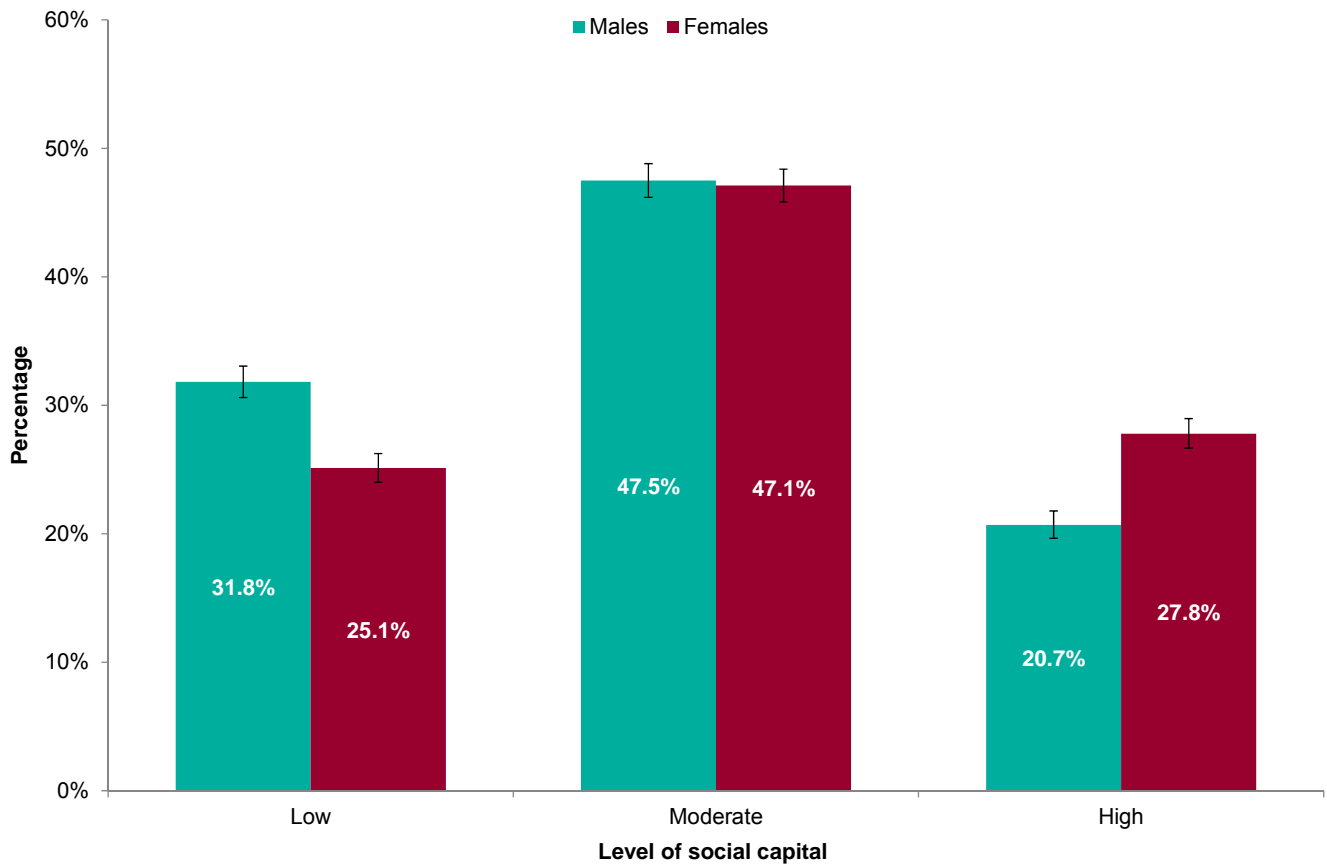
There is a clear relationship between social capital and age group, with levels of social capital increasing with increasing age (Figure 40). The 65 plus age group had the

highest proportion of people with high social capital (33.5%, significantly higher than all other age groups), while the 16 to 24 year had the lowest proportion of people with high social capital (17.2%, significantly lower than the 40 to 54, 55 to 64 and 65 plus age groups). Conversely, the 16 to 24 year old group had the highest proportion of people with low social capital (38.1%, significantly higher than the 40 to 54, 55 to 64 and 65 plus age groups), while the 65 plus group had the lowest proportion (17.0%, significantly lower than all other age groups). Those aged 25 to 39 were least likely to have moderate social capital (43.3%), significantly lower than the 40 to 54, 55 to 64 and 65 plus age groups.

### 7.2.2.3 Index of Multiple Deprivation

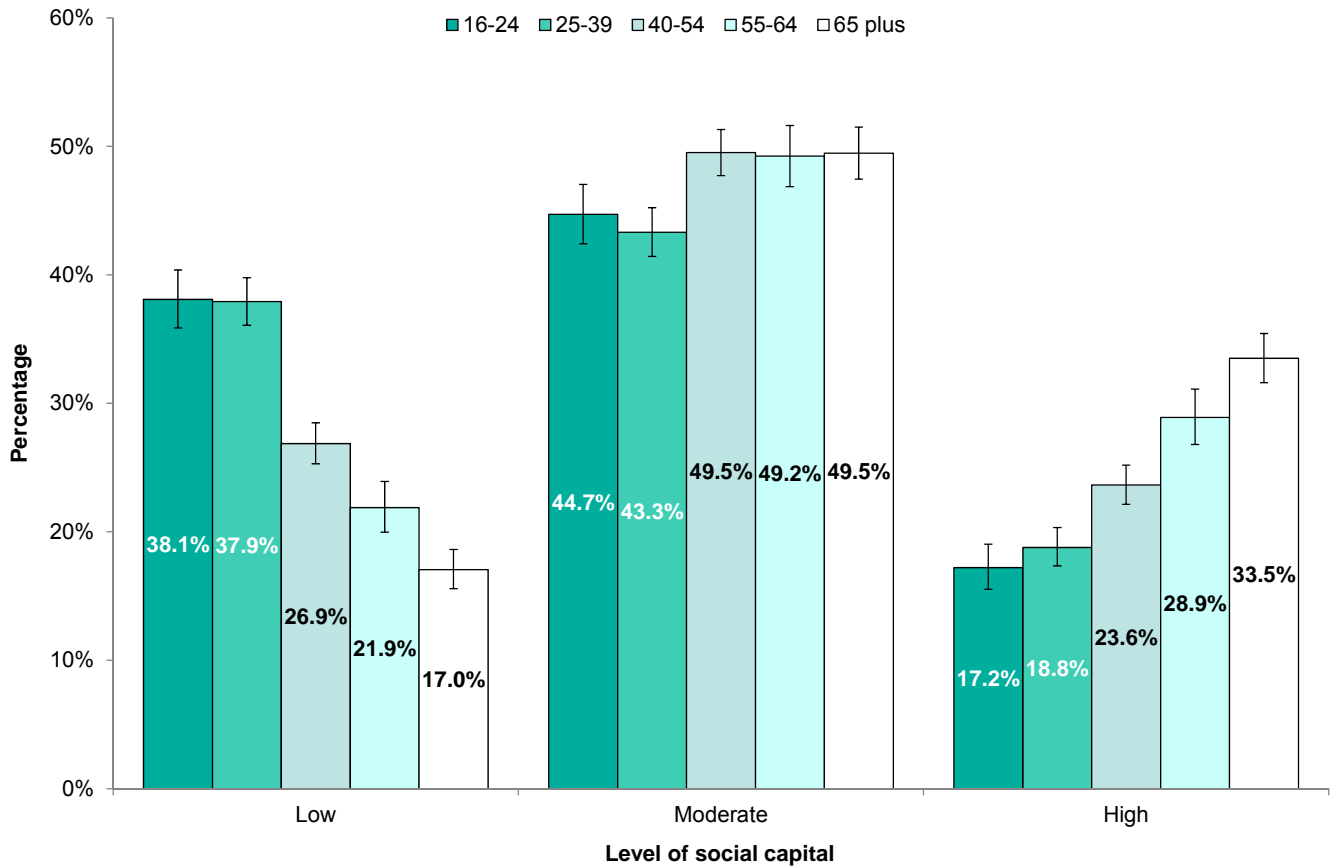
High social capital decreased and low social capital increased with increasing deprivation (Figure 41). Adults living in the least deprived and fourth most deprived fifths of areas were most likely to have high social capital (35.2% and 30.9% respectively), while adults living in the most deprived quintile were least likely to have high social capital (16.5%). Conversely, adults living in the most deprived fifth of areas were most likely to have low social capital (37.9%), while adults living in the least deprived fifth of areas were least likely to have low social capital (17.9%). There were no significant differences by deprivation in the moderate social capital category.

**Figure 39. Level of social capital by gender, 2012/13.**



Error bars represent the 95% confidence intervals.

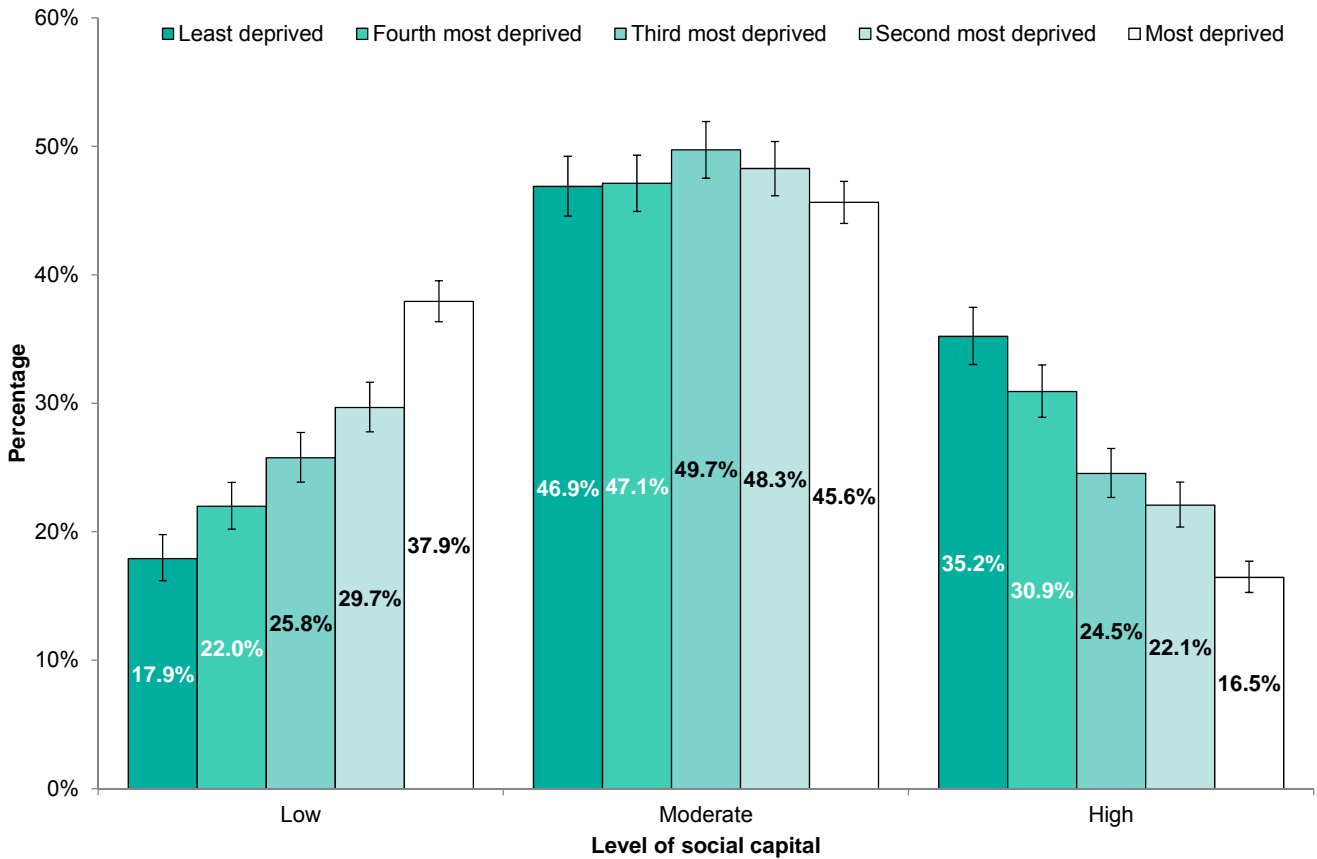
**Figure 40. Level of social capital by age group, 2012/13.**



Error bars represent the 95% confidence intervals.



**Figure 41. Level of social capital by Index of Multiple Deprivation 2010, 2012/13**

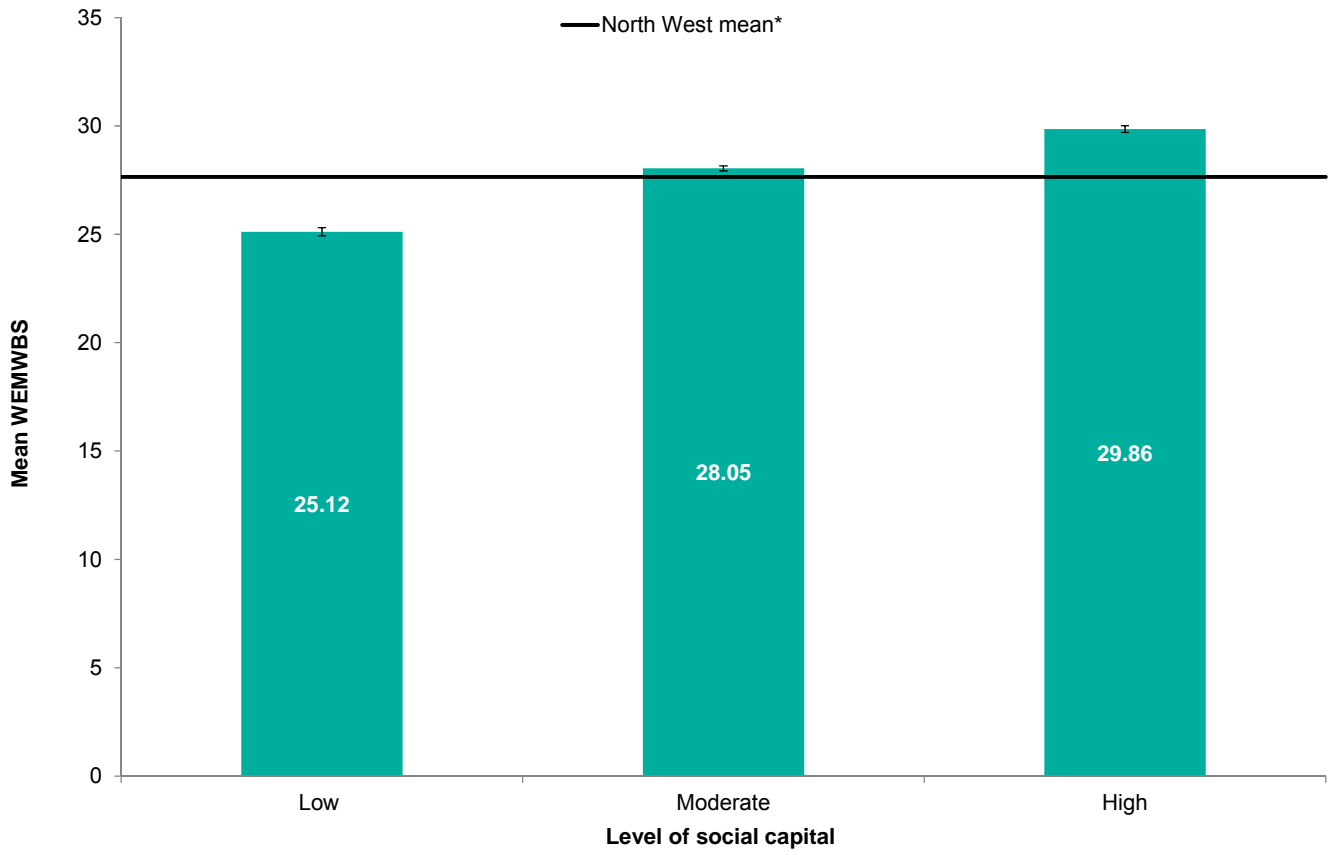


Error bars represent the 95% confidence intervals.

### 7.2.3 Level of social capital by mean WEMWBS score

Analysing mean WEMWBS score by level of social capital reveals that levels of mental wellbeing increase with increasing social capital (Figure 42). Adults with high social capital had a mean WEMWBS score of 29.86, significantly higher than those with low or moderate social capital and higher than the North West mean. Adults in the low social capital category had a mean WEMWBS score of 25.12, significantly lower than those in the moderate and high categories and lower than the North West average. The mean WEMWBS scores for those in the moderate and high social capital categories were significantly higher than the North West mean.

**Figure 42. Level of social capital by mean WEMWBS score, 2012/13.**



Error bars represent the 95% confidence intervals. \*NW mean 27.66 (Lower CI, 27.56; Upper CI, 27.75).

## 8. Discussion and conclusions

The results presented here provide a first stage analysis that gives us a picture of the level of wellbeing in the North West and the factors that influence it along with some comparisons to the 2009 results. A wealth of data has been collected in this survey and the possibility for investigating the information in more detail and constructing more complex analysis is significant.

### 8.1 Mental wellbeing

The 2012/13 survey has provided important information about the state of the North West population's mental wellbeing and the differences from the baseline survey conducted in 2009. Findings reveal that while overall mental wellbeing does not appear to have improved (mean WEMWBS score 27.66, compared with 27.70 in 2009), satisfaction with life has increased significantly.

In the North West, 19.6% of the population had relatively high levels of wellbeing (classified as a score of more than 32 on the seven item WEMWBS scale, out of a possible score of 35). Across local areas in the North West, the proportion of people with relatively high wellbeing ranged from 30.4% to 6.9%, and the proportion with relatively low wellbeing ranged from 26.7% to 5.2%. Compared with 2009, the proportion of people with low or high mental wellbeing has decreased slightly, with more people shifting centrally into the moderate wellbeing category.

Since the first survey in 2009, many localities have started to use WEMWBS to measure outcomes within local services and interventions; often those targeting people with low levels of mental wellbeing. Understanding the proportion of people in the local population falling into each wellbeing category (low, moderate, high) is important for the planning and delivery of tailored local services. The national mental health strategy<sup>11</sup> and the *NHS mandate*<sup>35</sup> have brought increasing attention to mental health as a determinant of physical health and something that requires further action to achieve "parity of esteem".<sup>p.2,11</sup> Using WEMWBS to measure mental wellbeing within a range of services can help to increase understanding of the needs of different client groups and focus attention on action to improve mental wellbeing – integrating interventions and approaches into delivery.

Increasing the average mental wellbeing across the whole population remains intrinsic to the goal of improving mental wellbeing. Following the Scottish population survey using WEMWBS, improving mental wellbeing has become a national indicator as measured through the mean WEMWBS score.<sup>36</sup>

Within England, subjective wellbeing measured using WEMWBS is included in the Public Health Outcomes Framework alongside ONS measures. Recent results from the ONS Annual Population Survey (ONS APS) suggest that personal wellbeing improved slightly in the UK between 2011/12<sup>37</sup> and 2012/13.<sup>38</sup> Only UK level data for 2012/13 was available at the time of publication, although North West data was available for 2011/12, as presented in Table 4. North West Mental Wellbeing Survey 2012/13 mean scores<sup>xxix</sup> and proportions of respondents with medium/high scores for life satisfaction, happy yesterday and life worthwhile were all higher than the ONS APS North West 2011/12 and UK 2012/13 values. The anxious yesterday mean score/proportions were lower for this survey than for those reported by ONS for the North West and UK (with a lower score being better for this question).

**Table 4. Comparison of results for subjective wellbeing questions from North West Mental Wellbeing Survey 2012/13 and ONS Annual Population Surveys 2011/12 and 2012/13.**

Question	Mean score (lower/upper confidence limits)			Proportion with medium/high scores*		
	North West MWB 2012/13 (weighted)	North West ONS APS 2011/12	UK ONS APS 2012/13	North West MWB 2012/13 (weighted)	North West ONS APS 2011/12	UK ONS APS 2012/13
Life satisfaction	7.88 (7.85/7.92)	7.36 (7.33/7.40)	7.45 (7.44/7.46)	83.3%	74.7%	77.0%
Happy yesterday	7.89 (7.86/7.93)	7.23 (7.18/7.27)	7.29 (7.28/7.31)	81.0%	69.6%	71.6%
Life worthwhile	8.07 (8.03/8.10)	7.65 (7.62/7.69)	7.69 (7.68/7.70)	84.8%	79.4%	80.7%
Anxious yesterday	2.66 (2.61/2.70)	3.19 (3.13/3.24)	3.03 (3.02/3.05)	25.3%	41.0%	38.5%

\*scores of 7 and above for life satisfaction, happy yesterday and life worthwhile and scored of 4 and above for anxious yesterday. Source: ONS Annual Population Survey 2011/12 and 2012/13.

As improving population mental wellbeing is a priority for the participating localities, it is recommended that this is measured through ongoing monitoring of the mean WEMWBS score. Action is needed across the whole population in order to shift the mean. Local health and wellbeing strategies provide a good opportunity for setting strategic direction on mental wellbeing and overseeing the implementation of evidence based

<sup>xxix</sup> Please note that the four ONS subjective wellbeing questions use an 11 point response scale (0 to 10), while the North West Mental Wellbeing Survey used a 10 point scale (1 to 10). Mean scores and proportions of respondents who scored 7 or above are comparable.

interventions. As this survey demonstrates, mental wellbeing is associated with many social factors. Integrated approaches are therefore recommended to achieve maximum impact at minimum cost.

## 8.2 Factors that impact on wellbeing

### 8.2.1 Health

The set of questions within the health domain show some significant improvements since the last survey. There remains a clear relationship between how people perceive their health and their level of mental wellbeing. New questions included in this year's survey also show that people with a long-term health condition have a significantly lower level of mental wellbeing; in particular those with depression or anxiety, liver disease or stroke.

Action to improve mental wellbeing should be considered alongside programmes and services to prevent and manage long-term conditions. People's mental wellbeing is especially important to self-management, for example through sense of coherence, motivation, optimism, problem solving and goal setting.

### 8.2.2 Social interaction

There is a strong association between people's satisfaction with their relationships and their wellbeing. People's relationships and social support appear to have worsened further than any other aspect of wellbeing that was measured. The single question with the biggest change from the last survey is the percentage of people who talk to their neighbours on most days, which fell by 18.3 percentage points. One in 20 people now report that they 'never' talk to their neighbours. Everyday contact with friends and family has also seen a significant reduction of 12.7 percentage points.

There is a clear association between mental wellbeing and social support, and satisfaction with relationships. Indeed, research has shown it is important for health, life expectancy and other social factors.<sup>39,41</sup> New questions included in this year's survey also present an opportunity to examine the relationship between childhood violence and mental wellbeing.

Relationships and social support must be valued as a key asset for health and wellbeing. Research has shown that they can help make people more resilient during an economic crisis.<sup>40</sup> Indeed, further analysis of data from the first survey showed a link between social connectedness and finding work again following redundancy.<sup>64</sup>

It is encouraging that many localities are prioritising work to combat isolation and loneliness especially among older people, but also for children, young people and adults of all ages. Local work to assess the impact of policy and service changes needs to include the impact on personal and family relationships, social support and isolation. Maintaining opportunities to enhance people's social connections is a priority, for example, through community and family groups, neighbourhood organisations and local facilities.

### 8.2.3 Employment and finances

There is a clear relationship between financial worries and mental wellbeing. Further analysis of the data from the 2009 survey showed that money worries were one of the main influences on overall mental wellbeing.<sup>41</sup> The two factors influencing this were perceived income sufficiency and household economic type.

In 2012/13, there has been an improvement in financial worry, with over 16% fewer respondents feeling worried about money 'almost all of the time' during the last few weeks. However, there were also 5.2% fewer people feeling that they were 'living comfortably' on their present income. A further question identified that while 11.7% of respondents reported being financially better off than a year ago, 29.8% felt they were worse off. This could suggest that inequalities in income have increased and further analysis to explore differences in the population would be valuable.

Improvement in household economic type can also explain the improvement in money worries of respondents. While individual full-time employment has significantly reduced, the overall employment status of the household has slightly, but not significantly, increased and the unemployment status decreased. Significantly more people are now self-employed or in full-time education.

Households that had a status of permanently sick or disabled had significantly lower mental wellbeing than all other groups and the North West average. Those in work had significantly higher mental wellbeing than those who were unemployed.

### 8.2.4 Social capital

The proxy measure of social capital developed and used in this survey is useful to show the proportion of the population with low, moderate and high social capital. Those with high social capital have significantly higher mental wellbeing than those with low or even moderate mental wellbeing.

Responses to a number of the questions used to generate the social capital score have got worse since the 2009 survey; for example, civic participation has seen a significant

decline in people's perception of their ability to influence decisions affecting their local area; social cohesion has declined with significantly less people feeling that they belong to their immediate neighbourhood and there were significant reductions in people living in their local area for more than 10 years.

The clear relationship between age and social capital could be seen as a positive asset of an ageing population. With those aged over 65 years reporting high levels of social capital, it is recommended that ways be sought to value and build on this asset.

### 8.3 Personal action on mental wellbeing

Since the first survey, many localities have adopted the *Five Ways to Wellbeing* as a set of evidence based personal actions to improve mental wellbeing, as developed by the New Economics Foundation as part of the governments Foresight project on mental capital and wellbeing.<sup>8</sup> The question "Have you heard of the Five Ways to Wellbeing?" was included in this year's survey, with 23.9% of respondents saying they were aware of the messages (although the survey didn't allow further testing of this response). The survey also included questions that relate to the *five ways* (see Table 5).

**Table 5. Survey questions relating to the Five Ways to Wellbeing.**

Five Ways to Wellbeing category	Survey findings
Connect	Relationships and social connections significantly reduced
Be active	Proportion meeting the physical activity target significantly reduced
Take notice	Thinking clearly – no significant differences across all response options Natural environment – 26.9% spent leisure time out of doors either every day or more than once a day
Keep learning	Education levels improved significantly Significantly less people have the time to do the things they enjoy
Give	14.3% of people had undertaken voluntary work in the last 12 months

Following the 2009 survey, commissioners developed the *A Fair Deal for Wellbeing Discussion Kit*<sup>xxx</sup> in order to communicate the findings from the survey to the public. This included the Five Ways to Wellbeing as well as wider determinants. The kit has been used to increase staff and community awareness of the determinants of mental wellbeing and explore issues of fairness and community action.

xxx The kit was developed by Our Life in partnership with NHS North West, the North West Public Health Observatory, NHS Cumbria and NHS Liverpool. For further information see: [www.ourlife.org.uk/ourlife/en/what-we-offer/why-engage/a-fair-deal-for-wellbeing-discussion-kit/](http://www.ourlife.org.uk/ourlife/en/what-we-offer/why-engage/a-fair-deal-for-wellbeing-discussion-kit/)

The North West Mental Wellbeing surveys are a valuable source of intelligence on the state of the population's mental wellbeing and how it is changing over time. It is important to continue monitoring and surveillance to allow progress to be reviewed. Local areas can utilise this evidence to inform planning and the commissioning of services. While this report provides some initial analysis, more 'deep dive' analysis would allow further understanding of the complex interactions between the multiple factors that affect mental wellbeing.



## 9. Recommendations

There are ten key recommendations from this report.

1. To continue to measure improvements in population mental wellbeing through routine monitoring of the average WEMWBS score across localities.
2. To ensure that all public policy enhances mental wellbeing and mitigates against any adverse impacts, through using Health In All Policies Approaches (HiAP), Mental Wellbeing Impact Assessment and mental wellbeing outcome measurement.
3. For the local health and wellbeing board to lead strategic direction on improving population mental wellbeing and overseeing the implementation of evidence based interventions and integrated approaches across sectors and the life course.
4. To focus attention on the significant impact that relationships and social support have on health and wellbeing, through furthering our understanding of its contribution to healthy life expectancy and implementing evidence based approaches with families and communities.
5. To integrate mental wellbeing into all physical health pathways, considering interventions during prevention, treatment, recovery and condition management, including the measurement of mental wellbeing outcomes using WEMWBS.
6. To value social capital as an asset within communities and invest in community development to build social capital, especially within the most deprived communities and using intergenerational approaches.
7. To further investigate the inequalities related to money worries, living comfortably and being better and worse off and people's mental wellbeing, especially as part of efforts to monitor and mitigate the impact of the economic downturn.
8. To continue to engage front-line workers and the public in increasing understanding of wellbeing and taking action to improve it, using tools such as the *Five Ways to Wellbeing* and the *Fair Deal for Wellbeing Discussion Kit*.
9. To continue to collaborate on surveys of mental wellbeing, and implementation of recommendations and interventions, across local authorities, thus promoting sharing of expertise and resources which makes the exercise more cost-effective. Conducting the survey on a larger geographical scale also enables consistency and comparability of results.
10. To continue to develop our understanding of the determinants of mental wellbeing and how mental wellbeing is linked to other social outcomes.

# 10. Appendices

## Appendix A: Impacts and determinants of mental wellbeing

Determining which factors affect mental wellbeing is important when designing a survey such as this. For example, analysis of data from the *North West Mental Wellbeing Survey 2009*<sup>1</sup> revealed a significant relationship between deprivation and both life satisfaction and mental wellbeing. A data visualisation exercise based on this data demonstrated the complex interrelationships between many of the variables that impact on wellbeing and life satisfaction.<sup>41</sup> A large body of work exists exploring the many variables which are linked with both life satisfaction and wellbeing, an extensive review of which was conducted in 2006 by Dolan, Peasgood and White.<sup>42</sup> In 2012, the Office for National Statistics (ONS) produced a report on subjective wellbeing in the UK using experimental<sup>xxxix</sup> data collected via the Annual Population Survey (APS) 2011 for the first time.<sup>43</sup>

A number of variables are both influenced by, and influencers of, mental health and wellbeing. Here, we examine some of the key factors that influence wellbeing by drawing upon existing literature and reviews of the current evidence base from both the UK and beyond.

### 10.1 Demographics

Age, gender and ethnicity have all been well researched in relation to their impact on mental wellbeing. Age consistently shows a U-shaped curve<sup>xxxii</sup> in association with wellbeing, that is the lower and higher age groups display better wellbeing than those in the middle age groups. For example, those aged 35-44 and 45-54 years tend to produce the lowest scores for subjective wellbeing, while scores peak among those over the age of 65 years.<sup>44,45</sup> However, those over the age of 70 report a fall in wellbeing. Other studies suggest that lower levels of wellbeing in later life are not inevitable and that it is an individual's state of health, rather than age per se, that better determines their wellbeing.<sup>46</sup>

Evidence for gender effects is less clear. Studies have shown that no gender differences exist for wellbeing, especially if influential factors relating to the person, such as their health, employment status and whether they provide informal care, are taken

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<sup>xxxix</sup> These questions are called 'experimental' so that users can provide feedback to help further develop the questions asked before the wellbeing statistics are sent to the UK Statistics Authority for assessment as National Statistics.

<sup>xxxii</sup> A U-shaped curve describes data that, when plotted on a graph, increases at each end with a dip in the middle.

into account.<sup>47</sup> Newer evidence suggests, however, that different age groups experience gender effects; women under 45 years old experience greater wellbeing than men, while the reverse is true for the older population. This effect is more pronounced in high income countries, and even disappears in some developing countries.<sup>48</sup> Subjective wellbeing data from the APS 2011 suggests that women have small but significantly higher scores for life satisfaction, worthwhileness and 'happy yesterday', but also higher scores for 'anxious yesterday'. The age effects are also supported by this data, with 'happy yesterday' responses higher in women than men under 65 years, but reversed in older populations.<sup>43</sup>

The relationship between ethnicity and wellbeing is complex. Evidence suggests that ethnic groups have differing profiles, meaning comparisons of White and 'Other' (non-White) ethnicity respondents may not be useful, as results will be determined by proportional representation of each ethnicity in the 'Other' group.<sup>47</sup> The *North West Mental Wellbeing Survey: Focus on Ethnicity*<sup>49</sup> (which used data from the 2009 North West Mental Wellbeing Survey)<sup>1</sup> showed significant differences in average mental wellbeing between respondents in different ethnic groups, with Asian and Asian British respondents having higher mental wellbeing than White respondents.

As age increases, effect of ethnicity is mediated by other factors, such as health,<sup>48</sup> while data from the UK suggest ethnic variations mainly exist in the most deprived groups.<sup>50</sup> The subjective wellbeing data from the APS 2011 show that White, Chinese, Indian and Other Asian groups score broadly similar for 'life satisfaction' (Indian participants, however, score significantly higher in terms of anxiety levels than the UK average), while Bangladeshi, Pakistani, Mixed Race and Black respondents are more likely to respond negatively for at least some aspects of wellbeing measured through the survey.<sup>43</sup>

## 10.2 Income

The relationship between income and wellbeing is complex and multifactorial. Evidence suggests a generally positive association between income and wellbeing with the effects diminishing as income reaches higher levels.<sup>51,52,53</sup> However, evidence from the developed world, shows that despite 50 years of real income growth per head there is no rise in average happiness among the population, a concept known as the Easterlin Paradox.<sup>54</sup> Research also shows similar findings in less developed countries.<sup>55</sup> This lack of general consensus on the precise relationship between income and wellbeing is argued to be due to differences in, for example, sample sizes, methods used and confounding variables across different studies.<sup>56</sup> It is possible that the positive association may, at least partly, be due to backwards causation whereby being happier itself causes people to be wealthier and healthier.<sup>57,58</sup> A recent report, *Shifting the Dial in Scotland*,<sup>59</sup> examines how wellbeing is measured in Scotland and suggests that

moving away from Gross Domestic Product (GDP - a traditional measure of social progress) and towards measuring wellbeing would make government policies more wellbeing orientated and thus improve the lives of those living in the country.

One of the key findings from the report *North West Mental Wellbeing Survey: What influences wellbeing?* was that people's perception of their financial situation was very important in determining wellbeing. Household economic status, in particular, was more important than that of the individual.<sup>41</sup>

### 10.3 Education and employment

Education affects both wellbeing and life satisfaction. Evidence, however, is conflicting and while some studies show a positive relationship between wellbeing and rising attainment, others find greatest life satisfaction associated with having a middle level educational achievement.<sup>47</sup> Further evidence has found that the positive effects of education disappear when factors such as income and health are controlled for.<sup>60</sup> Research shows that education, unlike income, has a strong inverse relationship with common mental illness.<sup>61</sup> Finally, education may be a result of unobservable characteristics, such as motivation or family circumstances which themselves improve wellbeing, thus making education potentially limited in its predictive value.<sup>47</sup>

Despite the strong evidence showing the benefits of employment on wellbeing, there is currently no agreement on the effects of hours worked. Some data show that working part-time has a negative effect on life satisfaction and working more hours increases life satisfaction,<sup>47</sup> while other evidence suggests that working longer and antisocial hours has a negative impact on wellbeing.<sup>62</sup> Research into the impact of individual flexibility suggests that a lack of flexibility also has a negative impact.<sup>62</sup>

Unemployment has a clear, strongly negative impact on wellbeing, which has been shown to be detrimental for years after the event.<sup>63</sup> Findings from the *North West Mental Wellbeing Survey 2009: Employment and Resilience*<sup>64</sup> showed that 25% of unemployed respondents described their health as 'not good', compared with 15% of those who were employed. Unemployed respondents also had lower levels of optimism, with almost a quarter experiencing moderate or extreme levels of anxiety. Redundancy was also found to have a negative impact on wellbeing. However, for those who regain employment within 12 months, wellbeing levels were close to those of employed people who had not experienced redundancy. Individuals from the middle class are found to be more severely impacted by unemployment,<sup>65</sup> as are men.<sup>47</sup> These gender effects are supported by the ONS wellbeing data.<sup>43</sup>

## 10.4 Health and activities

There is a wealth of evidence which shows a direct link between health and wellbeing; deterioration in health leads to a drop in wellbeing.<sup>47</sup> Wellbeing can also predict health, with positive wellbeing influencing health and longevity.<sup>66</sup> It has been suggested that adaption to long-term ill-health and disability results in an improvement in wellbeing, however, this does not reach pre-illness levels and evidence suggests adaption may be small.<sup>67</sup>

Caring for another individual has a clearly negative impact on wellbeing, reducing happiness and increasing the rate of depressive symptoms.<sup>47</sup> One study of spouses caring for individuals with Parkinson's disease found a five-fold increase in mental health issues and a reduction in physical and social health<sup>xxxiii</sup> among carers.<sup>68</sup> Research into carers of people with dementia shows no difference in wellbeing when compared by gender or length of time as a carer.<sup>69</sup>

Evidence for the association of community activity and volunteer work with wellbeing and life satisfaction is conflicting. Studies have found that increasing community activity and volunteer work improves wellbeing,<sup>60</sup> with those of higher wellbeing more likely to be involved with volunteering.<sup>70</sup> However, when factors such as trust are controlled for, some studies find this association disappears.<sup>47</sup> There is evidence that formal volunteering is beneficial for older adults.<sup>71,72</sup>

## 10.5 Attitudes and beliefs

An extensive review of factors influencing wellbeing has already examined the impact of subjective influences such as a person's attitudes, beliefs or trust in others.<sup>42</sup> There were a number of interesting findings, including that people who perceive their financial situation less favourably tend to be less satisfied with their life.<sup>73</sup> Higher satisfaction with life was also found among people with greater social trust in others. More recent studies reveal important differences by gender, for example women show greater belonging than men, greater levels of trust in people and greater enjoyment in time spent with others.<sup>74</sup>

The evidence also suggests that religious beliefs have a considerable influence on wellbeing and an active participation in religious activity or religious organisations is consistently found to have a positive effect on wellbeing and life satisfaction.<sup>75,76</sup> However, one review found an inverse relationship between when the study was performed and magnitude of effect; as time has moved on, the size of effect religion has

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<sup>xxxiii</sup> For example, less contact with other people or fewer outings and holidays.

on wellbeing reduces. People who follow a religion, regardless of type of faith, are reportedly happier than non-religious individuals.<sup>60,77</sup> However, there are variations in levels of wellbeing among people of the same faith<sup>78</sup> suggesting that it is important to consider individual differences in determining the effects of personal beliefs upon wellbeing.

## 10.6 Relationships

Lack of social contact with others is strongly associated with lower levels of mental wellbeing.<sup>47</sup> The ONS study examined factors linked with wellbeing within the APS experimental data.<sup>43</sup> This showed that having a partner is positively associated with questions about 'life satisfaction', how 'worthwhile' someone feels and levels of 'happiness yesterday'. Adults who were married, in a civil partnership or cohabitating generally reported higher average ratings than those who were single, widowed, divorced, separated or previously in a civil partnership.

Other studies have shown that higher levels of community participation generally, although related to both better general and physical health, are most strongly related to improved mental health.<sup>74</sup> There is also some evidence among women that despite reporting higher levels of community participation and social cohesion they report lower levels of mental health than men.<sup>74</sup> This indicates that it is important to consider further factors in the relationship between community involvement and wellbeing.

## 10.7 Social isolation and loneliness

According to the Mental Health Foundation, one in ten people in the UK is lonely.<sup>79</sup> Loneliness and social isolation impact upon quality of life and wellbeing, with clear negative physical and mental health effects.<sup>79,80,81,82,83</sup> Loneliness and isolation are not the same thing; the 2010 Age UK *Loneliness and Isolation: Evidence Review*<sup>84</sup> uses the following definitions:

*"Isolation refers to separation from social or familial contact, community involvement, or access to services. Loneliness by contrast... is an individual's personal, subjective sense of lacking these things to the extent that they are wanted or needed."<sup>84</sup>*

The Age UK review found that having friends is more important in avoiding loneliness than frequent contact with those friends.<sup>84</sup> Research has shown relationships between loneliness and blood pressure, depression, and increased mortality.<sup>83,85,86,87,88</sup> A meta-analytic review published by Holt-Lundstad et al in 2010<sup>89</sup> demonstrated that social relationships play an important role in health outcomes and that risk of premature mortality is higher among those with fewer social relationships. The findings suggest

that those with stronger social relationships had a 50% increased likelihood of survival compared with those with weaker social relationships, independent of factors such as age, sex, initial health status and cause of death.

## 10.8 Environment

After controlling for the impact of income, studies show that people who live in unsafe and deprived areas generally experience lower life satisfaction and reduced mental health.<sup>90,91</sup> Noise from neighbours, overcrowding in the home and fear of crime are all associated with lower mental wellbeing.<sup>92</sup> Although it is difficult to attribute causation, a recent large scale study in Glasgow showed better levels of mental wellbeing among those people who rated their home's appearance as good or who were satisfied with their landlord, while perceiving one's neighbourhood as being of poor aesthetic quality was associated with lower levels of mental wellbeing.<sup>93</sup>

## 10.9 Social capital

The concept of social capital is a multidimensional construct that focusses on people's participation and sense of belonging.<sup>94</sup> The Organisation for Economic Co-operation and Development (OECD) define social capital as:

*“networks<sup>xxxiv</sup> together with shared norms, values and understandings that facilitate co-operation within or among groups”.*<sup>95</sup>

Social capital is a validated and reliable concept that has been linked to a range of different outcomes, including mental health and wellbeing.<sup>96</sup> Higher levels of social capital are related to better health outcomes, higher educational achievement, better employment outcomes, and lower crime rates.<sup>94, 97</sup>

A systematic review on social capital and mental illness concluded that there is strong evidence that higher levels of social capital result in lower risk of mental illness.<sup>98</sup> It is important to note that increased social capital does not always result in positive health outcomes.<sup>94,99,100</sup> Research has shown that high levels of social capital can be associated with behaviours that are not healthy, for example smoking and binge drinking.<sup>99</sup> Social networks promote social capital in wealthy communities but in poorer communities networks may lead to poorer health outcomes.<sup>99</sup>

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<sup>xxxiv</sup> Networks can be defined as the personal relationships which are built up when individuals interact with each other. This can be on a formal or informal basis in families, workplaces, neighbourhoods, local associations or other meeting places. For further information, see [www.ons.gov.uk/ons/guide-method/user-guidance/social-capital-guide/index.html](http://www.ons.gov.uk/ons/guide-method/user-guidance/social-capital-guide/index.html)

## 10.10 Social capital: participation and social cohesion

The social capital and health literature highlights that certain forms, not just aggregate measures, of social capital are linked to specific health outcomes.<sup>101</sup>

Participation is the structural component of social capital. Participation includes membership and active participation in activities, whereas social cohesion is the cognitive component<sup>102</sup> and includes an individual's sense of belonging, trust, mutual reciprocity, co-operation and harmony.<sup>103</sup> The concept of social capital presumes a causal relationship between 'what people do' and 'what people feel'. Higher levels of community participation lead to greater social cohesion which together form social capital. Participation is important because it is the bedrock for creating and maintaining cohesion. Participation occurs within three categories:

- informal social connectedness
- civic engagement – volunteering and community activities
- political participation – activism and political participation<sup>102</sup>

Informal social connectedness refers to contact with family, friends and neighbours.<sup>104</sup> However, it is not just the total number of connections that is important for health outcomes but also the quality of those connections.<sup>105</sup> Thus quantity and quality of informal social connectedness are important. Participation in civic and political activities reflects the resident's formally organised collective activity. These organisations can work towards improving quality of life through direct community engagement (for example, organizing social events) or indirectly (for example, through lobbying for action in local area).<sup>106</sup> Participation within an organisation provides opportunities for social interaction and activities that may be beneficial for health and wellbeing.<sup>107</sup>

## 10.11 Personal social cohesion

Social cohesion is based upon how people interact and their underlying values. It represents a person's social support networks, sense of belonging and feelings of trust. Social support enables people to cope with daily problems and has been highlighted as a key mechanism that influences health.<sup>108</sup> Social networks can act as a buffer by mitigating the negative impacts of stress and anxiety through positive support, providing a source of self-esteem and respect.<sup>101</sup> Sense of belonging can directly influence clinical outcomes including depression.<sup>109</sup> Social trust can impact on quality of life and are linked to different health outcomes including mortality.<sup>110</sup>

Social capital has been associated with mental health, however, little research has been conducted on the interaction between social capital and positive mental wellbeing. Instead, the majority of research has concentrated on common mental disorders.



## Appendix B: Example introduction letter

Dear Resident,

I am writing to you on behalf of NHS ..... who is responsible for the health services across your area. The person who has given you this letter is carrying out an important survey in your local area and across the region, about the health and wellbeing of residents.

The survey has been designed by Liverpool John Moores University working with NHS organisations across the North West.

The survey is being carried out by mruk Research Ltd. The person who is calling on you today is a fully trained interviewer, and they have ID with them which will prove this.

The aim of the survey is to help your local health service better understand how they can help people to improve their overall wellbeing and live happier, healthier lives. The survey contains a number of questions about you, your lifestyle and your general health and wellbeing. Your honest responses are important to us.

You do not have to reveal your name to the interviewer. You can fill in your answers privately if you wish and all information that you provide will be treated confidentially. If you do not wish to answer a question you do not have to and you can stop the survey at any time. It will not be possible for us to identify you from the answers that you give. Anything you tell us will not be shared with any organisations other than Liverpool John Moores University and your local NHS in an anonymous format.

If you have any questions about this research, or the subjects in the questionnaire, you can contact [Insert contact name or PALS] NHS ..... on [Insert contact number].

Yours sincerely,

Director of Public Health

## Appendix C: North West Mental Wellbeing Survey 2012/13, questionnaire

### Key

**Qx** Questions which are directly comparable between the two survey years

**Qy** Questions new in 2012/13

Some questions are similar across the years, however slight changes in wording or response options means they are not directly comparable.

### **SECTION A: YOUR LOCAL AREA**

ASK ALL

**Q1.** How many years have you lived in this local area? **INTERVIEWER NOTE: local area is defined as area within 15-20 minutes walking distance from home**

**READ OUT**

\*single response

Less than 1 year

1 year but less than 2 years

2 years but less than 5 years

5 years but less than 10 years

10 years or more

ASK ALL

**Q2. SHOWCARD 1:** Overall how satisfied or dissatisfied are you with your local area as a place to live? **INTERVIEWER NOTE: local area is defined as area within 15-20 minutes walking distance from home**

**READ OUT**

\*single response

Very satisfied

Fairly satisfied

Neither satisfied nor dissatisfied

Fairly dissatisfied

Very dissatisfied

ASK ALL

**Q3. SHOWCARD 2:** How strongly do you feel you belong to your immediate neighbourhood? **INTERVIEWER NOTE: (nearer to home than previous question if need clarification)**

**READ OUT**

\*single response

Very strongly

Fairly strongly

Not very strongly

Not at all strongly

Don't know

ASK ALL

Q4. **SHOWCARD 3:** Do you join in the activities of any of the following organisations, on a regular basis?

[ - **CODE ALL MENTIONS**]

\*multi response

Political parties

Trade unions (including student unions)

Environmental group

Credit union

Parents'/school association

Parenting support group/mums and toddlers group

Tenants'/residents' group or Neighbourhood Watch

Education, arts or music group/evening class

Choir, reading groups/book club

Religious group or church organisation

Support/Self-help group

Group for elderly people (eg lunch clubs)

Youth group (eg Scouts, Guides, youth clubs, etc)

Women's group

Social club/working men's club

Sports club/sports group (e.g. swimming, Zumba)

Slimming group (eg WeightWatchers, Slimming World)

None of the above

Other (WRITE IN)

ASK ALL

**Q5.** In the past twelve months, have you done any volunteer work for any groups, clubs or organisations? By volunteering, we mean any unpaid work done to help people besides your family or friends or people you work with.

**READ OUT**

\*single response

Yes

No

ASK ALL

**Q6.SHOWCARD 4:** Do you agree or disagree that you can influence decisions affecting your local area?

**READ OUT**

\*single response

Definitely agree

Tend to agree

Tend to disagree

Definitely disagree

Don't know

ASK ALL

**Q7. SHOWCARD 5:** How safe or unsafe do you feel when...?

**READ OUT**

\*items popup

	Very safe	Fairly safe	Neither safe nor unsafe	Fairly unsafe	Very unsafe	Don't know
Outside after dark						
Outside during the day						
Home alone at night						

SECTION B: YOUR FEELINGS AND RELATIONSHIPS

ASK ALL

**Q8. SHOWCARD 6:** Below are some statements about feelings and thoughts. Please tick the box that best describes your experience for each statement over the past two weeks

Q2

\*items popup

Q3

	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future					
I've been feeling useful					
I've been feeling relaxed					
I've been dealing with problems well					
I've been thinking clearly					
I've been feeling close to other people					
I've been able to make up my own mind about things					

ASK ALL

**Q9 SHOWCARD 7:** All things considered, how satisfied are you with your life as a whole nowadays on a scale of 1 to 10 where 1 is extremely dissatisfied and 10 is extremely satisfied?

**READ OUT**

\*single response

1 – Extremely dissatisfied

2

3

4

5

6

7

8

9

10 – Extremely satisfied

Don't know

ASK ALL

**Q10.** Overall, to what extent do you feel the things you do in your life are worthwhile?

**READ OUT**

\*single response

1 – Not at all worthwhile

2

3

4

5

6

7

8

9

10 – Completely worthwhile

Don't know

ASK ALL

**Q11.** Overall, how happy did you feel yesterday?

**READ OUT**

\*single response

1 – Not at all happy

2

3

4

5

6

7

8

9

10 – Completely happy

Don't know

ASK ALL

**Q12.** Overall, how anxious did you feel yesterday?

**READ OUT**

\*single response

1 – Not at all anxious

2

3

4

5

6

7

8

9

10 – Completely anxious

Don't know

ASK ALL

**Q13.** Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please give a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted.

Can't be too careful

Most people can be trusted

1      2      3      4      5      6      7      8      9      10

--	--	--	--	--	--	--	--	--	--

ASK ALL

**Q14. SHOWCARD 8:** How often do you talk to any of your neighbours? (Interviewer note: This does not include anyone who lives in your home such as flatmates.) Is it . . .

**READ OUT**

\*single response

On most days

Once or twice a week

Once or twice a month

Less often than once a month

Never

ASK ALL

**Q15. SHOWCARD 8:** We would like to ask how often you meet people, whether at your home or elsewhere. How often do you meet friends or relatives who are not living with you? Is it . . .

**READ OUT**

\*single response

On most days

Once or twice a week

Once or twice a month

Less often than once a month

Never

ASK ALL

**Q16. SHOWCARD 9:** I am going to read a list of situations where people might need help. For each one, could you tell me if you would ask anyone for help?

[ - **READ OUT**]

\*items popup

	Yes	No	Don't know / It depends
You need a lift to be somewhere urgently			
You are ill in bed and need help at home			
You are in financial difficulty and need to borrow £100			
If you had a serious personal crisis, do you have people you feel you could turn to for comfort and support?			

ASK ALL

**Q17. SHOWCARD 1:** All things considered, how satisfied are you with your personal relationships?

**READ OUT**

\*single response

Very satisfied

Fairly satisfied

Neither satisfied nor dissatisfied

Fairly dissatisfied

Very dissatisfied

Don't know

ASK ALL

**Q18.** To what extent do you agree that you have time to do the things that you really enjoy?

**READ OUT**

\*single response

Definitely agree

Tend to agree

Tend to disagree

Definitely disagree

Don't know

ASK ALL

**Q19.** Thinking about the last 12 months, how often, on average, have you spent your leisure time out of doors?

By out of doors we mean open spaces in and around towns and cities, the coast and the countryside. This could be anything from a few minutes to all day. It may include time spent in your own garden, time spent close to your home, further afield or while on holiday. However, this **does not include** routine shopping trips

**READ OUT**

\*single response

More than once per day

Every day

Several times a week

Once a week

Once or twice a month

Once every 2-3 months

Once or twice a year

Never



ASK ALL

**Q20** Overall how happy would you say your childhood was on a scale of 1 to 10 where 1 is extremely unhappy and 10 is extremely happy?

**READ OUT**

\*single response

1 – Extremely unhappy

2

3

4

5

6

7

8

9

10 – Extremely happy

Don't know

ASK ALL

**Q21** Overall how violent would you say your home life as a child was on a scale of 1 to 10 where 1 is free from all violence and 10 is very violent? This includes violence you may have witnessed at home, not just been directly involved with.

**READ OUT**

\*single response

1 – Free from all violence

2

3

4

5

6

7

8

9

10 – Very violent

Don't know

**SECTION C: ABOUT YOUR HEALTH**

ASK ALL

**Q22.** How is your health in general? Would you say it is....

**READ OUT**

\*single response

Very good

Good

Fair

Bad

Very bad

Don't know

ASK ALL

**Q23.** For each category please indicate which statement best describes your own health today (interviewer note: Encourage respondent to complete responses to this question themselves, rather than reading out)

**CODE ONE OPTION FOR EACH CATEGORY**

\*single response

<b>Mobility</b>	
I have no problems in walking about	
I have some problems in walking about	
I am confined to bed	
<b>Self-care</b>	
I have no problems with self-care	
I have some problems washing or dressing myself	
I am unable to wash or dress myself	
<b>Usual activities</b> ( <i>eg work, study, housework, family or leisure activities</i> )	
I have no problems with performing my usual activities	
I have some problems with performing my usual activities	
I am unable to perform my usual activities	
<b>Pain/discomfort</b>	
I have no pain or discomfort	
I have moderate pain or discomfort	
I have extreme pain or discomfort	
<b>Anxiety/depression</b>	
I am not anxious or depressed	
I am moderately anxious or depressed	
I am extremely anxious or depressed	

ASK ALL

<b>Q24.</b> Has a doctor or nurse ever <b>told you that you have</b> any of the following				
	No	Yes	How many years ago were you first told? (NB: Interviewer write in number of years rather than date when told)	Are you taking medication for this?
High blood pressure (hypertension)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Angina	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Coronary heart disease or heart attack	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Stroke	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Asthma	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
<b>Respiratory disease</b> such as chronic bronchitis / emphysema / chronic obstructive pulmonary disease	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Diabetes	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
<b>Digestive disease</b> such as gastritis, ulcer, Crohn's disease, colitis	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Liver disease	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Cancer	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes
Depression, anxiety or stress	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Yes

ASK ALL

**Q25a.** Do you care for someone with long term ill health OR problems related to old age, other than as part of your job? And if so, for how many hours?

**READ OUT**

\*single response

No

Yes, 1-19 hours a week

Yes, 20-49 hours a week

Yes, 50+ hours a week

ASK IF YES AT Q25a, OTHERWISE SKIP TO SECTION D

**Q25b.** Does this person live in your home?

**READ OUT**

\*single response

No

Yes

**SECTION D: LIFESTYLES AND LIFE EVENTS**

ASK ALL

**Q26.** Have you heard of the five ways to wellbeing?

**READ OUT**

\*single response

Yes

No

Not sure

ASK ALL

**Q27.** In the past week, on how many days have you accumulated at least 30 minutes of moderate intensity physical activity such as brisk walking, cycling, sport, exercise, and active recreation? (Do not include walking at a slow or normal pace).

**READ OUT**

\*single response

0 days

1 days

2 days

3 days

4 days

5 days

6 days

7 days

Don't know / refused

Display5. **READ OUT: Now we would like to ask you about the times when you are not being physically active; when you are sitting or reclining at work and at home. This may be when you are sat in front of a computer or television, or listening to music. Do not include the time you spend sleeping.**

\*no question

ASK ALL

**Q28.** Not including the time you spend sleeping, how much time do you usually spend sitting or reclining on a typical day?

[ - INTERVIEWER INSTRUCTION: IF REFUSED CODE AS 9999 -]

\* numeric

WRITE IN NUMBER:

HOURS		MINS	

ASK ALL

Q29. Smoking - which best describes you?

**READ OUT**

\*single response

I have never smoked

I used to smoke occasionally but do not smoke at all now

I used to smoke daily but do not smoke at all now

I smoke occasionally but not daily

I smoke daily

Refused (try to avoid)

ASK Q30 IF SMOKES AT Q29 (CODES 4 OR 5)

**Q30.** Which of these factors is stopping you from quitting smoking?

**READ OUT**

\*multi response

I do not want to quit

My spouse/partner smokes

My friends smoke

Life too stressful/just not a good time

Couldn't cope with the cravings

Would miss the habit/something to do with my hands

Worried about putting on weight

Lack of commitment to quitting

Other (specify)

Don't know / refused (try to avoid)

ASK ALL

**Q31.** How often do you drink alcohol?

**READ OUT**

\*single response

I have never drunk alcohol

Never – I used to drink alcohol but have now given up

Less than once a month

1 or 2 times a month

Weekly

2-4 times a week

Daily (or almost)

Refused (try to avoid)

**Go to Q35**

**Go to Q35**

ASK IF CODES 3 TO 7 AT Q31

**Q32. SHOWCARD 10.** Which of these are the reasons you drink? (tick as many as apply).

READ OUT

\*multiple response

- It helps me to relax and unwind
- It makes socialising more fun
- It gives me confidence
- It goes well with food
- It relieves boredom
- It helps me to forget my problems
- Other reason
- Don't know / refused (try to avoid)


ASK IF CODES 1 TO 7

Of these, which is the one main reason you drink? \*single response


**Q33.** Did you drink alcohol in the last week?

READ OUT

\*single response

Yes

No

IF YES, COMPLETE TABLE BELOW

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Did you drink alcohol on...?	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
	No <input type="checkbox"/>	No <input type="checkbox"/>	No <input type="checkbox"/>	No <input type="checkbox"/>	No <input type="checkbox"/>	No <input type="checkbox"/>	No <input type="checkbox"/>

If so, what did you drink? Please complete the table below, entering the number of drinks in the spaces provided

	1	0	2	0	3	7	0
<b>EXAMPLE DRINK</b>							
Pints of low alcoholic beer/lager/cider							
Pints of normal strength beer/lager/shandy/stout/cider							
Pints of strong beer/lager/cider							
Bottles of alcopops (330ml)							
Single glasses of spirits (25ml)							
Standard glasses of wine (175ml)							
Single glasses of fortified wine e.g. sherry/port/martini							

**Q34.** How often do you have six or more drinks in one session? (a single drink is a half pint of regular beer, lager or cider, a small glass of wine, a single measure of spirits, or a small glass of sherry) **INTERVIEWER NOTE: If asked a session refers to that period of time of drinking alcohol**

**READ OUT**

\*single response

Never

Less than monthly

1 or 2 times a month

Weekly

2-4 times a week

Daily (or almost)

ASK ALL

Q35. How often, if ever, have you taken cannabis?

**READ OUT**

\*single response

Never

Used, but not in last 12 months

Used in the past 12 months

Used in the past month

Refused (try to avoid)

ASK ALL

**Q36.** On a normal day, how many portions of fruit and vegetables (excluding potatoes) would you usually eat (one portion is roughly one handful or a full piece of fruit such as an apple)?

**READ OUT**

\*single response

0

1

2

3

4

5 or more

ASK ALL

**Q37.** Which foods do you usually prefer?

**READ OUT**

\*single response

Foods that are good for my long-term health

Foods that make me feel good when I eat them

ASK ALL

**Q38.** Which of these phrases comes closest to describing your feeling about your household income these days?

**READ OUT**

\*single response

Living comfortably on present income

Coping on present income

Finding it difficult on present income

Finding it very difficult on present income

ASK ALL

**Q39.** How often would you say you have been worried about money during the last few weeks?

**READ OUT**

\*single response

Almost all the time

Quite often

Only sometimes

Never

ASK ALL

**Q40.** Compared to a year ago, would you say that financially you are currently

**READ OUT**

\*single response

Better off

Worse off

About the same

Refused (try to avoid)

ASK ALL

**Q41.** Looking ahead, how do you think you yourself will be financially a year from now, will you be

**READ OUT**

\*single response

Better off than now

Worse off than now

About the same

Refused (try to avoid)



**SECTION E: ABOUT YOURSELF**

Display 6 \*no question

ASK ALL

**Q42.** What term do you usually use to describe your sexual identity?

**DON'T READ OUT**

\*single response

Lesbian/gay

Bisexual

Heterosexual

Other

Refused (try to avoid)

ASK ALL

Q43. Are you currently in a long term sexual relationship?

**DON'T READ OUT**

\*single response

Yes

No

Refused (try to avoid)

ASK ALL

**Q44.** Have you been pregnant, or got someone pregnant in the last 12 months?

**READ OUT**

\*single response

Yes

No

Refused (try to avoid)

Display7. **READ OUT: We would like to find out a little bit about the people who live with you in your household. If you live alone, then we only need information about yourself. If you have other people living with you, please complete the following questions for ALL household members.**

ASK ALL

**Q45** Including yourself, how many people live in your household?

[ - INTERVIEWER INSTRUCTION: IF REFUSED CODE AS 99]

\* numeric

WRITE IN NUMBER:

--	--

ASK ALL

(CAPI TO SHOW NUMBER OF PERSON ROWS IN LINE WITH RESPONSE TO Q44)

ASK Q46 TO Q49 FOR EACH PERSON IN HOUSEHOLD START WITH RESPONDENT: CODE ONE ONLY FOR EACH HOUSEHOLD MEMBER IF DON'T KNOW OR REFUSED AND ASK FOR RANGE.

CODE ACCORDINGLY- IF NO PARTNER/ CODE PERSON 3 ONWARDS.

**Q46 SHOWCARD 11\*:** What is the relationship between you and this household member?

**Q47** How old are you/is s/he?

**Q48** Is s/he female or male?

ASK **Q49** FOR ALL PERSONS AGED 18 YEARS OR OVER

**Q49 SHOWCARD 11\*:** Which of the following best describes this persons working status?  
 INTERVIEWER NOTE: If asked full time is typically described as 35 hours or more, and part time would be less than this.

\*items popup

	Q46. RELATIONSHIP		Q47. AGE			Q48. GENDER			Q49. WORK STATUS	
	Write in letter from showcard	N/A or refused	Age (WRITE IN) e.g. 85	Don't know / refused	N/A	Male	Female	Write in letter from showcard	N/A or refused	
Respondent										
Partner / spouse										
Person 3										
Person 4										
Person 5										
Person 6										
Person 7										
Person 8										
Person 9										
Person 10										
Person 11										
Person 12										

\*SHOWCARD 11 LIST:

- A Natural parent
- B Step parent
- C Foster carer
- D Child
- E Grandparent
- F Sibling
- G Niece/nephew
- H Friend
- I Other

\*SHOWCARD 12 LIST:

- A Paid work: full-time
- B Paid work: part-time
- C Self employed
- D Full-time education
- E Out of work, registered unemployed and actively seeking work
- F Out of work , registered unemployed but not actively seeking work
- G Permanently sick or disabled
- H Not working for domestic reasons
- I Retired
- J Other

ASK ALL

**Q50.** Do you, or anyone living in your home, own or rent the accommodation in which you live?

**READ OUT**

\*single response

- Owns outright
- Owns with a mortgage or loan
- Pays part rent and part mortgage (shared ownership)
- Accommodation is a residential home or student halls
- Rents from the Council
- Rents from a housing association
- Rents from a private landlord
- Other

ASK ALL

**Q51.** Overall, how satisfied or dissatisfied are you with your home?

**READ OUT**

\*single response

- Very satisfied
- Fairly satisfied
- Neither satisfied nor dissatisfied
- Fairly dissatisfied
- Very dissatisfied
- No opinion (SPONTANEOUS ONLY)
- Not answered

ASK ALL

**Q52. SHOWCARD 13:** Which of these qualifications do you have? (If your qualification is not listed choose the nearest equivalent)

[ **READ OUT AND CODE ALL MENTIONS**]

\*multi response

1+ O levels/CSEs/GCSEs (any grades), Basic Skills

NVQ Level 1, Foundation GNVQ

5+ O levels (any grade), CSEs (grade 1), GCSEs (grades A\*-C), School Certificate, 1+ A levels/ AS levels / VCEs

NVQ Level 2, Intermediate GNVQ City and Guilds Craft, BTEC First/General Diploma, RSA Diploma

Apprenticeship

2+ A levels, 4+ AS levels, Higher school certificate

NVQ Level 3, Advanced GNVQ, City and Guilds Advanced Craft, ONC,OND, BTEC National, RSA Advanced Diploma

First Degree (eg BA, BSc), Higher degree (eg MA, PhD, PGCE)

NVQ Level 4-5, HNC, HND, RSA, Higher Diploma, BTEC Higher level

Professional qualifications (eg nursing, teaching, accountancy)

Other vocational/work related qualifications

Foreign qualifications

No qualifications

ASK ALL

**Q53. SHOWCARD 14:** Which of the following best describes your ethnicity?

**DON'T READ OUT**

\*single response

White – British

White – Irish

White – Eastern European

White – other white background

Mixed – white and black Caribbean

Mixed – white and black African

Mixed – white and Asian

Mixed – any other mixed background

Asian or Asian British – Indian

Asian or Asian British – Pakistani

Asian or Asian British – Bangladeshi

Asian or Asian British – other Asian background

Black or Black British – Caribbean

Black or Black British – African

Black or Black British – other black background

Chinese

Don't know (Try to avoid)

Refused (Try to avoid)

Other (please specify)

ASK ALL

**Q54.** May we have your postcode; (but will be shown alongside data) and will only be used by **mruk** and Liverpool John Moores University for the purpose of geographical analysis

[ - INTERVIEWER INSTRUCTION: IF REFUSED CODE AS 999999 -]

\* numeric

Yes

No

WRITE IN

--	--	--	--	--	--	--

For back checking purposes we require your full name, address and telephone number. These details are held in confidence are not linked to your answers, neither are they passed on to any third party.

ASK ALL

Respondent's full name with whom the survey was completed

\* open

---

ASK ALL

ADDRESS. Respondent's full address (excluding postcode)

\* open

---

ASK ALL

POSTCODE. Respondent's full postcode

\* open

---

ASK ALL

TELEPHONE. Respondent's telephone number

\* open

---

THANK YOU FOR YOUR TIME, MAY I JUST REMIND YOU THAT MY NAME IS \_\_\_\_\_  
FROM MRUK RESEARCH LTD, OUR COMPANY FREEPHONE NUMBER IS 0800 073 2607  
AND THE MARKET RESEARCH SOCIETY NUMBER IS 0500 39 69 99, SHOULD YOU HAVE  
ANY QUERIES ON OUR COMPANY OR WITH REGARDS TO THIS RESEARCH.

## Appendix D: North West Mental Wellbeing Survey adjusted scores 2009 and 2012/13

The North West Mental Wellbeing Survey used the short version of the Warwick and Edinburgh Mental Wellbeing Scale (SWEMWBS). This shortened version contains 7 items while there are 14 in the full scale. An internal construct validity study by Stewart-Brown et al (2009)<sup>32</sup> suggests that when using SWEMWBS, a conversion table should be applied (see Table 6). In January 2010, a briefing paper was produced which used the conversion table to provide adjusted mean scores for the 2009 North West Mental Wellbeing Survey at local area level.<sup>111</sup>

Here, we have repeated this process for the 2012/13 North West Mental Wellbeing Survey results and present both years' original mean scores and adjusted mean scores in Table 7. The effect of applying the adjustment is to reduce all scores. The application has no effect on the category boundaries for defining low, moderate and high mental wellbeing and does not change the distribution of scores at the regional level. At a local level, participating areas may wish to use their adjusted mean score.

**Table 6: Raw to metric score conversion table for SWEMWBS**

Raw score	Metric score	Raw score	Metric score
7	7.00	22	19.98
8	9.51	23	20.73
9	11.25	24	21.54
10	12.40	25	22.35
11	13.33	26	23.21
12	14.08	27	24.11
13	14.75	28	25.03
14	15.32	29	26.02
15	15.84	30	27.03
16	16.36	31	28.13
17	16.88	32	29.31
18	17.43	33	30.70
19	17.98	34	32.55
20	18.59	35	35.00
21	19.25		

Source: Stewart-Brown et al, 2009<sup>32</sup>

**Table 7: Adjusted scores for SWEMWBS, North West Mental Wellbeing Survey 2009 and 2012/13**

Area	2009		2012/13	
	Weighted mean (original)	Weighted mean (adjusted)	Weighted mean (original)	Weighted mean (adjusted)
East Cumbria	/	/	29.48	27.48
Wirral	27.68	25.29	29.22	26.93
Manchester	26.60	24.52	29.11	26.56
North Lancashire	26.20	24.07	28.63	26.49
Warrington	31.79	30.66	28.54	26.43
Wirral (MD)*	/	/	28.44	26.35
Cheshire East	28.34	26.03	28.43	26.28
Tameside and Glossop	26.42	24.28	28.38	26.49
Halton	/	/	28.26	26.12
Sefton	27.59	25.10	28.15	26.00
Cheshire West and Chester	/	/	27.86	25.66
Cumbria (All)	26.70	24.49	27.80	25.61
Liverpool	25.69	23.43	27.28	25.00
Central Lancashire	27.77	25.56	27.27	25.02
East Lancashire	26.85	24.79	27.18	25.37
South Cumbria	/	/	27.02	24.76
West Cumbria	/	/	26.94	24.63
Knowsley	26.17	23.68	26.52	24.45
Blackpool	26.10	23.93	26.42	24.19
St Helens	/	/	26.39	24.22
Heywood, Middleton and Rochdale	28.37	26.15	26.27	24.13
Heywood, Middleton and Rochdale (3% MD)**	/	/	25.37	23.62
Blackburn with Darwen	28.57	26.45	25.26	23.03
Central and Eastern Cheshire	28.34	26.03	28.01	25.82
Western Cheshire	28.58	26.43	28.05	25.86
Halton and St Helens	29.97	27.97	27.36	25.22
<b>North West</b>	<b>27.70</b>	<b>25.56</b>	<b>27.66</b>	<b>25.49</b>

\*The data has been weighted to reflect local and North West populations as per the methodology used earlier in the report.

## Appendix E: Questions used to generate social capital scores

**Note:** Full details of questions and response options can be found in Appendix B.

**Social participation:** Variety and breadth of participation in community organisations.

Q4. Do you join in the activities of any of the following organisations, on a regular basis?

Q5. In the past twelve months, have you done any volunteer work for any groups, clubs or organisations? By volunteering, we mean any unpaid work done to help people besides your family or friends or people you work with.

**Social networks:** Frequency of contact with friends, relatives or neighbours, social support and social satisfaction.

Q14. How often do you talk to any of your neighbours? (This does not include anyone who lives in your home such as flatmates.)

Q15. We would like to ask how often you meet people, whether at your home or elsewhere. How often do you meet friends or relatives who are not living with you?

Q17. All things considered, how satisfied are you with your personal relationships?

Q16. I am going to read a list of situations where people might need help. For each one, could you tell me if you would ask anyone for help?

- You need a lift to be somewhere urgently;
- You are ill in bed and need help at home;
- You are in financial difficulty and need to borrow £100;
- If you had a serious personal crisis, do you have people you feel you could turn to for comfort and support?

**Social cohesion:** Length of residence in local area, sense of belonging to neighbourhood and trust.

Q1. How many years have you lived in this local area?

Q3. How strongly do you feel you belong to your immediate neighbourhood?

Q13. Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please give a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted.



**Civil participation:** Perception of local influence and life satisfaction.

Q6. Do you agree or disagree that you can influence decisions affecting your local area?

Q9. All things considered, how satisfied are you with your life as a whole nowadays on a scale of 1 to 10 where 1 is extremely dissatisfied and 10 is extremely satisfied?

**Local area:** Satisfaction with local area and perception of safety in local area.

Q2. Overall how satisfied or dissatisfied are you with your local area as a place to live? (local area is defined as area within 15-20 minutes walking distance from home).

Q7. How safe or unsafe do you feel when...?

- Outside after dark
- Outside during the day
- Home alone at night

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